

N-6 F-14 A/D

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: F-14A/D

REPORT AS OF: March 31, 1984

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5AR-84-142

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: March 31, 1984

BQ. SUMMARY1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None.
- b. Program Status:
- (1) Percent program completed: 53.3% or 16 of 30 years
 - (2) Percent program cost appropriated: 34.2%
 - (3) Sunk Costs: Total program cost is \$38,256.7 of which \$12,631.2 are sunk costs (obligations as of March 30, 1984) and \$25,625.5 is the cost to complete.

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: None.

- b. Schedule Milestones: None.

c. Program Acquisition Costs:	<u>PREVIOUS EST.</u>	<u>CHANGE</u>	<u>CURRENT EST.</u>
(1) Total			
(a) Quantity	899	-	899
(b) Cost (then-year dollars)	\$38,266.1	-9.4	\$38,256.7
(c) Program Unit Cost (then-year dollars)	42.565	-0.01	42.555
 (2) FY84 Procurement Costs			
(a) Quantity	24 " "	-	24
(b) Cost (then-year dollars)			
Procurement Cost	(\$1016.9)	-5.3	(1011.6)
Less CY Advanced Proc.	(-178.8)	-	(-178.8)
Plus PY Advanced Proc.	(+202.4)	-	(+202.4)
Total	1040.5	-5.3	1035.2
 (c) Procurement Unit Cost (then year dollars)	43.354	-.221	43.133

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: March 31, 1984
 BASE YEAR: FY 1969

E.8 (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY 69 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$899.5	\$4491.9	--	\$5391.4	\$774.6	\$6166.0	Esc: Dev +74.5 Proc +700.1 Const --
F-14A	(678.0)						Esc: Dev (+51.2) Proc (+700.1) Const --
F-14B	(221.5)						Esc: Dev (+23.3) Proc -- Const --
Previous Changes							
Economic	--	--	--	--	-119.7	-119.7	Esc: Dev +147.1 Proc -269.6 Const +2.8
Quantity	+287.5	+5204.8	--	+5492.3	+16245.7	+21738.0	Esc: Dev +9.4 Proc +16236.3 Const --
Schedule	+97.2	+180.6	--	+277.8	+1909.9	+2187.7	Esc: Dev +12.2 Proc +1897.7 Const --
Engineering	+537.1	+761.8	--	+1298.9	+3511.6	+4810.5	Esc: Dev +948.0 Proc +2563.6 Const --
Estimating	+27.4	-587.7	-1.1	-561.4	-1891.2	-2452.6	Esc: Dev +23.6 Proc -1914.1 Const -0.7
Support	--	+1590.2	+7.0	+1597.2	+4259.3	+5856.5	Esc: Dev -- Proc +4257.2 Const +2.1
Other	+73.8	--	--	+73.8	+5.9	+79.7	Esc: Dev +5.9 Proc -- Const --
Subtotal	+1023.0	+7149.7	+5.9	+8178.6	+23921.5	+32100.1	Esc: Dev +1146.2 Proc +22771.1 Const +4.2
Current Changes							
Estimating	--	-1.4	--	-1.4	-2.3	-3.7	Esc: Dev -0.1 Proc -2.2 Const --
Support	--	-2.0	--	-2.0	-3.7	-5.7	Esc: Dev -- Proc -3.7 Const --
Subtotal	--	-3.4	--	-3.4	-6.0	-9.4	Esc: Dev -0.1 Proc -5.9 Const --
Total Changes	+1023.0	+7146.3	+5.9	+8175.2	+23915.5	+32090.7	Esc: Dev +1146.1 Proc +22765.2 Const +4.2
Current Estimate	\$1922.5	\$11638.2	\$5.9	\$13566.6	\$24690.1	\$38256.7	Esc: Dev +1220.6 Proc +23465.3 Const +4.2

COMPREHENSIVE ANNUAL BUDGETED ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: March 31, 1984

E.8 COST VARIANCE ANALYSIS

2. Previous Changes:

DEVELOPMENT

Economic: Revised escalation rates. Revised escalation indexes increase the values in years not previously affected by alternative outlay assumptions.

Quantity: Change by Congress from PAMN to R&D funding for Lot II A/C; additional F-401 engines; calculation adjustments; Dev. esc. adj.

Schedule: Delays in F-14A and F-14B R&D schedules; calculation adj to escalation.

Engineering: Advance Engine including F101X limited development; Grumman 101X flight test and advance technology engine studies; engine component improvement, PSP/TIS program, addition of multisensor correlation techniques in PSP/TIS program; addition of Radar Improvements and Joint Missile, ALQ-126 des/integ. Increased funding for F-14 Radar Improvement/Avionics Improvement in FY 83. An increase due to additional changes (e.g., alternate fighter engine) associated with the shift from a phased improvement program to a major upgrade (F-14D).

Estimating: F-111B recoupment; P-412 engine; deletion of post FY 74 F-401 engine development and ATE source selection; better definition of the development program escalation changes; recoupments, reprogrammings, roundings and refinement; realignment funding requirements for F101X engine, Target Identification Software Program, Signal Processor.

Other: Funding Grumman to ceiling; cost overrun on F-401/F-14B program. Calculation adjustment to escalation. Recomputation of escalation.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT

SYSTEM: F-14A/D

E.8 COST VARIANCE ANALYSIS (Cont.)

AS OF DATE: March 31, 1984

PROCUREMENT

Economic: Revised escalation rates.

Quantity: Increase/decreases in aircraft quantities; ECM procurement; calculation adjustment; proc. esc. adjustment. Total program procurement increase of 54 A/C (899 vs. 845) is due to up-upgrading the F-14 to meet operational force level reqmts. for three years beyond the termination point established for the F-14A.

Schedule: Changes in procurement by FY; extension of program; Increased production rates; repricing beyond FYDP years; calc. adj.; calc. adj. to escalation. Reduction of six aircraft in 1984 and 1985; addition of 12 aircraft in 1995. A revised delivery rate reflects the closeout of the F-14A and the ramp up/retooling for the F-14D production line.

Engineering: (F-14A) program; configuration change; addition of prior year PSP/TIS cost (FY76/FY79); ALR-67 (Radar Warning Receiver) and TCS (Television Camera Set) non-recurring; planned weapons system improvements including PSP, ALR-67, Radar Improvement Program, AMRAAM and ASPJ; calculation adj; calculation adj esc. Reprogramming of non recurring costs associated with configuration changes planned in FY1983. Reflects increased costs associated with production incorporation of various new systems (e.g., alternate fighter engine) required to shift from Avionics/Radar improvement program to a major upgrade (F-14D).

Estimating: Various repricings; impact of Iranian procurements; reprogramming and rounding adjustments; correction in breakdown between econ. esc. and other est. costs; various factors as effected by Grumman; additional weapons rails; prod. adv. proc. reapplied; FY80 and prior year orders placed and definitized at lower prices; FY1971, 72, 73 interim billing amendment increase pending redetermination on production contract; claim settlement on various contracts FY71 thru FY76; disapproval by Congress of FY1982 reprogramming request for escalation; prior year orders definitized higher; various reprogrammings to support aircraft modifications. FY1982 APN refined estimates. Repricing of program based on cost savings achieved in FY1983 and refinement of avionics installation costs from 1989 to 1995. Refinement of FY 1983 Advance Procurement requirements and definitization of prior year orders. Repricing of program based on cost savings achieved in FY-84 and adjustment to production costs of the avionic/radar portion of the F-14D.

Support: Repricing and realignments and spare adjustments; extension of program; re-estimations and rounding adjustments; PSP/TIS and additional spare engines; esc. adj. The increase of 336 aircraft and an extension of the total program through 1996 results in associated additional support as follows:

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT

SYSTEM: F-14A/D

E.8 COST VARIANCE ANALYSIS (Cont.)

AS OF DATE: March 31, 1984

Outfit six additional squadrons, Initial Spares, update 24 squadron outfittings, update 12 carrier outfittings, update 4 shorebased support sites, update two depots, update software, update Maintenance Publications, update Integrated Logistics Support, Joint Tactical Information Display System (JTIDS) support, Airborne Self Protection Jammer (ASPJ) support, Programmable Signal Processor, Airborne Countermeasures Receiver (ALR-67) support, Radar Improvement Program, and Avionics Improvement Program. Requirements not in DE, FY79 requirement, re-estimations and rounding adjustments. AWM-23 contract definitization prior year orders placed and definitized higher than anticipated. Spare increase due to engine cost increase of; Carrier Aircraft Inertial Navigation System increase; decrease in software support; prior year orders placed for PGSE and training definitized lower. FY1982 spare refined estimates. Increase in spares requirements for FY 1984 thru FY 1988 and decreases of support requirements for FY 1989-FY 1995. Reconciliation of prior year orders for PGSE. Reconciliation of obligations and expenditures for FY 1983 spares. Reduction due to lower than expected cost for initial engine spares for FY 83. Increase in spares and peculiar ground support equipment assoc. with the F-14D.

CONSTRUCTION

Economic: Revised Escalation Indices

Estimating: Rounding adjustment. Adjustment to actual obligation.

3. Changes Since Previous Report:

<u>DEVELOPMENT</u>	<u>BASE YEAR \$</u>	<u>CURRENT \$</u>
Estimating: Accounting Adjustment	-	-0.1
<u>PROCUREMENT</u>		
Estimating: Reduction in FY 81 due to pricing and accounting adjustments.	-1.4	-3.6
Support: Reduction in FY 84 spares (5.3M) due to cancellation of PSP. Reduction in FY 82 spares to support other APN accounts	<u>-2.0</u>	<u>-5.7</u>
TOTAL Procurement Cost Changes	<u>-3.4</u>	<u>-9.3</u>
TOTAL PROGRAM COST CHANGES	<u>-3.4</u>	<u>-9.4</u>

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT

SYSTEM: F-14A/D

AS OF DATE: March 31, 1984

F. <u>CONTRACTOR COSTS</u>	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgr's. Estimate</u>
<u>2. PROCUREMENT</u>								
Grumman Aero. Corp. N00019-81-C-0003 (FFP)* (FY 1982) dtd 3 Dec 80	\$555.7		30	N/A	555.7	30	555.7	555.7
Grumman Aero. Corp. N00019-82-C-0001 (FFP)* (FY 1983) dtd 23 Oct 81	\$522.9		24	N/A	522.9	24	522.9	522.9
Grumman Aero. Corp. N00019-83-C-0008 (FFP)* (FY 1984) dtd 29 Dec 82	\$521.2		24	N/A	521.2	24	521.2	521.2
Hughes Aircraft Co. N00019-82-C-0006 (FFP)* (FY 1983 AWG-9) dtd 27 Nov 81	\$ 97.1		30	N/A	97.1	30	97.1	97.1
Hughes Aircraft Co. N00019-83-C-0002 (FFP)* (FY 1984) dtd 29 Dec 82	\$ 95.0		24	N/A	95.0	24	95.0	95.0
Grumman Aero. Corp. N00019-84-C-0001 (AAC)* (FY 1985) dtd 26 Nov 83	\$543.0		24	N/A	543.0	24	543.0	543.0
<u>2. VARIANCE ANALYSIS</u>								
a. Cost/Schedule Variance	None							
b. Changes Since Previous Report	None							

* Firm Fixed Price contracts do not have Targets or Ceilings.

Advance Acquisition Contracts. (A fully structured contract initially containing advance procurement funds which is converted to an FFP contract in the full funding year.)

QUARTERLY ~~SECRET~~ ACQUISITION REPORT

SYSTEM: F-14A/B

UNCLASSIFIED

AS OF DATE: March 31, 1984

Base Year: FY 1969

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS			THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%)	
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED		EXPENDED
			NON-REC	REC					
APPROPRIATION: RDT&E									
1969	12	-	-	-	168.7	172.5	172.5	172.4	1.0
1970	-	-	-	-	479.7	512.2	511.9	511.7	3.0
1971	-	-	-	-	308.1	342.1	342.1	341.0	3.0
1972	-	-	-	-	195.9	226.0	225.9	225.3	3.3
1973	-	-	-	-	132.5	160.4	159.9	159.2	4.5
1974	-	-	-	-	42.0	54.2	53.5	53.2	4.8
1975	-	-	-	-	10.0	13.9	13.9	13.5	5.0
1976	-	-	-	-	0.7	1.0	1.0	1.0	9.0
1977	-	-	-	-	1.0	1.6	1.6	1.6	2.0
1977T	-	-	-	-	1.5	2.4	2.4	2.3	7.0
1978	-	-	-	-	21.2	36.6	36.6	36.4	6.8
1979	-	-	-	-	10.7	20.4	20.4	20.2	6.8
1980	-	-	-	-	12.4	26.1	26.1	26.0	9.4
1981	-	-	-	-	15.5	35.9	35.9	35.4	11.9
1982	-	-	-	-	8.0	19.5	19.5	17.6	7.6
1983	-	-	-	-	8.5	21.6	13.0	8.3	4.9
1984	-	-	-	-	16.9	45.0	0.5	0.2	4.3
1985	-	-	-	-	108.1	301.9	-	-	4.9
1986	-	-	-	-	188.8	550.5	-	-	4.6
1987	-	-	-	-	103.5	314.2	-	-	4.3
1988	-	-	-	-	51.5	162.3	-	-	4.0
1989	-	-	-	-	32.0	104.8	-	-	3.7
1990	-	-	-	-	5.3	18.0	-	-	3.7
TOTAL	12	-	-	-	1,922.5	3,143.1	1,636.7	1,625.3	

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: F-14A/D

AS OF DATE: March 31, 1984

Base Year: FY 1969

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			ESCALATION <u>1</u> / RATE (%)
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: APH									
1970	-	8.0	-	-	8.0	9.1	9.1	9.1	3.0
1971	26	50.1	-	365.2	585.6	691.6	691.6	689.1	3.0
1972	48	68.1	1.2	413.5	636.4	787.5	787.5	785.8	3.3
1973	48	56.4	-	322.0	427.2	565.3	565.2	564.3	4.5
1974	50	40.8	-	392.3	494.0	685.1	685.1	685.0	4.8
1975	50	50.9	-	381.2	489.5	716.2	716.2	710.7	5.0
1976	36	60.5	1.5	290.2	396.2	618.4	618.3	614.4	9.0
1977	9	30.1	-	107.4	80.7	133.2	133.2	130.8	2.5
1977	36	69.8	6.6	280.5	402.4	694.2	694.0	684.1	11.0
1978	44	70.4	0.1	371.3	435.4	818.5	818.2	816.0	7.0
1979	36	72.0	4.7	337.7	409.8	850.5	847.2	843.5	6.8
1980	30	58.2	-	291.1	336.8	765.2	763.9	732.5	9.7
1981	30	59.4	5.7	318.9	367.2	901.9	901.9	889.7	11.9
1982	30	68.3	2.6	342.1	444.8	1,171.0	1,163.6	1,061.4	7.3
1983	24	72.3	10.0	269.2	348.7	976.1	920.6	439.8	9.0
1984	24	60.2	6.5	261.3	340.8	1,011.6	669.0	42.0	5.5
1985	24	60.5	2.5	260.7	313.8	985.8	-	-	6.3
1986	24	30.2	28.1	252.2	300.1	994.3	-	-	5.9
1987	12	76.1	19.8	151.4	256.5	893.2	-	-	5.5
1988	12	106.3	24.7	197.9	372.1	1,358.4	-	-	5.2
1989	24	104.5	30.2	339.0	508.6	1,946.3	-	-	4.8
1990	30	104.5	-	376.5	510.1	2,045.9	-	-	4.8
1991	30	104.5	-	362.5	474.3	1,993.8	-	-	4.8
1992	30	104.5	-	352.1	464.3	2,045.6	-	-	4.8
1993	30	104.5	-	344.9	457.3	2,111.7	-	-	4.8
1994	30	104.5	-	339.2	411.7	1,992.8	-	-	4.8
1995	30	104.5	-	334.6	406.0	2,059.7	-	-	4.8
1996	30	104.5	-	330.9	361.1	1,919.8	-	-	4.8
1997	30	104.5	-	327.7	354.5	1,975.6	-	-	4.8
1998	30	-	-	328.2	244.3	1,385.2	-	-	4.8
TOTAL	087	2,114.0	144.2	9,041.7	11,638.2	35,103.5	10,984.6	9,698.2	

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: F-14A/D

AS OF DATE: March 31, 1984

Base Year: FY 1969

G. PROGRAM FUNDING SUMMARYCURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: CONSTRUCTION									
1971	-	-	-	-	2.4	3.2	3.1	3.1	4.0
1972	-	-	-	-	-	-	-	-	4.0
1973	-	-	-	-	0.5	0.8	0.8	0.8	3.3
1974	-	-	-	-	1.6	3.0	3.0	3.0	7.3
1975	-	-	-	-	-	-	-	-	6.4
1976	-	-	-	-	0.5	1.0	1.0	1.0	9.0
1977	-	-	-	-	-	-	-	-	2.5
1977T	-	-	-	-	-	-	-	-	11.0
1977	-	-	-	-	-	-	-	-	7.0
1978	-	-	-	-	-	-	-	-	9.8
1979	-	-	-	-	0.9	2.1	2.0	2.0	
TOTAL	-	-	-	-	5.9	10.1	9.9	9.9	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

AF-1 B-52 CMI/OAS

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DEPARTMENT OF DEFENSE

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD - COMP(Q&A)823)
SYSTEM: B-52 OAS/CMI MOD

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SAF/PAS

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84-84-155

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 OAS MOD

REPORT AS OF: 31 MARCH 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report: None

b. Program Status

(1) Percent program completed: 80%

(2) Percent program cost appropriated: 97%

2. CHANGES SINCE LAST REPORT

a. Operational and Technical Characteristics: None

b. Schedule Milestones: None

c. Program Acquisition Cost: Previous Est Change Current Est

(1) Total

(a) Quantity 265 -- 265

(b) Cost (TY\$) 1774.6 -13.0 1761.6

(c) Program Unit Cost (TY\$) 6.697 -.049 6.648

(2) FY84 Procurement Costs

(a) Quantity 39 -- 39

(b) Cost (TY\$) 174.5 +1.5 176.0

(c) Procurement Unit Cost (TY\$) 4.474 +.039 4.513

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 CMI MOD

REPORT AS OF: 31 MARCH 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report: None

b. Program Status

(1) Percent program completed: 58%

(2) Percent program cost appropriated: 86%

2. CHANGES SINCE LAST REPORT

a. Operational and Technical Characteristics: None

b. Schedule Milestones: None

c. Program Acquisition Cost:	<u>Previous Est</u>	<u>Change</u>	<u>Current Est</u>
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(1) Total

(a) Quantity	195	--	195
(b) Cost (TY\$)	578.1	-8.7	569.4
(c) Program Unit Cost (TY\$)	2.965	-.045	2.920

(2) FY84 Procurement Costs

(a) Quantity	27	--	27
(b) Cost (TY\$)	69.2	-1.5	67.7
(c) Procurement Unit Cost (TY\$)	2.563	-.056	2.507

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 OAS MOD

REPORT AS OF: 31 MARCH 1984
 BASE YEAR: FY 1978

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	O&M	SUBTOTAL			DEV	PROC	O&M
PRODUCTION ESTIMATE	185.7	905.2	73.2	1164.1	613.8	1777.9	Esc:	45.1	524.9 43.8
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	4.2	4.2	Esc:	0.2	4.4 -0.4
QUANTITY	--	-3.4	-0.1	-3.5	-3.0	-6.5	Esc:	--	-2.8 -0.2
SCHEDULE	--	--	--	--	--	--	Esc:	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--
ESTIMATING	-0.2	-23.5	-0.1	-23.8	-16.7	-40.5	Esc:	--	-16.7 -
OTHER	--	--	--	--	--	--	Esc:	--	--
SUPPORT	--	22.7	--	22.7	16.8	39.5	Esc:	--	16.8 -
SUBTOTAL	-0.2	-4.2	-0.2	-4.6	1.3	-3.3	Esc:	0.2	1.7 -0.6
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc:	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--
ESTIMATING	--	-41.0	1.9	-39.1	-19.0	-58.1	Esc:	--	-20.5 1.5
OTHER	--	--	--	--	--	--	Esc:	--	--
SUPPORT	--	30.8	--	30.8	14.3	45.1	Esc:	--	14.3 -
SUBTOTAL	--	-10.2	1.9	-8.3	-4.7	-13.0	Esc:	--	-6.2 1.5
TOTAL CHANGES	-0.2	-14.4	1.7	-12.9	-3.4	-16.3	Esc:	0.2	-4.5 0.9
CURRENT ESTIMATE	185.5	890.8	74.9	1151.2	610.4	1761.6	Esc:	45.3	520.4 44.7

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: B-52 CMI MOD

REPORT AS OF: 31 MARCH 1984

BASE YEAR: FY 1978

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	O&M	SUBTOTAL			DEV	PROC	O&M
PRODUCTION ESTIMATE	--	362.8	9.9	372.7	238.3	611.0	Esc: --	232.1	6.2
ECONOMIC	--	--	--	--	1.1	1.1	Esc: --	1.2	-0.1
QUANTITY	--	-16.8	--	-16.8	-15.4	-32.2	Esc: --	-15.4	--
SCHEDULE	--	--	--	--	--	--	Esc: --	--	-
ENGINEERING	--	--	--	--	--	--	Esc: --	--	-
ESTIMATING	--	-5.6	2.9	-2.7	-2.4	-5.1	Esc: --	-5.1	2.7
OTHER	--	--	--	--	--	--	Esc: --	--	-
SUPPORT	--	2.3	--	2.3	1.0	3.3	Esc: --	1.0	-
SUBTOTAL	--	-20.1	2.9	-17.2	-15.7	-32.9	Esc: --	-18.3	2.6
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc: --	--	--
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	--	--	--	--	--	--	Esc: --	--	--
ENGINEERING	--	--	--	--	--	--	Esc: --	--	--
ESTIMATING	--	1.2	1.2	2.4	0.6	3.0	Esc: --	-0.3	0.9
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	--	-7.6	--	-7.6	-4.1	-11.7	Esc: --	-4.1	-
SUBTOTAL	--	-6.4	1.2	-5.2	-3.5	-8.7	Esc: --	-4.4	0.9
TOTAL CHANGES	--	-26.5	4.1	-22.4	-19.2	-41.6	Esc: --	-22.7	3.5
CURRENT ESTIMATE	--	336.3	14.0	350.3	219.1	569.4	Esc: --	209.4	9.7

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 OAS MOD

E8. COST VARIANCE ANALYSIS (Continued)

REPORT AS OF: 31 MARCH 1984
BASE YEAR: FY 1978
(Dollars in Millions)

3. CHANGES SINCE PREVIOUS REPORT:

The current estimate for total program acquisition cost changed as follows:	BASE YEAR \$	CURRENT \$
DEVELOPMENT		
None		
PROCUREMENT		
ESTIMATING:		
Adjustment between CMI/OAS, within funding flexibility, to reflect actual requirements and refinement of estimate.	-41.0	-61.5
SUPPORT:		
Adjustment between CMI/OAS, within funding flexibility, to reflect actual requirements and refinement of estimate.	30.8	45.1
TOTAL PROCUREMENT	-10.2	-16.4
O&M		
ESTIMATING:		
Revised estimate of installation costs based on actual hours required.	1.9	3.4
TOTAL O&M	1.9	3.4
TOTAL PROGRAM COST CHANGE	-8.3	-13.0

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 CMI MOD

E8. COST VARIANCE ANALYSIS (Continued)

REPORT AS OF: 31 MARCH 1984
BASE YEAR: FY 1978
(Dollars in Millions)

3. CHANGES SINCE PREVIOUS REPORT:

The current estimate for total program acquisition cost changed as follows:	BASE YEAR \$	CURRENT \$
DEVELOPMENT		
None		
PROCUREMENT		
ESTIMATING:		
Adjustment between CMI/OAS, within funding flexibility, to reflect actual requirements and refinement of estimate.	1.2	0.9
SUPPORT:		
Adjustment between CMI/OAS, within funding flexibility, to reflect actual requirements and refinement of estimate.	-7.6	-11.7
TOTAL PROCUREMENT	-6.4	-10.8
O&M		
ESTIMATING:		
Revised estimate of installation costs based on actual hours required.	1.2	2.1
TOTAL O&M	1.2	2.1
TOTAL PROGRAM COST CHANGE	-5.2	-8.7

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 OAS/CMI MOD

REPORT AS OF: 31 MARCH 1984

	(1)			(2)			(3)	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
<u>F. CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor</u>	<u>Program Mgrs.</u>
							<u>Estimate</u>	<u>Estimate</u>
1. <u>DEVELOPMENT</u>								
Boeing Military Airplane Co	129.0	129.0	1	168.4	191.8	1	179.3	179.3
2. <u>PROCUREMENT</u>								
Boeing Military Airplane Co	142.3	142.3	5	824.5	852.8	100	824.8	824.8
				(CH-F1)			(CH-F2)	(CH-F2)
Boeing Military Airplane Co	237.3	253.1	61	633.7	675.6	164	634.9	600.4
				(CH-F3)	(CH-F3)		(CH-F3)	(CH-F3)
IBM Corporation	11.8	11.8	160	69.2	69.2	720	69.2	69.2
Honeywell, Incorporated	1.7	1.7	5	54.4	54.4	452	54.4	54.4
Lear Siegler, Incorporated	2.7	2.7	70	13.5	13.5	235	13.5	13.5

CONTRACT IDENTIFICATION

Boeing Military Airplane Company, F33657-78-C-0500, FPIF, 31 July 78, Definitized (Development)(over 90% completion)
Boeing Military Airplane Company, F33657-79-C-0416, FPIF/FFP, 28 June 79, Definitized (Procurement)
Boeing Military Airplane Company, F34601-82-C-0078, FPIF, 5 Dec 81, Definitized (Procurement)
IBM Corporation, F33657-81-C-2087, FFP, 19 Aug 81, Definitized (Procurement)
Honeywell Incorporated, F34601-78-C-1998, FFP, 1 Mar 79, Definitized (Procurement)
Lear Siegler Incorporated, F33657-81-C-2084, FFP, 31 Aug 81, Definitized (Procurement)

3. VARIANCE ANALYSIS

Changes Since Previous Report:

(CH-F1). Decrease in price of \$5.M due to definitization of Block II software.
(CH-F2). Updated estimates from ASD/YYFP showing reductions to actuals as contract effort nears completion.
(CH-F3). Reduction for definitizations of contract changes.

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: B-52 OAS/CMJ MOD

REPORT AS OF: 31 MARCH 1984

F. CONTRACTOR COSTS (Continued)

	CUM THRU 30 DEC 83	CUM THRU 30 MAR 84	CHANGE \$
<u>PROCUREMENT</u>			
Boeing Military Airplane Co.			
F33657-79-C-0416 (Lot II/Lot III)			
Cost Variance	-44.9	-45.3	-0.4
Schedule Variance	-2.2	-2.0	+0.2

Cost variance is primarily due to a concurrent production and development program caused by a tight FAC and IOC schedule. In addition, increased overhead in tooling, material, and support areas of operations contributed to the variance. Due to restructuring of the contract, the negative cost variance will not overrun contract target ceiling. The schedule variance will have no impact on price or program completion.

Boeing Military Airplane Co.			
F34601-82-C-0078 (Lot IV/Lot V)			
Cost Variance	+13.7	+13.7	0.0
Schedule Variance	+2.3	+0.3	-2.0

Cost and schedule variances are still favorable and are supported by independent Air Force (AFCMD) analysis. Reduction in cost and schedule variance reflects maturity of deliveries under contract Lot 4.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 OAS MOD

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 31 MARCH 1984
 BASE YEAR: FY 1978
 CURRENT ESTIMATE
 (\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
1977 3/	--	--	--	--	2.6	2.6	2.6	2.6	6.8
1978	--	--	--	--	37.1	38.7	38.7	38.7	6.8
1979	--	--	--	--	37.2	41.8	41.8	41.8	8.4
1980	--	--	--	--	46.3	57.9	57.9	56.3	9.4
1981	--	--	--	--	34.9	48.3	47.9	47.3	11.9
1982	--	--	--	--	17.0	25.2	25.2	19.4	9.2
1983	--	--	--	--	8.8	13.7	13.6	10.3	5.0
1984	--	--	--	--	1.6	2.6	1.7	.4	4.3
TOTAL	1.0	--	--	--	185.5	230.8	229.4	216.8	

1/ Reflects program office records as of 15 Mar 84.

2/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

3/ FY77 is actual. \$.1M would need to be added to bring to BY78\$.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 OAS MOD

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 31 MARCH 1984

BASE YEAR: FY 1978

CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
1979	5.0	--	--	21.2	51.3	65.5	65.5	61.9	8.7
1980	31.0	--	--	97.6	246.2	350.8	336.1	329.8	9.7
1981	64.0	--	--	66.8	152.9	236.5	233.3	225.1	11.9
1982	61.0	--	--	104.4	156.5	259.2	255.7	169.3	9.6
1983	64.0	--	--	142.0	186.7	323.2	215.7	9.0	9.0
1984	39.0	--	--	79.0	97.2	176.0	57.6	.1	5.6
TOTAL	264.0	--	--	511.0	890.8	1,411.2	1,163.9	795.2	

1/ Reflects Program Office records as of 29 February 1984.

2/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 CMI MOD

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 31 MARCH 1984
BASE YEAR: FY 1978
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
1978	--	--	--	--	4.3	5.0	5.0	5.0	6.8
1979	3.0	--	--	6.6	25.1	32.0	32.0	32.0	8.7
1980	22.0	--	--	31.2	45.3	64.6	64.6	64.6	9.7
1981	40.0	--	--	44.5	79.3	122.7	122.7	116.1	11.9
1982	40.0	--	--	40.8	51.1	84.6	84.3	55.3	9.6
1983	41.0	--	--	53.8	58.7	101.8	101.2	4.5	9.0
1984	27.0	--	--	26.9	37.4	67.7	8.8	--	5.6
1985	22.0	--	--	21.9	35.1	67.3	--	--	6.4
TOTAL	195.0	--	--	225.7	336.3	545.7	418.6	277.5	

1/ Reflects Program Office records as of 29 February 1984.

2/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 OAS MOD

REPORT AS OF: 31 MARCH 1984

BASE YEAR: FY 1978

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: O & M

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NO -ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
1980	1.0	--	--	--	1.5	1.8	1.8	1.8	9.7
1981	5.0	--	--	--	5.5	7.4	7.4	7.4	11.9
1982	38.0	--	--	--	9.4	13.9	13.9	13.9	9.2
1983	64.0	--	--	--	15.2	23.5	22.8	22.8	4.9
1984	61.0	--	--	--	16.8	27.0	12.4	12.4	4.3
1985	59.0	--	--	--	16.3	27.8	--	--	4.9
1986	37.0	--	--	--	10.2	18.2	--	--	4.6
TOTAL	265.0	--	--	--	74.9	119.6	58.3	58.3	

1/ Reflects Program Office records as of 29 February 1984.

2/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: B-52 CMI MOD

REPORT AS OF: 31 MARCH 1984

BASE YEAR: FY 1978

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: O & M

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
1981	3	--	--	--	0.7	0.9	0.6	0.6	11.9
1982	26	--	--	--	1.6	2.4	2.4	2.4	9.2
1983	42	--	--	--	2.6	4.1	3.9	3.9	4.9
1984	29	--	--	--	2.1	3.3	2.0	2.0	4.3
1985	13	--	--	--	0.9	1.6	--	--	4.9
1986	23	--	--	--	1.7	3.0	--	--	4.6
1987	22	--	--	--	1.6	3.0	--	--	4.3
1988	23	--	--	--	1.7	3.3	--	--	4.0
1989	14	--	--	--	1.1	2.1	--	--	3.7
TOTAL	195	--	--	--	14.0	23.7	8.9	8.9	--

1/ Reflects Program Office records as of 29 February 1984.

2/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

AF-4 E-3A

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (O&A) 823)
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984

FORMAT	SUBJECT	PAGE
BQ	SUMMARY	3
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F	CONTRACTOR COST	9
G	PROGRAM FUNDING SUMMARY	10

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JUL 20 1984 24

DIRECTORATE FOR PROTECTION OF INFORMATION
AND SECURITY REVIEW (DASD-PAS)
PROCESSED BY THE DPMO

ENCLOSURE

JUN 20 1984 PM 1:22

SAF/PAS

SAF/PAS
84-0792-T

JASD(PA) DFOISER 84-T-1532

84-0792-149

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

None

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 20./ 25. = 80.000%

(2) PERCENT PROGRAM COST APPROPRIATED: 4340.10/ 4726.60 = 91.823%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. SCHEDULE MILESTONES:

None

c. PROGRAM ACQUISITION COST:

	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	34.	0.	34.
(b) COST (THEN-YEAR DOLLARS)	4748.20	-21.60	4726.60
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	139.6529	-0.6353	139.0176
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	0.	0.	0.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	76.20	0.00	76.20
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	76.20	0.00	76.20
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	N/A		N/A

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1970

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY

	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	761.0	1389.9	--	2150.9	510.7	2661.6	Esc:	115.5	395.2
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	469.1	469.1	Esc:	97.7	371.4
QUANTITY	--	-86.7	--	-86.7	31.7	-55.0	Esc:	--	31.7
SCHEDULE	77.8	520.7	--	598.5	682.8	1281.3	Esc:	108.8	574.0
ENGINEERING	153.0	-13.4	--	139.6	204.6	344.2	Esc:	252.3	-47.7
ESTIMATING	3.9	-203.9	--	-200.0	77.9	-122.1	Esc:	33.5	44.4
OTHER	324.4	-331.8	--	-7.4	-2.4	-9.8	Esc:	60.9	-63.3
SUPPORT	-20.7	54.8	--	34.1	144.8	178.9	Esc:	17.5	127.3
SUBTOTAL	538.4	-60.3	--	478.1	1608.5	2086.6	Esc:	570.7	1037.8
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc:	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--
ESTIMATING	1.5	-8.4	--	-6.9	-14.7	-21.6	Esc:	2.5	-17.2
OTHER	--	--	--	--	--	--	Esc:	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--
SUBTOTAL	1.5	-8.4	--	-6.9	-14.7	-21.6	Esc:	2.5	-17.2
TOTAL CHANGES	539.9	-68.7	--	471.2	1593.8	2065.0	Esc:	573.2	1020.6
CURRENT ESTIMATE	1300.9	1321.2	--	2622.1	2104.5	4726.6	Esc:	688.7	1415.8

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1970

E8. COST VARIANCE ANALYSIS (Continued)

(Dollars in Millions)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
DEVELOPMENT		
ESTIMATING:		
Below-threshold reprogramming in FY 84 for HAVE QUICK A-Nets.	1.5	4.0
TOTAL DEVELOPMENT	1.5	4.0
PROCUREMENT		
ESTIMATING:		
Cost savings resulting from production underruns, favorable Economic Price Adjustment settlements, and cost savings based on a refinement of requirements for MITRE support of the Program Office. Savings affected FYs 81, 82 and 83.	-8.4	-25.6
TOTAL PROCUREMENT	-8.4	-25.6
TOTAL PROGRAM COST CHANGE	-6.9	-21.6

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

	(1)			(2)			(3)	
	Initial Target	Contract Ceiling	Price Qty	Current Target	Contract Ceiling	Price Qty	Price At Completion Contractor Estimate	Program Mgrs. Estimate
F. CONTRACTOR COSTS								
1. DEVELOPMENT								
a. Boeing Company A/	6.8			32.4 (ChF1)			32.4 (ChF1)	32.4 (ChF1)
b. Boeing Company A/	97.8			114.3 (ChF2)			114.3 (ChF2)	114.3 (ChF2)
2. PROCUREMENT (ChF3)								
c. Boeing Company A/	615.5	665.9	9	658.7 (ChF4)	710.9	9	632.5 (ChF5)	627.4 (ChF6)
d. E Systems B/	22.1	24.8		46.6 (ChF7)	52.1		48.7 (ChF8)	48.9 (ChF9)

A/ Contract and contractor estimates obtained from the Cost/Performance Reports as of 24 May 1984.

B/ Contract prices and contractor estimates obtained from the Cost/Schedule Status Report as of 29 April 1984.

CONTRACT IDENTIFICATION

- a. Boeing Company- Contract F19628-81-C-0083; September 1980: Cost Plus Incentive Fee; Definitized (Development)
- b. Boeing Company- Contract F19628-81-C-0040; July 1981: Cost Plus Incentive Fee; Definitized (Development)
- c. Boeing Company- Contract F19628-80-C-0007; September 1980: Fixed Price Incentive, Firm Target; Definitized (Procurement)
- d. E-Systems, Inc.- Contract F19628-82-C-0036; March 1982: Fixed Price Incentive, Firm Target; Definitized (Procurement)

VARIANCE ANALYSIS

Changes Since Previous Report:

- (ChF1) Increase of \$2.5M is due primarily to ECP 873 (Simultor Communications Integration), ECP 867-1 (Two-Month Maintenance of Test System #3), ECP 895 (Electronic Support System (ESS) Hardware Merger Phase I), and CCP 8690 (HAVE SIREN Installation).

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

- (ChF2) Increase of \$9.8M is due to ECP 832-1 (Data Display Redesign Phase II).
- (ChF3) Boeing Company contract F19628-83-C-0004 was removed from the SAR. This contract does not relate to the E-3A SAR program content and cost and should not have previously been included in the SAR.
- (ChF4) Increase of \$3.4M is due to an increase in the Economic Price Adjustment, CCP 4624R (Avionics Integration Laboratory (AIL) Support to Training Equipment), and CCP 4633 (Interrogator Side Lobe Suppression (ISLS) Switch Redesign).
- (ChF5) Decrease of \$7.8M is due to the change in the contractor's formally declared underrun at-completion (increased by \$15.0M, from \$20.0M to \$35.0M) offset by other changes. The at-completion variance improved due to additional underruns in Material, Operations, Manufacturing, Support Project Activities, and application of unused Management Reserve.
- (ChF6) Decrease of \$0.2M occurred because of a change in the projected contract underrun offset by other changes. The Program Manager's underrun assessment increased from \$37.0M to \$41.8M based on a cost at-completion evaluation of the program conducted at the contractor's facilities, 2-6 April 1984.
- (ChF7) Increase of \$1.2M due to combination CCP 006 (IOT&E Support), ECP 010 (Vertical Fin Feed Through), Option 8 (I&CO of Group "B" Kits), ECP 11 (E-41 Rack Relocation), Special Electronic Support System (ESS) Flight Test, and retrofit of Antenna Radome Assemblies.
- (ChF8) Increase of \$1.7M is due to the increase in the contractor's formally declared overrun at-completion by \$0.8M, from \$2.7M to \$3.5M, together with other changes. The at-completion variance deteriorated primarily in Integration and Assembly - Group A, Design and Fabrication - Group B, Peculiar Support Equipment/Special Test Equipment, and System Project Management activities due to schedule slips.
- (ChF9) As a result of the changes stated above in ChF8, the Program Manager's assessment of the contractor's increase in the formally declared overrun at-completion indicates an overrun increase of \$1.2M is more likely. This estimate in addition to other changes resulted in the \$1.9M increase from the previous report.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 24 Nov 83	CUM THRU 24 May 84	CHANGE \$
DEVELOPMENT			
1. Contract F19628-80-C-0083, DDT&E Follow-on			
Cost Variance	0.6	-0.7	-1.3
Schedule Variance	-0.6	-0.4	0.2

Cost Variance: The deterioration in the cost variance is caused by failure of the interface unit and recorder components requiring additional developmental material expenditures, extensive travel expenses for Test System #3 climatic testing, and extensive tape repeatability testing and technical analysis required to evaluate the quality of video tape recordings for the IFF Azimuth Jitters Study.

Schedule Variance: The cumulative unfavorable schedule variance of \$0.4M is caused by the delayed shipment of the Avionics Integration Laboratory (AIL) developmental electronics unit as a result of design delays and subsequent hardware component shortages. Schedule variances improved due to small favorable variances over several functional areas.

Program Impact: No program impacts.

	CUM THRU 24 NOV 83	CUM THRU 24 MAY 84	CHANGE \$
2. Contract F19628-81-C-0040, Block 20/25 Full Scale Development			
Cost Variance	6.9	6.8	-0.1
Schedule Variance	-1.9	-3.3	-1.4

Cost Variance: The cumulative favorable cost variance is due to underruns in engineering labor, Support Project Management activities, and indirect costs (Fringe Benefits, Overhead, and General and Administration).

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

Schedule Variance: The schedule variance deterioration is caused by the late shipment of Hazeltine Color Monitor hardware, invoice lags for Westinghouse miscellaneous hardware, and receipt of vendor low value items.

Program Impact: The contractor has declared an \$8.6M underrun at-completion and the Program Manager's assessment of the program agrees with the contractor's declared position.

	CUM THRU 24 NOV 83	CUM THRU 24 MAY 84	CHANGE \$
PROCUREMENT			
3. Contract F19628-80-C-0007, FY80-83			
Production Buys (Options 5-8)			
Cost Variance	7.9	6.3	-1.6
Schedule Variance	-3.5	-2.1	1.4

Cost Variance: The favorable cumulative cost variance deteriorated by \$1.6M primarily as a result of the implementation of the contractor's Material Performance Measurement System (MPMS) and subsequent removal of earned value for miscellaneous material transfers.

Schedule Variance: The schedule variance improvement is attributed to subcontractor performance being earned in the current periods for work scheduled in prior periods, and payment to subcontractors in the current period for late material deliveries.

Program Impact: The contractor has increased his formally declared underrun at-completion from \$20.0M to \$35.0M. The Program Manager's assessment of the program's estimated cost indicates an underrun of \$41.8M at-completion is more likely.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 24 Nov 83	CUM THRU 29 Apr 84	CHANGE \$
4. Contract F19628-82-C-0036			
Electronic Support System			
Cost Variance	-3.5	-4.4	-0.9
Schedule Variance	-0.7	-2.6	-1.9

Cost Variance: The deterioration in the cost variance is the result of overruns in the fabrication and testing of hardware units (partially due to engineering changes), difficulties in completion of environmental tests and airborne operating computer program software development and testing.

Schedule Variance: The deterioration in the schedule variance is due to problems with Electronic Support System (ESS) engineering design and development efforts.

Program Impact: The contractor has declared a \$3.5M overrun at-completion. The Program Manager's assessment is that a \$3.9M overrun is more likely. No program impact.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1970

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE

(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1965	--	--	--	--	1.0	1.0	1.0	1.0	2.0
1966	--	--	--	--	4.7	4.7	4.7	4.7	1.9
1967	--	--	--	--	4.2	4.2	4.2	4.2	3.2
1968	--	--	--	--	3.8	3.8	3.8	3.8	3.5
1969	--	--	--	--	39.3	39.3	39.3	39.3	4.3
1970	--	--	--	--	38.9	38.9	38.9	38.9	5.5
1971	--	--	--	--	83.5	87.0	87.0	87.0	5.1
1972	--	--	--	--	126.3	139.3	139.3	139.3	3.7
1973	--	--	--	--	168.6	194.3	194.3	194.3	3.7
1974	--	--	--	--	133.5	157.8	157.8	157.8	8.2
1975	--	--	--	--	152.9	202.0	202.0	202.0	10.9
1976	--	--	--	--	131.8	188.2	188.2	188.2	7.0
1977	--	--	--	--	23.5	35.1	35.1	35.1	3.2
1977	--	--	--	--	67.1	103.6	103.6	103.6	3.8
1978	--	--	--	--	60.4	99.4	99.4	99.4	6.1
1979	--	--	--	--	20.4	37.7	37.7	37.7	8.4
1980	--	--	--	--	19.5	40.1	40.1	40.1	9.4
1981	--	--	--	--	26.8	61.0	61.0	56.5	11.9
1982	--	--	--	--	20.8	51.0	51.0	45.7	9.2
1983	--	--	--	--	26.2	67.0	64.1	50.5	5.0
1984	--	--	--	--	25.3	67.4	41.9	18.0	4.3
1985	--	--	--	--	27.4	76.6	--	--	4.9
1986	--	--	--	--	34.9	102.0	--	--	4.6
1987	--	--	--	--	29.5	89.9	--	--	4.3
1988	--	--	--	--	16.8	53.1	--	--	4.0
1989	--	--	--	--	13.8	45.2	--	--	3.7
TOTAL	3.0	--	--	--	1300.9	1989.6	1594.4	1547.1	

1/ Reflects program office records as of 30 JUNE 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: E-3A

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1970

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1974	--	6.0	--	--	6.0	7.6	7.6	7.6	8.5
1975	6.0	14.5	8.3	173.3	272.5	419.7	419.7	416.5	16.3
1976	4.0	9.1	2.4	107.9	169.4	280.8	280.8	278.2	8.0
1977	--	18.8	--	--	25.2	40.2	40.2	39.3	3.2
1977	6.0	22.5	9.0	151.7	247.1	443.1	443.1	414.7	3.8
1978	3.0	21.4	7.6	86.3	132.7	254.0	254.0	240.0	6.0
1979	3.0	21.5	--	79.9	105.5	249.3	249.3	235.4	8.7
1980	3.0	21.2	6.5	86.0	120.9	313.5	311.3	297.9	9.7
1981	2.0	28.8	2.0	52.8	89.3	250.7	247.3	217.5	11.9
1982	2.0	25.0	0.7	49.7	82.0	247.0	223.3	181.0	9.6
1983	2.0	--	4.0	47.8	41.8	135.2	65.9	14.6	9.0
1984	--	23.6	--	23.6	23.6	76.2	--	--	5.6
1985	--	--	--	--	--	--	--	--	6.4
1986	--	--	--	--	--	--	--	--	6.0
1987	--	--	5.2	--	5.2	19.7	--	--	5.6
1988	--	--	--	--	--	--	--	--	5.2
1989	--	--	--	--	--	--	--	--	4.8
TOTAL	31.0	212.4	45.7	859.0	1321.2	2737.0	2542.5	2342.7	

1/ Reflects program office records as of 30 JUNE 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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A-3 Hellfire

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

REPORT AS OF: 30 Jun 84

84-047

INDEX

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QASD(PA) DFOIS 84-1-1556

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (QASD-PA)
DEPARTMENT OF DEFENSE
Contains NSC

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BQ. SUMMARY1. PROGRAM HIGHLIGHTS:

a. Significant Highlights Since Last Report

(1) Rockwell International Corporation and Martin Marietta Corporation were certified in May 1984 as producers of all-up-round missiles. This action signifies that technology transfer has been accomplished and the Army can proceed with implementing the competitive acquisition strategy.

(2) System level flight testing of first article missiles started 23 May 1984. Testing was delayed because of problems with testing at the component level and because of manufacturing problems associated with the start of production.

b. Program Status

(1) Percent program completed: 67.5 percent

(2) Percent program cost appropriated: 37.5 percent

2. CHANGES SINCE LAST REPORT:

a. Operational and Technical Characteristics: None

b. Schedule Milestones: The current estimate for completion of production validation test slipped 3 months (May 84 to Aug 84) because of problems associated with first article tests.

c. Program Acquisition Cost:

	<u>Previous Estimate</u>	<u>Change</u>	<u>Current Estimate</u>
(1) Total			
(a) Quantity	48,925	-	48,925
(b) Cost	2,457	- 32.4M	2,424.6
(c) Program Unit Cost:	50,221	-664	49,557

(2) FY84 Procurement Cost:

	<u>Previous Estimate</u>	<u>Change</u>	<u>FY84 Current Estimate</u>
Procurement Cost	218.6	-	218.6
Less Adv Proc	NA	NA	NA
Plus Adv Proc	NA	NA	NA
TOTAL	218.6	-	218.6
Quantity	4,651	-	4,651
Procurement Unit Cost	47,001	-	47,001

UNCL

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Jun 84
 BASE YEAR: FY 75

E-8 COST VARIANCE ANALYSIS

(Dollars in Millions)

1. <u>Summary</u>	Base Year/FY 75 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$210.3	\$276.7	-0-	\$487.0	\$216.4	\$703.4	Esc: Dev.55.9; Proc.160.5
Previous Changes							
Economic	-	-	-	-	+271.1	+271.1	Esc: Dev.+9.3; Proc.+262.1; Const. -.3
Quantity	-2.7	+270.9	-	+268.2	+566.5	+834.7	Esc: Dev. -.8; Proc.+567.3
Schedule	+9.1	+29.8	-	+38.9	+163.3	+202.2	Esc: Dev.+5.5; Proc.+157.4; Const. +.4
Engineering	+10.7	+39.0	-	+49.7	+57.1	+106.8	Esc: Dev.+8.1; Proc.+49.0
Estimating	+6.4	+122.5	+2.0	+130.9	+120.6	+251.5	Esc: Dev.+10.5; Proc.+107.9 Const. +2.2
Support	+6.3	+15.4	-	+21.7	+33.9	+55.6	Esc: Dev.+7.2; Proc.+26.7
Subtotal	+29.8	+477.6	+2.0	+509.4	+1,212.5	+1,721.9	Esc: Dev.+39.8; Proc.+1,170.4 Const. +2.3
Current Changes							
Economic	-	-	-	-	-13.5	-13.5	Esc: Proc -13.5
Quantity	-	+25.9	-	+25.9	+39.5	+65.4	Esc: Proc +39.5
Schedule	-	-8.5	-	-8.5	-25.1	-33.6	Esc: Proc -25.1
Engineering	-	-3.8	-	-3.8	-4.4	-8.2	Esc: Proc -4.4
Estimating	-	-8.5	-	-8.5	-4.0	-12.5	Esc: Proc -4.0
Support	-	+1.7	-	+1.7		+1.7	
Subtotal	-	+ 6.8	-	+ 6.8	-7.5	-7.5	Esc: Proc -7.5
Total Changes	+29.8	+484.4	+2.0	+516.2	+1,205.0	+1,721.2	Esc: Dev.+39.8, Proc +1,162.9 Const +2.3
Current Estimate	240.1	761.1	2.0	1,003.2	1,421.4	2,424.6	Esc: Dev.+95.7, Proc +1,323.4 Const +2.3

2. Previous Changes:DEVELOPMENT

Economic: Increase due to application of OSD indices from Jun 76 to Jan 84.

Quantity: Decrease due to deletion of 12 practice missiles; changes in seeker quantity.

Schedule: Increase due to budget reduction in FY 78; slips in production validation test.

Engineering: Increase due to addition of competitive low cost seeker program, seeker hardening (+11.0) and warhead improvement (+.8) to meet an evolving threat.

UNCLASSII

QUARTERLY ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Jun 84
BASE YEAR: FY 75

E-8 COST VARIANCE ANALYSIS (continued)

Estimating: Increase due to exercise of the metric option in the contract, reinstatement of FY 78 reprogramming, adjustment to application of Dec 77 inflation indices, additional effort for shelf life surveillance, C/CM analysis, and warhead, seeker, and propulsion sections improvement; decrease due to reduction in FY 81 RDTE funding, revision of deflator, adjustment of prior years to actuals and FY 83 Congressional decrement to TRACE. Decrease due to deobligation of prior year funds.

Support: Decrease due to reduction in missile test requirement and FY 78 budget adjustment; and revised estimate for EQUATE test program sets; increase due to addition of two ATAFCS for use in DT/OT with Cobra, added test support requirement, requirement for battlefield obscuration test, and requirement for use of AN/USM-410 test set. Also due to revised estimate and deferral of development of missile test program sets to FY 89.

PROCUREMENT

Economic: Increase due to application of OSD indices from Jun 76 to Jan 84.

Quantity: Net increase due to addition of 24,096 missiles, reduction of 29 launchers, and transfer of FY 84 - 86 launcher procurement to Apache.

Schedule: Increase due to delays in start of production, impact of RDTE funding constraints, and inefficient production rates/program stretchout resulting from FY 82 Congressional decrement and FY 84 funding decrement, which stretched out procurement by deferring 700 missiles from FY 84 to FY 89 - 90 time frame.

Engineering: Increase due to requirement changes in missile bus, warhead, and launcher.

Estimating: Increase due to refinement of missile and launcher production cost estimates, revised cost estimating relationships for engineering services, refinement of IPF estimate, and revision of baseline cost estimate which resulted in a new missile and launcher flyaway cost estimates. Decrease due to inadequate adjustment of Jan 82 inflation indices and revised BCE for dual source competitive procurement strategy. Decrease due to change in FY 82 to FY 75 deflator from 1.7157 to 1.9558 (-29.0), application of Jan 84 revised inflation indices (-36.0), and correction of previous estimating errors (-12.8).

Support: Increase due to addition of training hardware, depot capital equipment, allowance for cost of money, Government warranty on parts, revised data estimate, changes in support hardware, warhead LAP facility, and addition of payback for deferred cost of competition (expansion of production base); decrease due to reduction in initial spares requirement, test set quantity and training equipment and transfer of launcher spares and data costs to Apache.

CONSTRUCTION

Estimating: Increase in cost for construction of five ammunition storage bunkers.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Jun 84
BASE YEAR: FY 75

E-8 COST VARIANCE ANALYSIS (continued)

3. Changes Since Previous Report: Ch E-1

DEVELOPMENT: None.

PROCUREMENT

Changes are for the purpose of rebaselining the HELLFIRE SAR to exclude all HELLFIRE (FY 81 - 83) launcher procurement costs previously identified in the HELLFIRE SAR. This change adjusts: (a) the development estimate (DE) to exclude \$31.7M in then year dollars previously identified in HELLFIRE DE; (b) transfers FY 81 - 83 costs in the amount of \$32.4M in then year dollars from HELLFIRE to AH-64 (APACHE) and (c) adjusts cost change categories to agree with AH-64 (APACHE) SAR adjustments.

	Base Year \$	Current \$
Economic: Deletion of HELLFIRE launcher economic changes.	0	-13.5
Quantity: Deletion of HELLFIRE launcher quantity changes.	+25.9	+65.4
Schedule: Deletion of HELLFIRE launcher schedule changes.	-8.5	-33.6
Engineering: Deletion of HELLFIRE launcher engineering changes.	-3.8	-8.2
Estimating: Deletion of HELLFIRE launcher estimating changes.	-8.5	-12.5
Support: Deletion of HELLFIRE launcher support changes.	+1.7	+1.7
TOTAL Procurement Cost Change	+6.8	-.7

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QUARTERLY SELECTED AC TION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: 30 Jun 84

F. CONTRACTOR COSTS

	(Dollars in Millions)						(3)	
	(1)			(2)			Price At Completion	
	Initial Contract Price			Current Contract Price			Contractor	Program Managers
	Target	Ceiling	Oty	Target	Ceiling	Oty	Estimate	Estimate
1. <u>DEVELOPMENT</u>								
Development 1/ 3/ (Min Smoke Motor)	\$ 6.1	NA	NA	\$ 16.1	N/A	N/A	(b)(4)	
Rockwell Int Corp								
DAAH01-82-C-A208								
CPIF, 30 Apr 82								
Definitized								
2. <u>PROCUREMENT</u>								
Production (IPF/LLI) 2/ Rockwell Int Corp								
DAAH01-81-C-B026								
CPIF, 30 Jul 81								
Definitized								
Production (Laser Seeker) 1/ Martin Marietta Corp	\$ 27.7	\$33.5	762	\$ 27.8	\$33.6	762	\$ 27.8	\$ 27.8 (Ch F-2)
DAAH01-82-C-A170								
FPI, 25 Feb 82								
Definitized							(b)(4)	
Production 1/ (Missiles)	\$ 40.2	\$45.5	680	\$ 40.5	\$45.5	680		
(Launchers)			135	(Ch F-3)		135		
Rockwell Int Corp								
DAAH01-82-C-A169								
FPI, 31 Mar 82								
Definitized								

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QUARTERLY SELECTED AC TION REPORT
SYSTEM: HELLFIRE MODUUN MISSILE SYSTEM

AS OF DATE: 30 JUN 84

F. CONTRACTOR COSTS (Continued)

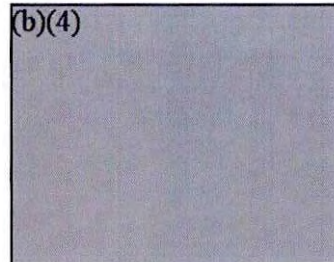
	(Dollars in Millions)						(3)	
	(1)			(2)			Price At Completion	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Contractor</u>	<u>Program Managers</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Estimate</u>	<u>Estimate</u>
Production 1/ (Missiles - AUR) (Seeker)	\$96.6	\$105.9	947	\$97.7	\$107.1	947	\$97.8	\$97.8
		(Ch F-8)	2077	(Ch F-5)	(Ch F-5)	2077	(Ch F-5)	(Ch F-5)
Martin Marietta Corp DAAH01-83-C-A040 14 Jan 83 Letter Order (NTE) Definitization Date 11 Jul 83								
Production 1/ (Missiles - AUR) (Missile Bus/TM Msl) (Launcher)	\$96.4	\$110.1	947	\$98.0	\$109.4	947	\$98.0	\$98.0
			2077	(Ch F-6)	(Ch F-7)	2077	(Ch F-6)	(Ch F-6)
			338			338		
Rockwell International Corp DAAH01-83-C-A039 4 Feb 83 Letter Order (NTE) Definitization Date 29 Jul 83								

3. CONSTRUCTION: None

4. VARIANCE ANALYSIS:

a. Cumulative Cost/Schedule Variance.

CONTRACT
DAAH01-82-C-A208
DAAH01-82-C-A170
DAAH01-82-C-A169
DAAH01-83-C-A040
DAAH01-83-C-A039



SCHEDULE VARIANCE 4/
\$ (.360)
(1.249)
(4.903)
(5.919)
(1.540)

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: 30 Jun 84

F. CONTRACTOR COSTS (continued)

b. Changes Since Previous Report:

Ch. F-1 - The contractor estimate of price at completion is increased (b)(4) because of unfavorable cost trends resulting from more funds being needed than budgeted and the PM estimate is increased (b)(4) because of the unfavorable cost trends.

Ch. F-2 - The PM's estimate of price at completion is decreased (b)(4) because FAT has been completed and deliveries are being made.

Ch. F-3 - The current target price and contractor EAC are increased (b)(4) because of added ECOs.

Ch. F-4 - The PM's EAC is increased (b)(4) because of unfavorable trends in contract performance.

Ch. F-5 - The target price is increased \$1.1M (96.6 to 97.7) and the ceiling is decreased \$0.3M (107.4 to 107.1) due to definitization of ECPs. The contractor's and PM's estimates of price at completion are decreased \$0.1M (97.9 to 97.8) because of the decrease in ceiling.

Ch. F-6 - The target price is increased \$1.6 (96.4 to 98.0) and the contractor's and PM's estimates of price at completion are increased \$0.8M (97.2 to 98.0) due to definitization of ECPs.

Ch. F-7 - The current contract ceiling is changed from \$110.1M to \$109.4M to correct an error in the Dec 83 SAR in which the contractor's estimated ceiling was reported instead of the negotiated ceiling.

Ch. F-8 - The initial contract ceiling price is changed from \$107.4M to \$105.9M to correct an error in the Dec 83 SAR. The initial ceiling reported in Dec 83 erroneously included authorized but unpriced work.

FOOTNOTES:

1/ RIC CPR data as of 27 Apr 84; MMC CPR data as of 29 Apr 84.

2/ The Jan 84 CPR was the final CPR for this contract. There are no other reportable contracts that meet the criteria for the six largest contracts.

3/ This contract is more than 95 percent complete and will no longer be reported.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: 30 Jun 85

F. CONTRACTOR COSTS (continued)

FOOTNOTES (continued)

4/ Explanation of Cumulative Variances:

Contract DAAH01-82-C-A208

Cost - (b)(4) - The variance results primarily from less need than budgeted in a number of LOE tasks in the System and Project Management areas and favorable G&A rates.

Schedule - (b)(4) - The variance is primarily due to delay in allocation of costs in propulsion area to the proper subaccounts, late completion of tasks involving SIE support, and 3 months delay in completion of Autopilot Electronics Test Set.

Contract DAAH01-82-C-A170

Cost - (b)(4) - The variance is due primarily to revised labor rates.

Schedule - (b)(4) - The variance is due to problems with the detector support and plastic molding and late delivery of dies from the vendor.

Contract DAAH01-82-C-A169

Cost - (b)(4) - The variance is primarily due to delays in completion of level of effort tasks caused by FAT problems. The variance is expected to diminish when FAT is complete.

Schedule - (b)(4) - The variance is due to late completion of First Article Tests and delays caused by use of an improper flux in the manufacture of circuit card assemblies.

Contract DAAH01-83-C-A040

Cost - (b)(4) - The variance is due to less manpower required than planned in printed circuit details and hardware fabrication support at Ocala and by favorable overhead rates.

Schedule - (b)(4) - The variance is due to slow start up which is related to problems in the first production contract.

Contract DAAH01-83-C-A039

Cost - (b)(4) - The variance is due to less use of level of effort than planned.
this time.

Schedule - (b)(4) - The schedule variance is due to problems encountered with FAT in the first production contract.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Jun 84
BASE YEAR: FY 75

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	(DOLLARS IN MILLIONS)				THEN YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	RFC					
APPROPRIATION: RDTE									
1972	-	-	-	-	(b)(4)	4.9	4.9	5.6	
1973	14	-	-	-		5.0	5.0	4.6	
1974	-	-	-	-		6.1	6.1	3.7	
1975	-	-	-	-		14.0	13.9	6.8	
1976	-	-	-	-		3.9	3.9	7.0	
1977	-	-	-	-		.7	.7	1.8	
1977	215	-	-	-		19.2	19.1	6.8	
1978	-	-	-	-		52.1	51.4	8.4	
1979	-	-	-	-		66.2	65.7	10.6	
1980	-	-	-	-		57.8	57.5	10.6	
1981	-	-	-	-		43.9	42.6	7.6	
1982	-	-	-	-		22.3	18.2	7.6	
1983	-	-	-	-		14.9	5.9	7.6	
1984	-	-	-	-		.3	-	4.3	
1985	-	-	-	-		-	-	4.9	
1986	-	-	-	-		-	-	4.6	
1987	-	-	-	-		-	-	4.3	
1988	-	-	-	-		-	-	4.0	
1989	-	-	-	-		-	-	3.7	
1990	-	-	-	-		-	-	3.7	
TOTAL	299	-	-	-			311.3	294.9	

~~FOR OFFICIAL USE ONLY~~

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Jun 84
BASE YEAR: FY 75

G. PROGRAM FUNDING SUMMARY (continued)

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS			THEN YEAR DOLLARS			ESCALATION 1/ RATE (%)	
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED		EXPENDED
			NON-REC	REC					
APPROPRIATION: MISSILE PROCUREMENT									
1981	LLI	1.2	9.9	(b)(4)		23.3	23.5	11.9	
1982	680	-	9.4			91.8	68.9	14.3	
1983	3,971	-	3.3			205.4	18.5	9.0	
1984	4,651	-	-			3.2	-	5.6	
1985	6,026	-	-			-	-	6.4	
1986	6,576	-	-			-	-	6.0	
1987	6,576	-	-			-	-	5.6	
1988	6,576	-	-			-	-	5.2	
1989	6,758	-	-			-	-	4.8	
1990	6,882	-	-			-	-	4.8	
TOTAL	48,696	1.2	22.6		323.7	110.9			

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	(b)(4)		-	-	4.9
1986	-	-	-	-			-	-	4.6
1987	-	-	-	-			-	-	4.3
TOTAL	-	-	-	-			-	-	

^{1/} Since spend-out rates are not included, the escalation rates cannot be used to verify the composite index.

AF-1 ALCM

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984

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SAF/PAS
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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

Successful Operational Test Launches occurred on 18 January, 20 January, and 23 February 1984. On 6 March 1984, an ALCM was successfully captive-carried on a 1500 NM route over Canada. Following this, additional successful Operational Test Launches were made on 20 March, 9 April, 8 and 10 May 1984. A 14 June 1984 flight was unsuccessful. An investigation to determine the cause is currently being conducted.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: $10./ 15. = 66.667\%$

(2) PERCENT PROGRAM COST APPROPRIATED: $3929.50/ 4495.70 = 87.406\%$

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. SCHEDULE MILESTONES:

None

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	1787.	0.	1787.
(b) COST (THEN-YEAR DOLLARS)	4576.80	-81.10	4495.70
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	2.5612	-0.0454	2.5158
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	240.	0.	240.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	422.30	0.00	422.30
LESS CY ADVANCED PROC.	0.00	0.00	0.00
PLUS PY ADVANCED PROC.	8.00	-3.10	4.90
TOTAL	430.30	-3.10	427.20
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	1.7929	-0.0129	1.7800

d

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1977

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	696.1	2311.6	121.4	3129.1	1054.9	4184.0	Esc: 55.5	970.2	29.2
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	746.3	746.3	Esc: 29.2	675.9	41.2
QUANTITY	-6.4	-786.7	--	-793.1	-867.8	-1660.9	Esc: -1.1	-866.7	--
SCHEDULE	83.3	-29.5	37.3	91.1	262.3	353.4	Esc: 25.9	173.2	63.2
ENGINEERING	195.1	25.6	5.9	226.6	103.5	330.1	Esc: 84.4	14.6	4.5
ESTIMATING	-18.3	-128.2	-4.9	-151.4	-112.2	-263.6	Esc: 4.8	-114.2	-2.8
OTHER	-0.2	--	--	-0.2	--	-0.2	Esc: --	--	--
SUPPORT	36.7	315.5	57.0	409.2	478.5	887.7	Esc: 30.7	394.8	53.0
SUBTOTAL	290.2	-603.3	95.3	-217.8	610.6	392.8	Esc: 173.9	277.6	159.1
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc: --	--	--
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	--	--	--	--	--	--	Esc: --	--	--
ENGINEERING	--	-28.7	--	-28.7	-24.4	-53.1	Esc: --	-24.4	--
ESTIMATING	-1.5	-14.9	--	-16.4	-11.6	-28.0	Esc: -1.0	-10.6	--
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	--	--	--	--	--	--	Esc: --	--	--
SUBTOTAL	-1.5	-43.6	--	-45.1	-36.0	-81.1	Esc: -1.0	-35.0	--
TOTAL CHANGES	288.7	-646.9	95.3	-262.9	574.6	311.7	Esc: 172.9	242.6	159.1
CURRENT ESTIMATE	984.8	1664.7	216.7	2866.2	1629.5	4495.7	Esc: 228.4	1212.8	188.3

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

E8. COST VARIANCE ANALYSIS (Continued)

REPORT AS OF: 30 JUNE 1984
BASE YEAR: FY 1977
(Dollars in Millions)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	Current \$
DEVELOPMENT		
ESTIMATING:		
Funds released on the FY 83/84 R&D programs were less than requested; however these funds are no longer required.	-1.5	-2.5
TOTAL DEVELOPMENT	-1.5	-2.5
PROCUREMENT		
ENGINEERING:		
Reversal of Engineering entry in 31 December 1983 SAR. Modification of missile and missile support equipment was disapproved.	-28.7	-53.1
ESTIMATING:		
Actual proposal prices were available to use in place of previous estimates from the Joint Cruise Missile Project office for the engine and inertial navigation element. Also, negotiated airframe contract values were available.	-14.9	-25.5
TOTAL PROCUREMENT	-43.6	-78.6
TOTAL PROGRAM COST CHANGE	-45.1	-81.1

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
F. CONTRACTOR COSTS	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1. PROCUREMENT								
a. Boeing Aerospace Co. 1/2/	283.5	305.4	440	288.5 ChF1	319.6	440	282.3 ChF2	282.3 ChF2
b. Wms International 1/2/3/	165.1	175.0	628	165.3 ChF3	175.5	628	161.3	161.3 ChF4
c. Wms International 1/2/3/	95.8	101.2	443	95.5 ChF5	100.8	443	94.5	94.5 ChF4
d. Litton Canada 1/3/	N/A	N/A	230	N/A	N/A	230	41.0	41.0
e. Litton Guidance 1/3/	N/A	N/A	100	N/A	N/A	100	19.9	19.9
f. Honeywell, Inc. 1/3/	N/A	N/A	441	N/A	N/A	441	7.0	7.0

1/ Contract prices and contractor estimates obtained from contractor Cost Performance Reports as of 30 April 1984.

2/ The FY82 Boeing and FY82/83 Williams are the only contracts subject to C/SCSC remaining on the ALCM Program.

3/ Reflects consolidated ALCM, SLCM, GLCM procurement by Joint Cruise Missile Project Office (JCMPO).

CONTRACT IDENTIFICATION

- a. Boeing Aerospace Co., Seattle WA (FY82); Contract No. F33657-82-C-2204, 8 December 1982; Fixed Price Incentive Firm, Definitized (Procurement)
- b. Williams International, Walled Lake MI (FY82); Contract No. N00019-82-C-3208, 2 December 1982; Fixed Price Incentive, Definitized (Procurement)
- c. Williams International, Walled Lake MI (FY83); Contract No. N00019-83-C-3332, 27 January 1984; Fixed Price Incentive, Negotiated (Procurement)

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

CONTRACT IDENTIFICATION

- d. Litton Canadian Commercial Corporation, Hull, Quebec (FY83); Contract No. N00032-83-C-3346, 1 July 1983; Firm Fixed Price, Definitized (Procurement)
- e. Litton Guidance and Control Systems, Woodland Hills, CA (FY83); Contract No. N00032-83-C-3345, 1 July 1983; Firm Fixed Price, Definitized (Procurement)
- f. Honeywell, Inc., St Louis Park, Minnesota (FY82); Contract No. N00019-82-C-3232, 8 October 1982; Firm Fixed Price, Definitized (Procurement)

VARIANCE ANALYSIS

Changes Since Previous Report:

- (Ch F1) Definitization of CCPs and ECPs.
- (Ch F2) Reflects projection of underrun.
- (Ch F3) Supports additional Operational Environmental Testing effort.
- (Ch F4) Change reflects revised EACs as contract progresses.
- (Ch F5) Definitization of Letter Contract.

	CUM THRU 31 Oct 83	CUM THRU 30 Apr 84	CHANGE \$
PROCUREMENT			
1. Boeing Aerospace Co. (FY82)			
Cost Variance	4.7	5.3	0.6
Schedule Variance	-0.7	-3.3	-2.6

Cost variance reflects projected contract underrun. Schedule variance has no impact since deliveries are ahead of schedule and no major problems are anticipated.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 31 Oct 83	CUM THRU 30 Apr 84	CHANGE \$
2. Williams International (FY82)			
Cost Variance	3.6	2.5	-1.1
Schedule Variance	-6.6	-2.5	4.1

The cumulative schedule variance has no impact since deliveries are ahead of schedule and no problems are anticipated. The cost variance has no impact since it is projected that the contract will underrun.

	CUM THRU 31 Oct 83	CUM THRU 30 Apr 84	CHANGE \$
3. Williams International (FY83)			
Cost Variance	-0.3	2.3	2.6
Schedule Variance	0.3	-0.6	-0.9

The favorable cost variance is primarily the result of reduced prices on low pressure section hardware that Williams has obtained from the vendor. The unfavorable schedule variance is being driven by backlogs at the N/C mill in Ogden, Utah and the Walled Lake fabrication plant. Both facilities produce parts associated with the high pressure section. No contract or program impact.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 JUNE 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1975	--	--	--	--	58.6	58.6	58.6	58.6	9.4
1976	--	--	--	--	49.1	49.1	49.1	49.1	8.0
1977	--	--	--	--	15.0	15.0	15.0	15.0	4.7
1978	--	--	--	--	76.6	78.4	78.4	78.4	4.2
1979	--	--	--	--	252.5	278.5	278.5	278.5	7.6
1980	--	--	--	--	281.1	340.4	340.4	340.4	8.4
1981	--	--	--	--	67.3	90.6	90.6	90.6	9.4
1982	--	--	--	--	72.8	108.5	108.5	97.2	11.9
1983	--	--	--	--	42.9	68.7	67.0	63.4	9.2
1984	--	--	--	--	11.1	18.6	14.4	10.6	5.0
1985	--	--	--	--	20.7	36.1	8.7	2.2	4.3
1986	--	--	--	--	15.3	28.0	--	--	4.9
1987	--	--	--	--	13.9	26.6	--	--	4.6
1988	--	--	--	--	4.6	9.2	--	--	4.3
1989	--	--	--	--	3.3	6.9	--	--	4.0
1990	--	--	--	--	--	--	--	--	3.7
TOTAL	24.0	--	--	--	984.8	1213.2	1109.2	1084.0	

1/ Reflects program office records as of 15 JUNE 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 JUNE 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - MISSILE

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1978	24.0	--	13.7	67.7	88.1	104.6	104.6	104.6	7.5
1979	24.0	--	4.4	54.0	68.5	90.8	90.8	90.8	8.7
1980	225.0	0.3	40.9	172.6	249.0	375.7	375.2	366.0	9.7
1981	480.0	0.6	21.6	248.1	341.8	563.9	553.3	452.1	11.9
1982	440.0	0.7	11.8	274.2	321.7	567.5	539.0	447.7	9.6
1983	330.0	2.6	12.0	199.3	248.1	459.4	357.4	107.3	9.0
1984	240.0	--	7.0	148.5	216.1	422.3	230.4	6.2	5.6
1985	--	--	--	--	38.8	80.4	--	--	6.4
1986	--	--	--	--	33.7	73.5	--	--	6.0
1987	--	--	--	--	33.5	76.9	--	--	5.6
1988	--	--	--	--	12.7	30.5	--	--	5.2
1989	--	--	--	--	12.7	32.0	--	--	4.8
TOTAL	1763.0	4.2	111.4	1164.4	1664.7	2877.5	2250.7	1574.7	

1/ Reflects program office records as of 15 JUNE 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 JUNE 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1980	--	--	--	--	9.2	14.2	10.8	10.8	10.4
1981	--	--	--	--	40.0	66.3	54.3	54.0	11.9
1982	--	--	--	--	58.9	102.3	60.8	60.3	9.2
1983	--	--	--	--	--	--	--	--	4.9
1984	--	--	--	--	10.7	20.0	1.7	--	4.3
1985	--	--	--	--	23.6	46.1	--	--	4.9
1986	--	--	--	--	28.7	58.4	--	--	4.6
1987	--	--	--	--	32.6	68.8	--	--	4.3
1988	--	--	--	--	6.5	14.2	--	--	4.0
1989	--	--	--	--	6.5	14.7	--	--	3.7
TOTAL	--	--	--	--	216.7	405.0	127.6	125.1	

1/ Reflects program office records as of 31 MAY 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

UNCLASSIFIED

N-4 CH-53E

QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP (Q) 823)
SYSTEM: CH-53E

REPORT AS OF: JUNE 30, 1984

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DEPARTMENT OF DEFENSE

UNCLASSIFIED

542.84-016-

UNCLASSIFIEDQUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: CH-53E

AS OF DATE: JUNE 30, 1984

BQ. SUMMARY**1. PROGRAM HIGHLIGHTS**

- a. Significant Highlights Since Last Report: Lost first CH-53E aircraft at sea; cause unknown, recovery in process.
- b. Program Status
 - (1) Percent program completed: 66.7% or 12 of 18 years
 - (2) Percent program cost appropriated: 46.6%
 - (3) Sunk Costs: Total Program Costs are \$3532.9M, of which \$1599.3M are sunk costs (obligations as of June 30, 1984), and \$1933.6M is the cost to complete.

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: None
- b. Schedule Milestones
 - Deliveries (Plan/Actual) Procurement 63/71 Accepted 5 aircraft since previous report.

c. Program Acquisition Cost:	PREVIOUS EST.	CHANGE	CURRENT EST.
(1) Total			
(a) Quantity	164	-	164
(b) Cost (then-year dollars)	3539.9	-7.0	3532.9
(c) Program Unit Cost (then-year dollars)	21.585	-0.043	21.542
(2) FY 84 Procurement Costs:			
(a) Quantity	11	-	11
(b) Cost (then-year dollars)			
Procurement Cost	(204.9)	(-6.8)	(198.1)
Less CY Advanced Proc.	(-10.6)	(-)	(-10.6)
Plus FY Advanced Proc.	(+8.1)	(-)	(+8.1)
Total	202.4	-6.8	195.6
(c) Procurement Unit Cost (then-year dollars)	18.400	-0.618	17.782

UNCLASSIFIED

UNCLASSIFIED

QUARTERLY SELECTED
SYSTEM: TION REPORT

NO. COST VARIANCE ANALYSIS

AS OF DATE: JUNE 30, 1984
BASE YEAR: 1973

(Dollars in Millions)

1. Summary	Base Year/PY 73 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$93.3	\$371.1	--	\$464.4	\$114.0	\$578.4	Eso: Dev. \$7.0; Proc. \$107.0
Previous Changes							
Economic	--	--	--	--	-23.7	-23.7	Eso: Dev. +2.8; Proc. -26.5
Quantity	--	\$694.9	--	+694.9	+1850.3	+2545.2	Eso: Proc. +1850.3
Schedule	+1.6	+33.2	--	+34.8	+30.6	+65.4	Eso: Dev. -0.1; Proc. +30.7
Engineering	+62.8	+96.1	--	+158.9	+258.3	+417.2	Eso: Dev. +59.8; Proc. +198.5
Estimating	+6.8	-199.2	--	-192.4	-545.0	-737.4	Eso: Dev. +5.4; Proc. -550.2
Other	+2.4	--	--	+2.4	+0.6	+3.0	Eso: Dev. +0.6
Support	+10.5	+204.6	+0.7	+215.8	+376.0	+691.8	Eso: Dev. +8.1; Proc. +466.8; Constr. +1.1
Subtotal	+84.1	+829.6	+0.7	+914.4	+2047.1	+2961.5	Eso: Dev. +74.4; Proc. +1971.6; Constr. +1.1
Current Changes							
Estimating	-	-3.4	--	-3.4	-5.8	-9.2	Eso: Proc -5.8
Support	-	+0.8	--	+0.8	+1.4	+2.2	Eso: Proc +1.4
Subtotal	-	-2.6	--	-2.6	-4.4	-7.0	Eso: Proc -4.4
Total Changes	+84.1	+827.0	+0.7	+911.8	+2042.7	+2954.5	Eso: Dev. +74.4; Proc. +1967.2; Constr. +1.1
Current Estimate	\$177.4	\$1198.1	\$0.7	\$1376.2	\$2156.7	\$3532.9	Eso: Dev. 81.4; Proc. 2074.2; Constr. 1.1

2. Previous Changes:

DEVELOPMENT

Economic: Revised escalation rates.
 Schedule: Extend RDT&E beyond FY 76 and restructure development effort.
 Engineering: Increased requirement for Transmission Development Program, development of Digital Automatic Flight Control System; completion of developmental derived improvements; completion of design improvements, and design and development of AMCN configurations.
 Estimating: Refinement of R&D estimates and revised estimates for changes in escalation.
 Other: Cost overrun and award of contract incentive.
 Support: Increase in BIS and OPEVAL support, first article of OFT visual system and peculiar training equipment, and support of AMCN design, development and test and evaluation.

UNCLASSIFIED

737.4
- 4.2
746.2

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CH-53E

AS OF DATE: JUNE 30, 1984
BASE YEAR: 1973

E8. COST VARIANCE ANALYSIS (Cont'd)

PROCUREMENT

Economic: Revised escalation rates.
Quantity: Reduction of 70 to 49 aircraft; increase from 49 to 126 aircraft; increase from 126 to 160 aircraft.
Schedule: Production delay resulting from development stretchout and numerous production changes with net result of stretchout of procurement.
Engineering: Design changes to airframe, increase in production non-recurring costs, AMCH and Night Vision configuration changes and tooling refurbishment.
Estimating: Revised production estimates based on past experience and new data from contractors and for escalation adjustments.
Support: Increased support requirements for PGSE, training and other support and spares due to aircraft quantity changes and HNVs.

MILCON

Support: Construction of composite trainer buildings.

3. Changes Since Previous Report:

<u>PROCUREMENT</u>	<u>Base Year \$</u>	<u>Current \$</u>
Estimating: Revised estimates in FY 84 for airframe and engines based on definitized contract and revision of non-recurring costs.	-3.4	-9.2
Support: Revised estimates in FY 84 for PGSE (-1.2), per trng (+3.9), puba (-0.4), prod eng support (+0.8), and ILS (-0.9). TOTAL Procurement Cost Change	+0.8 -2.6	+2.2 -7.0
<u>TOTAL PROGRAM COST CHANGE</u>	-2.6	-7.0

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QUARTERLY SYSTEM ACQUISITION REPORT
SYSTEM: CH-53E

UNCLASSIFIED

AS OF DATE: JUNE 30, 1984
DATE OF DATA: May 31, 1984

F. <u>CONTRACTOR COSTS</u>	(1)			(2)			(3)	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>	
	<u>Price</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgr Estimate</u>
1. <u>DEVELOPMENT</u> Sikorsky Aircraft Division of United Technologies Corp.								
a. CPA/IF N00019-82-C-0127 Award Date: 26 February 1982 Definitized								
	37.38	N/A	--	51.50	N/A	--	53.2	56.00
2. <u>PROCUREMENT</u> Sikorsky Aircraft Division of United Technologies Corp.								
a. FFP N00019-80-C-0127 ⁽¹⁾ Award Date: 13 May 1980 Definitized (Lot IV)	130.0	N/A	12	130.0	N/A	12	130.0	130.0
b. FFP N00019-81-C-0481 Award Date: 30 September 1981 Definitized (Lot V)	146.0	N/A	14	146.0	N/A	14	146.0	146.0
c. FFP N00019-82-C-0230 Award Date: 30 June 1982 Definitized (Lot VI)	118.0	N/A	11	118.0	N/A	11	118.0	118.0

(1) Shown for last time (over 95% complete)

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CH-53E

AS OF DATE: June 30, 1984

DATE OF DATA: May 31, 1984

F. <u>CONTRACTOR COSTS</u> (Cont'd)	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			<u>Price at Completion</u>	
	Price	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgr Estimate
d. FFP CH-F1 N00019-83-C-0074 Award Date: 30 April 1983 Definitized (Lot VII)	38.0	125.0	11	115.0	NA	11	115.0 CH-F1	115.0 CH-F1
General Electric Co. West Lynn, Massachusetts								
a. FFP F33657-82-C-0017 Award Date: 23 July 1982 Definitized (Lot V/VI)	48.8	NA	69	48.8	NA	69	48.8	48.8

3. VARIANCE ANALYSISa. Cost/Schedule Variance

1.a.	Cost		Greater effort than planned to install and test sponsors and
	Cumulative -3.1		greater than budgeted cost of vendor materials and test of
	Current - .6		digital AFCS.
	Schedule		Schedule slippage in pre-flight testing, material analysis
	Cumulative -1.3		and fabrication of tail rotor blade and attachment components;
	Current + .7		recovery is noted.

b. Changes Since Previous Report. CH-F1 contract definitized 24 May 1984.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CH-53E

AS OF DATE: JUNE 30, 1984

CURRENT ESTIMATE
 (\$ in Millions)

G. PROGRAM FUNDING SUMMARY

FISCAL YEAR	QTY		BASE YEAR \$			THEN YEAR DOLLARS			ESCALATION RATE (\$)1/
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E,N

1973	--	--	--	--	14.2	14.6	14.5	14.5	4.16
1974	2	--	--	--	27.6	30.3	30.3	30.1	5.77
1975	2	--	--	--	39.7	47.0	47.0	46.9	8.81
1976	--	--	--	--	9.9	12.5	12.5	12.5	6.59
1977	--	--	--	--	16.4	21.7	21.7	21.7	3.56
1977	--	--	--	--	8.7	11.8	11.8	11.5	3.78
1978	--	--	--	--	14.0	20.4	20.4	20.0	6.80
1979	--	--	--	--	0.2	0.4	0.4	0.4	8.72
1980	--	--	--	--	8.1	14.5	14.5	12.0	9.70
1981	--	--	--	--	4.8	9.4	9.4	9.2	11.9
1982	--	--	--	--	5.8	12.1	12.1	11.5	7.6
1983	--	--	--	--	6.9	15.1	15.1	14.4	4.9
1984	--	--	--	--	12.7	28.8	27.7	16.0	4.3
1985	--	--	--	--	6.1	14.6	--	--	4.9
1986	--	--	--	--	1.6	3.9	--	--	4.6
1987	--	--	--	--	0.7	1.7	--	--	4.3
TOTAL	4	--	--	--	177.4	258.8	237.4	220.7	

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: CH-53E

AS OF DATE: JUNE 30, 1984

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY (Continued)

U. S. PROGRAM FUNDING SUMMARY (Continued)									
FISCAL YEAR	QTY	BASE YEAR \$				THEN YEAR DOLLARS			ESCALATION RATE (%)1/
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: APN									
1977	6	--	22.1	44.8	70.0	120.8	120.8	117.8	7.0
1978	0	--	--	--	0	0	0	0	6.8
1979	14	--	1.8	72.6	98.9	190.8	190.3	189.5	8.72
1980	13	1.1	--	80.0	101.8	211.8	211.4	204.3	9.7
1981	14	0.8	--	80.2	98.8	222.4	222.4	217.1	11.9
1982	14	0.7	--	72.9	92.8	229.8	227.7	209.8	7.33
1983	11	2.7	5.4	57.0	90.3	233.4	222.7	147.6	9.00
1984	11	3.0	4.6	53.9	71.8	198.1	166.1	53.6	5.59
1985	10	3.7	8.8	56.0	90.7	320.5	--	--	6.37
1986	14	22.9	3.8	74.5	103.5	331.7	--	--	5.98
1987	14	12.3	--	68.8	96.7	303.3	--	--	5.59
1988	14	8.7	6.5	75.0	108.0	329.8	--	--	5.20
1989	14	5.0	2.1	70.9	90.3	295.5	--	--	4.81
1990	11	7.2	--	66.6	84.5	284.4	--	--	4.81
TOTAL	160	68.1	55.1	873.2	1198.1	3272.3	1361.4	1139.7	

APPROPRIATION: MILCON									
1983	--	--	--	--	0.3	0.8	0.5	0.5	4.9
1984	--	--	--	--	--	--	--	--	4.3
1985	--	--	--	--	--	--	--	--	4.9
1986	--	--	--	--	0.4	1.0	--	--	4.6
TOTAL	--	--	--	--	0.7	1.8	0.5	0.5	

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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A-2 DIVAD

QUARTERLY SELECTED ACQUISITION REPORT, (RCS: DD-COMP (Q&A) 823)

SYSTEM: SGT YORK GUN

Report as of: 30 Jun 84

INDEX

<u>SECTION</u>	<u>SUBJECT</u>	<u>PAGE</u>
BQ	SUMMARY	2
E8	COST VARIANCE ANALYSIS	4
F	CONTRACTOR COSTS	5
G	PROGRAM FUNDING SUMMARY	7

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84-1557

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JUL 20 1984
DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE
CONTAINS NSF

5A2-84-132

AS OF DATE: 30 Jun 84

BQ. (U) SUMMARY

1. (U) PROGRAM HIGHLIGHTS:

a. (U) Significant Highlights Since Last Report:

(1) The first production SGT YORK fire unit was accepted by the Army on 13 Mar 84. Delivery of the first 50 fire units originally scheduled for completion in Sep 84 is now scheduled for completion in Feb 85. There is no increased cost to the Army as a result of the revised delivery schedule. The revised schedule will put deliveries back on the original contract schedule by the end of November 1984. Changes to other program milestones are shown in paragraph 2.b. below.

(2) Award of the FY84 production contract (Option 3) of the current system contract has been delayed from May 84 to the August-September 1984 time-frame pending resolution of an operational testing issue.

b. (U) Program Status

- (1) Percent program completed: 62%
- (2) Percent program appropriated: 55%

2. (U) CHANGES SINCE LAST REPORT:

a. (U) Operational and Technical Characteristics: None

Current Estimates

b. (U) Schedule Milestones:

- (U) First Production Equipment Delivered
- (U) First Article Test
 - (1) (U) Start
 - (2) (U) Complete
- (U) Follow-On Production (Contract Award)
- (U) IOC
- (U) First Article Test (Follow-on Production)
 - (1) (U) Start
 - (2) (U) Complete

<u>Change From</u>	<u>Change To</u>
Feb 84	Mar 84
Apr 84	Sep 84
Sep 84	Mar 85
Apr 85	May 85
Mar 85	Sep 85
Oct 86	Nov 86
Mar 87	Jan 87

The above changes are due to the slippage of first production delivery from Oct 83 to Mar 84 because of inadequate deliveries of Ford Aerospace and Communications Corp's (FACC) in-house electronic and mechanical assemblies and difficulties encountered during acceptance testing.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SGT YORK Gun

BQ. (U) SUMMARY

AS OF DATE: 30 Jun 84

2. (U) CHANGES SINCE LAST REPORT (continued)

c. (U) Program Acquisition Cost:	<u>PREVIOUS EST.</u>	<u>CHANGE</u>	<u>CURRENT EST.</u>
(1) Total			
(a) Quantity	622	0	622
(b) Cost (Then Year Dollars)	\$4192.6M	0	\$4192.6M
(c) Program Unit Cost(Then year Dollars)	\$6.741M	0	\$6.741M
(2) FY84 Procurement Costs:			
(a) Quantity	130	0	130
(b) Cost (Then Year Dollars)			
Procurement Cost	\$754.0M	0	\$754.0M
Less Advance Proc (FY85)	(\$22.8M)	0	(\$22.8M)
Plus Advance Proc (FY83)	\$29.8M	0	\$29.8M
	<hr/>	<hr/>	<hr/>
TOTAL	\$761.0M	0	\$761.0M
(c) Procurement Unit Cost (Then Year Dollars)	\$5.854M	0	\$5.854M

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QUARTERLY SELECTED ACQUISITION REPORT
 SYSTEM: SGT YORK GUN
 (Dollars in Millions)

As of Date: 30 Jun 84
 Base Year: FY78

E-8. COST VARIANCE ANALYSIS

1. <u>SUMMARY</u>	BASE YEAR/FY78 CONSTANT \$						
	DEV	PROC	CONST	SUBTOTAL	ESCALATION	TOTAL	REMARKS
Development Estimate	\$162.9	\$2043.4		\$2206.3	\$979.5	\$3185.8	Esc: Dev. +21.8; Proc +957.7
Previous Changes							
Economic					+327.2	+327.2	Esc: Dev. +3.3; Proc +321.2 Constr. +2.7
Quantity		+59.5		+59.5	+4.6	+64.1	Esc: Proc +4.6
Schedule		4			+606.1	+606.1	Esc: Proc +606.1
Estimating	+29.4	-68.4	+54.4	+15.4	+50.3	+65.7	Esc: Dev. +25.4; Proc -15.1 Constr. +40.0
Support	+18.5	-75.4		-56.9	+0.5	-56.3	Esc: Dev. +5.8; Proc -5.2
Subtotal	+47.9	-84.3	+54.4	+18.0	+988.8	+1006.8	Esc: Dev. +34.5; Proc +911.6 Constr. +42.7
Current Changes							
None							
Total Changes	+47.9	-84.3	+54.4	+18.0	+988.8	+1006.8	Esc: Dev. +34.5; Proc +911.6 Constr. +42.7
Current Estimate	210.8	1959.1	54.4	2224.3	1968.3	4192.6	Esc: Dev. +56.3; Proc +1869.3 Constr. +42.7

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SGT YORK GUN
(Dollars in Millions)

As of Date: 30 Jun 84

F. <u>CONTRACTOR COSTS</u> ^{1/}	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Managers Estimate</u>
1. Procurement:								
Ford Aerospace and Communications Corp								
DAAK10-81-C-0093 RDTE:	\$80.3	\$98.6 ^{2/}		\$89.9	\$110.6 ^{2/}		\$110.6	(b)(4)
FPIF-Definitized Proc:	104.0	127.6 ^{2/}		96.7	119.0 ^{2/}		119.0	
Awarded 7 May 81								
(Basic-FY81) Total: ^{3/}	\$184.3	\$226.2 ^{2/}	0	\$186.6	\$229.6 ^{2/}	0	\$229.6	
Contract Option 1 (FY82)								
Definitized Proc: ^{3/}	\$325.0	\$398.9 ^{2/}	50	\$346.3	\$425.6 ^{2/}	50	\$419.5	
Awarded 28 May 82				(CH-F1)	(CH-F1)		(CH-F1)	
Contract Option 2 (FY83)								
Definitized Proc:	\$377.4	\$450.4	96	\$395.7	\$468.2	96	\$468.2	
Awarded 5 May 83				(CH-F1)	(CH-F1)		(CH-F1)	
Changes Since Previous Report: (CH-F1) "Current Contract Price" data reflects contract modifications. Adjustments in both contractor and government estimates are based on latest (Apr 84) CPR data.								

ITEM	<u>Current Contract Price</u>			ITEM	<u>Price at Completion</u>		
	<u>Change From</u>	<u>Change To</u>	<u>Delta</u>		<u>Change From</u>	<u>Change To</u>	<u>Delta</u>
<u>TARGET:</u>							
PROC (Option 1)	\$345.5	\$346.3	\$ +0.8	CONTR EST:			
PROC (Option 2)	\$380.6	\$395.7	\$+15.1	PROC (Option 1)	\$419.0	\$419.5	\$ +0.5
				PROC (Option 2)	\$409.8	\$468.2	\$+58.4
<u>CEILING:</u>							
PROC (Option 1)	\$424.6	\$425.6	\$ +1.0	PM'S ESTIMATE:			
PROC (Option 2)	\$446.6	\$468.2	\$+21.6	PROC (Option 1)			
				PROC (Option 2)			

FOOTNOTES:

- 1/ Contract price and contractor estimates obtained from Apr 84 CPR and contract documents.
2/ Ceiling prices are extrapolations to exclude OMA funded items. Contract ceiling and/or incentive features are based on total contract amounts not by type of appropriation.
3/ Excludes OMA dollars.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SGT YORK GUN

As of Date: 30 Jun 84

F. CONTRACTOR COSTS (Continued)

2. Variance Analysis:

a. Basic: Cost - Increase (b)(4) Most of the variance, 65.6%, is internal at the prime contractor level due to unexpected design complexity; the same is true for a major sub-contractor, Westinghouse. Remaining work is RDTE (completion of ILS and gun and ammo testing).

Schedule - Decrease (b)(4) Most of the contractual effort has been scheduled for completion. CONUS ammo program showing favorable variance but masked somewhat by slippages in training and peculiar support equipment (PSE) development. Continued improvement as this phase of the program draws closer to completion.

b. Option 1: Cost - Increase (b)(4) Transition from prototype to full scale production, test failures, design changes, rework, build-up of inventory of subassemblies to workaround plans. Most areas will continue to completion in an overrun condition. The \$40.558M is measured against the contractor's current baseline which has been raised \$43.1M above the original estimate.

Schedule - Decrease (b)(4) Improvement in ammo IPF and production subcontractor activity offset continued problems in production manufacturing due to late issue of production kits due to parts shortages and design changes, delays in setting up production line and rework of hardware. The \$35.612M is measured against the contractor's current baseline which has been raised \$12.4M above the original estimate.

c. Option 2: Cost - Increase (b)(4) 88% of the unfavorable variance is attributed to FACC internally in almost all functional areas. Primarily due to problems associated with transition from development to full production, higher than planned material costs and unplanned rework. Balance is due to Westinghouse underestimating the cost to support a highly (internal) compressed production schedule.

Schedule - Increase (b)(4) Over 60% applicable to FACC primarily in manufacturing functional area, due to design changes and parts shortages, resulting in delayed task completion in PSE, special tooling, test equipment, and production kit release areas, including efforts to expedite Option 1 delivery schedule. Balance is Westinghouse, the radar subsystem supplier, because they are working against an accelerated internal schedule. However, no impact anticipated on program schedule.

d. At Completion: Basic - (b)(4) At completion, the basic contract price will go to ceiling. PM's estimates reflect the Options 1 and 2 will exceed the point of total assumption.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SGT YORK GUN

As of Date: 30 Jun 84
 Base Year: FY78

CURRENT ESTIMATE
 (\$ In Millions)

G. PROGRAM FUNDING SUMMARY

BASE YEAR \$					THEN YEAR \$				
FISCAL YEAR	QTY	ADV PROC (Non-Add \$)	FLYAWAY (Non-Add \$)	TOTAL \$	ESCALATED \$	OBLIGATED \$ ^{2/}	EXPENDED \$ ^{2/}	ESCALATED RATE (%) ^{1/}	
APPROPRIATION: RDTE									
1977				2.3	2.2	2.2	2.2	6.8	
1978				16.5	17.0	17.0	17.0	8.4	
1979				67.9	75.7	74.3	74.2	10.6	
1980	4			20.8	25.7	25.3	25.0	10.6	
1981				54.4	73.2	69.1	69.0	7.6	
1982				42.5	62.4	61.5	29.8	7.6	
1983				6.4	10.9	2.5	9	4.9	
TOTAL	4			210.8	267.1	251.9	218.1		
APPROPRIATION: Procurement									
WTCV (Inc) Spares)									
1981	0	22.9	66.8	72.0	138.0	136.7	102.0	11.6	
1982	50	8.8	165.4	211.8	370.9	335.7	47.4	14.3	
1983	96	15.1	216.4	325.8	608.2	396.0	1.0	9.0	
1984	130	11.0	237.1	327.0	646.6	1.6		5.6	
1985	132	5.9	227.8	298.4	621.5			6.4	
1986	144	2.9	186.7	251.6	551.8			6.0	
1987	66		96.1	106.8	246.0			5.6	
TOTAL	618	66.6	1196.3	1593.4	3183.0	870.0	150.4		
AMMO									
1981					0				
1982				45.1	68.8	15.0	2.8	7.6	
1983				30.7	48.9	20.8	.6	4.9	
1984				64.3	107.4	41.7		4.3	
1985				52.9	92.1			4.9	
1986				60.5	109.7			4.6	
1987				48.2	90.8			4.3	
1988				31.4	61.5			4.0	
1989				32.6	66.2			3.7	
TOTAL				365.7	645.4	77.5	3.4		

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SGT YORK GUN

As of Date: 30 Jun 84
Base Year: FY78

CURRENT ESTIMATE
(\$ In Millions)

G. PROGRAM FUNDING SUMMARY (Continued)

BASE YEAR \$					THEN YEAR \$			
FISCAL YEAR	QTY	ADV PROC (Non-Add \$)	FLYAWAY (Non-Add \$)	TOTAL \$	ESCALATED \$	OBLIGATED \$ ^{2/}	EXPENDED \$ ^{2/}	ESCALATED RATE (%) ^{1/}
APPROPRIATION:					CONSTRUCTION			
1981								
1982								
1983			8.0	13.1	11.0	2.9	4.9	
1984			16.9	29.0	19.7	0	4.3	
1985			9.7	17.4			4.9	
1986			9.7	18.0			4.6	
1987			<u>10.1</u>	<u>19.6</u>			<u>4.3</u>	
TOTAL			54.4	97.1	30.7	2.9		

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

2/ Excludes spares and ammunition facilities. Funds for these items are not controlled or reported by the PM.

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AF-3 DSCS III

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984

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DEPARTMENT OF DEFENSE

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984

RQ. (U) SUMMARY

1. (U) PROGRAM HIGHLIGHTS

a. (U) SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

(c) Negotiations of a Multiyear Procurement contract for the last seven DSCS III production satellites (B8-14) began on 15 May 1984.

(b)(1)

b. (U) PROGRAM STATUS

(1) (U) PERCENT PROGRAM COMPLETED: 9./ 17. = 52.941%

(2) (U) PERCENT PROGRAM COST APPROPRIATED: 835.30/ 1577.00 = 52.968%

2. (U) CHANGES SINCE LAST REPORT

a. (U) OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. (U) SCHEDULE MILESTONES:

None

c. (U) PROGRAM ACQUISITION COST:

PREVIOUS EST

CHANGE CURRENT EST

(1) (U) TOTAL

(a) (U) QUANTITY

14.

0.

14.

(b) (U) COST (THEN-YEAR DOLLARS)

1600.80

-23.80

1577.00

(c) (U) PROGRAM UNIT COST (THEN-YEAR DOLLARS)

114.3428

-1.6999

112.6429

(2) (U) FY 1984 PROCUREMENT COSTS:

(a) (U) QUANTITY

0.

0.

0.

(b) (U) COST (THEN-YEAR DOLLARS)

PROCUREMENT COST

115.70

-8.00

107.70

(U) LESS CY ADVANCE PROC.

81.60

0.00

81.60

(U) PLUS PY ADVANCE PROC.

0.00

0.00

0.00

(U) TOTAL

34.10

-8.00

26.10

(c) (U) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)

N/A

N/A

~~SECRET~~

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1977

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS

1. SUMMARY

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST	
DEVELOPMENT ESTIMATE	134.3	496.8	--	631.1	262.5	893.6	Esc:	17.5	245.0	--
PREVIOUS CHANGES										
ECONOMIC	--	--	--	--	129.8	129.8	Esc:	3.5	126.3	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	16.3	31.3	--	47.6	61.6	109.2	Esc:	13.5	48.1	--
ENGINEERING	45.2	20.0	--	65.2	41.6	106.8	Esc:	22.0	19.6	--
ESTIMATING	64.9	48.6	--	113.5	170.5	284.0	Esc:	42.7	127.8	--
OTHER	--	38.4	--	38.4	39.0	77.4	Esc:	--	39.0	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	126.4	138.3	--	264.7	442.5	707.2	Esc:	81.7	360.8	--
CURRENT CHANGES										
ECONOMIC	--	--	--	--	--	--	Esc:	--	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	-4.1	--	-4.1	-3.9	-8.0	Esc:	--	-3.9	--
ESTIMATING	-3.2	-5.8	--	-9.0	-6.8	-15.8	Esc:	-2.4	-4.4	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	-3.2	-9.9	--	-13.1	-10.7	-23.8	Esc:	-2.4	-8.3	--
TOTAL CHANGES	123.2	128.4	--	251.6	431.8	683.4	Esc:	79.3	352.5	--
CURRENT ESTIMATE	257.5	625.2	--	882.7	694.3	1577.0	Esc:	96.8	597.5	--

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984
BASE YEAR: FY 1977

E8. COST VARIANCE ANALYSIS (Continued)

(Dollars in Millions)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
DEVELOPMENT		
ESTIMATING:		
Discontinued First Time Integration tasks due to the deletion of the DSCS III T34D/IUS mission	-3.2	-5.6
TOTAL DEVELOPMENT	-3.2	-5.6
PROCUREMENT		
ENGINEERING:		
Revised Satellite (III-A3) Engineering Estimate Based on Current Contract Negotiations	-4.1	-8.0
ESTIMATING:		
Revised DSCS III Production Satellite Cost Estimate Based on Current Contract Negotiations	-5.8	-10.2
TOTAL PROCUREMENT	-9.9	-18.2
TOTAL PROGRAM COST CHANGE	-13.1	-23.8

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984
(Dollars in Millions)

	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
F. CONTRACTOR COSTS	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs. Estimate
1. DEVELOPMENT								
a. General Electric Company A/ B/	25.3	N/A	0	23.5	N/A	0	22.5 (Ch-F1)	23.5
2. PROCUREMENT								
a. General Electric Company A/ C/	13.2	14.5	1	64.9 (Ch-F2)	69.9	1	62.1 (Ch-F3)	64.9 (Ch-F4)
b. General Electric Company A/ D/	46.0	50.5	4	323.6 (Ch-F5)	349.9	4	320.1 (Ch-F6)	323.6 (Ch-F7)
c. General Electric Company A/ (Ch-F8)	70.1	N/A	0	71.6	N/A	0	71.6	71.6

A/ Contract prices and contractor estimate obtained from the contractor Cost Performance Report as of 6 May 1984.

B/ Separate Line Item on Production Contract for Launch Vehicle First Time Integration.

C/ Initial Contract award for advance buy parts for use in the refurbishment of the DSCS III Qualification Satellite. Current Contract Price and Price at Completion include the added satellite refurbishment and STS configuration efforts.

D/ Initial Contract award for four sets of advance buy parts to be used in production of DSCS III. Current Contract Price and Price at Completion reflect addition of four DSCS III Production Satellites (B4-7).

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SYSTEM:

QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

CONTRACT IDENTIFICATION

- a. General Electric Company - Contract F04701-81-C-0004; 15 March 1982: Cost Plus Fixed Fee, Definitized (Development)
- a. General Electric Company - Contract F04701-80-C-0058; 31 October 1980: Fixed Price Incentive Firm, Definitized (Procurement)
- b. General Electric Company - Contract F04701-81-C-0004; 26 November 1980: Fixed Price Incentive Firm, Definitized (Procurement)
- c. General Electric Company - Contract F04701-84-C-0009; 23 January 1984: Firm Fixed Price, Definitized (Procurement)

VARIANCE ANALYSIS

Changes Since Previous Report:

(Ch-F1) Decrease of \$0.6M in Contractor Estimate is due to revised contractor reported variance at completion.

(Ch-F2) Decrease of \$0.2M in Current Target Price and Current Ceiling Price due to definitization of the credit for deleting Satellite Configuration Control Element (SCCE) #3 installation.

(Ch-F3) Decrease of \$1.8M in Contractor Estimate is due to revised contractor reported variance at completion. The definitization of the credit for deleting SCCE #3 installation contributed to this decrease.

(Ch-F4) Decrease of \$0.2M in Program Manager's Estimate is due to definitization of the credit for deleting SCCE #3 installation.

(Ch-F5) Increase of \$3.4M in Current Target Price and \$3.7M in Current Ceiling Price is due to implementation of Shuttle security requirements, addition of a buffer amplifier to the sun sensor, and the schedule extension of III-B7 for pairing with III-B8 as a result of III-A3 Shuttle compatibility and its pairing with III-B6.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

(Ch-F6) Increase of \$3.5M in Contractor Estimate is due to revised contractor reported variance at completion. The Shuttle security effort, sun sensor buffer amplifier addition and III-B7 schedule extension contributed to the increase.

(Ch-F7) Increase of \$3.4M in Program Manager's Estimate is due to the Shuttle security implementation, sun sensor buffer amplifier addition and III-B7 schedule extension.

(Ch-F8) Initial Multiyear Contract award for economic order quantity of advance buy parts to be used in production of seven DSCS III Satellites (B8-14). First time reported in SAR.

	CUM THRU 4 Dec 83	CUM THRU 6 May 84	CHANGE \$
DEVELOPMENT			
General Electric Company			
F04701-81-C-0004			
Cost Variance	1.3	1.9	0.6
Schedule Variance	-0.1	--	0.1

Change in cost variance is due to favorable labor rates and lower than planned project management activity. These variances do not affect price-at-completion estimates.

	CUM THRU 4 Dec 83	CUM THRU 6 May 84	CHANGE \$
PROCUREMENT			
General Electric Company			
F04701-80-C-0058			
Cost Variance	3.5	3.9	0.4
Schedule Variance	-0.3	-0.6	-0.3

Schedule variance is due to late delivery of two subcontracted components (earth sensor, thruster valves). Schedule recovery should occur by the end of July with no program impacts. Improvement to the favorable cost variance is due to favorable labor rates. These variances do not affect price-at-completion estimates.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 4 Dec 83	CUM THRU 6 May 84	CHANGE \$
General Electric Company			
F04701-81-C-0004			
Cost Variance	2.3	2.5	0.2
Schedule Variance	-6.9	-7.2	-0.3

III-B4 North and South panels completed system test late resulting in a late start of integrated satellite system test. III-B5 North panel assembly is late as a result of non-availability of a few components. Workarounds are being implemented to reduce program impacts and to gain back lost schedule contingency. Traveling Wave Tube Amplifier (TWTAs) deliveries continue to be late and residuals are being used to mitigate schedule impacts. A favorable labor rate continues to add to the favorable cost variance. These variances do not affect price-at-completion estimates.

+ = Favorable
- = Unfavorable

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1977

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1976	--	--	--	--	11.3	10.5	10.5	10.5	7.0
1977	--	--	--	--	2.8	2.8	2.8	2.8	3.6
1977	--	--	--	--	28.1	28.7	28.7	28.7	4.7
1978	--	--	--	--	54.5	59.5	59.5	59.5	7.0
1979	--	--	--	--	24.3	29.3	29.3	29.3	8.4
1980	--	--	--	--	14.8	19.8	19.8	19.8	9.4
1981	--	--	--	--	19.6	29.0	29.0	28.9	11.9
1982	--	--	--	--	32.8	52.2	52.2	47.3	9.2
1983	--	--	--	--	24.1	40.0	39.9	34.8	5.0
1984	--	--	--	--	19.9	34.5	18.1	12.3	4.3
1985	--	--	--	--	17.4	31.6	--	--	4.9
1986	--	--	--	--	1.6	3.1	--	--	4.6
1987	--	--	--	--	1.5	3.0	--	--	4.3
1988	--	--	--	--	1.4	2.8	--	--	4.0
1989	--	--	--	--	1.2	2.6	--	--	3.7
1990	--	--	--	--	1.1	2.4	--	--	3.7
1991	--	--	--	--	0.8	1.8	--	--	3.7
1992	--	--	--	--	0.3	0.7	--	--	3.7
TOTAL	2.0	--	--	--	257.5	354.3	289.8	273.9	

1/ Reflects program office records as of 15 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1977

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - MISSILE

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1978	--	--	--	--	35.7	43.0	43.0	43.0	7.0
1979	--	4.4	--	--	4.7	6.2	6.2	6.2	8.7
1980	--	7.0	--	--	7.4	11.1	11.1	11.1	9.7
1981	1.0	29.7	--	--	47.5	78.0	77.5	64.2	11.9
1982	2.0	--	--	--	66.9	117.5	104.7	70.4	9.6
1983	2.0	--	--	--	89.8	165.5	135.8	52.4	9.0
1984	--	42.0	--	--	55.4	107.7	90.3	6.5	5.6
1985	2.0	43.7	--	--	141.2	291.2	--	--	6.4
1986	2.0	7.6	--	--	68.8	149.5	--	--	6.0
1987	2.0	5.5	--	--	63.1	144.1	--	--	5.6
1988	1.0	--	--	--	35.7	85.6	--	--	5.2
1989	--	--	--	--	4.9	12.4	--	--	4.8
1990	--	--	--	--	3.4	8.9	--	--	4.8
1991	--	--	--	--	0.5	1.4	--	--	4.8
1992	--	--	--	--	0.2	0.6	--	--	4.8
TOTAL	12.0	139.9	--	--	625.2	1222.7	468.6	253.8	

1/ Reflects program office records as of 15 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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AF-5 F-15

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: F-15

REPORT AS OF: 30 June 1984

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8551-3-785108 (VA) DSTM
84-1538

54R-84-895

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

The F-15 Program has been selected as the new Dual Role Fighter for the USAF. Current F-15 Program Direction provides for improved Air-to-Ground Capability, a 9G Structure, Enhanced Radar, and incorporation of LANTIRN, AMRAAM, and the Maverick missile among the capabilities being added.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 18./ 25. = 72.000%

(2) PERCENT PROGRAM COST APPROPRIATED: 17143.70/ 38078.80 = 45.022%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None.

b. SCHEDULE MILESTONES:

None.

c. PROGRAM ACQUISITION COST:

	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	1376.	0.	1376.
(b) COST (THEN-YEAR DOLLARS)	38095.30	-16.50	38078.80
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	27.6855	-0.0120	27.6735
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	36.	0.	36.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	1526.20	-13.00	1513.20
LESS CY ADVANCE PROC.	131.90	0.00	131.90
PLUS PY ADVANCE PROC.	158.70	0.00	158.70
TOTAL	1553.00	-13.00	1540.00
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	43.1389	-0.3611	42.7778

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1970

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	1654.9	4333.2	--	5988.1	1367.1	7355.2	Esc: 123.7	1243.4	--
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	2450.5	2450.5	Esc: 3.7	2446.8	--
QUANTITY	--	3612.5	--	3612.5	12883.4	16495.9	Esc: --	12883.4	--
SCHEDULE	--	931.3	--	931.3	1576.0	2507.3	Esc: --	1576.0	--
ENGINEERING	290.9	807.7	--	1098.6	3331.6	4430.2	Esc: 277.0	3054.6	--
ESTIMATING	2.0	-577.2	--	-575.2	-904.4	-1479.6	Esc: -10.7	-893.7	--
OTHER	173.9	445.2	--	619.1	148.6	767.7	Esc: 34.7	113.9	--
SUPPORT	-42.0	1300.2	--	1258.2	4309.9	5568.1	Esc: 12.5	4297.4	--
SUBTOTAL	424.8	6519.7	--	6944.5	23795.6	30740.1	Esc: 317.2	23478.4	--
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc: --	--	--
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	--	--	--	--	--	--	Esc: --	--	--
ENGINEERING	0.8	--	--	0.8	1.2	2.0	Esc: 1.2	--	--
ESTIMATING	--	--	--	--	--	--	Esc: --	--	--
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	--	-5.1	--	-5.1	-13.4	-18.5	Esc: --	-13.4	--
SUBTOTAL	0.8	-5.1	--	-4.3	-12.2	-16.5	Esc: 1.2	-13.4	--
TOTAL CHANGES	425.6	6514.6	--	6940.2	23783.4	30723.6	Esc: 318.4	23465.0	--
CURRENT ESTIMATE	2080.5	10847.8	--	12928.3	25150.5	38078.8	Esc: 442.1	24708.4	--

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1970

E8. COST VARIANCE ANALYSIS (Continued)

(Dollars in Millions)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
DEVELOPMENT		
ENGINEERING:		
FY84 addition for Increased Air-to-Ground Capability for C/D Aircraft	0.8	1.9
FY84 addition for incorporation of VHSIC (Very High Speed Integrated Circuitry)	0.2	0.5
FY83 reduction in scope of HAVE TALON Program	-0.2	-0.4
TOTAL DEVELOPMENT	0.8	2.0
PROCUREMENT		
SUPPORT:		
FY84 Congressional Undistributed Reduction for IR&D B&P (Independent Research & Dev Bid & Proposal)	-3.5	-13.0
Transfer of FY82 Procurement Funds to BP 1100 (F-15 Modification Efforts)	-0.7	-2.5
Transfer of FY82 Procurement Funds to F-111 AIS (Avionics Modernization Program - BP 1200)	-0.9	-3.0
TOTAL PROCUREMENT	-5.1	-18.5
TOTAL PROGRAM COST CHANGE	-4.3	-16.5

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984
(Dollars in Millions)

	(1)			(2)			(3)	
	Initial	Contract	Price	Current	Contract	Price	Price At Completion	
F. CONTRACTOR COSTS	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs. Estimate
1. DEVELOPMENT								
a. McDonnell Douglas	341.8	N/A	0	379.8	N/A	0	379.8	380.6
b. Northrop Corporation	N/A	216.6	0	N/A	216.6	0	185.4	185.4
2. PROCUREMENT								
c. McDonnell Douglas	N/A	N/A	39	N/A	N/A	39	615.1	615.1
d. McDonnell Douglas	N/A	N/A	216	N/A	N/A	216	2949.3	2949.3
e. Pratt & Whitney	N/A	N/A	72	N/A	N/A	72	185.0	185.0
f. Pratt & Whitney	N/A	N/A	78	N/A	N/A	78	168.6	168.6

CONTRACT IDENTIFICATION

- McDonnell Douglas - Contract F33657-83-C-0043/PZ0003; 02 December 1983: Cost Plus Incentive Fee (CPIF), Definitized (Multi-Staged Improvement Program (MSIP), Phase II - Development)
- Northrop Corporation - Contract F33657-83-C-2149; Fixed Price Incentive with Successive Targets (FPIS), Letter (Band III, Internal Countermeasure Sets - Development)
- McDonnell Douglas - Contract F33657-83-C-2133; Firm Fixed Price (FFP), Definitized (FY83 Buy - Procurement)
- McDonnell Douglas - Contract F33657-79-C-0779; 17 July 1979 (FY79 Buy), 26 September 1980 (FY80 Buy), 14 May 1981 (FY81 Buy) and 20 April 1983 (FY82 Buy): Firm Fixed Price (FFP), Definitized (Procurement)

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

CONTRACT IDENTIFICATION

- e. Pratt & Whitney - Contract F33657-80-C-0333; 30 September 1982 (Lot 11 Buy): Firm Fixed Price (FFP), Definitized (Procurement)
- f. Pratt & Whitney - Contract F33657-83-C-0258; 23 September 1981: Firm Fixed Price (FFP), Definitized (Lot 12 Buy - Procurement)

VARIANCE ANALYSIS

Changes Since Previous Report:

Cost and schedule variances are not provided in Contract Funds Status Reports received on the Firm Fixed Price Contracts. The initial Cost Performance Report on F33657-83-C-0043/PZ0003 was received by the SPO in Mar 84 (McDonnell Douglas Cost Performance Report dated 29 February 1984). Contract F33657-83-C-2149 remains undefinitized.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1970

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
1967	--	--	--	--	1.0	1.0	1.0	1.0	--
1968	--	--	--	--	1.0	1.0	1.0	1.0	--
1969	--	--	--	--	75.5	75.5	75.5	75.5	--
1970	--	--	--	--	175.1	175.1	175.1	175.1	--
1971	--	--	--	--	338.3	349.5	349.5	349.5	3.3
1972	--	--	--	--	397.1	422.9	422.9	422.9	3.1
1973	--	--	--	--	408.6	454.4	454.4	454.4	4.4
1974	--	--	--	--	223.8	258.0	258.0	258.0	3.7
1975	--	--	--	--	154.2	184.2	184.2	184.2	3.6
1976	--	--	--	--	28.2	34.9	34.9	34.9	3.6
1977	--	--	--	--	3.9	5.3	5.3	5.3	4.4
1977	--	--	--	--	43.3	59.6	59.6	59.6	4.6
1978	--	--	--	--	41.7	61.1	61.1	61.1	7.0
1979	--	--	--	--	7.2	11.7	11.7	11.7	8.4
1980	--	--	--	--	1.4	2.5	2.5	2.5	9.4
1981	--	--	--	--	5.8	11.6	11.6	11.5	11.9
1982	--	--	--	--	15.6	33.7	33.3	32.9	9.2
1983	--	--	--	--	51.1	114.8	113.2	99.0	5.0
1984	--	--	--	--	46.9	110.0	94.7	1.7	4.3
1985	--	--	--	--	33.7	82.9	--	--	4.9

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1970

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY (Continued)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1986	--	--	--	--	13.4	34.3	--	--	4.6
1987	--	--	--	--	6.2	16.6	--	--	4.3
1988	--	--	--	--	1.9	5.3	--	--	4.0
1989	--	--	--	--	2.0	5.7	--	--	3.7
1990	--	--	--	--	2.0	6.0	--	--	3.7
1991	--	--	--	--	1.6	5.0	--	--	3.7
TOTAL	20.0	--	--	--	2080.5	2522.6	2349.5	2241.8	

1/ Information reflects program office records as of 15 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1970

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1973	30.0	--	3.3	269.6	344.4	478.1	478.1	478.1	7.9
1974	62.0	--	15.4	425.7	575.3	903.1	903.1	903.1	10.7
1975	72.0	18.1	1.6	434.4	542.1	927.0	927.0	927.0	13.8
1976	108.0	20.2	11.4	649.4	827.0	1522.3	1522.3	1522.3	12.5
1977	24.0	--	4.8	135.0	143.0	322.2	322.2	322.2	5.3
1977	108.0	25.8	6.1	617.1	730.9	1418.6	1418.6	1418.6	5.0
1978	97.0	32.6	3.5	598.4	710.0	1517.2	1517.2	1517.2	7.4
1979	78.0	31.5	0.7	435.5	531.4	1386.8	1386.8	1386.8	8.7
1980	60.0	27.0	--	331.9	363.0	1056.5	1052.8	1052.8	9.7
1981	42.0	39.9	--	263.7	350.0	1103.4	1102.0	1078.7	11.9
1982	36.0	32.6	--	257.3	340.5	1149.5	1091.8	929.8	9.6
1983	39.0	45.3	7.1	265.1	420.6	1479.0	1287.8	647.4	9.0
1984	36.0	36.0	32.6	278.5	410.9	1513.2	416.6	12.1	5.6
1985	48.0	53.9	11.8	358.8	567.8	2213.5	--	--	6.4
1986	60.0	54.4	2.6	434.0	609.8	2510.1	--	--	6.0
1987	72.0	77.1	--	486.2	646.7	2796.4	--	--	5.6
1988	96.0	75.4	--	592.2	796.9	3614.2	--	--	5.2
1989	96.0	76.1	--	543.0	685.1	3258.6	--	--	4.8
1990	96.0	62.2	--	560.9	652.0	3251.2	--	--	4.8
1991	96.0	--	--	609.5	600.4	3135.3	--	--	4.8
TOTAL	1356.0	708.1	100.9	8546.2	10847.8	35556.2	13426.3	12196.1	

1/ Information reflects program office records as of 15 June 1984 for Procurement, with as of 31 May 1984 for Initial Spares.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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AF-6 F-16

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: F-16

REPORT AS OF: 30 June 1984

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JUL 20 1984 24

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

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SAF/PAS

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OASD (PA) DISTRO

SAF-84-092

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-16

REPORT AS OF: 30 June 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

On 1 January 1984, the 419th Tactical Fighter Wing at Hill AFB, Utah, became the first Air Force Reserve unit to activate with F-16s.

House Armed Services Committee (HASC) and Senate Armed Services Committee (SASC) markups to the FY85 President's Budget added funding to initiate development of the F-16F. The F-16F will be a product improvement of the F-16C. The precise configuration is in the process of being defined. One candidate is the Advanced Fighter Technology Integration (AFTI) program, which is exploring new flight-control systems, voice-commanded avionics, and other technologies. The F-16XL, with its fuselage extension and cranked-arrow wing for longer range and increased payload is also promising.

The first flight of the first F-16 "C" model was completed on 15 June 1984. The F-16C contains improvements incorporated through the Multinational Staged Improvement Program.

On 3 February 1984, the General Electric F110 engine was selected as an alternate to the Pratt and Whitney F100 engine, which is presently installed on F-16 aircraft. The F110 engines will be purchased in FY85 for incorporation on 110 F-16C/D aircraft.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 10./ 18. = 55.556%

(2) PERCENT PROGRAM COST APPROPRIATED: 14785.10/ 49882.10 = 29.640%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-16

REPORT AS OF: 30 June 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

b. SCHEDULE MILESTONES:

None

c. PROGRAM ACQUISITION COST:

	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	2659.	0.	2659.
(b) COST (THEN-YEAR DOLLARS)	49919.50	-37.40	49882.10
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	18.7738	-0.0141	18.7597
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	144.	0.	144.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	2551.30	-23.80	2527.50
LESS CY ADVANCE PROC.	367.80	-6.60	361.20
PLUS PY ADVANCE PROC.	317.60	-4.50	313.10
TOTAL	2501.10	-21.70	2479.40
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	17.3688	-0.1507	17.2181

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-16

REPORT AS OF: 30 June 1984
BASE YEAR: FY 1975

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	578.6	3798.2	--	4376.8	1677.7	6054.5	Esc: 80.5	1597.2	--
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	1715.6	1715.6	Esc: 35.3	1680.3	--
QUANTITY	--	7069.4	--	7069.4	12289.6	19359.0	Esc: --	12289.6	--
SCHEDULE	--	312.4	--	312.4	1189.9	1502.3	Esc: 0.1	1189.8	--
ENGINEERING	233.3	4505.1	--	4738.4	8812.1	13550.5	Esc: 187.5	8624.6	--
ESTIMATING	-16.1	-1032.7	--	-1048.8	-1180.4	-2229.2	Esc: 29.7	-1210.1	--
OTHER	15.5	24.6	--	40.1	16.3	56.4	Esc: 5.1	11.2	--
SUPPORT	101.0	3723.1	--	3824.1	6086.3	9910.4	Esc: 53.9	6032.4	--
SUBTOTAL	333.7	14601.9	--	14935.6	28929.4	43865.0	Esc: 311.6	28617.8	--
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc: --	--	--
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	--	--	--	--	--	--	Esc: --	--	--
ENGINEERING	--	-16.8	--	-16.8	-23.2	-40.0	Esc: --	-23.2	--
ESTIMATING	-2.6	-2.6	--	-5.2	-5.7	-10.9	Esc: -2.6	-3.1	--
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	--	6.0	--	6.0	7.5	13.5	Esc: --	7.5	--
SUBTOTAL	-2.6	-13.4	--	-16.0	-21.4	-37.4	Esc: -2.6	-18.8	--
TOTAL CHANGES	331.1	14588.5	--	14919.6	28908.0	43827.6	Esc: 309.0	28599.0	--
CURRENT ESTIMATE	909.7	18386.7	--	19296.4	30585.7	49882.1	Esc: 389.5	30196.2	--

QUARTERLY SELECTED ACQUISITION REPORT
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REPORT AS OF: 30 June 1984
BASE YEAR: FY 1975

EB. COST VARIANCE ANALYSIS (Continued)

(Dollars in Millions)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	Current \$
DEVELOPMENT		
ESTIMATING:		
Re-estimate of PLSS Vehicle Navigation System	-0.9	-1.9
Reduction in Flight Test/Test Support Estimates	-1.7	-3.3
TOTAL DEVELOPMENT	-2.6	-5.2
PROCUREMENT		
ENGINEERING:		
Cancel FY83/84 procurement of Multiple Stores Ejector Rack	-16.8	-40.0
ESTIMATING:		
Re-estimate of airframe contract cost-to-complete	-2.3	-5.0
Refinement of MSIP nonrecurring cost	-0.3	-0.7
SUPPORT:		
Additional Requirement to buy Countermeasures Test Equipment	4.7	10.4
Depot Support Equipment to extend engine life	1.3	3.1
TOTAL PROCUREMENT	-13.4	-32.2
TOTAL PROGRAM COST CHANGE	-16.0	-37.4

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-16

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS <u>1/</u>	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1. PROCUREMENT								
a. General Dynamics/Ft Worth	144.0	165.6	MSIP	465.8(ChF1)	526.1	MSIP	461.2(ChF5)	611.4
b. General Dynamics/Ft Worth	562.0	608.7	160	920.9(ChF2)	997.7	160	917.3(ChF6)	911.6
c. General Dynamics/Ft Worth	723.3	782.9	120	865.0(ChF3)	937.1	120	872.0(ChF7)	1060.4
d. General Dynamics/Ft Worth <u>2/</u>	669.7	724.8	144	871.8	946.8	144	869.3	1188.3
e. Westinghouse Electric Corp.	236.5	270.5	116	239.5(ChF4)	273.8	116	244.2(ChF8)	287.4
f. Pratt & Whitney <u>2/</u>	294.3	294.3	120	294.3	294.3	120	294.3	294.3

1/ Contract prices and contractor estimates were obtained from the Contractor Cost Performance Report (CPR) as of 30 April 1984. Data for the Pratt & Whitney contract was obtained from the 30 March 1984 Contract Funds Status Report (CFSR).

2/ This is the first time these contracts have appeared in the SAR.

CONTRACT IDENTIFICATION

- General Dynamics/Ft Worth - Contract F33657-82-C-2038 (Basic); 6 May 1982: FPIF, Definitized (Procurement) Multinational Staged Improvement Program (MSIP)
- General Dynamics/Ft Worth - Contract F33657-82-C-2034 (P00080); 30 August 1983: FPIF, Definitized (Procurement) FY82 Buy and 40 Egyptian aircraft
- General Dynamics/Ft Worth - Contract F33657-82-C-2034 (P00080); 30 August 1983: FPIF, Definitized (Procurement) FY83 Buy

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REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

CONTRACT IDENTIFICATION

- d. General Dynamics/Ft Worth - Contract F33657-82-C-2034 (P00080); 30 August 1983: FPIF, Definitized (Procurement) FY84 Buy
- e. Westinghouse Electric Corp. - Contract F33657-81-C-0641 (P00006); 27 January 1983: FPIF, Definitized (Procurement) FY83 Radar
- f. Pratt & Whitney - Contract F33657-82-C-0258 (P00011); 14 March 1984: FFP, Definitized (Procurement) Engines

VARIANCE ANALYSIS

Changes Since Previous Report:

- (ChF1) Current contract target price increase of \$58.3M is due to the inadvertent exclusion of authorized but undefinitized work from the previously reported amount. The \$407.5M shown in Dec 83 SAR should have been \$455.7M. The Delta increase should be \$10.1M. There are over fifty contract changes that make up this amount, the most significant of which is incorporation of the LANTIRN POD, AIS support and AMRAAM.
- (ChF2) Current contract target price increase of \$344.0M is due to the inadvertent exclusion of authorized but undefinitized work from the previously reported amount. The \$576.9M shown in Dec 83 SAR should have been \$904.9M. The Delta increase should be \$16.0M. The increase is divided between authorization of tech orders for \$14.0M and the incorporation of the F100 gear pump \$2.0M.
- (ChF3) Current contract target price increase of \$127.0M is due to the inadvertent exclusion of

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-16

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

authorized but undefinitized work from the previous report. The \$738.0M shown in the Dec 83 SAR should have been \$813.4M. The Delta increase should be \$51.6M. The increase is the result of many newly authorized contract changes. \$22.2M of the increase is for the long lead authorization of CCP 6177, incorporating AIS. Other large change authorizations include Block 15-S Fire Control Computer, the F-16/F110 engine incorporation and additional Support Equipment Recommended Data (SERDS).

- (ChF4) Current contract target price increased \$1.8M due to the incorporation of a contract change to provide AMRAAM capability to the production of the improved radar.
- (ChF5) Contractor estimate at completion increase of \$7.4M is due to new tasks being added to the contract, partly offset by the re-evaluation of the cost to complete of Engineering/Research and Engineering and the electronic system functions. Revised lower direct labor and overhead rates effective February 1984 also lowered the contractor's estimate.
- (ChF6) Contractor estimate at completion increase of \$11.3M is due to new tasks being added to the contract, partly offset by the transfer of actual costs initially charged to this contract for specialized repair activities now properly charged to other programs and lower direct and overhead rates effective February 1984.
- (ChF7) Contractor estimate at completion increase of \$51.7M is due to new tasks being added to the contract, partly offset by revised lower direct labor and overhead rates effective February 1984.
- (ChF8) Contractor estimate at completion increase of \$2.0M is due to the addition of the AMRAAM change proposal to the contract baseline.

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REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
PROCUREMENT			
a. GD/FW - Contract F33657-82-C-2038			
Cost Variance	-4.0	-3.0	1.0
Schedule Variance	-22.1	-22.9	-0.8

The favorable change in the cost variance is primarily the result of a decrease in the estimate for cost of money and the correction of the understatement in BCWP of the prior report.

The unfavorable change in the schedule variance is the result of delayed billing for non-recurring tasks associated with design/development of Marconi Avionics (HUD). The effort is complete and an invoice has been received. An offsetting favorable variance should result.

Variances have been considered in the Estimate at Completion.

	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
b. GD/FW - Contract F33657-82-C-2034 (FY82)			
Cost Variance	-19.9	-25.2	-5.3
Schedule Variance	-13.4	-13.5	-0.1

The unfavorable change in the cost variance is primarily the result of part shortages creating inefficient work around conditions in the airframe subelement and a new allocation base for Computer-graphics Augmented Design and Manufacturing (CADAM)/Computervision cost as agreed to by GD/FW, AFPRO and DCAA.

The unfavorable change in the schedule variance is the result of many positive and negative variances none of any significance.

These variances have no impact on the contract or program.

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REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
c. GP/FW - Contract F33657-82-C-2034 (FY83)			
Cost Variance	-9.4	-23.1	-13.7
Schedule Variance	7.0	-3.8	-10.8

The unfavorable change in the cost variance is primarily the result of the continuing problems in integration and assembly. The C/D wiring harness boards within the airframe are more complex than expected. In addition, the factory is experiencing parts shortages in the forward fuselage areas that require work arounds which add to the negative variance condition.

The unfavorable change in the schedule variance is the impact of delayed vendor deliveries in procurement. The involved vendors include: Marconi Avionics (F-16 C/D HUD), Delco (firecontrol computer), Sperry Flight Systems (multifunction display), Fairchild Space (data transfer unit), Menasco (landing gear), and Sundstrand.

Variances have been considered in the Estimate at Completion.

	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
d. WEC - Contract F33657-81-C-0641 (FY83)			
Cost Variance	-4.4	-10.0	-5.6
Schedule Variance	-12.1	-21.4	-9.3

The unfavorable change in the cost variance is primarily due to yield problems on Block Oriented Random Access Memory (BORAM) wafers and the high failure rate of floating deck pulsers, voltage doublers, and traveling wave tube switching assemblies.

The unfavorable change in the schedule variance is primarily the result of the programmable signal processor board assembly having test problems with flat pack printed wiring assemblies and material shortages in the kitting area.

Variances have been considered in the Estimate at Completion.

+ = Favorable, - = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-16

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1975

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1975	--	--	--	--	31.2	32.0	32.0	32.0	--
1976	--	--	--	--	187.2	214.7	214.7	214.7	11.0
1977	--	--	--	--	57.7	69.0	69.0	69.0	5.4
1977	--	--	--	--	211.9	256.4	256.4	256.4	2.1
1978	--	--	--	--	121.3	162.3	162.3	162.3	5.9
1979	--	--	--	--	65.8	93.6	93.6	93.6	8.4
1980	--	--	--	--	17.4	27.6	27.6	27.6	9.4
1981	--	--	--	--	24.6	43.1	43.1	42.6	11.9
1982	--	--	--	--	30.9	58.1	58.1	53.4	9.2
1983	--	--	--	--	36.1	71.0	70.0	60.5	5.0
1984	--	--	--	--	48.9	100.1	51.7	7.3	4.3
1985	--	--	--	--	38.8	83.4	--	--	4.9
1986	--	--	--	--	19.9	44.8	--	--	4.6
1987	--	--	--	--	9.8	22.8	--	--	4.3
1988	--	--	--	--	4.7	11.5	--	--	4.0
1989	--	--	--	--	3.5	8.8	--	--	3.7
TOTAL	8.0	--	--	--	909.7	1299.2	1078.5	1019.4	

1/ Reflects program office records as of 31 May 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-16

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1975

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1977	--	123.7	--	--	182.2	257.6	257.6	257.6	6.2
1978	105.0	24.2	61.0	523.6	876.8	1385.9	1385.9	1385.9	6.6
1979	145.0	40.5	30.2	552.3	853.8	1434.4	1434.4	1434.4	8.6
1980	175.0	75.5	50.7	678.7	866.8	1641.7	1640.1	1640.1	9.7
1981	180.0	95.9	43.6	722.8	945.5	1944.5	1918.6	1918.6	11.7
1982	120.0	250.5	53.8	486.9	1021.7	2233.1	2171.6	1624.8	9.6
1983	120.0	96.0	171.3	577.0	975.1	2232.5	1798.4	677.6	8.1
1984	144.0	151.5	60.8	732.6	1050.9	2527.5	1296.2	107.8	5.8
1985	150.0	311.7	41.2	1084.4	1627.7	4145.4	--	--	6.4
1986	216.0	237.3	18.2	1277.8	1735.9	4649.7	--	--	6.1
1987	216.0	154.0	10.2	1200.6	1473.8	4161.7	--	--	5.7
1988	216.0	139.2	8.3	1171.5	1432.5	4251.0	--	--	5.4
1989	216.0	194.9	7.8	1144.4	1452.6	4523.8	--	--	5.0
1990	216.0	188.3	3.3	1154.0	1439.3	4669.5	--	--	5.0
1991	216.0	182.0	1.5	1144.0	1359.1	4622.2	--	--	5.0
1992	216.0	--	1.5	1139.1	1093.0	3902.4	--	--	5.0
TOTAL	2651.0	2265.2	563.4	13589.7	18386.7	48582.9	11902.8	9046.8	

1/ Reflects program office records as of 31 May 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index. Procurement escalation rates result from a composite of standard OSD directed rates and escalation rates peculiar to the EPG program. Composite rates impact FY84 and all prior procurement funds associated with the coproduced program. OSD directed rates impact FY85 and all subsequent Fiscal Years and are as follows: 1977 - 6.2; 1978 - 6.9; 1979 - 8.7; 1980 - 9.7; 1981 - 11.9; 1982 - 9.6; 1983 - 9.0; 1984 - 5.6; 1985 - 6.4; 1986 - 6.0; 1987 - 5.6; 1988 - 5.2; 1989 - 4.8; 1990 - 4.8; 1991 - 4.8; 1992 - 4.8.

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)

PROGRAM: F7A-18

REPORT AS OF: 30 JUNE 1984

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AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

UNCLASSIFIED

SAR-84-058

QUARTERLY SELECTED ACQUISITION REPORT
PROGRAM F/A-18

UNCLASSIFIED

BQ. (U) SUMMARY

AS OF DATE: 30 JUN 1984

1. Program

a. Significant Highlights Since Last Report: The FY83 and FY84 airframe contracts were definitized on 15 June 1984. The FY83 engine contract was definitized on 30 January 1984. The FY84 advance acquisition engine contract was approved on 3 February 1984.

b. Program Status:

- (1) Percent program completed: 58.8% or 10 of 17 years
- (2) Percent program cost appropriated: 34.9% or \$13947.0M of \$39953.7M
- (3) Sunk Costs: The Total Program Acquisition Cost is \$39953.7M of which \$12721.2M are sunk costs (obligations as of 30 Jun 84)

2. Changes Since Last Report

a. Operational and Technical Characteristics: No Change

b. Schedule Milestone Changes:

	1 Develop Estimate	2 Approved Program	3 Current Estimate
(1) <u>Milestone</u>			
Review for DSARC Principals	N/A	Oct 84	Feb 85

1 The DSARC Principals review has been rescheduled to February of 1985.

c. Program Acquisition Cost:

	<u>Previous Est.</u>	<u>Change</u>	<u>Current Est.</u>
(1) <u>Total</u>			
a) Quantity	1377	0	1377
b) Cost (then yr dollars)	39941.7	+12.0	39953.7
c) Program Unit Cost (then yr dollars)	29.006	+ 0.009	29.015
(2) <u>FY84 Procurement Costs:</u>			
a) Quantity	84	84	84
b) Cost (then yr dollars)			
Procurement Cost	2501.0	-3.3	2497.7
Less CY Adv Proc	-218.4	0	-218.4
Plus PY Adv Proc	+248.2	0	+248.2
TOTAL	2530.8	-3.3	2527.5
c) Procurement Unit Cost (then yr dollars)	30.129	-0.040	30.089

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QUARTERLY SELECTED A _____ ION REPORT
 SYSTEM: F/A-18 Strike Fighter
 (Dollars in Millions)

AS OF DATE 30 Jun 1984

Base Year: FY 1975

E.8. (U) COST VARIANCE ANALYSIS

1. Summary	Base Year/FY 75 Constant \$				ESCALATION	TOTAL	REMARKS
	DEV	PROC	MILCON	SUBTOTAL			
Development Estimate	\$1437.7	\$6560.9	\$18.0	\$8016.6	\$4858.7	\$12875.3	Esc: Dev \$396.7; Proc \$4431.7; MILCON \$10.3
<u>Previous Changes</u>							
Economic	-	-	-	-	+ 9136.6	+ 9136.6	Esc: Dev +190.7; Proc +8947.1; MILCON -1.2
Quantity	-	+3079.6	-	+3079.6	+3790.8	+6870.4	Esc: Proc +3790.8
Schedule	+9.4	+393.3	-	+402.7	+3016.1	+3418.8	Esc: Dev + 5.2; Proc +3009.3; MILCON +1.6
Engineering	+37.8	+428.4	-	+466.2	+949.9	+1416.1	Esc: Dev + 17.8; Proc +932.1
Estimating	+159.3	+1428.0	+9.1	+1596.4	+2730.2	+4326.6	Esc: Dev +135.9; Proc +2578.5; MILCON +15.8
Support	+1.5	+695.5	-0.5	+696.5	+1194.9	+1891.4	Esc: Dev + 1.5; Proc +1194.3; MILCON -0.9
Other	+4.5	-	-	+4.5	+2.0	+6.5	Esc: Dev + 2.0
Subtotal	+212.5	+6024.8	+ 8.6	+6245.9	+20820.5	+27066.4	Esc: Dev +353.1; Proc +20452.1; MILCON +15.3
<u>Current Changes</u>							
Estimating	+2.8	+24.4	-	+27.2	-15.2	+12.0	Esc: Dev +2.2; Proc -17.4
Subtotal	+2.8	+24.4	-	+27.2	-15.2	+12.0	Esc: Dev +2.2; Proc -17.4
<u>Total Changes</u>	+215.3	+6049.2	+8.6	+6273.1	+20805.3	+27078.4	Esc: Dev +355.3; Proc +20434.7; MILCON +15.3
<u>Current Estimate</u>	\$1653.0	\$12610.1	\$26.6	\$14289.7	\$25664.0	\$39953.7	Esc: Dev +752.0; Proc +24886.4; MILCON +25.6

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AS OF DATE: 30 JUNE 1984

EB. COST VARIANCE ANALYSIS

2. (U) Previous Changes Cont.

Development

Economic: Revision to escalation rates
Schedule: Slower production build up and extension of the radar test bed aircraft usage
Engineering: Commonality of fighter and attack aircraft and extended testing requirements
Estimating: Revisions for budget changes, flight test costs, and equipment price analysis
Support: Additional operational test time supported.
Other: Court ruling on previous year allowable cost to the government

Procurement

Economic: Revisions to escalation rates
Quantity: 566 additional aircraft
Schedule: Fluctuations in production rates and final year of production
Engineering: Commonality, additional equipment and correction of defects changes
Estimating: Revised program estimates based on more current information
Support: Changes in projected sites, distribution of aircraft, and increased aircraft quantity

Construction:

Economic: Revisions to escalation rates
Estimating: Redistribution of requirements and updated estimates
Support: Realignment of facilities

3. (U) Changes Since Previous Report: (Dollars in Millions)

Development

Estimating: Prior year reprogramming in FY77-FY82 (\$2.8)
Total Development Change

Base Year Dollars	Current Dollars
+ 2.8	+ 5.0
+ 2.8	+ 5.0

Procurement

Estimating: Misc. estimating revisions (+4.4), correction of
previous recording error (+20.0) in FY 81 Base Yr Total in
previous SAR
Total Procurement Cost Change

+24.4	+ 7.0
+24.4	+ 7.0

Total Program Cost Change

+ 27.2	+12.0
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UNCLASSIFIED
AS OF DATE: 30 JUNE 1984

QUARTERLY SELECTED ACQUISITION REPORT
System: F/A-18

F. (U) CONTRACTOR COSTS (\$M)	(1) Initial Contract			(2) Current Contract Price			(3) Price at Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs Estimate
1. <u>Procurement:</u>								
McDonnell Douglas Corp. N00019-81-C-0157 FPI dated 11 Nov 81	1074.0 ^{2/}	1180.0	60	1391.0	1531.0	60	1453.9	1453.9
McDonnell Douglas Corp. N00019-82-C-0501 FFP dated 24 Mar 83	1140.0	1140.0	63	1140.0	1140.0	63	1140.0	1140.0
General Electric Co. N00019-81-C-0050 FFP dated 9 Feb 83	262.0	262.0	141	262.0	262.0	141	262.0	262.0
General Electric Co N00019-82-C-0042 FFP dated 30 Jan 84 CH-F1	296.5	296.5	168 CH-F2	296.5	296.5	168 CH-F2	296.5	296.5
McDonnell Douglas Corp N00019-83-C-0272 FFP ^{3/} dated 18 Jun 84 CH-F3	1414.6 ^{1/}	1414.6	84	1414.6	1414.6	84	1414.6	1414.6
McDonnell Douglas Corp N00019-83-C-0272 FFP ^{3/} dated 15 Jun 84 CH-F3	1380.1 ^{1/}	1380.1	84	1380.1	1380.1	84	1380.1	1380.1

NOTES:

- 1/ Basic aircraft contract only. Provisioned items negotiated later.
2/ Sep 83 CPR Data - Last CPR, all aircraft delivered. Only definitization of support remains.
3/ Separate line items - FY83 and FY84 negotiated at same time under one contract number.

CH F1 Contract N00019-82-C-0042 definitized on 30 Jan 84

CH F2 Correction of recording error in previous SARs. 168 USN engines procured for installation into production aircraft under contract N00019-82-C-0042

CH F3 Contract N00019-82-C-0272 definitized on 15 Jun 84

2. (U) Variance Analysis

None.

QUARTERLY SELECTED POSITION REPORT
System: F/A-18 Fighter

UNCLASSIFIED
AS OF: 30 JUNE 1977
BASE YEAR: FY 1975

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ IN MILLIONS)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION ^{1/} RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E

1975	-	-	-	-	19.5	20.0	20.0	20.0	--
1976	-	-	-	-	100.1	110.4	110.4	110.4	9.0
1977	-	-	-	-	18.9	22.2	22.2	22.2	2.25
1977	-	-	-	-	271.3	341.9	341.9	341.9	7.0
1978	1	-	-	-	462.8	626.8	626.8	626.8	7.0
1979	8	-	-	-	336.3	496.1	496.1	496.1	9.0
1980	2	-	-	-	192.8	314.8	314.8	314.8	11.0
1981	-	-	-	-	96.6	173.1	173.1	173.1	11.9
1982	-	-	-	-	100.8	191.9	191.9	191.9	7.6
1983	-	-	-	-	53.9	107.8	107.6	87.6	5.0
Total	11	-	-	-	1653.0	2405.0	2404.8	2384.8	

APPROPRIATION: PROCUREMENT (APN)

1978		19.8	-	-	19.8	34.1	34.1	32.3	7.0
1979	9	30.4	28.1	201.2	328.2	591.9	576.1	556.8	9.0
1980	25	54.1	43.4	378.7	556.9	1160.4	1160.4	1104.8	11.0
1981	60	52.9	18.8	670.9	978.6	2125.1	2077.7	1961.2	11.9
1982	63	74.1	56.2	599.3	1025.1	2488.6	2464.5	2125.9	14.3
1983	84	91.9	105.5	688.4	1003.5	2608.4	2282.6	1250.6	9.0
1984	84	76.5	36.0	627.8	936.5	2497.7	1692.4	0.0	5.59
1985	84	112.2	71.1	618.7	937.7	2797.6	0.0	0.0	6.37
1986	102	114.6	103.1	694.8	963.0	2925.1	0.0	0.0	5.98
1987	120	110.1	98.0	790.5	1051.7	3331.8	0.0	0.0	5.59
1988	120	107.8	98.1	759.8	1014.6	3377.7	0.0	0.0	5.20
1989	120	105.3	93.9	686.5	847.4	2957.1	0.0	0.0	4.81
1990	248	152.6	185.9	1293.1	1588.1	5990.4	0.0	0.0	4.81
1991	247	0.0	60.4	1269.5	1359.0	4610.6	0.0	0.0	4.81
Total	1366	1102.3	998.5	9279.2	12610.1	37496.5	10287.8	7031.7	

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT
System F/A-18

AS OF: 30 JUNE 1984
BASE YEAR: FY 1975

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ IN MILLIONS)

FISCAL YEAR	QTY	BASE YEAR DOLLARS			THEN YEAR DOLLARS				ESCALATION ^{1/} RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: CONSTRUCTION									
1977					0.8	1.0	1.0	1.0	2.4
1980					3.8	6.5	6.5	6.5	10.4
1981					0.2	0.4	0.4	0.4	11.9
1982					6.9	12.9	9.8	9.6	7.6
1983					2.8	5.6	4.5	4.1	4.9
1984					4.6	9.4	6.4	0.9	4.3
1985					0.4	0.8	0.0	0.0	4.9
1986					1.9	4.0	0.0	0.0	4.6
1987					3.3	7.1	0.0	0.0	4.3
1988					0.0	0.0	0.0	0.0	4.0
1989					0.0	0.0	0.0	0.0	3.7
1990					1.9	4.5	0.0	0.0	3.7
TOTALS					26.6	52.2	28.6	22.5	

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

N 11 PFG-7

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: PFG 7 CLASS

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(5)

REPORT AS OF: June 30, 1984

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OASD(PA) DFOISR 84-1540

84R-84-145

QUARTERLY SEI XXXXXXXXXX ACQUISITION REPORT
SYSTEM: FFG 7 CLASS

UNCLASSIFIED

AS OF DATE: June 30, 1984

BQ.(U) SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report

- (1) The FY84 Appropriations Act added one FFG 7 Class ship constructed with an upgraded MK-92 Fire Control System (FCS) and an X-band phased array radar. The end cost of \$300.0M included in the Act is not sufficient. The current estimate is \$473.0M for this ship constructed with the MK-92 FCS Phase III upgrade. The Navy has requested that this ship be constructed with the MK-92 FCS Phase II upgrade (with Coherent Receiver Transmitter) at an estimated end cost of \$376.3M.
- (2) FFG 53, nineteenth follow ship at Bath Iron Works, was launched February 18, 1984.
- (3) FFG 43, twelfth ship at Todd, Los Angeles was delivered to the Navy February 24, 1984.
- (4) FFG 47, sixteenth follow ship at Bath Iron Works, was delivered to the Navy February 24, 1984.
- (5) Keel laying for FFG 56, twenty-first follow ship at Bath Iron Works, was held February 27, 1984.
- (6) Fabrication was started for FFG 60, seventeenth ship at Todd, Los Angeles, March 5, 1984.
- (7) Fabrication was started for FFG 59, twenty-third follow ship at Bath Iron Works, March 25, 1984.
- (8) FFG 55, twentieth follow ship at Bath Iron Works, was launched May 12, 1984.
- (9) Keel laying for FFG 58, twenty-second follow ship at Bath Iron Works, was held May 21, 1984.
- (10) FFG 46, thirteenth ship at Todd, Los Angeles, was delivered to the Navy June 8, 1984.
- (11) FFG 49, seventeenth follow ship at Bath Iron Works, was delivered to the Navy June 22, 1984.
- (12) FFG 54, fifteenth ship at Todd, Los Angeles, was launched June 23, 1984.

b. Program Status

- (1) Percent program completed: 73.7% (14 of 19 years)
- (2) Percent program cost appropriated: 99.1% (all 51 ships appropriated; remainder is outfitting and post delivery requirements for prior year ships.)
- (3) Total program costs are estimated herein to be \$9831.8M of which \$8,107.1M are sunk costs (obligations through May 31, 1984), and \$1,724.7M are considered costs to complete.

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AS OF DATE: June 30, 1984

2.(U)CHANGES SINCE LAST REPORT

a.(U)Operational and Technical Characteristics:

- (1) Accommodations, Officers for FY79 and later ships changed from 17 to 19 to reflect updated manning requirements.

b.(U)Schedule Milestones:

- (1)(U) Production Contract Award, Last Increment of Follow Ships (FFG 61) changed from March 1984 to September 1984 because of administrative delays.
(2)(U) Delivery, Last Ship changed from September 1988 to October 1988 because of administrative delays.
(3)(U) Final Contract Trial, Last Ship changed from March 1989 to April 1989 because of administrative delays.
(4)(U) Ready for Operational Deployment, Last Ship changed from (b)(1) because of administrative delays.

c.(U)Program Acquisition Cost: (\$M)

	PREVIOUS EST	CHANGE	CURRENT EST
(1) Total			
(a) Quantity	51	---	51
(b) Cost (then-year dollars)	9,857.5	-25.7	9,831.8
(c) Program Unit Cost (then-year dollars)	193.284	-.504	192.780
(2) FY84 Procurement Costs:			
(a) Quantity	1	---	1
(b) Cost (then-year dollars)			
Procurement Cost	(398.9)	---	(398.9)
Less CY Advanced Proc.	---	---	---
Plus FY Advanced Proc.	---	---	---
Less OF/PD, CG & Esc on PY progs	(-98.9)	---	(-98.9)
Total	300.0	---	300.0
(c) Procurement Unit Cost (then-year dollars)	300.000	---	300.000

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ES.(U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY 73 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$14.1	\$2,606.3	--	\$2,620.4	\$624.1	\$3,244.5	Esc: Proc. \$624.1
Previous Changes							
Economic	--	--	--	--	+2,581.0	+2,581.0	Esc: Proc. +2,581.0
Quantity	--	+104.4	--	+104.4	+203.2	+307.6	Esc: Proc. +203.2
Schedule	--	+209.7	--	+209.7	+1,390.0	+1,599.7	Esc: Proc. +1,390.0
Engineering	+16.9	+461.6	--	+478.5	+385.4	+863.9	Esc: Dev. +8.4; Proc. +377.0
Estimating	-11.0	+1,003.2	--	+992.2	+24.9	+1,017.1	Esc: Dev. -5.4; Proc. +30.3
Support	--	+105.0	--	+105.0	+138.7	+243.7	Esc: Proc. +138.7
Subtotal	+5.9	+1,883.9	--	+1,889.8	+4,723.2	+6,613.0	Esc: Dev. +3.0; Proc. +4,720.2
Current Changes							
Estimating	--	-14.6	--	-14.6	-11.1	-25.7	Esc: Proc. -11.1
Subtotal	--	-14.6	--	-14.6	-11.1	-25.7	Esc: Proc. -11.1
Total Changes	+5.9	+1,869.3	--	+1,875.2	+4,712.1	+6,587.3	Esc: Dev. +3.0; Proc. +4,709.1
Current Estimate	\$20.0	\$4,475.6	--	\$4,495.6	\$5,336.2	\$9,831.8	Esc: Dev. \$3.0; Proc. \$5,333.2

2. Previous Changes:

DEVELOPMENT

Engineering: Increased for integration of space and weight items into FFG design.
Estimating: Decreased due to revised estimates for integration of space and weight items into FFG design, and to reflect actual funding levels and changed historical escalation indices.

PROCUREMENT

Economic: Revised escalation indices.
Quantity: The addition of one ship in accordance with the FY84 Appropriations Act.
Schedule: Restructuring of follow ship program schedule to accommodate Congressional actions, longer lead times, alteration of follow ship procurement strategy, revised ship quantities resulting from the annual budget process, and earlier planned deliveries.
Engineering: Incorporation of changes resulting from design development and IOT&E effort, and provision of funds for selected characteristics changes.
Estimating: Revised production estimate based on shipbuilders' proposals for FY 1975/1976 program ships, revised estimates for Government Furnished Equipment and Outfitting/Post Delivery requirements, quantity related changes, Congressional actions, and other revised estimates.
Support: Preparation of more comprehensible technical manuals, MK-92 PCS program quality assurance measures, expanded RMA test and evaluation effort, and procurement of selected equipments as battle spares.

3. Changes Since Previous Report:

PROCUREMENT

Estimating: Decreased to reflect refined estimates.
TOTAL Procurement Cost Change

Base Year \$	Current \$
-14.6	-25.7
-14.6	-25.7
-14.6	-25.7

TOTAL PROGRAM COST CHANGE

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: FFG 7 CLASS
(Dollars in Millions)

AS OF DATE: June 30, 1984
(3)

F.(U)CONTRACTOR COSTS 1/	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price 2/			Price At Completion 2/ Contractor Program Mgrs.	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Estimate	Estimate
1. DEVELOPMENT								
2. PROCUREMENT								
(a) Follow Ship Construction								
Bath Iron Works Corporation								
Bath, Maine								
N00024-79-C-2800 (FPIF)(Definitized)								
April 27, 1979	209.9	230.0	3	222.6	242.8	3	193.2	193.2
				(CH-F1)	(CH-F2)		(CH-F3)	(CH-F3)
April 28, 1980 3/	195.4	214.1	3	204.2	222.8	3	179.9	179.9
				(CH-F4)	(CH-F5)		(CH-F6)	(CH-F6)
(b) Follow Ship Construction								
Todd Shipyards Corporation								
(Los Angeles Division)								
N00024-79-C-2801 (FPIF)(Definitized)								
April 27, 1979	214.4	241.5	3	243.9	274.4	3	236.8	236.8
				(CH-F7)	(CH-F8)		(CH-F9)	(CH-F9)
April 28, 1980 3/	66.3	75.3	1	74.8	84.1	1	75.2	75.8
				(CH-F10)	(CH-F11)		(CH-F12)	(CH-F13)
(c) Follow Ship Construction								
Todd Shipyards Corporation								
(Seattle Division)								
N00024-79-C-2802 (FPIF)(Definitized)								
April 27, 1979	144.2	162.4	2	162.6	181.2	2	158.8	158.8
				(CH-F14)	(CH-F15)		(CH-F16)	(CH-F16)
April 28, 1980 3/	68.2	75.4	1	74.1	82.5	1	75.7	75.7
				(CH-F17)	(CH-F18)		(CH-F19)	(CH-F19)

1/ Values exclude escalation and Government reservation for changes.

2/ Based on Cost Performance Report data as of March 31, 1984.

3/ Reflects exercise of options.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: FFG 7 CLASS
(Dollars in Millions)

AS OF DATE: June 30, 1984

	(1)		(2)		(3)		
		Initial Contract Price		Current Contract Price	2/	Price At Completion	2/
F.(U)2. PROCUREMENT (cont'd) 1/		Target Ceiling Qty		Target Ceiling Qty		Contractor Estimate	Program Mgrs. Estimate
(d) Follow Ship Construction							
Bath Iron Works Corporation							
Bath, Maine							
N00024-81-C-2201 (FPIF)(Definitized)							
May 22, 1981		247.0 270.1 3		261.9 284.9 3		244.4	244.4
				(CH-F20) (CH-F21)		(CH-F22)	(CH-F22)
March 22, 1982 3/		169.8 185.5 2		174.9 190.6 2		160.1	160.1
				(CH-F23) (CH-F24)		(CH-F25)	(CH-F25)
October 28, 1982 3/		89.3 97.5 1		91.2 99.5 1		85.6	85.6
				(CH-F26) (CH-F27)		(CH-F28)	(CH-F28)
(e) Follow Ship Construction							
Todd Shipyards Corporation							
(Los Angeles Division)							
N00024-81-C-2202 (FPIF)(Definitized)							
May 22, 1981		181.9 205.5 2		197.9 223.9 2		186.5	186.5
				(CH-F29) (CH-F30)		(CH-F31)	(CH-F32)
March 22, 1982 3/		88.0 97.3 1		95.1 105.4 1		92.8	94.0
				(CH-F33) (CH-F34)		(CH-F35)	(CH-F36)
October 28, 1982 3/		89.9 99.3 1		96.8 107.3 1		94.5	96.7
				(CH-F37) (CH-F38)		(CH-F39)	(CH-F40)
(f) Follow Ship Construction							
Todd Shipyards Corporation							
(Seattle Division)							
N00024-81-C-2203 (FPIF)(Definitized)							
May 22, 1981		93.6 106.2 1		97.8 111.1 1		98.7	98.7
				(CH-F41) (CH-F42)		(CH-F43)	(CH-F43)

3. CONSTRUCTION

1/ Values exclude escalation and Government reservation for changes.

2/ Based on Cost Performance Report data as of March 31, 1984.

3/ Reflects exercise of options.

~~BUSINESS SENSITIVE INFORMATION NOT TO BE RELEASED WITHOUT PROPER GOVERNMENT APPROVAL~~

QUARTERLY ~~SECRET~~ ED ACQUISITION REPORT

SYSTEM: FFG 7 CLASS
(Dollars in Millions)

AS OF DATE: June 30, 1984

F.(U)4. VARIANCE ANALYSIS

a. Cost/Schedule Variances

(1) Contract N00024-79-C-2800	Cum Thru 31 Dec 83 <u>1/</u>	Cum Thru 30 Jun 84 <u>2/</u>	<u>Change</u>
(a) FY79 Ship Construction			
Cost Variance	+\$42.1	+\$38.4	-\$3.7
Schedule Variance	-\$1.0	-\$0.4	+\$0.6

Cost Variance: The unfavorable change in variance is because of an increase in overhead costs.

Schedule Variance: The favorable change in variance is because of a decrease in material costs. Contractor schedule performance is significantly ahead of contract schedule requirements.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of September 30, 1983.

2/ Based on Cost Performance Report data as of March 31, 1984.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: FFG 7 CLASS
(Dollars in Millions)

F.(U)4. VARIANCE ANALYSIS (cont'd)

AS OF DATE: June 30, 1984

	<u>Cum Thru</u> <u>31 Dec 83 1/</u>	<u>Cum Thru</u> <u>30 Jun 84 2/</u>	<u>Change</u>
(b) FY80 Ship Construction			
Cost Variance	+\$19.8	+\$26.1	+\$6.3
Schedule Variance	-\$0.6	-\$2.4	-\$1.8

Cost Variance: The favorable change in variance is because of a decrease in material and overhead costs.

Schedule Variance: The unfavorable change in variance is because of an acceleration of scheduled labor hours. Contractor schedule performance is significantly ahead of contract schedule requirements.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs,

(2) Contract N00024-79-C-2801	<u>Cum Thru</u> <u>31 Dec 83 1/</u>	<u>Cum Thru</u> <u>30 Jun 84 2/</u>	<u>Change</u>
(a) FY79 Ship Construction			
Cost Variance	+\$9.0	+\$1.6	-\$7.4
Schedule Variance	-\$0.2	+\$0.2	+\$0.4

Cost Variance: The unfavorable change is because of an increase in overhead and labor costs, partially offset by favorable material cost.

Schedule Variance: The favorable change is because of favorable labor variance, partially offset by unfavorable material schedule variance.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of September 30, 1983.

2/ Based on Cost Performance Report data as of March 31, 1984.

~~QUARTERLY SUBMITTED ACQUISITION REPORT~~
SYSTEM: FFG 7 CLASS
(Dollars in Millions)

~~BUSINESS SENSITIVE~~

F.(U)4. VARIANCE ANALYSIS (cont'd)

AS OF DATE: June 30, 1984

	<u>Cum Thru</u> <u>31 Dec 83</u> <u>1/</u>	<u>Cum Thru</u> <u>30 Jun 84</u> <u>2/</u>	<u>Change</u>
(b) FY80 Ship Construction			
Cost Variance	-\$0.3	-\$2.6	-\$2.3
Schedule Variance	-\$2.2	+\$0.6	+\$2.8

Cost Variance: The unfavorable change is because of unfavorable labor and material cost variances.

Schedule Variance: The favorable change is because of favorable labor variance, partially offset by unfavorable material schedule variance.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(3) Contract N00024-79-C-2802	<u>Cum Thru</u> <u>31 Dec 83</u> <u>1/</u>	<u>Cum Thru</u> <u>30 Jun 84</u> <u>2/</u>	<u>Change</u>
(a) FY79 Ship Construction			
Cost Variance	-\$0.3	+\$0.3	+\$0.6
Schedule Variance	-\$1.8	\$--	+\$1.8

Cost Variance: The favorable change is because of improved labor and material cost variances.

Schedule Variance: The favorable change is because of improved labor and material schedule variances.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of September 30, 1983.

2/ Based on Cost Performance Report data as of March 31, 1984.

~~BUSINESS SENSITIVE~~

QUARTERLY ~~SECRET~~ED ACQUISITION REPORT
SYSTEM: FFG 7 CLASS
(Dollars in Millions)

F.(U)4. VARIANCE ANALYSIS (cont'd)

AS OF DATE: June 30, 1984

	Cum Thru 31 Dec 83 1/	Cum Thru 30 Jun 84 2/	Change
(b) FY80 Ship Construction			
Cost Variance	-\$3.5	-\$3.5	\$ --
Schedule Variance	-\$6.0	-\$2.7	+\$3.3

Cost Variance: None.

Schedule Variance: The favorable change is because of improved labor and material schedule variances.

Program Impact: The above variance has been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(4) Contract N00024-81-C-2201	Cum Thru 31 Dec 83 1/	Cum Thru 30 Jun 84 2/	Change
(a) FY81 Ship Construction			
Cost Variance	+\$11.9	+\$13.8	+\$1.9
Schedule Variance	-\$3.6	-\$6.9	-\$3.3

Cost Variance: The favorable change in variance is because of a decrease in material costs, partially offset by an increase in labor and overhead costs.

Schedule Variance: The unfavorable change in variance is because of an increase in labor and overhead costs. However, Contractor's schedule performance is significantly ahead of contract schedule requirements.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of September 30, 1983.

2/ Based on Cost Performance Report data as of March 31, 1984.

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: FFG 7 CLASS

(Dollars in Millions)

F.(U)4. VARIANCE ANALYSIS (cont'd)

AS OF DATE: June 30, 1984

	<u>Cum Thru</u> <u>31 Dec 83 1/</u>	<u>Cum Thru</u> <u>30 Jun 84 2/</u>	<u>Change</u>
(b) FY82 Ship Construction			
Cost Variance	+\$3.2	+\$5.9	+\$2.7
Schedule Variance	--	-\$0.4	-\$0.4

Cost Variance: The favorable change in variance is because of material savings.

Schedule Variance: The unfavorable change in variance is because of an increase in labor and overhead costs. However, Contractor's schedule performance is significantly ahead of contract schedule requirements.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

	<u>Cum Thru</u> <u>31 Dec 83 1/</u>	<u>Cum Thru</u> <u>30 Jun 84 2/</u>	<u>Change</u>
(c) FY83 Ship Construction			
Cost Variance	+\$0.2	+\$1.1	+\$0.9
Schedule Variance	+\$0.1	+\$0.3	+\$0.2

Cost Variance: It is too early to make a meaningful analysis for this variance.

Schedule Variance: It is too early to make a meaningful analysis for this variance.

Program Impact: None.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of September 30, 1983.

2/ Based on Cost Performance Report data as of March 31, 1984.

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: FFG 7 CLASS
(Dollars in Millions)

F.(U)4. VARIANCE ANALYSIS (cont'd)

AS OF DATE: June 30, 1984

(5) Contract N00024-81-C-2202	Cum Thru 31 Dec 83 1/	Cum Thru 30 Jun 84 2/	Change
(a) FY81 Ship Construction			
Cost Variance	+\$1.9	+\$2.6	+\$0.7
Schedule Variance	-\$5.8	-\$3.7	+\$2.1

Cost Variance: The favorable change in variance is because of favorable material cost, partially offset by unfavorable labor cost.

Schedule Variance: The favorable change is because of favorable labor variance, partially offset by unfavorable material variance.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

	Cum Thru 31 Dec 83 1/	Cum Thru 30 Jun 84 2/	Change
(b) FY82 Ship Construction			
Cost Variance	-\$0.3	-\$0.1	+\$0.2
Schedule Variance	-\$1.3	+\$0.2	+\$1.5

Cost Variance: The favorable change is because of favorable labor performance, partially offset by unfavorable material cost variance.

Schedule Variance: The favorable change is because of favorable labor and material schedule variances.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of September 30, 1983.

2/ Based on Cost Performance Report data as of March 31, 1984.

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: FFG 7 CLASS
(Dollars in Millions)

AS OF DATE: June 30, 1984

F.(U)4. VARIANCE ANALYSIS (cont'd)

	<u>Cum Thru</u> <u>31 Dec 83</u> <u>1/</u>	<u>Cum Thru</u> <u>30 Jun 84</u> <u>2/</u>	<u>Change</u>
(c) FY83 Ship Construction			
Cost Variance	-\$0.4	-\$0.7	-\$0.3
Schedule Variance	—	+\$1.0	+\$1.0

Cost Variance: The unfavorable change is because of unfavorable labor cost variance, partially offset by favorable material cost variance.

Schedule Variance: The favorable variance is because of favorable labor and material schedule variances.

Program Impact: The above variance has been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(6) Contract N00024-81-C-2203	<u>Cum Thru</u> <u>31 Dec 83</u> <u>1/</u>	<u>Cum Thru</u> <u>30 Jun 84</u> <u>2/</u>	<u>Change</u>
(a) FY81 Ship Construction			
Cost Variance	-\$2.2	-\$2.6	-\$0.4
Schedule Variance	-\$7.6	-\$7.6	—

Cost Variance: The unfavorable change is because of unfavorable labor cost variance.

Schedule Variance: None.

Program Impact: The above variance has been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of September 30, 1983.

2/ Based on Cost Performance Report data as of March 31, 1984.

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AS OF DATE: June 30, 1984

F.(U)4. VARIANCE ANALYSIS (cont'd)

b. Changes Since Previous Report

CH-F1:	(+0.9M)	Current contract target price changed to reflect contract modifications.
CH-F2:	(+1.0M)	Current contract ceiling price changed to reflect contract modifications.
CH-F3:	(+1.2M)	Estimated prices at completion changed to reflect contract modifications and an increase in labor and overhead costs, partially offset by a reduction in material costs.
CH-F4:	(+2.1M)	Current contract target price changed to reflect contract modifications.
CH-F5:	(+2.0M)	Current contract ceiling price changed to reflect contract modifications.
CH-F6:	(+0.8M)	Estimated prices at completion changed to reflect contract modifications and an increase in overhead costs, partially offset by a reduction in material costs.
CH-F7:	(+1.0M)	Current contract target price changed to reflect incorporation of contract modifications.
CH-F8:	(+1.4M)	Current contract ceiling price changed for reason noted in CH-F7.
CH-F9:	(+1.0M)	Estimated prices at completion changed for reason noted in CH-F7 and an increase in labor costs, partially offset by a decrease in material costs.
CH-F10:	(+1.0M)	Current contract target price changed to reflect incorporation of contract modifications.
CH-F11:	(+0.6M)	Current contract ceiling price changed for reason noted in CH-F10.
CH-F12:	(+3.9M)	Contractor's estimated price at completion changed to reflect budget performance experienced on the FY79 ships, unfavorable labor and material performance projections, and contract modifications.

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QUARTERLY ~~SECRETED~~ ACQUISITION REPORT
SYSTEM: FFG 7 CLASS

~~UNCLASSIFIED~~

AS OF DATE: June 30, 1984

F.(U)4. VARIANCE ANALYSIS (cont'd)

CH-F13:	(+4.1M)	Program Manager's estimated price at completion changed to reflect budget performance experienced on the FY79 ships, unfavorable labor and material performance projections, and contract modifications.
CH-F14:	(+1.2M)	Current contract target price changed to reflect contract modifications.
CH-F15:	(+1.4M)	Current contract ceiling price changed to reflect contract modifications.
CH-F16:	(+0.7M)	Estimated prices at completion changed to reflect contract modifications partially offset by a projected decrease in material costs.
CH-F17:	(+0.7M)	Current contract target price changed to reflect contract modifications.
CH-F18:	(+0.7M)	Current contract ceiling price changed to reflect contract modifications.
CH-F19:	(-1.5M)	Estimated prices at completion changed to reflect a projected decrease in labor and material costs, partially offset by contract modifications.
CH-F20:	(+11.4M)	Current contract target price changed to reflect contract modifications.
CH-F21:	(+11.4M)	Current contract ceiling price changed to reflect contract modifications.
CH-F22:	(+8.3M)	Estimated prices at completion changed to reflect contract modifications and increased labor and overhead costs, partially offset by reduced material costs.
CH-F23:	(+3.6M)	Current contract target price changed to reflect contract modifications.
CH-F24:	(+3.6M)	Current contract ceiling price changed to reflect contract modifications.
CH-F25:	(+2.2M)	Estimated prices at completion changed to reflect contract modifications and a projected increase in labor and overhead costs, partially offset by material savings.

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SYSTEM: FFG 7 CLASS

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AS OF DATE: June 30, 1984

F.(U)4. VARIANCE ANALYSIS (cont'd)

CH-F26:	(+1.2M)	Current contract target price changed to reflect contract modifications.
CH-F27:	(+1.2M)	Current contract ceiling price changed to reflect contract modifications.
CH-F28:	(+0.2M)	Estimated prices at completion changed to reflect contract modifications and a projected increase in overhead costs, partially offset by a reduction in labor and material costs.
CH-F29:	(+6.7M)	Current contract target price changed to reflect incorporation of contract modifications.
CH-F30:	(+7.6M)	Current contract ceiling price changed for reason noted in CH-F29.
CH-F31:	(+2.9M)	Contractor's estimated price at completion changed to reflect contract modifications and a favorable material and labor cost performance projection.
CH-F32:	(+1.4M)	Program Manager's estimated price at completion changed to reflect contract modifications, partially offset by a favorable labor and material cost performance projection.
CH-F33:	(+2.3M)	Current contract target price changed to reflect incorporation of contract modifications.
CH-F34:	(+2.5M)	Current contract ceiling price changed for reason noted in CH-F33.
CH-F35:	(+0.3M)	Contractor's estimated price at completion changed for reason noted in CH-F33, partially offset by a favorable labor and material cost performance projection.
CH-F36:	(+2.0M)	Program Manager's estimated price at completion changed to reflect incorporation of contract modifications and an unfavorable labor and material cost performance projection.

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QUARTERLY SE ☐ ACQUISITION REPORT
SYSTEM: FFG 7 CLASS

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AS OF DATE: June 30, 1984

F.(U)4. VARIANCE ANALYSIS (cont'd)

CH-F37:	(+2.2M)	Current contract target price changed to reflect incorporation of contract modifications.
CH-F38:	(+2.4M)	Current contract ceiling price changed for reason noted in CH-F37.
CH-F39:	(+0.8M)	Contractor's estimated price at completion changed for reason noted in CH-F37 and to reflect a favorable labor and material performance projection.
CH-F40:	(+3.0M)	Program Manager's estimated price at completion changed for reason noted in CH-F37, and an unfavorable labor and material performance projection.
CH-F41:	(+2.2M)	Current contract target price changed to reflect incorporation of contract modifications.
CH-F42:	(+2.4M)	Current contract ceiling price changed for reason noted in CH-F41.
CH-F43:	(+0.6M)	Estimated prices at completion changed for reason noted in CH-41, partially offset by a decrease in projected labor costs.

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AS OF DATE: June 30, 1984
BASE YEAR: FY 1973

G.(U) PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS				ESCALATION $\frac{1}{\text{RATE}}$ (%)
		ADV PROC (NON-ADD)	SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED		
			NON-REC	REC						
APPROPRIATION: RDT&E,N										
1971	-	---	---	---	1.1	1.1	1.1	1.1	4.6	
1972	-	---	---	---	11.4	11.4	11.4	11.4	3.8	
1973	-	---	---	---	1.5	1.5	1.5	1.5	4.2	
1974	-	---	---	---	---	---	---	---	5.8	
1975	-	---	---	---	---	---	---	---	8.8	
1976	-	---	---	---	0.1	0.1	0.1	0.1	6.6	
1977	-	---	---	---	---	---	---	---	3.6	
1977	-	---	---	---	0.8	1.0	1.0	1.0	3.8	
1978	-	---	---	---	1.1	1.5	1.5	1.4	6.8	
1979	-	---	---	---	2.6	4.0	4.0	3.8	8.7	
1980	-	---	---	---	1.4	2.4	2.4	2.3	9.7	
TOTAL	-	---	---	---	20.0	23.0	23.0	22.6		
APPROPRIATION: SCN										
1973	1	---	---	152.3	152.3	205.1	204.6	202.6	5.6	
1974	-	---	---	7.1	7.1	11.0	11.0	11.0	15.8	
1975	3	---	---	130.3	130.3	189.2	189.2	186.0	13.9	
1976	6	---	---	500.8	500.8	830.8	827.7	810.0	6.5	
1977	-	---	---	0.3	0.3	0.4	0.4	0.4	1.6	
1977	8	21.8	---	576.2	576.2	1,115.0	1,099.6	1,079.5	6.5	
1978	8	23.1	---	560.9	560.9	1,155.2	1,130.5	1,090.6	9.1	
1979	8	---	---	679.1	679.1	1,550.5	1,456.9	1,297.8	10.0	
1980	5	---	---	437.2	444.9	1,061.2	881.3	753.6	9.9	
1981	6	---	---	580.8	591.7	1,481.2	1,180.3	860.9	10.3	
1982	3	---	---	345.0	367.0	942.7	628.1	345.2	4.4	
1983	2	---	---	293.4	293.4	780.5	433.2	134.1	3.4	
1984	1	---	---	140.7	140.7	398.9	41.3	7.9	5.6	
1985	-	---	---	17.5	17.5	47.2	---	---	6.4	
1986	-	---	---	5.9	5.9	16.6	---	---	6.0	
1987	-	---	---	4.8	4.8	14.7	---	---	5.6	
1988	-	---	---	2.6	2.6	8.1	---	---	5.2	
1989	-	---	---	.1	.1	.5	---	---	4.8	
TOTAL	51	44.9	---	4,435.0	4,475.6	9,808.8	8,084.1	6,779.6		
APPROPRIATION: MILCON										
TOTAL	-	---	---	---	---	---	---	---	---	

1/ Since the annual rates shown do not incorporate spend-out rates nor the compounding effect of prior year's escalation, they cannot be used to track the inflation amounts shown for applicable years.

NIL SSN-688

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: SSN-688 Class Submarines

Report as of: 30 June 1984

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FOR OPEN PUBLICATION

JUL 23 1984 8
DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

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54884-079

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SSN-688 Class Submarine

AS OF DATE: 30 June 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report

1. SALT LAKE CITY (SSN 716) was delivered by Newport News 30 April 1984 and commissioned 12 May 1984.
2. Construction of the SSN 754 was started on 4 May 1984 by Electric Boat Division.
3. A reprogramming request has been approved for \$4.0M to transfer FY 1984 funds from the SSN 688 Program to the AN/BQQ-5 Thin Line Towed Array Program. These funds were available due to the favorable SSN 688 shipbuilding contract award. \$3.1M of FY 1983 escalation assets which were previously identified in a reprogramming action are returned.

b. Program Status

- (1) Percent program completed: 15 of 20 years or 75%.
- (2) Percent program cost appropriated: 49.7%

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: NONE
- b. Schedule Milestones: NONE
- c. Program Acquisition Cost:

	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity	64	-	64
(b) Cost (then year dollars)	31,042.5	-.9	31,041.6
(c) Program Unit Cost (then years dollars)	485,039	-.014	485.025

QUARTERLY SELECTION ACQUISITION REPORT
 SYSTEM: SSN-688 Class Submarines

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As of Date: 30 June 1984

(2) FY84 Procurement Costs:

(a) Quantity	3	-	3
(b) Cost (then year dollars)	1,886.3	-4.0	1,882.3
Procurement Cost	(2,032.9)	-4.0	(2,028.9)
Less CY Advance Proc.	(-336.0)	-	(-336.0)
Plus PY Advance Proc.	(+278.6)	-	(+278.6)
Less OF/PD, CG & ESCAL on PY Prog.	(-89.2)	-	(-89.2)
Total	1,886.3	-	1,882.3
(c) Procurement Unit Cost (then years dollars)	628.767	-1.334	627.433

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AS OF DATE: June 1984
BASE YEAR: 1971

18. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY71 Constant \$			SUBTOTAL	ESC	TOTAL	REMARKS
	DEV	PROC	CONST				
<u>Development Estimate</u>		\$5,126.8		\$5,126.8	\$620.7	\$5,747.5	Esc: Proc. \$620.7
<u>Previous Changes</u>							
Economic	--	--	--	--	-686.9	-686.9	Esc: Dev. +4.7; Proc. -687.6; Const. -4.0
Quantity	--	\$6,020.0	--	+6,020.0	+17,275.6	+23,295.6	Esc: Proc. +17,275.6
Schedule	--	+14.6	--	+14.6	+72.7	+87.3	Esc: Proc. +72.7
Engineering	+23.2	+510.8	--	+534.0	1,409.2	+1,943.2	Esc: Proc. +1,392.4; Dev. +16.8
Estimating	+9.6	-617.4	--	-607.8	-697.1	-1,305.0	Esc: Dev. +15.4; Proc. -712.6; Const. +.1
Other	--	+298.5	--	+298.5	+114.3	+412.8	Esc: Proc. +114.3
Support	--	+309.3	+17.3	+326.6	+1,221.3	+1,548.0	Esc: Proc. +1,204.2; Const. +17.1
Subtotal	+32.8	+6,535.8	+17.3	+6,585.9	+18,709.1	+25,295.0	Esc: Dev. +36.9; Proc. +18,659.0; Const. +13.2
<u>Current Changes</u>							
Estimating		-1.1		-1.1	+2	-9	Esc: Proc. +.2
Subtotal		-1.1		-1.1	+2	-9	Esc: Proc. +.2
<u>Total Changes</u>	+32.8	+6,534.7	+17.3	+6,584.8	+18,709.3	+25,294.1	Esc: Dev. +36.9; Proc. +18,659.2; Const. +13.2
<u>Current Estimate</u>	\$32.8	\$11,661.5	\$17.3	\$11,711.6	\$19,330.0	\$31,041.6	Esc: Dev. \$36.9; Proc. \$19,279.9; Const. \$13.2

2. Previous Changes:

DEVELOPMENT

Economic: Revised escalation rates
Engineering: Increase to fund costs directly related to the SSN 688 Class program
Estimating: Refinement of R&D estimate and addition of the SSN 688 Class Development Line.

PROCUREMENT

Economic: Revised escalation rates
Quantity: Addition of 6 SSNs since the authorization of the DE and 26 SSNs at the established baseline value
Schedule: Postponing the construction of 3 ships
Engineering: Changes to the propulsion plant associated with the long life core, cost reduction improvements, the addition of VLS and other improvements
Estimating: Refinement of estimate, changes in procurement plan, increased estimates for deferred work, and the Government liability under P.L. 85-804
Other: Fund REA settlements under P.L. 85-804
Support: Increased outfitting and post delivery requirements

CONSTRUCTION

Estimating: Changes in cost estimating assumptions
Support: Fund military construction projects at New London, Norfolk, San Diego, Portsmouth, and Pearl Harbor

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AS OF DATE: 30 June 1984
 BASE YEAR: FY 1971

EB. COST VARIANCE ANALYSIS (continued)

(Dollars in Millions)

3. Changes Since Previous Report:

	<u>Base Year \$</u>	<u>Current \$</u>
<u>PROCUREMENT</u>		
Estimating: Reflects programming of savings due to the FY 1984 favorable awards to the AN/BQQ-5 Thin Line Towed Array Program	-1.2	-4.0
Return of FY 1983 escalation assets previously identified in a reprogramming action	+ .1	+3.1
TOTAL Procurement Cost Change	-1.1	-.9

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SSN-688 Class Submarine

As of date: 30 June 1984

F. (U) <u>CONTRACTOR COSTS (\$M)</u>	<u>Contr</u> <u>Type</u>	<u>Contr</u> <u>Date</u>	<u>Initial</u> <u>Contract</u> <u>Price Qty</u>	<u>Current Contract</u> <u>Price</u> <u>Target Ceiling Qty</u>	<u>Price at Completion</u> <u>Contractor Program Mgrs</u> <u>Estimate Estimate</u>
1. Procurement					
Newport News Shipbuilding Newport News, VA 23607					
N00024-77-C-2220 Basic Constr of SSN-716-718	FPI	Sep 1977	380.8 3	387.8 458.2 3 (CH-F1) (CH-F2)	386.7 386.7 (CH-F3) (CH-F4)
N00024-81-C-2075 Basic Constr of SSN-721-723&750	FPI	Aug 1981	911.4 4	951.3 1051.3 4 (CH-F1) (CH-F2)	936.8 953.6 (CH-F3) (CH-F4)
N00024-84-C-2064 Basic Constr of SSN-753	FPI	Nov 1983	278.0 1	278.0 317.4 1 (CH-F1) (CH-F2)	(CH-F3) 278.0 (CH-F4)
Electric Boat Division Groton, CT 06340					
N00024-71-C-0268 Basic Constr of SSNs 690, 692, 694, 696, 697-699	FPI	Jan 1971	412.9 7	1/ 2376.1 2426.1 18 (CH-F5) (CH-F6)	2430.7 2424.4 (CH-F7) (CH-F8)
N00024-74-C-0206 Basic Constr of SSN 700-710	FPI	Oct 1973	769.0 11		
N00024-79-C-2720 Basic Constr of SSN-719-720	FPI	Apr 1979	265.3 2	299.4 351.9 2 (CH-F5) (CH-F6)	338.4 339.1 (CH-F7) (CH-F8)
N00024-82-C-2055 Basic Constr of SSN-724-725	FPI	Feb 1982	471.3 2	479.0 525.0 2 (CH-F5) (CH-F6)	494.7 479.0 (CH-F7) (CH-F8)

QUARTERLY ~~SECRET~~ED ACQUISITION REPORT
SYSTEM: SSN-588 Class Submarines

UNCLASSIFIED

As of Date: 30 June 1984

F. (U) CONTRACTOR COSTS (\$M)	Contr Type	Contr Date	Initial Contract Price	Qty	Current Contract Price	Target	Ceiling	Qty	Price at Completion Contractor Estimate	Program Mgrs Estimate
1. Procurement										
N00024-83-C-2039 Basic Constr of SSN-751-752	FPI	Nov 1982	560.2	2	561.1 (CH-F5)	632.7 (CH-F6)		2	560.9 (CH-F7)	561.1 (CH-F8)
N00024-84-C-2063 Basic Constr of SSN-754-755	FPI	Nov 1983	520.2	2	520.2 (CH-F5)	589.6 (CH-F6)		2	520.0 (CH-F7)	520.2 (CH-F8)

Notes:

1/ Adjusted Cost Base defined at Total Cost Base less Fixed Contractor loss.

F. (U) 2. VARIANCE ANALYSIS

a. Cost/Schedule Variances

(1) Contract N00024-74-C-0206

(a) FY73 & 74 Ship Construction
Cost Variance
Schedule Variance

Cum Thru 31 Mar 84 1/	Cum Thru 30 Jun 84 2/	Change
-105.6	-113.1	-7.5
+2.3	+3.1	+8

Cost Variance: Reflects revised projection of manhours required to complete the contract.

Schedule Variance: Represents revised projection of manhours required to complete the contract.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance Report data as of 31 March 1984.

2/ Based on Cost Performance Report data as of 30 June 1984.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SSN-688 Class Submarines

As of Date: 30 June 1984

F.(U)2. VARIANCE ANALYSIS

(2) Contract N00024-79-C-2720	Cum Thru 31 Mar 84 1/	Cum Thru 30 Jun 84 2/	<u>Change</u>
(a) FY78 & 79 Ship Construction			
Cost Variance	-27.0	-32.2	-5.2
Schedule Variance	-2.9	-4.8	-1.9

Cost Variance: This variance increase since last quarter is due to VLS work.

Schedule Variance: Reflects VLS work in machine shop; this variance will be corrected.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(3) Contract N00024-82-C-2055	Cum Thru 31 Mar 84 1/	Cum Thru 30 Jun 84 2/	<u>Change</u>
(a) FY 81 & 82 Ship Construction			
Cost Variance	-20.2	-23.5	-3.3
Schedule Variance	-2.3	-4.0	-1.7

Cost Variance: Work has been transferred to Groton to relieve Quonset of a temporary overload condition. This has caused some distortion of the quarterly results to cost performance.

Schedule Variance: Work has been transferred to Groton to relieve Quonset of a temporary overload condition. This has caused some distortion of the quarterly results to schedule performance.

Program Impact: The above variances have been taken into consideration in the Program Manager's total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance data as of 31 March 1984.

2/ Based on Cost Performance data as of 30 June 1984.

F.(U)2. VARIANCE ANALYSIS

(4) N00024-83-C-2039	Cum Thru 31 Mar 84 1/	Cum Thru 30 Jun 84 2/	Change
(a) FY 83 Ship Construction			
Cost Variance	-10.1	-9.1	+1.0
Schedule Variance	-1.4	-.3	+1.1

Cost Variance: This variance is misleading in that it results from EB's method of reporting material costs during the early phases of construction. The Navy and EB are currently working together to resolve this problem.

Schedule Variance: There are no significant schedule variances due to the low labor activity.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(5) N00024-84-C-2063	Cum Thru 31 Mar 84 1/	Cum Thru 30 Jun 84 2/	Change
(a) FY 84 Ship Construction			
Cost Variance	N/A	-5.4	N/A
Schedule Variance	N/A	-2.2	N/A

Cost Variance: Variance is based on initial cost data received.

Schedule Variance: The unfavorable schedule variance shown for the Quonset area is due to undermanning.

Program Impact: The above variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

+ = Favorable; - = Unfavorable

1/ Based on Cost Performance data as of 31 March 1984.

2/ Based on Cost Performance data as of 30 June 1984.

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F.(U)3. Changes Since Previous Report:

CH-F1	+4	N00024-77-C-2220	Includes adjudicated changes and estimated price of authorized changes.
	+1	N00024-81-C-2075	
	-0-	N00024-84-C-2064	Contract recently awarded.
CH-F2	+4	N00024-77-C-2220	Includes adjudicated changes and estimated price of authorized changes.
	-5	N00024-81-C-2075	
	-0-	N00024-84-C-2064	Contract recently awarded.
CH-F3	+2.5	N00024-77-C-2220	Includes adjudicated changes, estimated price of pending changes, esti-
	+1.6	N00024-81-C-2075	mated price of pending changes, and profit sharing.
	-0-	N00024-84-C-2064	Contract data not yet available .
CH-F4	+2.5	N00024-77-C-2220	Includes adjudicated changes, estimated price of pending changes, and
	-0-	N00024-81-C-2075	profit sharing.
	-0-	N00024-84-C-2064	Contract recently awarded.
CH-F5	+1.5	N00024-71-C-0268	Includes adjudicated changes, and estimated price of authorized changes.
		N00024-74-C-0206	
	+8	N00024-79-C-2720	
	-0-	N00024-82-C-2055	
	+3	N00024-83-C-2039	
	+2	N00024-84-C-2063	
CH-F6	+1.5	N00024-71-C-0268	Includes adjudicated changes, estimated price of authorized changes.
		N00024-74-C-0206	
	+9	N00024-79-C-2720	
	-0-	N00024-82-C-2055	
	+4	N00024-83-C-2039	
	+2	N00024-84-C-2063	

As of Date: 30 June 1984

F.(U)3. Changes Since Previous Report:

CH-F7	+4.7	N00024-71-C-0268	Includes adjudicated changes, estimated price of pending changes, and profit sharing.
		N00024-74-C-0206	
	+2.2	N00024-79-C-2720	
	-0-	N00024-82-C-2055	
	+4	N00024-83-C-2039	
	+520.0	N00024-84-C-2063	First time contractor's data was available.
CH-F8	+2	N00024-71-C-0268	Includes adjudicated changes, estimated price of pending changes, and profit sharing.
		N00024-74-C-0206	
	-4.5	N00024-79-C-2720	
	-0-	N00024-82-C-2055	
	+3	N00024-83-C-2039	
	+2	N00024-84-C-2063	

G. RAM FUNDING SUMMARY

IT ESTIMATE
(in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS				ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	NET SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED		
			NON-REC	REC						
APPROPRIATION: RDT&E										
1970	-	-	-	-	.5	.5	.5			
1971	-	-	-	-	1.8	1.8	1.8	1.8		
1972	-	-	-	-	1.1	1.2	1.2	1.2	3.8	
1973	-	-	-	-	1.1	1.2	1.2	1.2	4.1	
1974	-	-	-	-	.4	.5	.5	.5	5.8	
1977	-	-	-	-	1.2	1.8	1.8	1.8	3.8	
1978	-	-	-	-	1.1	1.7	1.7	1.7	6.8	
1979	-	-	-	-	3.8	6.6	6.6	6.6	8.7	
1980	-	-	-	-	1.4	2.7	2.7	2.7	9.7	
1981	-	-	-	-	2.2	4.7	4.7	4.6	11.9	
1982	-	-	-	-	2.2	5.0	5.0	4.9	7.6	
1983	-	-	-	-	3.6	8.4	8.4	7.9	4.9	
1984	-	-	-	-	2.0	4.7	3.8	2.7	4.3	
1985	-	-	-	-	2.3	5.9	-	-	4.9	
1986	-	-	-	-	2.4	6.4	-	-	4.6	
1987	-	-	-	-	2.1	5.9	-	-	4.3	
1988	-	-	-	-	1.5	4.3	-	-	4.0	
1989	-	-	-	-	2.1	6.4	-	-	3.7	
TOTAL	-	-	-	-	32.8	69.7	39.9	38.1		

APPROPRIATION: SCN

1969	-	22.7	2/	22.7	22.7	26.5	26.5	26.5	-
1970	3	95.5	-	504.4	504.4	602.0	601.5	600.4	6.3
1971	4	55.3	-	484.2	484.2	616.6	616.5	615.5	4.1
1972	5	100.6	-	642.1	642.1	909.2	907.0	903.6	4.7
1973	6	81.7	-	578.7	581.0	1042.0	1040.4	1009.8	5.6
1974	5	77.3	-	429.3	431.5	932.9	931.3	911.4	15.8
1975	3	-	-	230.2	233.4	533.1	531.4	523.5	13.9
1976	2	51.5	-	283.3	288.5	580.7	578.7	572.7	6.5
1977	-	86.1	-	86.1	86.2	189.1	189.0	188.6	1.6
1977	3	97.0	-	795.2	801.7	1373.4	1361.0	1303.9	6.4
1978	1	-	-	185.3	194.4	435.7	423.3	405.4	9.1
1979	1	10.6	-	523.6	537.3	771.3	691.2	611.2	10.0
1980	2	28.4	-	295.1	314.0	893.1	819.1	558.8	9.9
1981	2	67.3	-	432.7	452.5	1177.7	994.5	624.1	10.3

Continued

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AS OF DATE: 30 J 1984
BASE DATE: FY 1

G. PROGRAM FUNDING SUMMARY Continued

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS			TOTAL	THEN YEAR DOLLARS			ESCALATION 1/ RATE %
		ADV PROC (NON-ADD)	NET SAILAWAY (NON-ADD) NON-REC REC			TOTAL	OBLIGATED	EXPENDED	
1982	2	135.6	-	681.3	702.0	1583.9	1248.4	454.9	4.4
1983	2	134.3	-	617.5	638.4	1653.5	1244.4	283.9	3.4
1984	3	102.7	-	619.9	642.3	2028.9	1428.7	63.3	5.59
1985	4	179.2	-	835.3	863.3	2965.4	-	-	6.37
1986	4	147.1	-	792.9	805.6	2914.9	-	-	5.98
1987	4	150.4	-	783.8	805.0	3052.7	-	-	5.59
1988	4	33.7	-	680.2	722.0	2860.9	-	-	5.20
1989	4	-	-	691.4	730.3	3034.9	-	-	4.81
1990	-	-	-	-	29.1	113.8	-	-	4.81
1991	-	-	-	-	51.3	210.6	-	-	4.81
1992	-	-	-	-	47.4	204.5	-	-	4.81
1993	-	-	-	-	38.3	172.7	-	-	4.81
1994	-	-	-	-	7.8	37.0	-	-	4.81
1995	-	-	-	-	4.8	24.4	-	-	4.81
TOTAL	64	1657.0	-	11195.2	11661.5	30941.4	13632.9	9657.5	

APPROPRIATION: CONSTRUCTION

1973	-	-	-	-	2.8	3.9	3.9	3.9	6.1
1974	-	-	-	-	1.5	2.3	2.3	2.3	13.8
1975	-	-	-	-	2.6	4.3	4.3	4.3	18.9
1976	-	-	-	-	4.1	7.0	7.0	7.0	1.6
1978	-	-	-	-	2.4	4.8	4.8	4.8	8.0
1979	-	-	-	-	3.7	7.6	7.6	7.6	9.6
1982	-	-	-	-	.2	.6	.6	.6	7.6
TOTAL	-	-	-	-	17.3	30.5	30.5	30.5	

- 1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.
2/ The SSN-688 program does not have a Cost Quantity Curve, consequently non-recurring costs are not available

A-1 AH-64

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: AH-64 (APACHE)

REPORT AS OF: JUNE 30, 1984

84-032

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84-T-1555

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AH-64 (APACHE)

AS OF DATE: June 30, 1984

BQ: SUMMARY

1. (U) PROGRAM HIGHLIGHTS

- a. (U) Significant Highlights Since Last Report:
- (1) FY 84 production contract awarded to Hughes Helicopters, Inc. on 29 February 1984.
 - (2) FY 84 TADS/PNVS production contract awarded to Martin Marietta Corp. on 14 March 1984.
 - (3) The first production vehicle (PV01) was delivered in January 1984. PV02 and PV03 were delivered in March and April 1984 respectively. PV04 was not delivered in May 1984, as scheduled, due to late completion of final assembly integration and test resulting from engineering changes requiring rework activities. Revised delivery date of PV04 is early July 1984 with Initial Key Personnel Training to start immediately thereafter.
- b. (U) Program Status:
- (1) Percent program completed: 81.3%
 - (2) Percent program cost appropriated: 55.4%

2. (U) CHANGES SINCE LAST REPORT

a. (U) Operation and Technical Characteristics:

(1) (U) Operational:

- (a) TADS Mission Reliability (MTBF)
- (b) PNVS Mission Reliability (MTBF)
- (c) TADS System Reliability (MTBF)
- (d) PNVS System Reliability (MTBF)

(2) (U) Technical:

- (a) Target Detection (km) Maximum
 - Day - Visual
 - Day - TV
 - Night

Demonstrated
Performance

81.3 1/
488 1/
24.0 1/
129 1/

Current
Estimate

125 2/
160 2/
63 2/
160 2/

(b)(1)



- 1/ (U) Demonstrated performance through Production Verification Testing.
- 2/ (U) MTBF values represent mature systems at 100,000 hours

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AH-64 (APACHE)

AS OF DATE: June 30, 1984

BQ: SUMMARY (Continued)2. CHANGES SINCE LAST REPORT (Continued)

b. Schedule Milestones: None.

c. Program Acquisition Cost: (\$ in Millions)	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity	524	0	524
(b) Cost (then-year dollars)	\$7327.3	+32.4 <u>1/</u>	7359.7
(c) Program Unit Cost (then-year dollars)	\$13.98	+0.07	14.05
(2) FY 84 Procurement Costs: (\$ in Millions)			
(a) Quantity	112	0	112
(b) Cost (then-year dollars)			
Procurement Cost	1360.4	0	1360.4
Less CY Advanced Proc	61.6	0	61.6
Plus PY Advanced Proc	<u>113.7</u>	<u>0</u>	<u>113.7</u>
Total	1412.5		1412.5
(c) Procurement Unit Cost (then-year dollars)	\$12.612	0	\$12.612

1/ This change adjusts: (a) The Development Estimate (DE) to include \$31.7M in then year dollars previously identified in HELLFIRE DE; (b) transfers FY 81-83 costs in the amount of \$32.4M in then year dollars from HELLFIRE to APACHE; and (c) adjusts cost change categories to agree with HELLFIRE SAR adjustments.

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QUARTERLY SELECTED SITION REPORT
SYSTEM: AH- (ACHE)

EB. (U) COST VARIANCE ANALYSIS

AS OF DATE: June 30, 1984
BASE YEAR: FY72

(Dollars in Millions)

1. Summary

	Base Year/FY 72 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$609.4	\$1283.0	\$ -0-	\$1892.4	\$1897.4	\$3789.8	Esc: Dev.+326.3; Proc. +1571.1
Previous Changes							
Economic	-0-	-0-	-0-	-0-	+898.2	+898.2	Esc: Dev.+26.9; Proc. +871.3
Quantity	-0-	-14.0	-0-	-14.0	-192.3	-206.3	Esc: Proc. -192.3
Schedule	+94.6	+4.5	-0-	+99.1	+406.2	+505.3	Esc: Dev. +105.8; Proc.+300.4
Engineering	+16.6	+24.6	-0-	+41.2	+75.0	+116.2	Esc: Dev. +15.9; Proc.+59.1
Estimating	+20.1	+424.3	+3.3	+447.7	+1018.5	+1466.2	Esc: Dev. -20.5; Proc. +1033.6; Const. +5.4
Support	+17.4	+186.0	-0-	+203.4	+586.2	+789.6	Esc: Dev. +15.0; Proc. +571.2
Subtotal	+148.7	+625.4	+3.3	+777.4	+2791.8	+3569.2	Esc: Dev. +143.1; Proc. +2643.3; Const. +5.4
Current Changes							
Economic		-0-		-0-	+13.5	+13.5	Esc: Proc. +13.5
Quantity		-2.1		-2.1	-4.3	-6.4	Esc: Proc. -4.3
Schedule		+6.7		+6.7	+26.9	+33.6	Esc: Proc. +26.9
Engineering		+15.3		+15.3	+35.5	+50.8	Esc: Proc. +35.5
Estimating		+6.7		+6.7	+5.8	+12.5	Esc: Proc. +5.8
Support		-1.3		-1.3	-4.4	-1.7	Esc: Proc. -4.4
Subtotal		-5.3		-5.3	+6.0	+7.7	Proc. +6.0

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QUARTERLY SELECTED / ITION REPORT
SYSTEM: AH-() CHE)

E8. (U) COST VARIANCE ANALYSIS (Continued)

AS OF DATE: June 30, 1984
 BASE YEAR: FY72

(Dollars in Millions)

1. (U) <u>Summary</u> (Contd)	Base Year/FY 72 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Total Changes	+148.7	+620.1	+3.3	+772.1	+2797.8	+3569.9	Esc: Dev. +143.1; Proc. +2649.3; Const. +5.4
Current Estimate	\$758.1	\$1903.1	\$3.3	\$2664.5	\$4695.2	\$7359.7	Esc: Dev. 469.4; Proc. 4220.4; Const. 5.4

2. (U) Previous Changes:DEVELOPMENT

Economic: Revised escalation rates (through Jan 83 OSD indices).
 Schedule: Phase 2 sched adjustment (56 months); 3 month sustaining prog effort; accidental crash of prototype.
 Engineering: Correction of technical difficulties in tail section.
 Estimating: Application of revised FY 80-72 deflators. Approval of OSD historical indices through Jan 83.
 Support: SPA, obscurant tests, increased log support for OT-II testing; FY 82-84 budget cuts.

PROCUREMENT:

Economic: Revised escalation rates (through Jan 84 indices).
 Quantity: Reduction of 90 aircraft (from 536 to 446); increase of 69 additional helicopters (446 to 515).
 Schedule: BLACK HAWK sched extension; AAH sched extension to accommodate LLTI; early year program slips; revision to max rate (12/mo); additional tooling for accelerated (515 A/C) schedule.
 Engineering: Incorp of T700-GE-701 engine; transfer of HELLFIRE Launcher costs from HELLFIRE SAR.
 Estimating: Nov 77 BCE; T700-GE-700 cost increases; DTC review impacts; revised prog estimates resulting from 1979 reviews; DTC/BCE/final assembly and electrical work. Application of reserve for additional quantity; use of OSD historical inflation indices on base year \$.
 Support: Reduction of init spare reqmts; new reqmts (Alt Msn Eqp, GSE, Cmd Spt); installation of support eqpt and assoc data and training; sched revisions; cost of kits, FAT, PDSSF, bigger training base; increase to support additional (69) helicopters; addition of HELLFIRE support costs; use of OSD historical inflation indices on base year \$; increase in non-recurring ASE.

CONSTRUCTION:

Estimating: Addition of system-peculiar MCA.

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AS OF DATE: June 30, 1984

BASE YEAR: FY 72

E8. (U) COST VARIANCE ANALYSIS (Continued)

(Dollars in Millions)

3. (U) Changes Since Previous Report:

PROCUREMENT

Changes are for the purpose of re-baselining the APACHE SAR to include all HELLFIRE Launcher procurement costs previously identified in HELLFIRE SAR. During the December 1982 Five Year Defense Plan (FYDP), two OSD Program Budget Decisions transferred FY 84-86 HELLFIRE Launcher costs (PBD 100C) and FY 84-86 HELLFIRE Launcher Initial Spares (PBD 104R) to the APACHE. Prior Year (FY 81-83) launcher costs remained with the HELLFIRE SAR.

This change adjusts: (a) The Development Estimate (DE) to include \$31.7M in then year dollars previously identified in HELLFIRE DE; (b) transfers FY 81-83 costs in the amount of \$32.4M in then year dollars from HELLFIRE to APACHE, and (c) adjusts cost change categories to agree with HELLFIRE SAR adjustments.

	<u>Base Year \$</u>	<u>Current \$</u>
Economic: Revisions from HELLFIRE DE	-	+13.5
Quantity: Revisions from HELLFIRE DE	-20.4	-65.4
Adjusted for changes previously made (Dec 82 SAR)	+18.3	+59.0
Schedule: Revisions from HELLFIRE DE	+ 6.7	+33.6
Engineering: Revisions from HELLFIRE DE	+ 3.0	+8.2
Adjusted for changes previously made (Dec 82 SAR)	-18.3	-59.0
Estimating: Revisions from HELLFIRE DE	+ 6.7	+12.5
Support: Revisions from HELLFIRE DE	- 1.3	- 1.7
<u>TOTAL PROGRAM CHANGES</u>	- 5.3 <u>1/</u>	+ .7

FOOTNOTE:

1/ HELLFIRE estimates were provided in Base Year 75\$. APACHE SAR estimates are in Base Year 72\$. OSD historical inflation indices were utilized to achieve the APACHE Base Year adjustments portrayed above. For more detail on reasons for changes, please refer to previous HELLFIRE SARs. Changes reflect only the procurement appropriation; RDTE cost variances are retained within the HELLFIRE SAR. The then-year dollar increase directly corresponds to then-year dollar decrease in HELLFIRE.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AH (PAPACHE)

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AS OF DATE: June 30, 1984

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F. (U) <u>CONTRACTOR COSTS</u> (Dollars in Millions)	(1) <u>Initial Contract Price</u>			(2) <u>Current Contract Price</u>			(3) <u>Price at Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate 1/</u>	<u>Program Mgrs. Estimate</u>
1. <u>PROCUREMENT</u>							(b)(4)	
Hughes Helicopters DAAK50-81-C-0001, Award Date 15 Apr 82 Definitized FPIF	241.9	282.8	11	232.1	276.6	11		
Hughes Helicopters DAAK50-83-C-0007 Award Date 31 Mar 83 Definitized FPI	315.4	370.0	48	309.1	363.7	48	309.1	309.1
Hughes Helicopters 3/ DAAK50-84-C-0008 Award Date 29 Feb 84 Definitized FFP	615.0	N/A	112	615.0	N/A	112	615.0	615.0
General Electric DAAJ09-83-C-A395 Award Date 7 Oct 83 Definitized FFP	356.7	N/A	730 2/	362.7	N/A	730 2/	362.7	362.7
Martin Marietta FPI 180.9CH-F2 213.7 52 DAAK50-80-C-0014 FFP 3.2CH-F2 N/A N/A 3.4CH-F3 217.8 52 LOT II Award Date 22 Dec 82 Definitized FPI/FFP	180.9	213.7	52	184.3	217.8	52		
Martin Marietta 3/ FPI 245.9 4/ 274.4 4/ 112 4/ 245.9 4/ 274.4 4/ 112 4/ 245.9 4/ 245.9 4/ DAAK50-83-C-0024 FFP 14.3 4/ 14.3 4/ 14.3 4/ N/A 14.3 4/ 14.3 4/	245.9 4/	274.4 4/	112 4/	245.9 4/	274.4 4/	112 4/	245.9 4/	245.9 4/
LOT III Award Date 14 Mar 84 Definitized FPI/FFP	14.3 4/	14.3 4/		14.3 4/	N/A		14.3 4/	14.3 4/

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QUARTERLY SELECTED POSITION REPORT
SYSTEM: AH-64 (APACHE)

AS OF DATE: June 30, 1984

F. (U) CONTRACTOR COSTS (Continued)2. VARIANCE ANALYSIS

Cost/Schedule Variances (CV/SV)

a. Contract DAAK50-81-C-0001: CV = -30.1M; SV = -19.5M. Negative cumulative schedule variance decreased from -20.7M in March to -19.5M in April. The schedule variance is primarily due to the functional categories of materiel and subcontracts. However, it is estimated that approximately 9.8M of the variance is due to items on hand but not issued to work-in-process. Negative cumulative cost variance decreased from -30.7M in March to -30.1M in April. The cumulative cost variance is primarily due to burden and G&A with about 5.3M attributed to other direct cost overruns.

b. Contract DAAK50-83-C-0007: CV = -7.3M; SV = -27.1M. Negative cumulative schedule variance increased from -17.3M in March to -27.1M in April and is primarily due to materiel (10.0M) and subcontracts (7.1M). Indirect schedule variance through burden and G&A accounts for another 7.9M. The direct items contribution to the schedule variance are being intensively managed by the AAH PM. Negative cumulative cost variance increased from 5.4M in March to 7.3M in April and is primarily due to materiel (2.6M) in direct cost. Indirect cost variance contributed as follows: burden (2.2M) and G&A (1.1M).

c. Contract DAAJ09-83-C-A395: CV = N/A; SV = N/A.

d. Contract DAAK50-84-C-0008: CV = N/A; SV = N/A.

e. Contract DAAK50-80-C-0014 (Lot II): CV = -7.9M; SV = -21.4M. Schedule and cost variances are due to redesign, rework and lack of hardware availability for test purposes. Contractor has committed to a plan which will deliver all TADS/PNVS systems to the Mesa facility at least 65 days in advance of scheduled aircraft deliveries.

f. Contract DAAK50-83-C-0024 (Lot III): Contractor Cost Performance Report (CPR) provided only actuals. Contractor baselining to the negotiated contract value and expects to report fully in his May 1984 CCPR.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AH-64 (APACHE)

AS OF DATE: June 30, 1984

F. (U) CONTRACTOR COSTS (Continued)

Changes From Previous Report

CH-F1 +4.3M Contractor estimate (from 247.7 to 252.0); (b)(4) due to estimates of increase - contractor's based on detail estimates from functional elements, the PM's based on a projection from CPR trend data.
CH-F2 0 (from 184.1 to 184.1) due to differentiating between FPI (180.9) and FFP (3.2) portions.
CH-F3 0 (from 187.7 to 187.7) due to differentiating between FPI (184.3) and FFP (3.4) portions.
CH-F4 +9.2M (from 199.6 to 208.8) due to contractor's estimate of impact of LOT I schedule slip on LOT II program (5.8) and differentiating between FPI (205.4) and FFP (3.4).
CH-F5 (b)(4) due to PM's latest evaluation of LOT II program including impact of LOT I schedule slip and differentiating between (b)(4)

FOOTNOTES:

- 1/ The contractor estimates of price at completion are based on Apr 84 Contractor Cost Performance Reports.
- 2/ Quantity includes spare engines.
- 3/ Contracts have been definitized since the previous SAR submission and replace contract numbers DAAK50-83-C-0005 and DAAK50-80-C-0014.
- 4/ Definitized LOT III effort with Martin Marietta for 112 TADS/PNVS units. Funding includes 245.9M FPI and 14.3M FFP for basic LOT III support, as well as Combat Mission Simulator (1.0M), PNVS Surrogate (.2M) and Navy PNVS (2.1M). Ceiling liability negotiated at 274.4M.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AH-64 (APACHE)

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1972

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS			THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>1/</u>
		ADV PROC (NON-ADD) \$	FLYAWAY (NON-ADD) \$	TOTAL \$	ESCALATED \$	OBLIGATED \$	EXPENDED \$	
APPROPRIATION: RDT&E								
1973	2	-	-	19.2	20.0	20.0	20.0	4.4
1974		-	-	43.6	49.1	49.1	49.1	7.9
1975	7	-	-	48.6	60.8	60.8	60.8	10.9
1976		-	-	55.5	73.9	73.9	73.9	6.6
1977		-	-	13.0	17.9	17.9	17.9	2.9
1977		-	-	93.0	130.8	130.8	130.8	2.6
1978		-	-	110.8	166.4	166.4	166.4	6.8
1979		-	-	110.2	179.4	179.4	179.3	8.4
1980		-	-	97.7	175.9	175.9	175.7	10.6
1981		-	-	86.7	172.8	172.8	172.5	10.6
1982		-	-	42.8	91.8	91.8	85.9	7.6
1983		-	-	14.5	32.6	18.6	9.9	4.9
1984	9	-	-	11.5	27.8	9.7	.8	4.3
1985		-	-	6.6	16.8			4.9
1986		-	-	4.4	11.5			4.6
TOTAL	9	-	-	758.1	1227.5	1167.1	1143.0	

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AH-64 (APACHE)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1972

G. PROGRAM FUNDING SUMMARY (Continued)

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS					THEN-YEAR DOLLARS				ESCALATION RATE (%) <u>1/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	HELLFIRE LAUNCHERS OTHER	TOTAL	HELLFIRE LAUNCHERS OTHER	OBLIGATED	EXPENDED	
			NON REC	REC							
APPROPRIATION: PROCUREMENT											
1981	LLT	(19.7)	15.4	4.9	22.9	0.9	58.8	2.4	58.8	49.7	11.6
1982	11	(23.0)	86.9	61.4	191.7	4.6	537.0	12.8	509.2	440.5	14.3
1983	48	(38.5) <u>3/</u>	64.3	137.3	294.6	5.9	896.9	17.2	810.0	467.5	9.0
1984	112	(19.8)	78.6	252.6	434.1		1360.4		1202.6	90.9	5.6
1985	144	(27.6)	47.8	284.1	447.8		1476.2		-	-	6.4
1986	144	(12.0)	34.7	245.3	372.5		1294.3		-	-	6.0
1987	56		10.3	87.3	128.1		467.5		-	-	5.6
TOTAL	515	(140.6) <u>3/</u>	338.0	1072.9	1891.7	11.4	6091.1	32.4	2580.6 <u>2/</u>	1048.6 <u>2/</u>	
APPROPRIATION: CONSTRUCTION											
1983	—	-	-	-	3.3	—	8.7	—	6.1	3.5	4.9
TOTAL	—	-	-	-	3.3	—	8.7	—	6.1	3.5	-

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite indices.

2/ Obligation and disbursement data: As of 31 May 1984. Launchers data will be added in December 1984 SAR.

3/ Change due to computational error.

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP (Q&A) 823)
SYSTEM: CG 47 ARGIS CRUISER

Report as of: 30 June 1984

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

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54E-84-013 -

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report:

- (1) TICONDEROGA, CG 47, has completed its first deployment in the Eastern Mediterranean with an outstanding performance.
- (2) The results of the SECNAV directed operational tests conducted by the TICONDEROGA, CG 47, during April 1984 once again confirmed the capability of its combat system. Ten of eleven targets were destroyed.
- (3) YORKTOWN, CG 48, has successfully completed all of its Navy Acceptance Tests and will be commissioned on 4 July 1984.
- (4) VINCENNES, CG 49, was christened on 14 April 1984.
- (5) Construction of VALLEY FORGE, CG 50, and THOMAS S. GATES, CG 51, is proceeding on schedule.
- (6) A request has been prepared for submission to reprogram \$18.6M of FY 84 SCN funds from the CG 47 program to other programs.

b. Program Status

- (1) Percent program completed: 41.2%
- (2) Percent program cost appropriated: 44.9%

2. CHANGES SINCE LAST REPORT

a. Operational and Technical Characteristics: None.

b. Schedule Milestones: None.

c. Program Acquisition Cost:

(1) Total

(a) Quantity

(b) Cost (then-year dollars)

(c) Program Unit Cost (then-year dollars)

<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
26	-	26
\$28,766.4	\$ -18.6	\$28,747.8
\$ 1,106.400	-0.715	\$ 1,105.685

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984

2.c. Program Acquisition Cost (continued):

	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(2) FY 84 Procurement Costs:			
(a) Quantity	3	-	3
(b) Cost (then-year dollars)	\$ 3,221.2	\$ -18.6	\$ 3,202.6
Procurement Cost	(3,251.1)	(-18.6)	(3,232.5)
(Less CY Advanced Proc.)	(-)		(-)
(Plus PY Advanced Proc.)	(-3.6)		(-3.6)
(-OF/PD, CG, & ESC on PY Progs.)	(-26.3)		(-26.3)
(c) Procurement Unit Cost (then-year dollars)	\$ 1,073.733	-6.200	\$ 1,067.533

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E.8.(U) COST VARIANCE ANALYSIS

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER
(Dollars in Millions)

As of date: 30 June 1984
Base year: 1978

a. Summary

	<u>Dev</u>	<u>Proc</u>	<u>Const</u>	<u>Subtotal</u>	<u>Escalation</u>	<u>Total</u>	<u>Remarks</u>
<u>Development Estimate</u>	\$55.5	\$ 8,958.2	-	\$ 9,013.7	\$ 5,069.8	\$14,083.5	Eso: Dev. \$ 1.8M; Proc. \$ 5,068.0M
<u>Previous Changes</u>							
Economic	-	-	-	-	+ 1,561.1	+ 1,561.1	Eso: Dev. + 1.6M; Proc. + 1,559.5M
Quantity	-	+ 4,996.2	-	+ 4,996.2	+ 5,682.1	+10,678.3	Eso: Proc. + 5,682.1M
Schedule	-	-	-	-	+ 564.3	+ 564.3	Eso: Proc. + 564.3M
Engineering	+ 7.6	+ 587.9	-	+ 595.5	+ 385.1	+ 980.6	Eso: Dev. + 2.1M; Proc. + 383.0M
Estimating	+10.4	+ 443.1	-	+ 453.5	- 152.0	+ 301.5	Eso: Dev. + 6.5M; Proc. - 158.5M
Support	-	+ 268.4	+13.7	+ 282.1	+ 315.0	+ 597.1	Eso: Proc. + 305.2M; Const. + 9.8M
Subtotal	+18.0	+ 6,295.6	+13.7	+ 6,327.3	+ 8,355.6	+14,682.9	Eso: Dev. + 10.2M; Proc. + 8,335.6M; Const. +9.8M
<u>Current Changes</u>							
Estimating	+	- 10.5	-	- 10.5	- 8.1	- 18.6	Eso: Proc. - 8.1M
Subtotal	+	- 10.5	-	- 10.5	- 8.1	- 18.6	Eso: Proc. - 8.1M
<u>Total Changes</u>	+18.0	+ 6,285.1	+13.7	+ 6,316.8	+ 8,347.5	+14,664.3	Eso: Dev. + 10.2M; Proc. + 8,327.6M; Const. +9.8M
<u>Current Estimate</u>	\$73.5	\$15,243.3	\$13.7	\$15,330.5	\$13,417.3	\$28,747.8	Eso: Dev. \$ 12.0M; Proc. \$13,395.6M; Const. \$+9.8M

b.(U) Previous Changes:Development

Economic: Revised escalation rates.
Engineering: HDP and SDMS design changes.
Estimating: Refinement of R&D estimates.

Procurement

Economic: Revised escalation rates.
Quantity: Addition of 10 cruisers.
Schedule: Stretchout of ship acquisition schedules.
Engineering: Engineering enhancements including introduction of the Vertical Launch System.
Estimating: Refinements of procurement estimates.
Support: Adjustment of outfitting and post delivery costs corresponding to program changes.

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QUARTERLY SELECTED ACQUISITION REPORTSYSTEM: CG 47 AEGIS CRUISER
(Dollars in Millions)As of date: 30 June 1984E.8.c.(U) Changes Since Previous ReportDEVELOPMENTPROCUREMENT

Estimating: Reprogramming action submitted to
the Congress for permission to apply
contract award savings for the RDT&E
VLS and RPN Programs.

CONSTRUCTIONTOTAL PROGRAM COST CHANGE

<u>Base Year \$</u>	<u>Then Year \$</u>
-	-
-10.5	-18.6
<u>-</u>	<u>-</u>
-10.5	-18.6

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984

F.(U) Contractor Costs (\$ in Millions)	(1) Initial Contract Price Qty	(2) Current Contract Price Target Ceiling Qty	(3) Price at Completion Contractor Pgm Mgr. Estimate Estimate
<u>1. Procurement:</u>			
a. AEGIS Weapon System - CG 49/50			
RCA Government Systems Moorestown, New Jersey N00024-81-C-5106-CPAF Contract Awarded April 1981	240.8 2	257.3 (Ch F-1)	N/A 2 264.9 264.9 (Ch F-2) (Ch F-2)
b. AEGIS Weapon Systems - 51/52/53			
RCA Government Systems Moorestown, New Jersey N00024-82-C-5110-FPI/PP Contract Awarded July 1982	320.2 3	320.2	348.9 3 320.6 320.6 (Ch F-3) (Ch F-3)
c. AEGIS Weapon Systems - 54/55/56			
RCA Government Systems Moorestown, New Jersey N00024-82-C-5116-FPI/PP Contract Awarded April 1983	303.8 3	303.8	330.0 3 303.8 303.8

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984

	(1) Initial Contract Price Qty	(2) Current Contract Price Target Ceiling Qty	(3) Price at Completion Contractor Pgm Mgr. Estimate Estimate
F.1.(U) PROCUREMENT (continued):			
d. Detail Design and Follow Ship Construction - CG 49/50/52/53			
Litton Industries Ingalls Shipbuilding Division Pascagoula, Mississippi N00024-81-C-2049-CPAF Contract Awarded August 1981 for CG 49/50 and modified for CG 52/53 January 1982	1,331.2 4	1,410.6 (Ch F-4)	N/A 4 1,454.5 (Ch F-5) 1,454.5 (Ch F-5)
e. Detail Design and Follow Ship Construction - CG 51			
Bath Iron Works Bath, Maine N00024-82-C-2011-CPAF Contract Awarded May 1982	305.2 1	310.4 (Ch F-6)	N/A 1 306.3 (Ch F-7) 306.3 (Ch F-7)
f. Follow Ship Construction - CG 54/55/56			
INGALLS Shipbuilding Division Pascagoula, Mississippi N00024-83-C-2013-FPI Contract Awarded June 1983	933.8 3	936.0 (Ch F-8)	1,022.2 3 966.7 (Ch F-9) 966.7 (Ch F-9)

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984

	(1) <u>Initial</u> <u>Contract</u> <u>Price Qty</u>	(2) <u>Current</u> <u>Contract Price</u> <u>Target Ceiling Qty</u>	(3) <u>Price at Completion</u> <u>Contractor Pgm Mgr.</u> <u>Estimate Estimate</u>
F.1.(U) <u>PROCUREMENT</u> (continued):			
g. Follow Ship Construction - CG 57/59			
Ingalls Shipbuilding Division Pascagoula, Mississippi N00024-84-C-2004-FPI Contract Awarded December 1983			
	325.5 2	325.5 366.8 2	325.5 325.5
h. Follow Ship Construction - CG 58			
Bath Iron Works Bath, Maine N00024-84-C-2005-FPI Contract Awarded December 1983			
	252.8 2	253.1 285.7 2	255.9 255.9

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984

F.2.(U) Changes Since Previous Report:

Ch F-1 + 0.7	Contract modifications definitized.
Ch F-2 - 1.2	Contractor's latest review of estimate to complete reflects downward adjustment.
Ch F-3 + 0.4	Engineering change proposals authorized but not negotiated which are included in the latest revised estimate to complete.
Ch F-4 + 46.3	Contract modifications definitized.
Ch F-5 + 29.4	Estimates revised to include modifications authorized but not negotiated.
Ch F-6 + 5.2	Contract modifications definitized.
Ch F-7 + 2.5	Estimates revised to include modifications authorized but not negotiated.
Ch F-8 - 0.2	Contract target price adjusted to reflect results of negotiated contract modifications.
Ch F-9 + 20.1	Engineering change proposals authorized but not negotiated which are included in the latest revised estimate to complete.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984
Base Year: FY 1978

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE-YEAR \$		TOTAL	THEN-YEAR \$		OBLIGATED	EXPENDED	ESCALATION RATE (%) ^{1/}
			NET SAILAWAY (NON-ADD)			TOTAL	TOTAL			
			NONREC	REC						
APPROPRIATION: RDT&E,N										
1978	-	-	-	-	39.4	39.4	39.4	39.4	-	
1979	-	-	-	-	9.9	10.8	10.8	10.8	8.72	
1980	-	-	-	-	5.4	6.5	6.5	6.5	9.70	
1981	-	-	-	-	3.4	4.5	4.5	4.5	11.90	
1982	-	-	-	-	5.0	7.2	7.2	7.2	7.60	
1983	-	-	-	-	2.1	3.1	3.1	3.1	4.90	
1984	-	-	-	-	1.0	1.5	1.5	1.5	4.30	
1985	-	-	-	-	3.1	5.1	-	-	4.90	
1986	-	-	-	-	2.4	4.1	-	-	4.60	
1987	-	-	-	-	0.6	1.1	-	-	4.30	
1988	-	-	-	-	0.6	1.1	-	-	4.00	
1989	-	-	-	-	0.6	1.1	-	-	3.70	
TOTAL	-	-	-	-	73.5	85.5	73.0	73.0		
APPROPRIATION: SCN										
1978	1	-	-	786.9	786.9	926.0	924.0	905.3	-	
1979	-	-	-	-	-	1.9	1.6	0.9	9.95	
1980	1	-	-	581.7	581.7	820.2	768.6	694.8	9.89	
1981	2	-	-	1,196.1	1,197.0	1,939.4	1,661.4	1,217.1	10.10	
1982	3	81.5	-	1,823.4	1,826.0	2,925.9	2,281.7	1,008.9	4.39	
1983	3	12.4	-	1,584.5	1,599.1	2,972.7	1,884.8	383.1	3.40	
1984	3	-	-	1,722.4	1,739.7	3,232.5	1,447.9	17.2	5.59	
1985	3	0.6	-	1,609.6	1,636.9	3,194.0	-	-	6.37	
1986	3	6.9	-	1,608.7	1,652.7	3,326.9	-	-	5.98	
1987	3	18.1	-	1,601.9	1,657.2	3,477.6	-	-	5.59	
1988	2	-	-	1,122.0	1,178.8	2,608.1	-	-	5.20	
1989	2	-	-	1,126.1	1,183.3	2,758.3	-	-	4.81	
1990	-	-	-	-	57.1	119.0	-	-	4.91	
1991	-	-	-	-	56.6	123.7	-	-	4.81	
1992	-	-	-	-	49.3	112.9	-	-	4.81	
1993	-	-	-	-	29.8	71.6	-	-	4.81	
1994	-	-	-	-	11.2	28.1	-	-	4.81	
TOTAL	26	119.5	-	14,763.2	15,243.2	28,638.8	8,970.0	4,227.3		

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 June 1984
 Base Year: FY 1978

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (\$ in Millions)

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE-YEAR \$		TOTAL	THEN-YEAR \$		EXPENDED	ESCALATION RATE (%) ^{1/}
			NET SAILAWAY (NON-ADD)			TOTAL	OBLIGATED		
			NONREC	REC					
APPROPRIATION: MILCON									
1978	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	9.60
1980	-	-	-	-	-	-	-	-	10.40
1981	-	-	-	-	-	-	-	-	11.90
1982	-	-	-	-	0.8	1.2	1.2	1.2	7.60
1983	-	-	-	-	6.6	10.8	10.8	3.9	4.90
1984	-	-	-	-	2.5	4.2	2.5	0.4	4.30
1985	-	-	-	-	-	-	-	-	4.90
1986	-	-	-	-	-	-	-	-	4.60
1987	-	-	-	-	3.8	7.3	-	-	4.30
TOTAL	-	-	-	-	13.7	23.5	14.5	5.5	

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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N-3 CG-47

Report as of 31 March 1984

QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP (Q&A) 823)

SYSTEM: CG 47 AEGIS CRUISER

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N-6 CVN 72/73

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 71/72/73)

REPORT AS OF: JUNE 30, 1984

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54C-84-005-

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 71/72/73)

AS OF DATE: June 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report

- (1) A reprogramming action removing \$22.3M of CVN-72/73 funds was approved for \$17.4M resulting in a \$4.9M increase to the program.
- (2) CVN 71/72/73 program costs are \$9,661.9 million of which \$6,993.1 million are sunk costs (obligations through 30 June 1984) and \$2,668.8 million are considered program cost to complete.

b. Program Status

- (1) Percent program completed: 43%
- (2) Percent program cost appropriated: 98%

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: No changes
- b. Schedule: No changes

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 71/72/73)

AS OF DATE: JUNE 30, 1984

c. Program Acquisition Cost: (CVN 71)	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total	\$2,521.2	---	\$2,521.2
(a) Quantity	1	---	1
(b) Cost	2,521.2	---	2,521.2
(c) Program Unit Cost	2,521.2	---	2,521.2
 (2) FY 84 Procurement Costs:			
(a) Quantity	---	---	---
(b) Cost	11.0	---	11.0
Procurement Cost	11.0	---	11.0
Less CY Advanced Proc.	---	---	---
Plus PY Advanced Proc.	---	---	---
Less CG/ESC/OF/PD	-11.0	---	-11.0
Total	---	---	---
(c) Procurement Unit Cost	N/A	---	N/A

c.a Program Acquisition Cost: (CVN 72/73)

(1) Total	7,135.8	+4.9	7,140.7
(a) Quantity	2	---	2
(b) Cost	7,135.8	---	7,140.7
(c) Program Unit Cost	3,567.9	+2.45	3,570.35
 (2) FY 84 Procurement Costs:			
(a) Quantity	---	---	---
(b) Cost	---	---	---
Procurement Cost	---	---	---
Less CY Advanced Proc.	---	---	---
Plus PY Advanced Proc.	---	---	---
Less CG/ESC/OF/PD	---	---	---
Total	---	---	---
(c) Procurement Unit Cost	---	---	---

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 71)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1979

E8. (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY 79 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
<u>Development Estimate</u>	--	\$1,808.3	--	\$1,808.3	\$612.3	\$2,420.6	ESC: Proc. \$612.3
<u>Previous Changes</u>							
Economic	--	--	--	--	+74.2	+74.2	ESC: Proc. +74.2
Engineering	--	+28.3	--	+28.3	-6.3	+22.0	ESC: Proc. -6.3
Estimating	--	+6.3	--	+6.3	-5.2	+1.1	ESC: Proc. -5.2
Support	--	+5.0	--	+5.0	-1.7	+3.3	ESC: Proc. -1.7
Subtotal	--	+39.6	--	+39.6	+61.0	+100.6	ESC: Proc. +61.0
<u>Current Changes</u>	--	--	--	--	--	--	
<u>Total Changes</u>	--	+39.6	--	+39.6	+61.0	+100.6	ESC: Proc. +61.0
<u>Current Estimate</u>	--	\$1,847.9	--	\$1,847.9	\$673.3	\$2,521.2	ESC: Proc. \$673.3

2. Previous Changes

PROCUREMENT

Economic: Revised escalation rates.
Engineering: Upgrading Naval Tactical Data System (NTDS). Funds for future characteristic changes were added and then deleted due to Congressional action.
Estimating: Refinement of estimates.
Support: Revised amount for outfitting.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 71)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1979

E8. (U) COST VARIANCE ANALYSIS (continued)

(Dollars in Millions)

3. Changes Since Previous Report: None

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 72/73)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

E8. (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. <u>Summary</u>	Base Year/FY 82 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
<u>Development Estimate</u>	--	\$5,265.5	--	\$5,265.5	\$2,153.4	\$7,418.9	ESC: Proc. \$2,153.4
<u>Previous Changes</u>	--	--	--	--	--	--	
Economic	--	--	--	--	-267.5	-267.5	ESC: Proc. -267.5
Estimating	+1.5	+40.5	--	+42.0	-82.8	-40.8	ESC: Dev.+1;Proc.-82.9
Support	--	+21.1	--	+21.1	+4.1	+25.2	ESC: Proc. +4.1
Subtotal	+1.5	+61.6	--	+63.1	-346.2	-283.1	ESC: Proc. -346.2
<u>Current Changes</u>	--	--	--	--	--	--	
Estimating	--	--	--	--	+4.9	+4.9	ESC: Proc. +4.9
<u>Total Changes</u>	+1.5	+61.6	--	+63.1	-341.3	-278.2	ESC: Proc. -341.3
<u>Current Estimate</u>	\$1.5	\$5,327.1	--	\$5,328.6	\$1,812.1	\$7,140.7	ESC: Proc. \$1,812.1

2. Previous Changes:

DEVELOPMENT

 Estimating: Revised requirement

PROCUREMENT

 Economic: Revised economic indices

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 72/73)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

E8. (U) COST VARIANCE ANALYSIS (continued)

(Dollars in Millions)

2. Previous Changes: (continued)

Estimating: Congressional reduction of funds for management reserves, contractor support services, and Independent Research and Development/Bid and Proposal (IR&D/B&D). An increase in base year dollars to offset the portion of the economic change which was not removed from program cost. Applied Government Furnished Equipment savings to a reprogramming action.

Support: Revised amount for outfitting.

3. Change Since Previous Report:

PROCUREMENT:

Estimating: Reflects final action on a reprogramming action.

	<u>Base Year \$</u>	<u>Current \$</u>
	—	+4.9
 TOTAL PROGRAM COST CHANGE	<u>—</u>	<u>+4.9</u>

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN-68 CLASS (CVN-71)

AS OF DATE: June 30, 1984

(1)

(2)

(3)

F. (U)CONTRACTOR COSTS	Initial Contract Price			Current Contract Price			Price At Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs. Estimate
1. <u>DEVELOPMENT</u>	--	--	-	--	--	-	--	--
2. <u>PROCUREMENT</u>								
Shipbuilding Contract 1/	1,155.4	1,292.0	1	1,225.8 (CH-F1)	1,363.0 (CH-F1)	1	1,187.7 (CH-F2)	1,225.8 3/ (CH-F1)
Nuclear Components Contracts 2/	--	406.9	-	----Not Applicable----			405.8	405.8 3/
3. <u>CONSTRUCTION</u>	--	--	-	--	--	-	--	--

1/ Shipbuilding Contract:

Contract N00024-80-C-2023 (Definitized) with Newport News Shipbuilding and Dry Dock Company, Subsidiary of TENNECO Corp., Newport News, Virginia. Fixed-Price Incentive, Firm Target dated 30 September 1980.

2/ Nuclear Component Contracts:

Contract N00024-74-C-5182 with General Electric Company, Steam Turbine Generator Products Division, Machinery Apparatus Operation, Schenectady, New York. Cost Plus Fixed Fee Contract Modification 16 dated 6 October 1976.

Contract N00024-67-F-5110 with Department of Energy (formerly Energy Research and Development Administration prior to 1 October 1977 and U.S. Atomic Energy Commission prior to 19 January 1975) Economy Act Order (Inter-Agency Order). Modification 75 dated 6 October 1976.

Contract N00024-73-C-5002 with Westinghouse Electric Corporation, Plant Apparatus Division, Pittsburgh, Pennsylvania. Cost Plus Fixed Fee Contract Modification 9 dated 6 October 1976.

3/ Estimated cost of changes not identified separately due to the sensitivity and business nature of the data. Disclosure of this information could jeopardize the Government's negotiating position on unissued/undefinitized changes.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 71)

AS OF DATE: June 30, 1984

F. (U) CONTRACTOR COSTS (continued)

F. VARIANCE ANALYSIS

(CH-F1) Reflects an increase of \$1.9 million in Target Price and \$1.9 million in Ceiling Price from the previous report resulting from the adjudication of changes under the shipbuilding contract.

(CH-F2) Reflects a increase of \$.4 million from the previous report. This results from a contractor projected cost underrun which is less than his previous estimate.

The changes to the price at completion do not have a negative impact on the program.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN-68 CLASS (CVN-72/73)

AS OF DATE: JUNE 30, 1984

	(1)			(2)			(3)		
	Initial Contract Price			Current Contract Price			Price At Completion		
F. (U) <u>CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor</u> <u>Estimate</u>	<u>Program Mgrs.</u> <u>Estimate</u>	
1. <u>DEVELOPMENT</u>	--	--	-	--	--	-	--	--	
2. <u>PROCUREMENT</u>									
Shipbuilding									
Contract <u>1/</u>	3,143.0	3,454.4	2	3,175.4 (CH-F1)	3,488.9 (CH-F1)	2	3,081.8 (CH-F2)	3,175.4 (CH-F1)	<u>3/</u>
Nuclear Components									
Contracts <u>2/</u>	--	1,400.0	-	----Not Applicable----			1,386.6 (CH-F3)	1,386.6 (CH-F3)	<u>3/</u>
3. <u>CONSTRUCTION</u>	--	--	-	--	--	-	--	--	
<u>1/</u> Shipbuilding Contract:									
Contract N00024-83-C-2033 (Definitized) with Newport News Shipbuilding and Dry Dock Company, Subsidiary of TENNECO Corp., Newport News, Virginia. Fixed-Price Incentive, Firm Target dated 27 December 1982.									
<u>2/</u> Nuclear Component Contracts:									
Contract N00024-73-C-5002 with Westinghouse Electric Corporation, Plant Apparatus Division, Pittsburgh, Pennsylvania. Cost Plus Fixed Fee Contract Modification 20 dated 29 December 1982.									
Contract N00024-82-C-4004 with General Electric Company, Turbine Business Group, Machinery Apparatus Operation, Schenectady, New York. Cost Plus Fixed Fee Contract Modification 2 dated 29 December 1982.									
Contract N00024-67-F-5110 with Department of Energy (formerly Energy Research and Development Administration prior to 1 October 1977 and U.S. Atomic Energy Commission prior to 19 January 1975) Economy Act Order (Inter-Agency Order). Modification 111 dated 30 December 1982.									

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN 68 CLASS (CVN 72/73)

AS OF DATE: June 30, 1984

F. (U) CONTRACTOR COSTS (continued)

3/ Estimated cost of changes not identified separately due to the sensitivity and business nature of the data. Disclosure of this information could jeopardize the Government's negotiating position on unissued/undefinitized changes.

4. VARIANCE ANALYSIS:

(CH-F1) Reflects an increase of \$2.3 million in Target Price and \$2.5 million in Ceiling Price from the previous report resulting from the adjudication of changes under the shipbuilding contract.

(CH-F2) Reflects an decrease of \$3.0 million from the previous report. This results from a increase in the contractor projected cost underrun under the shipbuilding contract.

(CH-F3) Reflects a decrease of \$13.4 million from the previous report. This results from a decrease reflected in the 31 March 1984 report. Savings were available under Contract N00024-67-F-5510 with Department of Energy due to favorable nuclear core contract placements.

The decrease to the contractor's price at completion reflects a cost underrun and therefore does not have a negative impact on the program.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CVN-68 CLASS (CVN-71)

AS OF DATE: June 30, 1984
 BASE YEAR FY 1979

G. (U) PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION 1 RATE (%)
		ADV PROC (NON-ADD)	NET SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: SCN									
1977	-	244.8	-	244.8	244.8	268.4	268.4	266.5	5.87
1980	1	-	-	1,546.7	1,546.7	2,094.0	1,884.3	1,419.8	10.10
1981	-	-	-	-	-	75.5	-	-	11.90
1982	-	-	-	18.3	18.3	22.0	-	-	4.40
1983	-	-	-	-	-	-	-	-	3.40
1984	-	-	-	-	7.6	11.0	-	-	5.59
1985	-	-	-	-	8.6	13.1	-	-	6.37
1986	-	-	-	-	5.0	8.1	-	-	5.98
1987	-	-	-	-	16.9	29.1	-	-	5.59
TOTAL	1	244.8	-	1,809.8	1,847.9	2,521.2	2,152.7	1,686.3	

¹Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: CVN 68 CLASS (CVN 72/73)

AS OF DATE: June 30, 1984

BASE YEAR: FY 1982

G. (U) PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALA- TION ¹ RATE(%)
		ADV PROC (NON-ADD)	NET SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E,N

1983	-	-	1.5	-	1.5	1.6	1.6	.1	4.90
TOTAL	-	-	1.5	-	1.5	1.6	1.6	.1	

APPROPRIATION: SCN

1982	-	409.0	-	409.0	409.0	475.0	475.0	98.4	4.40
1983	2	-	-	4,802.2	4,802.2	6,491.3	4,363.8	566.0	3.40
1984	-	-	-	-	-	-	-	-	5.59
1985	-	-	-	-	-	-	-	-	6.37
1986	-	-	-	-	-	-	-	-	5.98
1987	-	-	-	-	10.4	13.5	-	-	5.59
1988	-	-	-	-	13.5	18.4	-	-	5.20
1989	-	-	-	-	20.0	28.6	-	-	4.81
1990	-	-	-	-	37.7	56.5	-	-	4.81
1991	-	-	-	-	9.6	15.1	-	-	4.81
1992	-	-	-	-	24.7	40.7	-	-	4.81
TOTAL	2	409.0	-	5,211.2	5,327.1	7,139.1	4,838.8	664.4	

¹Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.



CLASSIFIED

N-1 AV-8B

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

BQ.(U) SUMMARY

1. PROGRAM HIGHLIGHTS:

a. Significant Highlights Since Last Report.

THE YAV-8B finished its contribution to the Full Scale Development (FSD) program during March 1984 and was loaned to NASA on 6 April 1984 for a extended flight research program. The flying qualities and performance portion of TECHEVAL which included initial sea trials and climatic hanger testing were completed during this report period. Phase II of the avionics/armament TECHEVAL is continuing and will conclude during July 1984. The results of these tests endorse the excellent potential of the AV-8B to meet the requirements of the VSTOL attack mission. Sufficient developmental testing has been completed to begin OPEVAL Phase I during August 1984 with the remaining developmental testing scheduled to support OPEVAL Phase II during January 1985. Two production aircraft will be used during both phases of OPEVAL. Currently, there are four AV-8B aircraft participating in the AV-8B FSD program. AV-8B aircraft Number 1 is currently participating in the Leading Edge Root Extension (LERX) off flying qualities and performance testing. AV-8B aircraft Number 2 is currently conducting landing gear loads and LERX-off structural testing. AV-8B aircraft Number 3 is conducting high angle of attack testing at Edwards Air Force Base, California. AV-8B aircraft Number 4 is conducting the final portion of Phase II of the avionics/armament TECHEVAL. As of 30 June 1984 the four FSD AV-8B aircraft have flown a total of 1471 sorties and 1665 flight hours. The AV-8B FSD ground and flight test are on schedule to support the commencement of OPEVAL Phase I in August 1984. One of the four pilot production AV-8B's currently in fleet service was delivered to the Navy during this period.

b. Program Status

- (1) Percentage program completed: 60% or 9 of 15 years
- (2) Percentage program cost appropriated: 37%
- (3) Sunk cost: (Total cost \$9,954.1, sunk cost \$2,696.7 (obligations as of June 30, 1984) and costs to complete (\$7,257.4)).

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

BQ.(U) SUMMARY

2. CHANGES SINCE LAST REPORT

Explanation

a. Operational and Technical Characteristics:
 No changes.

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CE

b. Schedule Milestones:
 h. TECHEVAL Avionics

Sep 83

Jul 84

Phase I avionics
 TECHEVAL completed Dec
 1983. Phase II avionics
 TECHEVAL WILL BE
 COMPLETED July 1984.

c. Program Acquisition Costs:

	<u>PREVIOUS EST.</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity	334	0	334
(b) Cost (then-year dollar)	\$9,969.8	-15.7	\$ 9,954.1
(c) Program unit cost (then-year dollars)	29.849	-.046	29.803
(2) FY1984 Procurement Costs:			
(a) Quantity	27	0	27
(b) Cost (then-year dollars)			
Procurement Cost	\$910.2	\$-2.7	\$907.5
Less CY Advance Proc.	-98.4	0	-98.4
Plus PY Advance Proc.	+61.6	-.3	+61.3
Total	\$873.4	\$-3.0	870.4
(c) Procurement Unit Cost (then- year dollars)	32.348	-.111	32.237

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: AV-8B

AS OF DATE: June 30, 1984

BASE YEAR: FY 1979

ES. (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. <u>Summary</u>	Base Year/FY79 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
<u>Development Estimate</u>	\$872.7	\$4862.4	\$5.5	\$5740.6	\$3384.9	\$9125.5	Esc: Dev. \$185.3; Proc. \$3196.8; Const. \$2.8
<u>Previous Changes</u>							
Economic	--	--	--	--	+149.4	+149.4	Esc: Dev. +12.6; Proc. +136.8; Const. --
Quantity	--	-77.6	--	-77.6	-93.4	-171.0	Esc: Dev. --; Proc. -93.4; Const. --
Schedule	+10.8	+430.3	--	+441.1	+458.0	+899.1	Esc: Dev. +6.9; Proc. +451.1; Const. --
Engineering	+46.4	+42.6	--	+89.0	+68.1	+157.1	Esc: Dev. +20.1; Proc. +48.0; Const. --
Estimating	+65.6	-443.8	-3.8	-382.0	-218.5	-600.5	Esc: Dev. +45.5; Proc. -262.0; Const. -2.0
Support	--	+111.7	--	+111.7	+298.5	+410.2	Esc: Dev. --; Proc. +298.5; Const. --
Subtotal	+122.8	+63.2	-3.8	+182.2	+662.1	+844.3	Esc: Dev. +85.1; Proc. +579.0; Const. -2.0
<u>Current Changes</u>							
Estimating	-0.5	-7.3	--	-7.8	-3.8	-11.6	Esc: Dev. -0.1; Proc. -3.7; Const. --
Support	--	-3.1	--	-3.1	-1.0	-4.1	Esc: Dev. --; Proc. -1.0; Const. --
Subtotal	-0.5	-10.4	--	-10.9	-4.8	-15.7	Esc: Dev. -0.1; Proc. -4.7; Const. --
<u>Total Changes</u>	+122.3	+52.8	-3.8	+171.3	+657.3	+828.6	Esc: Dev. +85.0; Proc. +574.3; Const. -2.0
<u>Current Estimate</u>	\$995.0	\$4915.2	\$1.7	\$5911.9	\$4042.2	\$9954.1	Esc: Dev. \$270.3; Proc. \$3771.1; Const. \$0.8

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

E.8.(U) COST VARIANCE ANALYSIS (Continued)2. Previous Changes:DEVELOPMENT

Economic: Revised escalation rates.
 Schedule: Extend flight test program 2 years for follow-on flight test program.
 Engineering: Addition of design/fabrication/integrated/test of 25mm gun pack, development of the TAV-8B.
 Estimating: Decreased currency conversion rate for engine procurement, decrease offset for new economic indices and refinement of estimate, base year adjustment and prior year reprogrammings, prior year increase due to foreign exchange adjustment and increase for TAV-8B, and decrease in prior year orders placed and negotiated.

PROCUREMENT

Economic: Correction of application of procurement outlay factors, and revised escalation rates.
 Quantity: Reduction of aircraft from 336 to 328.
 Schedule: Revised procurement schedule for 336 aircraft, accelerated procurement schedule, stretch in procurement schedule from:

FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
32	48	60	60	60	35

to new production schedule:

FY 84	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
27	32	46	47	48	60	35

Engineering: Addition of ASPJ.
 Estimating: Decrease currency conversion rate for engine procurement, offset for new economic indices decrease, correction of procurement outlay factor, and refinement of estimate, decrease dollar/pound exchange rate, base year adjustment, and FY 82/FY 83 reprogramming, correction of prior computation in base year dollars, support for TAV-8B transferred to RDT&E, spares due to engine prices lower than budget, 25MM gun increase, transfers to other programs, AYK-14 second source and minor reprogramming.
 Support: Increase spares and PSE due to redefinition and refinement of requirements, reduce spares required due to reduction of aircraft buy, spares decrease in escalation, dollar per pound exchange rate change, and migration of spares to NSA stock fund, other support escalation dollar per pound exchange rate change.

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

E.8(U) COST VARIANCE ANALYSIS (Continued)

2. Previous changes: (continued)

CONSTRUCTION

Economic: Revised escalation rates
Estimating: Base year adjustment

3. Changes Since Previous Report:

DEVELOPMENT

Estimating: Decrease in prior year orders placed and negotiated
TOTAL Development Cost Change

<u>Base Year \$</u>	<u>Current \$</u>
<u>-.5</u>	<u>-.6</u>
<u>-.5</u>	<u>-.6</u>

PROCUREMENT

Estimating: Programs reestimated due to favorable
foreign exchange rates.

-7.3 -11.0

Support: Programs reestimated due to favorable
foreign exchange rate.
TOTAL Procurement Cost

-3.1 -4.1
-10.4 -15.1

TOTAL PROGRAM COST CHANGE

-10.9 -15.7

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

F. CONTRACTOR COSTS	Initial Contract Price			Current Contract Price			Price At Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs. Estimate
1. DEVELOPMENT								
a. McDonnell Douglas Corp.								
N00019-79-C-0165/ CPIF	626.3	N/A	4	642.9 CH-F1	N/A	4	642.9 CH-F2	656.3 CH-F3
April 12, 1979								
b. Rolls Royce, Ltd.								
N00019-79-C-0097/ Cost Reimbursable	19.4	N/A	8	24.1	N/A	8	24.1	24.1
March 15, 1979								
2. PROCUREMENT								
a. McDonnell Douglas Corp.								
N00019-80-C-0655/ CPIF	476.3	N/A	12	490.1 CH-F4	N/A	12	490.1 CH-F5	494.0
April 23, 1981								
b. Rolls Royce, Ltd.								
N00019-80-C-0657/ Cost Reimbursable	31.9	N/A	12	38.3	N/A	12	38.3	38.3
March 23, 1981								

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

F. <u>CONTRACTOR</u>	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
2. <u>PROCUREMENT</u> (continued)								
c. McDonnell Douglas Corp.								
N00019-81-C-0497	434.4	N/A	21	434.4	N/A	21	434.4	434.4
FFP								
April 30, 1982								
d. Kolls Royce, Ltd.								
N00019-81-C-0356	129.0	N/A	50	129.0	N/A	50	129.0	129.0
FFP								
March 11, 1982								

3. VARIANCE ANALYSIS

a. Cost/Schedule Variances

- (1) The cumulative negative cost variance is \$20.7M which is an increase of \$7.9M due to engineering, tooling, production and BAe. The schedule variance is \$0.7M which is a decrease of \$-1.3M due to a change in CFE. No significant program impact.
- (2) The cumulative negative cost variance is \$2.0M which remains unchanged due to tooling, BAe and G&A. The schedule variance is \$3.6M which is a decrease of \$-1.2M due to production quality assurance and G&A. No significant program impact.

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: JUN 30, 1984

3. VARIANCE ANALYSIS (continued)

b. Changes Since Previous Report:

- CH-F1 Change due to contract modification for flight testing/support of AV-8B Cum #4.
- CH-F2 Change due to contract modification for flight testing/support of AV-8B Cum #4.
- CH-F3 Government estimate higher due to slip of testing.
- CH-F4 Unpriced work negotiated lower than orders placed.
- CH-F5 Unpriced work negotiated lower than orders placed.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AV-8B

AS OF DATE: June 30, 1984

BASE YEAR: FY 1979

G. (U) PROGRAM FUNDING SUMMARYCURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE YEAR DOLLARS		TOTAL	THEN YEAR DOLLARS				ESCALATION 1/ RATE (%)
			NET FLYAWAY (NON-ADD)			TOTAL	OBLIGATED	EXPENDED		
			NON-REC	REC						
APPROPRIATION: RDT&E,N										
1976	-	--	--	--	4.1	4.3	4.2	4.2	6.6	
1977	-	--	--	--	1.7	1.9	1.8	1.8	2.9	
1977	-	--	--	--	31.8	33.6	33.5	33.3	2.6	
1978	-	--	--	--	55.7	58.9	58.9	58.6	6.8	
1979	2	--	--	--	158.7	167.0	167.0	166.6	8.4	
1980	-	--	--	--	155.0	182.4	182.4	179.7	9.4	
1981	-	--	--	--	185.9	239.1	239.1	236.1	11.9	
1982	4	--	--	--	167.4	226.3	226.3	221.2	7.6	
1983	-	--	--	--	83.3	117.8	116.8	81.6	4.9	
1984	-	--	--	--	68.9	101.9	79.3	4.4	4.3	
1985	-	--	--	--	45.4	70.4	--	--	4.9	
1986	-	--	--	--	23.8	38.5	--	--	4.6	
1987	-	--	--	--	11.3	19.0	--	--	4.3	
1988	-	--	--	--	2.0	4.2	--	--	4.0	
TOTAL	6	--	--	--	995.0	1,265.3	1,109.3	987.5		
APPROPRIATION: APN										
1981	-	60.1	--	--	60.1	86.6	86.5	83.1	11.9	
1982	12	25.3	15.9	367.4	464.6	657.3	594.5	467.7	7.3	
1983	21	40.9	--	350.3	585.8	880.4	684.5	160.9	4.6	
1984	27	61.9	--	345.8	568.6	907.5	219.9	3.2	5.6	
1985	32	47.8	6.0	360.2	555.3	939.8	--	--	6.4	
1986	40	53.2	--	470.3	623.9	1,114.1	--	--	6.0	
1987	47	54.3	--	473.1	577.7	1,001.2	--	--	5.6	
1988	48	86.4	--	471.5	578.2	1,134.2	--	--	5.2	
1989	60	41.6	--	566.6	578.1	1,192.1	--	--	4.8	
1990	35	--	--	333.4	320.9	693.1	--	--	4.8	
TOTAL	328	471.5	21.9	3,738.6	4,915.2	8,606.3	1,585.4	714.9		
APPROPRIATION: MILCON										
1983	-	--	--	--	1.7	2.5	2.0	0.8	4.9	
TOTAL	-	--	--	--	1.7	2.5	2.0	0.8		

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q&A)823)
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

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SAR-84-073

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984

BQ. SUMMARY1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None.
- b. Program Status:
 - (1) Percent program completed: 50% or 6 of 12 years
 - (2) Percent program cost appropriated: 29%
 - (3) Sunk Costs: Total Cost: 4029.8M, Sunk Costs: 798.1, Cost to Complete 3231.7M

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: Acceptance of AIM-54C production missiles has been temporarily halted pending review of contractor quality control measures.

- b. Schedule Milestones: None.

c. Program Acquisition Costs:	<u>PREVIOUS EST.</u>	<u>CHANGE</u>	<u>CURRENT EST.</u>
(1) Total			
(a) Quantity	3467	-	3467
(b) Cost (then-year dollars)	\$4029.5	+0.3	\$4029.8
(c) Program Unit Cost (then-year dollars)	1.162		1.162
 (2) FY84 Procurement Costs			
(a) Quantity	265	-	265
(b) Cost (then-year dollars)			
Procurement Cost	(\$335.9)	-	(\$335.9)
* Less CY Advanced Proc.	(-27.1)	-	(-27.1)
* Plus PY Advanced Proc.	(+24.4)	-	(+24.4)
Total	333.2	-	333.2
(c) Procurement Unit Cost (then year dollars)	1.257	-	1.257

* Advance Procurement figures were incorrectly stated (reversed) on the 31 March 1984 SAR.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1977

E.8 (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. <u>Summary</u>	Base Year/FY 77 Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL						
<u>Development Estimate</u>	\$73.8	\$296.7	\$1.5	\$372.0	\$92.3	\$464.3	Esc: Dev	+11.4	Proc	+80.7 Const +0.2
<u>Previous Changes</u>										
Economic	--	--	--	--	-28.3	-28.3	Esc: Dev	+12.3	Proc	-40.7 Const +0.1
Quantity	--	+959.6	--	+959.6	+1301.0	+2260.6	Esc: Dev	--	Proc	+1301.0 Const --
Schedule	+3.0	+47.3	--	+50.3	+124.4	+174.7	Esc: Dev	+7.1	Proc	+117.3 Const --
Engineering	+16.0	+137.9	--	+153.9	+183.9	+337.8	Esc: Dev	+7.6	Proc	+176.3 Const --
Estimating	+29.0	+204.1	-0.2	+232.9	+122.9	+355.8	Esc: Dev	+10.3	Proc	+112.5 Const +0.1
Support	--	+166.8	--	+166.8	+256.8	+423.6	Esc: Dev	--	Proc	+256.8 Const --
Other	--	+20.5	--	+20.5	+20.5	+41.0	Esc: Dev	--	Proc	+20.5 Const --
Subtotal	+48.0	+1536.2	-0.2	+1584.0	+1981.2	+3565.2	Esc: Dev	+37.3	Proc	+1943.7 Const +0.2
<u>Current Changes</u>										
Estimating	--	+0.5	--	+0.5	+0.1	+0.6	Esc: Dev	--	Proc	+0.1 Const --
Support	--	-0.2	--	-0.2	-0.1	-0.3	Esc: Dev	--	Proc	-0.1 Const --
Subtotal	--	+0.3	--	+0.3	--	+0.3	Esc: Dev	--	Proc	-- Const --
<u>Total Changes</u>	+48.0	+1536.5	-0.2	+1584.3	+1981.2	+3565.5	Esc: Dev	+37.3	Proc	+1943.7 Const +0.2
<u>Current Estimate</u>	\$121.8	\$1833.2	\$1.3	\$1956.3	\$2073.5	\$4029.8	Esc: Dev	+48.7	Proc	+2024.4 Const +0.4

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

2. Previous Changes:

DEVELOPMENT

Economic: Changes resulting from revised OSD/OMB escalation rates applied throughout the program.

Schedule: Resolution of technical problems in the development program, addressed in the 31 Dec 1979 SAR.

Engineering: Reprogramming into FY-80 RDT&E; addition of ECCM expansion in the R&D program.

Estimating: Changes in material and labor rates; prior year RDT&E price adjustments as reflected in the 30 June 1980 SAR. Reduction as result of FY83 Defense Authorization Bill. Addition to the FY82 budget from reprogramming action. Revised RDT&E funding estimates.

PROCUREMENT

Economic: Changes resulting from revised OSD/OMB escalation rates applied throughout the program.

Quantity: Addition of 35 missiles during the 31 Dec 1978 SAR; reduction of 68 missiles in the 31 Dec 1979 SAR; additional 661 missiles and an extra year of procurement (FY 1986) from the 31 Dec 1980 SAR.

Addition of 1302 missiles through FY 1988 as a result of an Inventory Objective revision during the 31 Dec 1981 SAR, (including \$132.3M of fixed costs). Addition of 717 missiles through Inventory Objective revision (+471) and cancellation of AIM-54A to C retrofit program (+246).

Schedule: Stretch out of missile procurement to FY 1984, as reflected in the 31 Dec 1978 SAR.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

Reducing procurement quantities in FY 1981 by 80 units, FY 1982 by 108 units, and FY 1983 by 60 units, and moving the procurement of those units to FY 1985, as reflected in the 31 Dec 1979 SAR. Compressing the planned procurements in FY 1983, FY 1984, as reflected in the 31 Dec 1980 SAR.

Moving the procurement of 50 units in FY 1986 to FY 1983, during the 31 Mar 1981 SAR. Deferring 162 missiles planned for FY 1983 procurement to outyears in the 31 Dec 1981 SAR. Moving the procurement of 70 missiles in FY 1984 to FY 1989. Revised missile delivery schedule in FY 1984 to FY 1989 due to reduction in FY 1984 quantity by Congressional action during FY 1984 budget cycle. These missiles were added back in the schedule in FY 1990

Engineering: Expected recurring costs due to inclusion of ECCM improvements beginning late in the FY 1983 procurement.

Addition of non-recurring costs for implementation of the "Sealed Missile" product improvement in FY 1983.

Increased tooling and test equipment in FY 1983 and FY 1984 required to reach the high-rate production leading to the current I.O. with the FY 1988 buy. Recurring cost of engineering changes to seal the missile and add ECCM capability in FY 1984. Addition of environmental stress screening tooling in FY 1985. Increase in Systems Engineering/Management to support ECCM/Sealed implementation.

Estimating: Estimating changes in material and labor costs during the initial production of the AIM-54C missile. Added costs due to Iranian procurement termination, reducing the business base of the prime contractor and shifting all previously amortized fixed engineering and tooling costs to the U.S. Government. Resulting from Congressional denial of a DD 1415 reprogramming to cover revised escalation indices. Result of negotiations on the prime FY81/82 contract.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

Estimating: Revised estimates of Target Detection Device and Propulsion Section costs based on FY81/82 actuals, addition of FY 1984 funding to support production surge capability. Increased cost of FY 1979 Target Detection Device due to producibility problems. Reduction of excess FY 1981 funds due to CNM mid-year review. Transfer of FY 1983 funds to Weapons Industrial Fund in exchange for FY 1979 funds used on the Target Detection Device. Reduction in FY 79 due to accounting adjustments. Reduction in FY 82 due to reestimation of requirements during CNM mid-year review.

Support: Repricing of support costs and an increase in Fleet Support Requirements resulting from an increased inventory objective. These increases represent the addition of 1930 units extending the procurement/support program by five years to FY 1988. Reductions of Fleet Support requirement. Transfer of FY 1983 funds to support another appropriation. Increased unfunded spares requirement. Reduction in FY 1983 Fleet Support to fund new WPN Modification requirement. Reduction of excess FY 1981 funds as a result of CNM mid-year review. Additional spares requirement to support AIM-54C+ (ECCM/Sealed) missile due to finding of Logistics Review Board that AIM-54C+ spares were underfunded. Increase in production support requirements to update peculiar support equipment. Reduction in FY 83 spares to support another appropriation.

Other: Additional support costs associated with additional quantity of missiles, increased requirements for establishment of support NARF; additional spares required in FY 1985-1986.

CONSTRUCTION

Economic: Changes resulting from revised OSD/OMB escalation rates applied throughout the program.

Estimating: Resulted from Congressional denial of a DD 1415 reprogramming to cover revised escalation indices. Revised total for MILCON funding.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

3. Changes Since Previous Report:

	<u>BASE YEAR \$</u>	<u>CURRENT \$</u>
<u>DEVELOPMENT</u> - None		
<u>PROCUREMENT</u>		
Estimating: Addition in FY 1980 due to inclusion of unrecorded obligation (+0.6).	+0.5	+0.6
Support: Reduction in FY83 spares	-0.2	-0.3
TOTAL PROGRAM COST CHANGES	+0.3	+0.3

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: PHOENIX (AIM-54C)

(\$ in Millions)

AS OF DATE: June 30, 1984

F. (U) CONTRACTOR COSTS	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgr's. Estimate</u>
<u>1. DEVELOPMENT</u>								
Hughes Aircraft Co. N00019-79-C-0085/FFP (Pilot Production) 28 Sep 79	44.1	44.1	60	N/A	N/A		44.1	44.1
<u>2. PROCUREMENT</u>								
Hughes Aircraft Co. N00019-81-C-0015 (FPI) (FY 1981/82) 26 Mar 81	193.4	209.0	60/72	193.4	209.0	60/72	193.4	193.4
Hughes Aircraft Co. N00019-82-C-0106/FPI (FY83) 12 Mar 84	114.8	119.8	108	114.8	119.8	108	114.8	119.8
Hughes Aircraft Co. N00019-79-C-0628 (FFP) (FY 1980) 5 Dec 1979	84.0	84.0	60	N/A	N/A		96.0 CH-F1	96.0 CH-F1
Motorola Corporation N00019-82-C-0450/FPI (FY82/83 Target Detection Device) 18 Nov 82 (AAC date)	N/A	N/A	72/108	N/A	N/A		FY-82 9.5M currently FY-83 9.3M in negotiation	
Hughes Aircraft Co. N00019-81-C-0174/CPIF (Target Detection Device) 12 Mar 82	15.0		N/A	15.0			15.0	
<u>4. VARIANCE ANALYSIS:</u> none								

CH-F1-The \$12.0 million increase to contract N000190-79-C-0628 resulted from modification to the basic contract to procure manufacturing data, logistic support and peculiar ground support equipment.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: June 30, 1984
 Base Year: FY 1977

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	ESCALATION 1/ RATE (%)
			NON-REC	REC					

APPROPRIATION: RDT&E

1977	-	-	-	-	9.2	9.5	9.5	9.5	3.7
1978	-	-	-	-	6.4	7.1	7.1	7.1	6.8
1979	15	-	-	-	19.1	23.5	23.5	23.5	8.7
1980	30	-	-	-	27.9	38.0	38.0	36.8	9.7
1981	-	-	-	-	23.7	35.4	35.4	35.4	11.9
1982	-	-	-	-	20.0	31.4	31.4	29.4	7.6
1983	-	-	-	-	13.9	22.8	22.8	10.3	4.9
1984	-	-	-	-	1.6	2.8	1.0	-	4.3
TOTAL	45	-	-	-	121.8	170.5	168.7	152.0	

APPROPRIATION: WPN

1979	-	7.9	-	-	7.9	10.7	10.7	10.7	8.7
1980	60	5.3	16.0	54.7	73.0	106.9	106.2	105.5	9.7
1981	60	3.5	10.7	60.7	79.0	125.5	125.5	115.7	11.9
1982	72	12.4	10.4	55.7	92.3	156.8	144.7	119.2	6.8
1983	108	13.5	29.4	79.7	135.1	244.2	175.2	99.7	9.0
1984	265	14.1	15.5	134.4	175.3	335.9	65.4	4.8	5.5
1985	400	18.1	20.1	177.5	237.6	481.8	-	-	6.3
1986	567	17.9	4.5	220.2	255.9	546.9	-	-	5.9
1987	567	18.2	3.9	210.7	244.7	549.5	-	-	5.5
1988	567	17.9	3.9	205.3	231.0	544.0	-	-	5.2
1989	567	17.5	3.9	181.7	204.8	505.5	-	-	4.8
1990	189	-	3.2	95.1	96.6	249.9	-	-	4.8
TOTAL	3422	146.3	121.5	1,475.7	1,833.2	3,857.6	627.7	455.6	

APPROPRIATION: CONSTRUCTION

1978	-	-	-	-	1.3	1.7	1.7	1.7	8.0
TOTAL	-	-	-	-	1.3	1.7	1.7	1.7	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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AF-8 ASAT

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: June 30, 1984

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984

BQ. (U) SUMMARY

1. (U) PROGRAM HIGHLIGHTS

a. (U) SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

In January 1984, the first live launch was accomplished against a point-in-space.

b. (U) PROGRAM STATUS

(1) (U) PERCENT PROGRAM COMPLETED: 13./ 21. = 61.905%

(2) (U) PERCENT PROGRAM COST APPROPRIATED: 986.70/ 3896.90 = 25.320%

2. (U) CHANGES SINCE LAST REPORT

a. (U) OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. (U) SCHEDULE MILESTONES:

(1) (U) AFSARC IIIA (Limited Production Decision) - Feb 85 vice Nov 84 - Congressional withhold of FY 84 advance procurement funds and flight test program replanning resulted in reschedule of AFSARC IIIA.

(2) ~~(S)~~ First Production Delivery -

(b)(1)

(b)(1)

(3) ~~(S)~~ Initial Operational Capability -

(b)(1)

(b)(1)

~~SECRET~~

~~SECRET~~

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984

BQ. (U) SUMMARY (CONTINUED)

2. (U) CHANGES SINCE LAST REPORT

c. (U) PROGRAM ACQUISITION COST:

PREVIOUS EST CHANGE CURRENT EST

(1) (U) TOTAL

(b)(1)

(a) ~~(S)~~ QUANTITY

(b) (U) COST (THEN-YEAR DOLLARS)

3887.40 9.50 3896.90

(c) ~~(S)~~ PROGRAM UNIT COST (THEN-YEAR DOLLARS)

(b)(1)

(2) (U) FY 1984 PROCUREMENT COSTS:

(a) (U) QUANTITY

0.

0.

0.

(b) (U) COST (THEN-YEAR DOLLARS)

PROCUREMENT COST

19.30

0.00

19.30

LESS CY ADVANCE PROC.

19.30

0.00

19.30

PLUS PY ADVANCE PROC.

0.00

0.00

0.00

TOTAL

0.00

0.00

0.00

(c) (U) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)

N/A

--

N/A

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1977

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY

	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	850.2	1001.9	18.7	1870.8	2016.6	3887.4	Esc: 499.9	1496.3	20.4
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc: --	--	--
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	--	--	--	--	--	--	Esc: --	--	--
ENGINEERING	--	--	--	--	--	--	Esc: --	--	--
ESTIMATING	--	--	--	--	--	--	Esc: --	--	--
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	--	--	--	--	--	--	Esc: --	--	--
SUBTOTAL	--	--	--	--	--	--	Esc: --	--	--
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc: --	--	--
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	9.7	--	--	9.7	7.3	17.0	Esc: 7.3	--	--
ENGINEERING	--	--	--	--	--	--	Esc: --	--	--
ESTIMATING	-1.4	--	-2.5	-3.9	-3.6	-7.5	Esc: -0.8	--	-2.8
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	--	--	--	--	--	--	Esc: --	--	--
SUBTOTAL	8.3	--	-2.5	5.8	3.7	9.5	Esc: 6.5	--	-2.8
TOTAL CHANGES	8.3	--	-2.5	5.8	3.7	9.5	Esc: 6.5	--	-2.8
CURRENT ESTIMATE	858.5	1001.9	16.2	1876.6	2020.3	3896.9	Esc: 506.4	1496.3	17.6

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1977

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS (Continued)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	Current \$
DEVELOPMENT SCHEDULE: Congressional hold of advance procurement funding caused a gap between the last DT&E missile and procurement in the first production lot resulting in increased cost. Replanning of ASAT Program taking into account ASAT developmental status and test history, some reasonable test asset availabilities before the target satellite is launched, and the very tight target satellite launch opportunity constraint has resulted in a 12 month flight test extension.	9.7	17.0
ESTIMATING: Reprogramming in FY 1983 based on a refinement of the estimate.	-1.4	-2.2
TOTAL DEVELOPMENT	8.3	14.8
CONSTRUCTION ESTIMATING: Estimate reduction based on 35% design review.	-2.5	-5.3
TOTAL CONSTRUCTION	-2.5	-5.3
TOTAL PROGRAM COST CHANGE	5.8	9.5

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1. DEVELOPMENT								
a. Vought Corporation	268.2	N/A	15	305.9 ChF1	N/A	15	398.3 ChF1	475.8 ChF2
b. Boeing Aerospace Co.	150.9	N/A	15	196.9 ChF3	N/A	15	202.1 ChF3	247.1 ChF4
c. AVCO Systems Div.	36.9	40.4	10	48.8	53.6	10	53.6 ChF5	62.7 ChF6
d. Logicon, Inc.	6.8	N/A	--	13.7 ChF7	N/A	--	13.7 ChF7	13.7 ChF7

2. PROCUREMENT
- a. Vought Corporation ChF8
 - b. Boeing Aerospace Co. ChF8

CONTRACT IDENTIFICATION

- a. Vought Corporation, Contract No. F04701-80-C-0041, June 1980, Cost Plus Incentive/Award Fee, Definitized
- b. Boeing Aerospace Co., Contract No. F04701-80-C-0040, June 1980, Cost Plus Incentive/Award Fee, Definitized
- c. AVCO Systems Div., Contract No. F04701-78-C-0125, May 1979, Fixed Price Incentive, Definitized
- d. Logicon, Inc., Contract No. F04701-80-C-0048, April 1980, Cost Plus Incentive/Award Fee, Definitized
- a. Vought Corporation, Contract No. F04701-84-C-0060, June 1984, Cost Plus Incentive/Award Fee, Undefined
- b. Boeing Aerospace Co., Contract No. F04701-84-C-0059, June 1984, Cost Plus Incentive/Award Fee, Undefined

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

VARIANCE ANALYSIS

Changes Since Previous Report:

- ChF1 Vought Current Contract Target Price increase of \$1.1M and Contractor Estimated Price at Completion increase of \$12.2M are due to additional authorized work for engineering special study tasks supporting flight test program and preproduction activities.
- ChF2, ChF4, ChF6
Program Manager's estimate includes delays in vendor hardware deliveries and flight test schedule extension. Contractor proposals have been received but have not yet been incorporated in the CPR estimate at completion.
- ChF3 Boeing Current Contract Target Price increase of \$17.0M and Contractor Estimated Price at Completion increase of \$13.2M are due to authorized additional work in support of the flight test program and production readiness activities.
- ChF5 Contractor Estimate was raised to ceiling due to piece part problems.
- ChF7 Logicon increase of \$3.5M is due to authorized additional work in support of independent verification and validation activities of the SPADOC IVA effort.
- ChF8 This is the first time these contracts have appeared in the SAR. Contracts were awarded on 26 June 1984 and therefore there is no data available yet.

	CUM THRU 30 Nov 83	CUM THRU 29 Apr 84	CHANGE \$
DEVELOPMENT			
a. Vought Corporation (F04701-80-C-0041)			
Cost Variance	-51.0	-67.0	-16.0
Schedule Variance	-10.4	-10.0	0.4

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

Cumulative cost and schedule variances are due to Vought and subcontractor design and engineering problems in the following areas: Flight Sensor Assembly, Upper Stage Hardware, Miniature Vehicle Test & Evaluation, Test Support Equipment and Software. Since the last report, negative cost variance has increased due to rework in the Flight Sensor Assembly and other Miniature Vehicle subassemblies. Schedule variance improved due to subcontractor hardware deliveries. Variances are reflected in estimates at completion (EAC).

	CUM THRU 30 Nov 83	CUM THRU 26 Apr 84	CHANGE \$
b. Boeing Aerospace Company (F04701-80-C-0040)			
Cost Variance	-4.1	-2.5	1.6
Schedule Variance	-1.6	-1.2	0.4

Cumulative cost and schedule variances are due primarily to additional manpower required to support the flight test program, and delays in vendor and associate contractor missile hardware deliveries. Since the last report, cost and schedule variances have improved due to lower stage and carrier aircraft equipment deliveries. Variances are reflected in EAC.

	CUM THRU 30 Nov 83	CUM THRU 22 Apr 84	CHANGE \$
c. AVCO Systems Division (F04701-80-C-0125)			
Cost Variance	-6.4	-7.8	-1.4
Schedule Variance	-1.1	-1.1	0.0

Cumulative cost and schedule variances are due to piece part problems and late subcontractor deliveries. Since the last report, the negative cost variance has increased due to piece part reorders, retesting, and rescreening activity. Variances are reflected in EAC.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 20 Nov 83	CUM THRU 27 Apr 84	CHANGE \$
d. Logicon, Inc. (F04701-80-C-0048)			
Cost Variance	-0.04	-0.02	0.02
Schedule Variance	-0.02	-0.02	0.00

Cumulative cost and schedule variances are due to additional effort required to accomplish verification and validation associated with the first two flight missiles. The cost variance improved due to completion of validation at AFOTEC. No program or contract impact.

+ = Favorable
- = Unfavorable

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1977

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E 3/

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1972	--	--	--	--	2.7	2.7	2.7	2.7	--
1973	--	--	--	--	0.2	0.2	0.2	0.2	--
1974	--	--	--	--	0.1	0.1	0.1	0.1	--
1975	--	--	--	--	2.7	2.7	2.7	2.7	--
1976	--	--	--	--	3.8	3.8	3.8	3.8	--
1977	--	--	--	--	2.2	2.2	2.2	2.2	--
1978	--	--	--	--	10.4	10.4	10.4	10.4	--
1979	--	--	--	--	36.7	39.7	39.7	39.7	6.8
1980	--	--	--	--	66.0	78.8	78.8	78.8	8.4
1981	--	--	--	--	61.7	81.9	81.9	81.9	9.4
1982	--	--	--	--	99.7	146.5	146.5	146.5	11.9
1983	--	--	--	--	115.5	182.3	182.3	178.8	9.2
1984	--	--	--	--	129.3	213.0	208.7	211.3	5.0
1985	--	--	--	--	118.2	203.1	135.4	56.8	4.3
1986	--	--	--	--	79.1	142.7	--	--	4.9
1987	--	--	--	--	67.1	126.4	--	--	4.6
1988	--	--	--	--	27.7	54.4	--	--	4.3
1989	--	--	--	--	18.7	38.1	--	--	4.0
1990	--	--	--	--	9.0	19.0	--	--	3.7
1990	--	--	--	--	7.7	16.9	--	--	3.7
TOTAL	15.0	--	--	--	858.5	1364.9	895.4	815.9	

1/ Reflects program office records as of 20 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

3/ Amounts shown do not include funds in Program Element 64406 for Advanced Systems.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

G. ~~(S)~~ PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 JUNE 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					

APPROPRIATION: PROCUREMENT - AIRCRAFT (CARRIER AIRCRAFT EQUIPMENT)

1985	(b)(1)	--	3.9	4.1	9.1	18.5	--	--	6.4
1986		--	3.8	6.2	13.1	28.2	--	--	6.0
1987		--	--	20.9	27.1	61.2	--	--	5.6
1988		--	--	20.8	27.3	64.6	--	--	5.2
1989		--	--	6.2	7.3	18.2	--	--	4.8
TOTAL		--	7.7	58.2	83.9	190.7	--	--	

APPROPRIATION: PROCUREMENT - MISSILE

1984	(b)(1)	10.0	--	--	10.0	19.3	--	--	5.6
1985		8.7	15.8	19.2	40.2	83.0	--	--	6.4
1986		14.6	6.7	36.6	59.3	128.9	--	--	6.0
1987		22.8	3.7	65.1	91.4	208.8	--	--	5.6
1988		26.1	8.0	107.2	144.2	344.5	--	--	5.2
1989		28.2	8.0	122.0	164.7	412.6	--	--	4.8
1990		27.5	--	131.6	178.1	468.1	--	--	4.8
1991		11.8	--	139.9	166.4	458.1	--	--	4.8
1992		--	--	56.7	63.7	184.2	--	--	4.8
TOTAL		149.7	42.2	678.3	918.0	2307.5	--	--	

1/ (U) Reflects program office records as of 20 June 1984.

2/ (U) Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SPACE DEFENSE AND OPERATIONS (ASAT)

REPORT AS OF: 30 JUNE 1984

BASE YEAR: FY 1977

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1985	--	--	--	--	7.4	14.2	--	--	4.9
1986	--	--	--	--	--	--	--	--	4.6
1987	--	--	--	--	--	--	--	--	4.3
1988	--	--	--	--	--	--	--	--	4.0
1989	--	--	--	--	8.8	19.6	--	--	3.7
TOTAL	--	--	--	--	16.2	33.8	--	--	

1/ Reflects program office records as of 20 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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AF-2 C-17A

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: C-17A

REPORT AS OF: 30 June 1984

FORMAT	INDEX	SUBJECT	PAGE
BQ		SUMMARY	3
E8		COST VARIANCE ANALYSIS	7
F		CONTRACTOR COST	9
G		PROGRAM FUNDING SUMMARY	10

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: C-17A

REPORT AS OF: 30 June 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

Douglas Aircraft Corporation submitted a restructure proposal to the Air Force in March 1984 covering restructure of the contracts (FSED and Production Options I & II) which resulted from source selection. This proposal was required by Special Provision H-96 dealing with delay of award. We anticipate completion of the negotiations by 1 October 1984. The results of this restructure proposal will be reflected in a future SAR.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 4./ 18. = 22.222%

(2) PERCENT PROGRAM COST APPROPRIATED: 118.70/ 39566.80 = 0.300%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None.

b. SCHEDULE MILESTONES:

MILESTONE II Changed from November 1987 to October 1984

Authority to award the July 1982 contract directed a program review before beginning Full Scale Development (FSD). In June 1984, the Air Force was informed a DSARC II would be required to initiate FSD. This resulted in the change to the previous schedule.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: C-17A

REPORT AS OF: 30 June 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT (Continued)

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	211.	0.	211.
(b) COST (THEN-YEAR DOLLARS)	39753.80	-187.00	39566.80
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	188.4066	-0.8862	187.5204
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	0.	0.	0.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	0.00	0.00	0.00
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	0.00	0.00	0.00
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	0.0000	0.0000	0.0000

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: C-17A

REPORT AS OF: 30 June 1984
BASE YEAR: FY 1981

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY

	Base Year Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST	
PLANNING ESTIMATE	2704.1	16793.2	47.3	19544.6	20209.2	39753.8	Esc:	1242.9	18939.6	26.7
PREVIOUS CHANGES										
ECONOMIC	--	--	--	--	--	--	Esc:	--	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	--	--	--	--	--	--	Esc:	--	--	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	--	--	--	--	--	--	Esc:	--	--	--
CURRENT CHANGES										
ECONOMIC	--	--	--	--	--	--	Esc:	--	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	-1.1	3.4	--	2.3	0.2	2.5	Esc:	-0.2	0.4	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	-108.5	--	-108.5	-81.0	-189.5	Esc:	--	-81.0	--
SUBTOTAL	-1.1	-105.1	--	-106.2	-80.8	-187.0	Esc:	-0.2	-80.6	--
TOTAL CHANGES	-1.1	-105.1	--	-106.2	-80.8	-187.0	Esc:	-0.2	-80.6	--
CURRENT ESTIMATE	2703.0	16688.1	47.3	19438.4	20128.4	39566.8	Esc:	1242.7	18859.0	26.7

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: C-17A

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1981

E8. COST VARIANCE ANALYSIS (Continued)

(Dollars in Millions)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
DEVELOPMENT		
ESTIMATING:		
Reprogrammings in FY 83 and FY 84 based on a refinement of the estimate.	-1.1	-1.3
TOTAL DEVELOPMENT	-1.1	-1.3
PROCUREMENT		
ESTIMATING:		
Realigns procurement funding to the current program estimate.	3.4	3.8
SUPPORT:		
Deletes initial spares requirement for FY 1988 and FY 1989 based on decision to use Interim Contractor Support for the first two years of operation.	-108.5	-189.5
TOTAL PROCUREMENT	-105.1	-185.7
TOTAL PROGRAM COST CHANGE	-106.2	-187.0

QUARTERLY SELLER ACQUISITION REPORT
SYSTEM: C-17A

REPORT AS OF: 30 June 1984
(Dollars in Millions)

	(1)			(2)			(3)	
	Initial Target	Contract Ceiling	Price Qty	Current Target	Contract Ceiling	Price Qty	Price At Completion Contractor Estimate	Program Mgrs. Estimate
F. CONTRACTOR COSTS								
1. DEVELOPMENT								
DOUGLAS AIRCRAFT CO.	31.6	31.6	0.0	113.5 (Ch-F1)	113.5 (Ch-F1)	0.0	113.5 (Ch-F1)	113.5 (Ch-F1)

CONTRACT IDENTIFICATION

Douglas Aircraft Company - Contract F33657-81-C-2108; August 1981; Fixed Price Incentive Fee; Definitized

VARIANCE ANALYSIS

Changes Since Previous Report:

(Ch-F1) - Increase due to addition of FY 1984 effort (FY 84 effort includes: extensive wind tunnel testing, load evaluation, durability and damage tolerance analysis, internal load analysis and member sizing, avionics and flight control architecture, etc.). This is an incremental obligation of funds for a level of effort addition to the contract. The added funds (\$26.3M) were obligated in January 1984.

	CUM THRU 29 Apr 84	CUM THRU 29 Apr 84	CHANGE \$
DEVELOPMENT			
Douglas Aircraft Company			
F33657-81-C-2108			
Cost Variance	0.3	0.3	0.0
Schedule Variance	-2.3	-2.3	0.0

This is a first time report. The contractor's C/SCSC system is in the process of being validated. The demonstration review is scheduled to start in September 1984. The performance measurement baseline has been established through FY 1984 with the balance held in undistributed budget pending government acceptance of the restructured contract.

The current BCWS and BCWP values are an extremely small percentage of the anticipated value of the restructured contract (restructuring is due to be complete in October 1984). Current small variances have no impact on the program.

+ = Favorable; - = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: C-17A

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1981

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1981	--	--	--	--	32.0	33.4	33.4	33.4	11.9
1982	--	--	--	--	--	--	--	--	9.2
1983	--	--	--	--	50.9	59.6	58.9	43.7	5.0
1984	--	--	--	--	21.1	25.7	25.5	0.2	4.3
1985	--	--	--	--	100.9	129.3	--	--	4.9
1986	--	--	--	--	272.2	364.2	--	--	4.6
1987	--	--	--	--	279.6	389.8	--	--	4.3
1988	--	--	--	--	784.2	1135.5	--	--	4.0
1989	--	--	--	--	577.4	867.3	--	--	3.7
1990	--	--	--	--	226.5	352.6	--	--	3.7
1991	--	--	--	--	196.7	317.7	--	--	3.7
1992	--	--	--	--	161.5	270.6	--	--	3.7
TOTAL	1.0	--	--	--	2703.0	3945.7	117.8	77.3	

1/ Reflects program office records as of 30 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: C-17A

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1981

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1987	--	155.1	--	--	155.1	247.2	--	--	5.6
1988	2.0	111.5	306.8	499.8	866.6	1459.4	--	--	5.2
1989	4.0	125.5	187.1	645.6	968.2	1703.9	--	--	4.8
1990	10.0	295.6	44.6	1212.4	1743.8	3212.3	--	--	4.8
1991	20.0	276.2	44.6	1822.9	2405.0	4659.2	--	--	4.8
1992	25.0	256.0	--	1794.1	2271.8	4618.1	--	--	4.8
1993	25.0	220.4	--	1542.9	1713.7	3656.4	--	--	4.8
1994	25.0	208.0	--	1387.9	1557.9	3482.4	--	--	4.8
1995	25.0	195.9	--	1315.1	1478.5	3463.6	--	--	4.8
1996	25.0	177.6	--	1232.3	1342.1	3296.1	--	--	4.8
1997	25.0	108.5	--	1170.7	1231.3	3169.7	--	--	4.8
1998	24.0	--	--	1084.7	954.1	2578.8	--	--	4.8
TOTAL	210.0	2130.3	583.1	13708.4	16688.1	35547.1	--	--	

1/ Reflects program office records as of 30 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: C-17A

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1981

CURRENT ESTIMATE

(\$ in Millions)

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1988	--	--	--	--	19.4	29.0	--	--	4.0
1989	--	--	--	--	--	--	--	--	--
1990	--	--	--	--	27.9	45.0	--	--	3.7
TOTAL	--	--	--	--	47.3	74.0	--	--	

1/ Reflects program office records as of 30 June 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

EA-63-8

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: EA-6B

REPORT AS OF: June 30, 1984

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FOR OPEN PUBLICATION

JUL 23 1984 25

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

OASD(PA) DFOISR 84-T-1554

SAR-84-003

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: EA-6B

AS OF DATE: June 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None
- b. Program Status:
 - 1. Percent program completed: 16.667 (1 of 6 years)
 - 2. Percent program cost appropriated: 19.588

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: None
- b. Schedule Milestones: None
- c. Program Acquisition Cost:

	<u>PREVIOUS EST.</u>	<u>CHANGE</u>	<u>CURRENT EST.</u>
1. Total	38	--	38
a. Quantity	2,747.8	-8.3	2,739.5
b. Cost (Then-Year Dollars)	72.311	-.219	72.092
2. FY-84 Procurement Costs:			
a. Quantity	8	-0-	8
b. Cost (Then-Year Dollars)			
Procurement Cost	503.9	-8.3	495.6
Less CY Advanced Procurement	23.6	-0-	23.6
Plus PY Advanced Procurement	17.6	-0-	17.6
Total	497.9	-8.3	489.6
c. Procurement Unit Cost (Then-Year Dollars)	62.237	-1.037	61.200

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: EA-6B

(Dollars in Millions)

AS OF DATE: June 30, 1984

BASE YEAR: FY 1984

E.8. (U) COST VARIANCE ANALYSIS

1.

SUMMARY

	BASE YEAR/FY84 CONSTANT \$				ESCAL	TOTAL		REMARKS
	DEV	PROC	CONST	SUBTOTAL				
<u>Production Estimate</u>	\$ 210.6	\$2,029.0	\$ -0-	\$2,239.6	\$508.2	\$2,747.8	ESC:	DEV 30.9 PROC 477.3
<u>Current Changes</u>								
<u>ESTIMATING</u>	--	-7.6	--	-7.6	-.7	-8.3	ESC:	DEV -0-
<u>Subtotal</u>	--	-7.6	--	-7.6	-.7	-8.3		PROC: -.7
<u>Total Changes</u>	--	-7.6	--	-7.6	-.7	-8.3	ESC:	DEV. -0-
								PROC: -.7
<u>Current Estimate</u>	\$ 210.6	\$2,021.4	\$ -0-	\$2,232.0	\$507.5	\$2,739.5	ESC:	DEV 30.9 PROC 476.6

2. Previous Changes: First SAR3. Changes Since Previous Report:PROCUREMENT

ESTIMATING: The \$8.3M reprogramming in FY-84 is attributable to a lower than expected definitization price on the FY-83 airframe contract.

TOTAL PROGRAM COST CHANGE

BASE YEARCURRENT-7.6-8.3-7.6-8.3

QUARTERLY SELECTED ACQUISITION REPORTSYSTEM: EA-6B
(Dollars in Millions)

AS OF DATE: June 30, 1984

F. (U)	CONTRACTOR COSTS	(1)			(2)			Price At Completion	
		Initial Target	Contract Ceiling	Price Qty	Current Target	Contract Ceiling	Price Qty	Contractor Estimate	Qty Proj Mgr's Estimate
1.	DEVELOPMENT: NONE								
2.	PROCUREMENT:								
a.	CONTRACTOR: GRUMMAN AEROSPACE								
	CONT. #: N00019-83-C-0009								
	TYPE: FFP	12.1M		6	121.0M		8	121.0M	8 121.0M
	AWARD DATE: DEC. 1982								
	CURRENT STATUS: DEFINITED March 1984								
b.	CONTRACTOR: PRATT & WHITNEY								
	CONTRACT #: N00019-83-C-0004								
	TYPE: FFP	2.1M		12	19.2M		16	19.2M	16 19.2M
	AWARD DATE: March 1983								
	CURRENT STATUS: UNDEFINITIZED								
3.	CONSTRUCTION: NONE								
4.	VARIANCE ANALYSIS: NONE								

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: EA-6B

AS OF DATE: June 30, 1984

BASE YEAR: FY-84

G. (U) PROGRAM FUNDING SUMMARYCURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS		ESCALATION RATE (%) *	
		ADV PROC (NON-ADD)	FLYWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED		EXPENDED
			NON-REC	REC					
APPROPRIATION: RDT&E,N									
1984	--	--	--		22.8	23.4	17.5	--	4.3
1985	--	--	--		41.0	44.1	-0-	--	4.9
1986	--	--	--		52.0	58.3	-0-	--	4.6
1987	--	--	--		25.7	30.0	-0-	--	4.3
1988	--	--	--		26.3	31.9	-0-	--	4.0
1989	--	--	--		42.8	53.8	-0-	--	3.7
TOTAL					210.6	241.5	17.5		

*Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

UNCLASSIFIED

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: EA-6B

AS OF DATE: June 30, 1984

BASE YEAR: FY-84

G. (U) PROGRAM FUNDING SUMMARYCURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	ESCALATION RATE (%) *
			NON-REC	REC					
APPROPRIATION: APN									
1984	8	16.2	8.3	206.7	471.6	513.2	162.2	5.4	5.6
1985	6	20.5	8.0	175.9	343.7	395.8	--	--	6.4
1986	6	15.3	4.2	178.9	273.2	331.8	--	--	6.0
1987	6	15.4	-0-	187.3	260.7	332.8	--	--	5.6
1988	6	15.6	22.6	180.9	270.4	361.9	--	--	5.2
1989	6	17.8	14.6	232.4	401.8	562.5	--	--	4.8
TOTALS	38	100.8	57.7	1,162.1	2,021.4	2,498.0	162.2	5.4	--
APPROPRIATION: MILCON									
1984	--	--	--	--	--	--	N/A	N/A	

*Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

UNCLASSIFIED

AF-1 PEACEKEEPER

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 JUNE 1984

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JUL 20 1984 24

DIRECTORATE FOR FREEDOM OF INFORMATION
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DEPARTMENT OF DEFENSE

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84-0795-T-1533
JASD(PA) DFOISB

54R-84-121

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

Since the last report, production contracts have been awarded for the FY 84 buy. There have also been 2 additional missile test flights.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 2./ 8. = 25.000%

(2) PERCENT PROGRAM COST APPROPRIATED: 6102.80/ 21515.70 = 28.364%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. SCHEDULE MILESTONES:

Propulsion flight proof testing was completed on all four stages as of April 1984. However, due to a redesign of the stage IV propellant tank an additional flight proof test on stage IV will be conducted in July 1984. Therefore, the propulsion flight proof test completion date has slipped from April 1984 to July 1984. This will not impact Initial Operational Capability (IOC).

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT (Continued)

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	243.	0.	243.
(b) COST (THEN-YEAR DOLLARS)	21515.70	0.00	21515.70
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	88.5420	0.0000	88.5420
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	21.	0.	21.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	2157.40	0.00	2157.40
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	2157.40	0.00	2157.40
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	102.7333	0.0000	102.7333

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984
BASE YEAR: FY 1982

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY

	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	6018.2	10292.0	324.7	16634.9	5045.3	21680.2	Esc: 878.9	4086.2	80.2
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	-160.9	-160.9	Esc: -45.7	-109.9	-5.3
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	--	17.6	--	17.6	115.3	132.9	Esc: --	115.3	--
ENGINEERING	--	--	-42.4	-42.4	-7.6	-50.0	Esc: --	--	-7.6
ESTIMATING	--	--	--	--	--	--	Esc: --	--	--
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	-30.7	-8.1	-25.7	-64.5	-22.0	-86.5	Esc: -10.1	-8.5	-3.4
SUBTOTAL	-30.7	9.5	-68.1	-89.3	-75.2	-164.5	Esc: -55.8	-3.1	-16.3
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc: --	--	--
QUANTITY	--	--	--	--	--	--	Esc: --	--	--
SCHEDULE	--	--	--	--	--	--	Esc: --	--	--
ENGINEERING	--	--	--	--	--	--	Esc: --	--	--
ESTIMATING	--	--	--	--	--	--	Esc: --	--	--
OTHER	--	--	--	--	--	--	Esc: --	--	--
SUPPORT	--	--	--	--	--	--	Esc: --	--	--
SUBTOTAL	--	--	--	--	--	--	Esc: --	--	--
TOTAL CHANGES	-30.7	9.5	-68.1	-89.3	-75.2	-164.5	Esc: -55.8	-3.1	-16.3
CURRENT ESTIMATE	5987.5	10301.5	256.6	16545.6	4970.1	21515.7	Esc: 823.1	4083.1	63.9

2. CHANGES SINCE PREVIOUS REPORT:

No changes since last report.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984

(Dollars in Millions)

F. CONTRACTOR COSTS	(1)			(2)			(3)		
	Initial Contract Price			Current Contract Price			Price At Completion		
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs. Estimate	
1. DEVELOPMENT									
Martin Marietta Aerospace	321.5	N/A	0.0	1087.2	ChF1	N/A	0.0	1147.7	ChF1
Boeing Aerospace Company ChF2	~573.0	N/A	0.0	573.1	N/A	0.0	573.1	638.5	
Autonetics Division (Rockwell)	~394.6	N/A	20.0	487.4	ChF3	N/A	20.0	487.4	ChF3
Northrop Electronics Div.	235.0	N/A	18.0	396.6	ChF4	N/A	23.0	429.9	ChF4
Northrop Electronics Div. ChF5	~396.8	N/A	~18.0	401.8	N/A	18.0	401.8	458.3	
Morton Thiokol ChF6	~310.6	~346.9	~10.0	318.7	356.9	10.0	308.8	328.4	

CONTRACT IDENTIFICATION

Martin Marietta Aerospace - Contract F04704-78-C-0016; September 1979; Cost Plus Incentive Fee (Definitized) Development

Boeing Aerospace Company - Contract F04704-83-C-0047; October 1983; Cost Plus Incentive Fee/Award Fee (Definitized) Development

Autonetics Division (Rockwell) - Contract F04704-82-C-0020; May 1983; Cost Plus Incentive Fee (Definitized) Development

Northrop Electronics Div - Contract F04704-80-C-0003; September 1979; Cost Plus Incentive Fee (Definitized) Development

Northrop Electronics Div - Contract F04704-83-C-0023; June 1983; Cost Plus Incentive Fee (Definitized) Development

Morton Thiokol - Contract F04704-83-C-0001; May 1983; Fixed Price Incentive Fee (Definitized) Development

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

VARIANCE ANALYSIS

Changes Since Previous Report

- ChF1 Current Target Price, Contractor Estimate at Completion and Program Managers Estimate at Completion have increased due to change orders relating to extension of Peacekeeper effort at Vandenberg.
- ChF2 First submission for the Boeing contract. Replaces Autonetics contract F04704-78-C-0021.
- ChF3 Current Target Price, Contractor Estimate at Completion and Program Managers Estimate at Completion increased due to change orders for factory support equipment/depot support equipment, Automated Sample Data Instrumentation System and technology modernization effort. Program Managers Estimate also includes authorized effort that has not appeared in the contractor reports.
- ChF4 Current Target Price, Contractor Estimate at Completion and Program Managers Estimate at Completion have decreased due to favorable change order negotiations and reductions to the overrun forecast.
- ChF5 First submission for the Northrop 23 contract. Replaces Rocketdyne contract F04704-77-C-0028.
- ChF6 First submission for the Thiokol 01 contract. Replaces Thiokol contract F04704-78-C-0009.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

DEVELOPMENT	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
Martin Marietta Aerospace F04704-78-C-0016			
Cost Variance	-66.6	-56.1	10.5
Schedule Variance	-13.8	-14.5	-0.7

Cost variance has improved due to contractor taking earned value associated with the flight tests, and delay in onloading manpower in supporting project management and systems engineering. Schedule variance deterioration is due to subcontractor delay in start up effort, and lack of valid plans from new subcontractors in the transportation and handling area. No program impact.

	CUM THRU 30 Apr 84	CUM THRU 30 Apr 84	CHANGE \$
Boeing Aerospace Company F04704-83-C-0047			
Cost Variance	-7.2	-7.2	0.0
Schedule Variance	-9.3	-9.3	0.0

First report for this contract. Cost and schedule variances to date are due to parts being unavailable and designs being changed, hardware design/test variances on launch control system and ground power and shock isolation equipment. No program impact.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
Autonetics Division (Rockwell)			
F04704-82-C-0020			
Cost Variance	1.4	2.6	1.2
Schedule Variance	-5.4	-10.5	-5.1

Cost variance has improved due to favorable overhead rates. The schedule variance deterioration is due to delays in the development and qualification activities of a radiation hardened programmable read only memory. Also contributing to the schedule variance is later than planned subcontractor billings. No program impact.

	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
Northrop Electronics Div			
F04704-80-C-0003			
Cost Variance	-43.9	-45.1	-1.2
Schedule Variance	-12.4	-8.8	3.6

Cost variance has deteriorated due to premium overtime to recover schedule, purchased labor, heavy engineering change activity and the related indirect costs. Schedule variance improvement is due to receipt of final material to complete this contract and continued successful subassembly completion. No program impact.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 31 Jan 84	CUM THRU 30 Apr 84	CHANGE \$
Northrop Electronics Div F04704-83-C-0023			
Cost Variance	-0.5	1.0	1.5
Schedule Variance	-5.8	-7.2	-1.4

Cost variance has improved due to favorable overhead rates. The schedule variance has deteriorated due to technical problems delaying release of engineering documentation which in turn delays kit release to manufacturing. No program impact.

	CUM THRU 30 Nov 83	CUM THRU 30 Apr 84	CHANGE \$
Morton Thiokol F04704-83-C-0001			
Cost Variance	0.7	1.5	0.8
Schedule Variance	-5.2	-7.7	-2.5

Cost variance has improved due to underruns in support areas as well as favorable price variances in nozzle materials and case winding. The schedule variance has deteriorated reflecting slow contract start up and delays in material receipt and subcontract effort. No program impact.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1982

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE

(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1983	--	--	--	--	1784.1	1912.6	1912.6	1388.1	5.0
1984	--	--	--	--	1775.4	1984.9	1103.2	262.1	4.3
1985	--	--	--	--	1463.2	1716.3	--	--	4.9
1986	--	--	--	--	695.8	852.3	--	--	4.6
1987	--	--	--	--	245.0	312.6	--	--	4.3
1988	--	--	--	--	22.5	29.8	--	--	4.0
1989	--	--	--	--	1.5	2.1	--	--	3.7
1990	--	--	--	--	--	--	--	--	3.7
TOTAL	20.0	--	--	--	5987.5	6810.6	3015.8	1650.2	

1/ Reflects program office records as of 31 May 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

3/ Total costs identify the \$16.5B estimate (FY82 dollars), which equates to \$21.5B in then year dollars, for the current Peacekeeper program which is based on the Report by the President's Commission on Strategic Forces, April 1983, and the President's letter, 19 April 1983, transmitting Strategic Forces Technical Assessment Review (31 March 83), to the Congress. Does not include \$3199.5 in FY82 and prior missile costs (development of flight test missiles and all equipment leading to first flight) or \$1399.2 in FY83 and prior spent on earlier basing modes (Multiple Protective Shelters, horizontal shelter system, interim deployment in 40 Minuteman silos, and Closely Spaced Basing) (then year dollars in millions).

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1982

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - MISSILE

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1983	--	--	--	--	--	--	--	--	9.0
1984	21.0	--	283.7	963.6	1735.6	2157.4	659.9	0.5	5.6
1985	40.0	--	25.8	1329.9	2406.6	3171.9	--	--	6.4
1986	48.0	--	7.3	1301.8	2039.5	2832.9	--	--	6.0
1987	48.0	--	--	1249.6	1868.2	2727.6	--	--	5.6
1988	48.0	--	--	1141.9	1635.5	2504.0	--	--	5.2
1989	18.0	--	--	358.7	583.0	935.1	--	--	4.8
1990	--	--	--	--	33.1	55.7	--	--	4.8
TOTAL	223.0	--	316.8	6345.5	10301.5	14384.6	659.9	0.5	

1/ Reflects program office records as of 31 May 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PEACEKEEPER

REPORT AS OF: 30 June 1984

BASE YEAR: FY 1982

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL <u>3/</u>	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1983 <u>4/</u>	--	--	--	--	14.7	16.7	1.1	0.1	4.9
1984	--	--	--	--	26.8	31.2	--	--	4.3
1985	--	--	--	--	93.4	114.0	--	--	4.9
1986	--	--	--	--	61.2	77.9	--	--	4.6
1987	--	--	--	--	45.4	60.0	--	--	4.3
1988	--	--	--	--	15.1	20.7	--	--	4.0
1989	--	--	--	--	--	--	--	--	3.7
1990	--	--	--	--	--	--	--	--	3.7
TOTAL	--	--	--	--	256.6	320.5	1.1	0.1	

1/ Reflects program office records as of 31 May 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

3/ Construction total does not include \$86.1 in FY82 and prior year funds (then year dollars in millions).

4/ FY83 figures do not include the planning and design funds (\$29.1M then year; \$25.7M base year) in program element 91211F, which were included in the 30 June 1983 SAR.

N-13 SUBACS

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT (RSC: DD-COMP (Q&A) 823)
SYSTEM: SUBACS AND WAA

REPORT AS OF: June 30, 1984

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1600 BPI
6250 FPI
10000 FPI
51. 10000

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AND SECURITY REVIEW (DASD-PA)
DEPARTMENT OF DEFENSE

UNCLASSIFIED

542-84-012

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEMS: SUBACS and WAA

REPORT AS OF: June 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None
- b. Program Status
 - (1) Percent program completed: 18.2%
 - (2) Percent program cost appropriated: 11.7%

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: No Change
- b. Schedule Milestones: No Change
- c. Program Acquisition Cost:

- (1) Total
 - (a) Quantity
 - (b) Cost (then-year dollars)
 - (c) Program Unit Cost (then-year dollars)

<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
N/A	N/A	N/A ^{1/}
3827.6	+15.1	3842.7
N/A	N/A	N/A

- (2) FY84 Procurement Costs: N/A
 - (a) Quantity
 - (b) Cost (then-year dollars)
 - Procurement Cost
 - Less CY Advanced Proc.
 - Plus PY Advanced Proc.
 - Total

^{1/} Production systems for new construction ships are procured under SCN appropriation and are reported in the SSN SAR.

- (c) Procurement Unit Cost (then-year)

["Total" in (2)(b) ÷ (2)(a)]

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SUBACS and WAA

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1984

E.8 COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary

	Base Year / FY84 Constant \$				<u>Escal</u>	<u>Total</u>	<u>Remarks</u>
	<u>Devel</u>	<u>Proc</u>	<u>Const</u>	<u>Subtotal</u>			
<u>Planning Estimate</u>	2027.5	944.9	--	2972.4	855.2	3827.6	ESC: DEV 319.4 PROC 535.8
<u>Previous Changes</u>	--	--	--	--	--	--	
<u>Current Changes</u>							
Engineering	7.0	--	--	7.0	0.9	7.9	ESC: DEV. + 0.9
Estimating	6.4	--	--	6.4	0.8	7.2	ESC: DEV. + 0.8
<u>Total Changes</u>	15.5	--	--	15.5	-0.4	15.1	
<u>Current Estimate</u>	2043.0	944.9	--	2987.9	854.8	3842.7	ESC: DEV 319.0 PROC 535.8

2. Previous Changes: None - initial SAR

Adding?

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SUBACS and WAA

AS OF DATE: June 30, 1984
BASE YEAR: FY 1984

E.8 COST VARIANCE ANALYSIS

(Dollars in Millions)

<u>3. Changes Since Previous Report:</u>		<u>Base Year \$</u>	<u>Current \$</u>
<u>DEVELOPMENT</u>			
Engineering:	Additional testing mandated by Secretary of Defense (Research and Engineering)	+7.0	+7.9
Estimating:	Increased development cost based on estimates refined after prime contract negotiations	+6.4	+7.2
Economic:	Rephasing of development in out years	<u>+2.1</u>	<u>0</u>
	TOTAL Development Cost Change	+15.5	+15.1
<u>PROCUREMENT</u>			
	N/A	--	--
<u>CONSTRUCTION:</u>			
	N/A	--	--
<u>TOTAL PROGRAM COST CHANGE</u>		<u>+15.5</u>	<u>+15.1</u>

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SUBACS and WAA
(THEN-YEAR DOLLARS IN MILLIONS)

AS OF DATE: June 30, 1983

F. CONTRACTOR COSTS	(1)			(2)			(3)	
	Initial Contract Price Target	Ceiling	Qty	Current Contract Price Target	Ceiling	Qty	Price At Completion Contractor Estimate	Prog Mgr's Estimate
1. DEVELOPMENT								
a. IBN Corporation Manassas, VA SUBACS CC/A N00024-83-C-6083 CPAF - 1 October 1982	89.0	--	3	\$768.5	--	6	768.5	822.3
b. Raytheon Co. Portsmouth, RI SADS TG N00024-81-C-6236 CPAF - 30 June 1981	54.2	--	3	85.7	--	3	85.7	98.7
c. Raytheon, Co. Portsmouth, RI WAA Electronics N00024-80-C-6282 CPFF - 29 September 1980	23.7	--	1	26.3	25.2	1	26.3	26.3
d. Raytheon, Co. Portsmouth, RI HF Transmitter N00024-80-C-6066 CPAF - 20 June 1980	7.9	--	3	19.0	--	4	19.0	20.1
e. Brunswick Corp. Costa Mesa, CA WAA Array N00140-81-C-BA28 CPFF - 14 April 1981	2.0	--	7 ^{1/}	4.6	4.0	7	5.1	6.6

^{1/} This quantity is seven assemblies, not seven complete arrays.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: SUBACS and WAA
(THEN-YEAR DOLLARS IN MILLIONS)

~~BUSINESS SENSITIVE INFORMATION~~

AS OF DATE: June 30, 1984

F.2. COST/SCHEDULE VARIANCES

- a. N00024-83-C-6083 (SUBACS BASIC Combat System). The competition for the SUBACS combat system was completed April 1982 with an award to IBN. The full scale development for SUBACS BASIC includes the integration of several subsystems already in full scale development. The Submarine Active Detection Sonar (SADS) Receive Group is one of the subsystems and under full scale development at IBN. A contract modification was awarded 22 December 1983 for full scale development of SUBACS BASIC combat systems. The initial contract price of \$89.0M for three (3) standalone Submarine Active Detection Sonar Receive Group engineering development models was increased to \$768.5M for five (5) Ship Sets and one (1) engineering development model of the complete SUBACS BASIC combat system, including the Receive Group. A cost performance baseline was established in February 1984. The contract is currently showing unfavorable cost and schedule variances of \$3.8M and \$4.5M respectively. Approximately 47% of the schedule variance is in the following areas: Common Module design, 1051 SASC Design, 1058 Beamformer Design, Non Recurring Start up (NRSU) Owego, NRSU Module Baseplate, Factory Test equipment and Factory Test Facility. Approximately 52% of the cost variance is in the following areas: Common Module Design, 1051 SASC Design, 1058 Beamformer Design, TDP Design, NRSU Owego, Program Office, and Interface Coordination. The impact of the variances on the program manager's estimated price at completion and total program are not known at this time due to the Cost Performance Report (CPR) not being complete as of this report period.
- b. N00024-81-C-6236 (SUBACS Acoustic Detection Sonar Transmit Group). The initial contract was awarded for three (3) standalone EDN systems for testing. The initial contract price increased from \$54.2M to the current contract price of \$85.7M for SADS Transmit Group system to be integrated with the SUBACS BASIC system adding costs of one (1) EDN and two (2) Ship Sets. Contractual changes to accomplish this were: specification changes for SUBACS compatibility and schedule changes to meet SUBACS requirements. The contract is currently showing unfavorable cost and schedule variances of \$2.8M and \$4.2M respectively due largely to the following four areas: The Sonar Transmitter unit material, The Primary Power Transmit Control Unit, The Facilities and Hardware and Processor Program. The contractor contends that cost performance is still within the budgeted baseline. However, the predicted cost growth as shown by the Program Manager's estimate was derived using a performance factor based on cumulative cost performance and experience on other programs. The variances are within cost and schedule constraints.
- c. N00024-80-C-6282 (Wide Aperture Array Electronics). The initial contract price increased from \$23.7M to current contract price of \$26.3M to include System Engineering and Refurbishment of the AN/BQR-24. There are no significant cost/schedule variances.
- d. N00024-80-C-6066 (High Frequency Transmitter). There is no cost performance report on this small contract. The total contract price increased from \$7.9M to \$19.0M due to specification, schedule and quantity changes. The original contract was awarded for three (3) standalone EDN systems for testing. The current contract includes integration into SUBACS and development and production as part of the SUBACS BASIC system. Contractual changes to accomplish this were: specification changes for SUBACS compatibility; schedule change to meet SUBACS requirements; and a quantity increase to meet SUBACS requirements.
- e. N00140-81-C-BA28 (Wide Aperture Array). There is no cost performance report on this small contract. The initial contract price increased from \$2.0M to \$4.6M. The increase was due to the addition of transition pieces for the array structure and provision of a 6' x 6' testing array, other design and material changes, and a cost overrun. Additional estimates of possible minor design changes and program stretchout costs have resulted in the Program Manager's estimate of \$6.6M at completion. The program is on schedule for at-sea testing.

~~BUSINESS SENSITIVE INFORMATION~~

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QUARTERLY ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: SUBACS and WAA

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1984

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) ^{1/}
		ADV PROC (NON-ADD)	SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&E,N									
FY81	--	--	--	--	\$ 61.6	53.7	53.7	53.7	11.9
FY82	--	--	--	--	116.1	107.7	107.7	107.7	7.6
FY83	--	--	--	--	141.9	138.2	138.2	131.6	4.9
FY84	--	--	--	--	145.0	148.7	133.5	76.8	4.3
FY85	--	--	--	--	192.5	206.7	--	--	4.9
FY86	--	--	--	--	225.6	253.0	--	--	4.6
FY87	--	--	--	--	289.4	338.1	--	--	4.3
FY88	--	--	--	--	232.8	282.5	--	--	4.0
FY89	--	--	--	--	256.2	322.4	--	--	3.7
FY90	--	--	--	--	186.8	243.7	--	--	3.7
FY91	--	--	--	--	143.7	194.4	--	--	3.7
FY92	--	--	--	--	36.7	51.5	--	--	3.7
FY93	--	--	--	--	13.8	20.1	--	--	3.7
FY94	--	--	--	--	.9	1.3	--	--	3.7
TOTAL	--	--	--	--	2043.0	2362.0	433.1	369.8	--

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY ANNUAL SELECTED ACQUISITION REPORT

SYSTEM: SUBACS and WAA

AS OF DATE: June 30, 1984

BASE YEAR: FY 1984

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) ^{1/}
		ADV PROC (NON-ADD)	SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: OPN									
FY86	--	--	--	--	4.9	5.8	--	--	4.6
FY87	--	--	--	--	47.9	58.4	--	--	4.3
FY88	--	--	--	--	3.4	4.3	--	--	4.0
FY89	--	--	--	--	70.3	92.3	--	--	3.7
FY90	--	--	--	--	176.5	239.8	--	--	3.7
FY91	--	--	--	--	38.4	54.6	--	--	3.7
FY92	--	--	--	--	42.9	62.7	--	--	3.7
FY93	--	--	--	--	13.2	20.0	--	--	3.7
FY94	--	--	--	--	93.3	146.8	--	--	3.7
FY95	--	--	--	--	48.9	79.8	--	--	3.7
FY96	--	--	--	--	160.4	271.4	--	--	3.7
FY97	--	--	--	--	90.1	158.1	--	--	3.7
FY98	--	--	--	--	95.3	173.5	--	--	3.7
FY99	--	--	--	--	50.5	95.3	--	--	3.7
FY00	--	--	--	--	3.6	7.0	--	--	3.7
FY01	--	--	--	--	3.5	7.2	--	--	3.7
FY02	--	--	--	--	1.8	3.7	--	--	3.7
TOTAL	--	--	--	--	944.9	1480.7	--	--	--

UNC SIFIED

N-14 T45TS

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

REPORT AS OF: June 30, 1984

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DEPARTMENT OF DEFENSE

OASD(PA) DFOISR 84-T-1542

UNCLASSIFIED

SAR-84-084

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

AS OF DATE: June 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report:

None.

b. Program Status:

- (1) Percent program completed: 5 of 16 years or 31.2%
 (2) Percent program cost appropriated: 43.6 of 5462.0M = .008 or 0.8%

c. Total Program Costs:

Estimated total costs for the program are \$5,462.0 million (RDT&E,N, \$1,342.9M; AP,N, \$4,119.1M) of which \$30.7 million (RDT&E,N) are sunk costs (obligated through 31 May 1984) and costs to complete are \$5,431.3 million.

2. CHANGES SINCE LAST REPORT

a. Operational and Technical Characteristics: None.

b. Schedule Milestones:

	<u>PREVIOUS EST</u>	<u>CHANGE*</u>	<u>CURRENT EST</u>
(1) FSD Contract Award	Jan 85	- 4 mo.	Sep 84
(2) Ready For Training (RFT)	Feb 91	- 4 mo.	Oct 90
(3) Initial Operational Capability (IOC)	Feb 91	- 4 mo.	Oct 90

* Reasons for Changes: Modification of FSD contracting strategy to award Letter Contract in Sep 1984 and redefinition of RFT/IOC based on delivery of twelfth production aircraft vice twentieth production aircraft.

c. Program Acquisition Cost: None.

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QUARTERLY SELECTED ACQUISITION REPORT
 SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1984

EB. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY 84 Constant \$				ESCALATION	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Planning Estimate	\$1,150.3	\$2,604.3	--	\$3,754.6	\$1,707.4	\$5,462.0	ESC: DEV 192.6; PROC 1,514.8
Previous Changes							
Economic	--	--	--	--	--	--	
Quantity	--	--	--	--	--	--	
Schedule	--	--	--	--	--	--	
Engineering	--	--	--	--	--	--	
Estimating	--	--	--	--	--	--	
Other	--	--	--	--	--	--	
Support	--	--	--	--	--	--	
Subtotal	--	--	--	--	--	--	
Current Changes							
Economic	--	--	--	--	--	--	
Quantity	--	--	--	--	--	--	
Schedule	--	--	--	--	--	--	
Engineering	--	--	--	--	--	--	
Estimating	--	--	--	--	--	--	
Other	--	--	--	--	--	--	
Support	--	--	--	--	--	--	
Subtotal	--	--	--	--	--	--	
Total Changes	--	--	--	--	--	--	
Current Estimate	\$1,150.3	\$2,604.3	--	\$3,754.6	\$1,707.4	\$5,462.0	ESC: DEV 192.6; PROC 1,514.8

2. Previous Changes: None.

3. Changes Since Previous Report: None.

UNCLASSIFIED

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM
(Dollars in Millions)

AS OF DATE: June 30, 1984

F.(U)		<u>(1)</u>			<u>(2)</u>			<u>(3)</u>	
		<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>	
	<u>CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1.	<u>DEVELOPMENT</u>								
	Douglas Aircraft Co. N00019-81-C-0499 Definitized 24 Sept 1982 Cost Plus Incentive Fee	15.6	N/A	--	12.7	CH-F1 N/A	--	15.8 CH-F2	14.0 CH-F2

2. VARIANCE ANALYSIS:

a. Cost/Schedule Variances

Contractor's cumulative schedule variance is unfavorable by (\$.2M) due to an ongoing formalized change in schedule. No impact to overall contract performance is anticipated.

b. Changes Since Previous Report

CH-F1 Increase in Target Price is based on additional provisioned contract effort in areas such as aircraft/engine specification coordination, T&E, curriculum development and R&M analyses.
CH-F2 Increase in Contractor Estimate and Program Manager's Estimate at Completion is attributable to contractual modifications for additional provisioned effort.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

AS OF DATE: June 30, 1984
BASE YEAR: FY 1984

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 1/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD) NON-REC	REC	TOTAL	TOTAL	OBLIGATED	EXPENDED	
1980	--	--	--	--	4.2 2/	4.2	4.2	4.2	9.70
1981	--	--	--	--	1.6 2/	1.6	1.6	1.6	11.90
1982	--	--	--	--	5.0 2/	5.0	5.0	5.0	7.60
1983	--	--	--	--	7.9 2/	7.9	7.9	7.6	4.90
1984	--	--	--	--	24.3	24.9	12.0	3.4	4.30
1985	--	--	--	--	105.6	113.4	0	0	4.90
1986	--	--	--	--	235.1	263.7	0	0	4.60
1987	--	--	--	--	329.7	385.2	0	0	4.30
1988	--	--	--	--	312.2	378.8	0	0	4.00
1989	--	--	--	--	101.2	127.4	0	0	3.70
1990	--	--	--	--	19.7	25.7	0	0	3.70
1991	--	--	--	--	3.8	5.1	0	0	3.70
TOTAL	4	--	--	--	1,150.3	1,342.9	30.7	21.8	

APPROPRIATION: RDT&E,N (T-45A AIRCRAFT)

APPROPRIATION: APN (T-45A AIRCRAFT)

1987	--	(+18.1)	--	--	18.1	24.2	0	0	5.59
1988	8	(+34.2)	(15.7)	(103.2)	215.1	290.1	0	0	5.20
1989	24	(+42.2)	(11.3)	(195.8)	374.4	528.1	0	0	4.81
1990	36	(+34.0)	(7.4)	(235.4)	380.0	561.1	0	0	4.81
1991	48	(+32.5)	(0.5)	(283.2)	416.8	644.8	0	0	4.81
1992	48	(+31.5)	(0.5)	(271.0)	371.2	602.1	0	0	4.81
1993	48	(+30.8)	--	(262.2)	313.2	532.6	0	0	4.81
1994	48	(+25.5)	--	(256.5)	291.2	518.9	0	0	4.81
1995	40	--	--	(212.6)	224.3	417.2	0	0	4.81
TOTAL	300	(248.8)	(35.4)	(1,819.9)	2,604.3	4,119.1	0	0	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index. Fiscal Years 1980-1983 reflect historical escalation rates; Fiscal Years 1984-1991 reflect projected escalation rates.

2/ The following amounts must be added to the reflected actuals to bring them to Base Year 1984 dollars: 1980:+1.0; 1981:+0.2; 1982:+0.3; 1983:+0.1.

AF-9 WIS

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(04A)823)
SYSTEM: INMCCS INFORMATION SYSTEM (WIS)

REPORT AS OF: June 30, 1984

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DIRECTORATE FOR FREEDOM OF INFORMATION
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DEPARTMENT OF DEFENSE

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DDC (CA) WISLSD
84-1534

INCOMING

104 JUL 19 PM 1:30

SAF/PAS

SAF/PAS

84-0798-T

SAF-84-126

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WMMCCS INFORMATION SYSTEM (WIS)

AS OF DATE: June 30, 1984

8Q. SUMMARY

1. PROGRAM HIGHLIGHTS:

a. Demonstrations of the WIS local area network architecture were initiated at the Defense Communications Agency testbed facility. Development of a control mode security prototype was initiated at U.S. Army Forces Command. A prototype Automated Message Handling (AMH) system was installed at U.S. Readiness Command. Additional projects included a distributed software engineering control process to manage software development and Ada related projects in software, graphics, and data base modernization. Specifications for the common user contract were developed. The refinement and translation of JCS ROCs into ADP requirements were initiated. This will form the basis of the WIS baseline and baseline cost estimates.

b.

(1) Percent program completed: No of Yrs funds have been appropriated $\frac{3}{8}$ = 38%
 No of Yrs funds are expected to be appropriated $\frac{8}{8}$

(2) Percent program cost appropriated: Total funds appropriated \$ 89.4M = 5%
 Total funds planned to be appropriated \$1,724.0M

2. CHANGES SINCE LAST REPORT:

a. Operational and Technical Characteristics: None.

b. Schedule Milestones: None.

c. Program Acquisition Cost:

	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity	-	-	-
(b) Cost (then-year dollars)	1,720.1	+ 3.9	1,724.0
(c) Program Unit Cost (then-year dollars)	-	-	-
(2) FY 84 Procurement Costs:			
(a) Quantity	-	-	-
(b) Cost (then-year dollars)			
Procurement Cost	5.5	-	5.5
Less CY Advance Proc.	-	-	-
Plus PY Advance Proc.	-	-	-
Total	5.5	-	5.5
(c) Procurement Unit Cost (then-year dollars)	-	-	-

QUARTERLY SELECTED ACTIVITY REPORT
SYSTEM: WNMCCS INFORMATION SYSTEM (WIS)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

EB. COST VARIANCE ANALYSIS - WIS

(Dollars in Millions)

1. Summary

	Base Year/FY 82 Constant \$					ESC	TOTAL	REMARKS
	DEV	PROC	CONST	OBM	SUBTOTAL			
Planning Estimate	529.4	553.6	1.9	237.5	1,322.4	397.7	1,720.1	Esc: Dev. 134.5; Proc. 189.3; Const. 0.5; OBM. 73.4
Previous Changes	-	-	-	-	-	-	-	
Current Changes								
Engineering	+3.5	-	-	-	+3.5	+0.4	+3.9	Esc: Dev. +0.4
Estimating	-0.1	-0.2	-	-	-0.3	+0.3	-	Esc: Dev. +0.1; Proc. +0.2
Subtotal	+3.4	-0.2	-	-	+3.2	+0.7	+3.9	Esc: Dev. +0.5; Proc. +0.2
Total Changes	+3.4	-0.2	-	-	+3.2	+0.7	+3.9	Esc: Dev. +0.5; Proc. +0.2
Current Estimate	532.8	553.4	1.9	237.5	1,325.6	398.4	1,724.0	Esc: Dev. 135.0; Proc. 189.5; Const. 0.5; OBM. 73.4

2. Previous Changes: None.

3. Changes Since Previous Report:

DEVELOPMENT

Engineering: Support requirement to develop and to integrate product improvement (flexibility/adaptability) into the applications software. Additional funds were made available for Ada software program development environment.

Base Year \$	Current \$
+3.5	+3.9
-0.1	-
+3.4	+3.9

Estimating: To correct rounding error in base year computation.
TOTAL Development Cost Change

PROCUREMENT

Estimating: To correct rounding error in base year computation.

Base Year \$	Current \$
-0.2	-
-0.2	-

TOTAL Procurement Cost Change

TOTAL PROGRAM COST CHANGE

Base Year \$	Current \$
+3.2	+3.9

QUARTERLY SELECTION ACQUISITION REPORT
SYSTEM: WMMCCS Information System (WIS)
(\$ In Millions)

AS OF DATE: June 30, 1984

F. CONTRACTOR COSTS	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Hrs Estimates
1. Development								
General Telephone and Electronics Corp (GTE)	36.6	N/A	N/A	36.6	N/A	N/A	36.6	36.6

CONTRACT IDENTIFICATION

General Telephone and Electronics Corp (GTE), Contract F19628-84-C-0032, 26 October 1983, Cost Plus/Award Fee, Definitized (Development).

2. VARIANCE ANALYSIS

Subsequent Acquisition Review (SAR) was held in February 1984. Of the 29 action items identified, 28 have been resolved. Pending resolution of the final action item, which is anticipated during the fourth quarter of the fiscal year, variance analysis will address contract cost/schedule performance data cumulative from contract award.

	VARIANCE	CUM THRU
Development		27 April 1984
General Telephone and Electronics Corp. (GTE)	Cost	\$ -0.6
F19628-84-C-0032	Schedule	\$ -1.4

The Cumulative To Date Unfavorable Cost Variance (\$564K) is due to learning curve inefficiencies and greater than expected use of senior personnel due to the complexity and dynamic nature of the program.

The Cumulative To Date Unfavorable Schedule Variance (\$1,443K) is due to a delay in start up of Development and Evaluation Facility (DEF) construction and hardware delivery, plus learning curve inefficiencies and complexity of the Operation Requirements Analysis.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WMMCCS INFORMATION SYSTEM (WIS)

PROGRAM FUNDING SUMMARY - WIS

(Dollars in Millions)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	13.6	14.0	14.0	14.0	9.2
1983	-	-	-	-	16.6	17.8	17.8	15.2	5.0
1984	-	-	-	-	41.5	46.5	27.9	14.3	4.3
1985	-	-	-	-	64.3	75.4	-	-	4.9
1986	-	-	-	-	98.6	120.8	-	-	4.6
1987	-	-	-	-	123.6	157.7	-	-	4.3
1988	-	-	-	-	88.6	117.6	-	-	4.0
1989	-	-	-	-	86.0	118.1	-	-	3.7
TOTAL	0	0	0	0	532.8	667.8	59.7	43.5	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	5.0	5.6	5.6	5.6	5.0
1984	-	-	-	-	4.7	5.5	5.1	5.1	4.3
1985	-	-	-	-	22.6	27.7	-	-	4.9
1986	-	-	-	-	103.1	131.4	-	-	4.6
1987	-	-	-	-	154.6	205.0	-	-	4.3
1988	-	-	-	-	152.0	208.9	-	-	4.0
1989	-	-	-	-	111.4	158.8	-	-	3.7
TOTAL	0	0	0	0	553.4	742.9	10.7	10.7	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	1.9	2.4	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	1.9	2.4	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	.3	.4	-	-	4.9
1986	-	-	-	-	35.1	42.7	-	-	4.6
1987	-	-	-	-	53.2	67.6	-	-	4.3
1988	-	-	-	-	69.1	91.1	-	-	4.0
1989	-	-	-	-	79.8	109.1	-	-	3.7
TOTAL	0	0	0	0	237.5	310.9	0	0	-

*Does not reflect program cost related to JUPES, NIS, and AMH RUCs. The WIS Program Development Estimate will be approved in 3rd Qtr FY 85 and include these costs. Program cost for years beyond the FYDP have not been determined.

QUARTERLY SELECT ACQUISITION REPORT
SYSTEM: MMCCS I ION SYSTEM (WIS)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

G. PROGRAM FUNDING SUMMARY - ARMY

(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: ROT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
*1984	-	-	-	-	11.8	13.2	5.7	2.2	4.3
1985	-	-	-	-	23.2	27.2	-	-	4.9
1986	-	-	-	-	26.5	32.5	-	-	4.6
1987	-	-	-	-	33.0	42.1	-	-	4.3
1988	-	-	-	-	30.0	39.8	-	-	4.0
1989	-	-	-	-	32.2	44.2	-	-	3.7
TOTAL	0	0	0	0	156.7	199.0	5.7	2.2	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	5.0	5.6	5.6	5.6	5.0
1984	-	-	-	-	4.7	5.5	5.1	5.1	4.3
1985	-	-	-	-	14.4	17.6	-	-	4.9
1986	-	-	-	-	24.0	30.6	-	-	4.6
1987	-	-	-	-	37.9	50.3	-	-	4.3
1988	-	-	-	-	57.9	79.6	-	-	4.0
1989	-	-	-	-	32.1	45.8	-	-	3.7
TOTAL	0	0	0	0	176.0	235.0	10.7	10.7	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

*Reprogramming Action: Base Year Dollars, +3.5M; Then Year Dollars, +3.5M.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WMCCS INFORMATION SYSTEM (WIS)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

G. PROGRAM FUNDING SUMMARY - NAVY

(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PRIC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	7.4	8.3	8.3	2.3	4.3
1985	-	-	-	-	12.7	14.9	-	-	4.9
1986	-	-	-	-	26.5	32.5	-	-	4.6
1987	-	-	-	-	15.7	20.0	-	-	4.3
1988	-	-	-	-	2.5	3.3	-	-	4.0
1989	-	-	-	-	2.7	3.7	-	-	3.7
TOTAL	0	0	0	0	67.5	82.7	8.3	2.3	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	31.6	40.3	-	-	4.6
1987	-	-	-	-	14.3	19.0	-	-	4.3
1988	-	-	-	-	5.7	7.8	-	-	4.0
1989	-	-	-	-	5.5	7.8	-	-	3.7
TOTAL	0	0	0	0	57.1	74.9	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	1.5	1.9	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	1.5	1.9	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

*The Navy has other programs to complete the cost of modernizing the functions currently on WMCCS ADP; these costs are excluded.

QUARTERLY SELECTED ACCOUNT REPORT
SYSTEM: NMCCS INFORMATION SYSTEM (WIS)

A. PROGRAM FUNDING SUMMARY - AIR FORCE

(Dollars in Millions)

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1982

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NUN-ADD)	FLYAWAY (NUN-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NUN-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	4.7	5.0	5.0	2.4	5.0
1984	-	-	-	-	22.3	25.0	13.9	9.8	4.3
1985	-	-	-	-	28.4	33.3	-	-	4.9
1986	-	-	-	-	45.6	55.8	-	-	4.6
1987	-	-	-	-	74.9	95.6	-	-	4.3
1988	-	-	-	-	56.1	74.4	-	-	4.0
1989	-	-	-	-	51.1	70.2	-	-	3.7
TOTAL	0	0	0	0	283.1	359.3	18.9	12.2	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	5.5	5.7	-	-	4.9
1986	-	-	-	-	29.9	38.1	-	-	4.6
1987	-	-	-	-	102.1	135.3	-	-	4.3
1988	-	-	-	-	72.9	100.2	-	-	4.0
1989	-	-	-	-	62.3	88.8	-	-	3.7
TOTAL	0	0	0	0	272.7	369.1	0.	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	.4	.5	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	.4	.5	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	.3	.4	-	-	4.9
1986	-	-	-	-	35.1	42.7	-	-	4.6
1987	-	-	-	-	53.2	67.6	-	-	4.3
1988	-	-	-	-	69.1	91.1	-	-	4.0
1989	-	-	-	-	79.8	109.1	-	-	3.7
TOTAL	0	0	0	0	237.5	310.9	0	0	-

The Air Force has other programs to complete the cost of modernizing the functions currently on NMCCS ADP; these costs are excluded. Some programmed dollars included in this SAR may not remain a part of future WIS SARs.

QUARTERLY SELECT ~~ION~~ SITION REPORT
SYSTEM: MMCCS INF ~~ON~~ SYSTEM (MIS)

G. PROGRAM FUNDING SUMMARY - MARINE CORPS

(Dollars in Millions)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	.3	.4	-	-	4.9
1986	-	-	-	-	3.3	4.2	-	-	4.6
1987	-	-	-	-	.3	.4	-	-	4.3
1988	-	-	-	-	.3	.4	-	-	4.0
1989	-	-	-	-	.1	.2	-	-	3.7
TOTAL	0	0	0	0	4.3	5.6	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

QUARTERLY SELECTED SITION REPORT
SYSTEM: WMCSS IN ~~WMCSS~~ SYSTEM (WIS)

G. PROGRAM FUNDING SUMMARY - DCA

(Dollars in Millions)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADM PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	13.6	14.0	14.0	14.0	9.2
1983	-	-	-	-	11.9	12.8	12.8	12.8	6.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	25.5	26.8	26.8	26.8	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	2.4	3.0	-	-	4.9
1986	-	-	-	-	14.3	18.2	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	12.9	17.7	-	-	4.0
1989	-	-	-	-	11.4	16.2	-	-	3.7
TOTAL	0	0	0	0	41.0	55.1	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

QUARTERLY SELECT ACQUISITION REPORT
SYSTEM: NMCCS ICBM DEFENSE SYSTEM (NIS)

AS OF DATE: June 30, 1984
BASE YEAR: FY 1982

6. PROGRAM FUNDING SUMMARY - DWA

(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	2.3	3.2	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	2.3	3.2	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WWMCCS INFORMATION SYSTEM (WIS)

AS OF DATE: June 30, 1984

G. PROGRAM FUNDING SUMMARY

- 1/ Reflects Service/Agency records as of 15 June 1984.
- 2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

N-5 CIWS

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Report as of 30 June 1984

QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP (Q&A) 823)

SYSTEM: PHALANX CIWS

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SAR-84-070

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHALANX CIWS

As of date: 30 June 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

- a. FY 84 production contract is expected to be definitized September 1984.
- b. Program Status
 - (1) Percent program completed: 56.3%
 - (2) Percent program cost appropriated: 53.2%

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: None.
- b. Schedule Milestones: None.
- c. Program Acquisition Cost:

	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity	620	-	620
(b) Cost (then-year dollars)	\$ 2,481.7	\$ +5.6	\$ 2,487.3
(c) Program Unit Cost (then-year dollars)	\$ 4.003	+ .009	4.012
(2) FY 84 Procurement Costs:			
(a) Quantity	51	-	51
(b) Cost (then-year dollars)	\$ 170.0	\$ +5.6	\$ 175.6
Procurement Cost	(170.0)	(+5.6)	(175.6)
(Less CY Advanced Proc.)	(-)		(-)
(Plus PY Advanced Proc.)	(-)		(-)
(c) Procurement Unit Cost (then-year dollars)	\$ 3.333	+ .110	3.443

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHALANX CIWS

As of date: 30 June 1984

2.a. Program Acquisition Cost (continued):

	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(2) FY 84 Procurement Costs:			
(a) Quantity	51	-	51
(b) Cost (then-year dollars)	\$ 170.0	\$ +5.6	\$ 175.6
Procurement Cost	(170.0)	(+5.6)	(175.6)
(Less CY Advanced Proc.)	(-)		(-)
(Plus PY Advanced Proc.)	(-)		(-)
(c) Procurement Unit Cost (then-year dollars)	\$ 3.333	+ .110	3.443

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E.B.(U) COST VARIANCE ANALYSIS

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: PHALANK CIWS
(Dollars in Millions)

As of date: 30 June 1984
Base year: 1984

a. Summary

	<u>Dev</u>	<u>Proc</u>	<u>Const</u>	<u>Subtotal</u>	<u>Escalation</u>	<u>Total</u>	<u>Remarks</u>
<u>Production Estimate</u>	\$154.8	\$ 2,021.4	-	\$ 2,176.2	\$ 305.5	\$ 2,481.7	Eso: Dev. \$ 3.2M; Proc. + 302.3M
<u>Previous Changes: None</u>							
<u>Current Changes</u>							
Estimating	+	+ 5.1	-	+ 5.1	+ .5	+ 5.6	Eso: Proc. + .5M
Subtotal	+	+ 5.1	-	+ 5.1	+ .5	+ 5.6	Eso: Proc. + .5M
<u>Total Changes</u>	+	+ 5.1	-	+ 5.1	+ .5	+ 5.6	Eso: Proc. + .5M
<u>Current Estimate</u>	\$154.8	\$ 2,026.5	-	\$ 2,181.3	\$ 306.0	\$ 2,487.3	Eso: Dev. \$ 3.2M; Proc. \$ 302.8M

b.(U) Previous Changes: None.

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: PHALANX CIWS
(Dollars in Millions)

As of date: 30 June 1984

E.B.c.(U) Changes Since Previous Report

DEVELOPMENT

PROCUREMENT

Estimating: FY 84 funding restored to previously
requested level in recognition of
requirements.

CONSTRUCTION

TOTAL PROGRAM COST CHANGE

<u>Base Year \$</u>	<u>Then Year \$</u>
-	-
+5.1	+5.6
<u>-</u>	<u>-</u>
+5.1	+5.6

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: PHALANX CIWS

As of date: 30 June 1984

F.(U) <u>Contractor Costs (\$ in Millions)</u>	(1) Initial Contract Price			(2) Current Contract Price			(3) Price at Completion	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor</u> <u>Estimate</u>	<u>Pgm Mgr.</u> <u>Estimate</u>

1. Procurement:

a. FY 82 Production

General Dynamics/Pomona

N00024-82-C-7001-FPI

Contract Awarded Nov 1981

203.4 227.1 72

208.4 232.4 74

209.0
(Ch F-1)

209.0
(Ch F-1)

b. FY 83 Production

General Dynamics/Pomona

N00024-83-C-7040-FPI

Contract Awarded Sept 1983

180.2 194.7 77

180.2 194.7 77

193.9
(Ch F-2)

193.9
(Ch F-2)

2. Variance Analysis:

Ch F-1 (+ 5.6) Definitization of Contract Mods

Ch F-2 (+ 13.7) Definitization of Contract Mods

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHALANX CIWS

As of date: 30 June 1984
Base Year: FY 1984

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	TY	BASE-YEAR \$				THEN-YEAR \$				ESCALATION RATE (%) ^{1/}
		ADV PROC (NON-ADD)	NET SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED		
			NONREC	REC						
APPROPRIATION: RDT&E,N										
1969	-	-	-	-	.5	.5	.5	.5	-	-
1970	-	-	-	-	3.0	3.0	3.0	3.0	-	-
1971	-	-	-	-	10.2	10.2	10.2	10.2	-	-
1972	-	-	-	-	10.6	10.6	10.6	10.6	-	-
1973	-	-	-	-	14.4	14.4	14.4	14.4	-	-
1974	-	-	-	-	27.9	27.9	27.9	27.9	-	-
1975	-	-	-	-	15.0	15.0	15.0	15.0	-	-
1976	-	-	-	-	15.0	15.0	15.0	15.0	-	-
1977	-	-	-	-	19.8	19.8	17.4	17.4	-	-
1978	3	-	-	-	7.0	7.0	7.0	7.0	-	-
1979	-	-	-	-	3.9	3.9	3.9	3.9	-	-
1980	-	-	-	-	2.1	2.1	2.1	2.1	-	-
1981	-	-	-	-	2.1	2.1	2.1	2.1	-	-
1982	-	-	-	-	1.4	1.4	1.4	1.4	-	-
1983	-	-	-	-	1.3	1.3	1.3	1.3	-	-
1984	-	-	-	-	1.2	1.2	1.2	.6	-	-
1985	-	-	-	-	3.0	3.2	-	-	4.90	-
1986	-	-	-	-	4.3	4.8	-	-	4.60	-
1987	-	-	-	-	4.1	4.8	-	-	4.30	-
1988	-	-	-	-	4.0	4.8	-	-	4.00	-
1989	-	-	-	-	4.0	5.0	-	-	3.70	-
TOTAL	3	-	-	-	154.8	158.0	131.8	131.1		

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

BASE-YEAR \$					THEN-YEAR \$				
FISCAL YEAR	QTY	ADV PROC (NON-ADD)	NET SAILAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	ESCALATION RATE (%) 1/
			NONREC	REC					
CIWS 30 Jun 84									
APPROPRIATION: SCN									
1978	10	-	-	36.8	45.0	45.0	45.0	45.0	-
1979	8	-	-	23.2	28.5	28.6	28.6	28.6	-
1980	15	-	-	33.2	40.4	41.0	41.0	41.0	-
1981	15	-	-	39.5	48.2	50.0	35.7	28.9	-
1982	15	-	-	51.1	62.2	66.4	43.2	25.4	-
1983	21	-	-	68.2	82.4	92.1	43.1	5.6	-
1984	11	-	-	33.2	40.4	47.6	0.8	-	-
1985	19	-	-	57.4	69.6	86.2	-	-	6.37
1986	17	-	-	51.2	62.3	81.1	-	-	5.98
1987	27	-	-	81.3	98.8	134.9	-	-	5.59
1988	33	-	-	99.0	120.8	173.1	-	-	5.20
1989	35	-	-	105.1	128.2	192.4	-	-	4.81
TOTAL	226	-	-	679.2	826.8	1,038.4	196.7	135.0	
APPROPRIATION: WPN									
1978	21	1.6	-	89.8	102.8	102.8	102.8	100.6	-
1979	19	-	-	52.0	59.7	59.7	59.7	59.7	-
1980	51	-	-	113.8	130.7	130.7	130.7	118.3	-
1981	52	-	-	134.6	154.6	154.7	149.7	143.7	-
1982	49	-	-	130.2	161.1	162.4	162.0	93.7	-
1983	37	-	-	103.5	119.5	124.1	119.7	42.8	-
1984	40	-	-	113.6	117.1	128.0	62.8	4.5	-
1985	51	-	-	138.6	143.8	166.3	-	-	6.37
1986	43	-	-	116.3	119.5	145.7	-	-	5.98
1987	28	-	-	86.8	89.9	115.2	-	-	5.59
1988	-	-	-	-	.6	.8	-	-	5.20
1989	-	-	-	-	.4	.5	-	-	4.81
TOTAL	391	1.6	-	1,074.1	1,199.7	1,290.9	769.9	536.3	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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N-2 Battleship React

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: BATTLESHIP REACTIVATION

REPORT AS OF: JUNE 30, 1984

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DEPARTMENT OF DEFENSE

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5A R-84-137

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: BATTLESHIP REACTIVATION

REPORT AS OF: June 30, 1984

BQ. (U) SUMMARY1. PROGRAM HIGHLIGHTS:

a. Significant Highlights Since Last Report:

USS Iowa commissioned April 28, 1984

Reprogramming of \$73.4 million in SCN assets to FY84 BB-63 Advanced Procurement

b. Program Status:

(1) Percent program completed: 40.0%

(2) Percent program cost appropriated: 48.9%

2. CHANGES SINCE LAST REPORT:

a. Operational and Technical Characteristics: None

b. Schedule Milestones: None

c. Program Acquisition Costs (\$ in millions):

	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total	<u>4</u>	<u>-</u>	<u>4</u>
(a) Quantity			
(b) Cost (then-year dollars)	\$1,917.2	-17.7	\$1,899.5
(c) Program Unit Cost (then-year dollars)	479.3	-4.4	474.9
 (2) FY84 Procurement Costs			
(a) Quantity	0	-	0
(b) Procurement Cost (then-year dollars)	135.9	+1.2	137.1
Less CY Advanced Proc.	-131.1	-	-131.1
Plus PY Advanced Proc.	-	-	-
Less CG/ESC/OF/PD	-4.8	(+1.2)	-6.0
Total	<u>0.0</u>	<u>-</u>	<u>0.0</u>
 (c) Procurement Unit Cost (then-year dollars)	N/A	-	N/A

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1982

E.8 (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary

	Base Year/FY82 Constant \$					Total	Remarks
	Devel	Proc	Const	Subtotal	Escal		
Production Estimate	\$19.4	\$1,457.3	--	\$1,476.7	\$399.9	\$1,876.6	ESC: Dev \$1.9 Proc \$398.0
Previous Changes							
Economic	--	--	--	--	-89.3	-89.3	ESC: Dev -0.3 Proc -89.0
Quantity	--	--	--	--	--	--	
Schedule	+1.5	+84.2	--	+85.7	+44.2	+129.9	ESC: Dev +0.5 Proc +43.7
Engineering	--	--	--	--	--	--	
Estimating	--	--	--	--	--	--	
Support	--	--	--	--	--	--	
Subtotal	+1.5	+84.2	--	+85.7	-45.1	+40.6	ESC: Dev +0.2 Proc -45.3
Current Changes							
Estimating	+0.8	-13.7	--	-12.9	-4.8	-17.7	ESC: Dev 0.1 Proc -4.9
Total Changes	+2.3	+70.5	--	+72.8	-49.9	+22.9	ESC: Dev +0.3 Proc -50.2
Current Estimate	\$21.7	\$1,527.8	--	\$1,549.5	\$350.0	\$1,899.5	ESC: Dev \$2.2 Proc \$347.8

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q) 823)
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1982

E.8 (U) COST VARIANCE ANALYSIS (continued)

(Dollars in Millions)

2. Previous Changes:

DEVELOPMENT

Economic: Revised escalation indices (OSD Jan 1984) reduce then year dollar estimates
 Schedule: Accelerate IOWA delivery, Shift WISCONSIN from FY86 to FY87

PROCUREMENT

Economic: Revised escalation indices (OSD Jan 1984) reduce then year dollar estimates
 Schedule: Accelerate IOWA delivery, Shift WISCONSIN from FY86 to FY87
 Transfer \$73.4 million FY85 FF to FY84 AP to facilitate advanced MISSOURI delivery date

3. Changes Since Previous Report:

DEVELOPMENT

Estimating: Update of program funding profile reflecting IOWA actuals
 and MISSOURI acceleration

Base Year \$

+0.8

Current \$

+0.9

PROCUREMENT

Estimating: Update of program funding profile reflecting IOWA actuals
 and MISSOURI acceleration

-13.7

-18.6

TOTAL PROGRAM COST CHANGE

-12.9

-17.7

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q) 823)
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: June 30, 1984

F. (U) CONTRACTOR COSTS	(1)		(2)		(3)		
	INITIAL CONTRACT PRICE	QTY	CURRENT CONTRACT TARGET	CONTRACT CEILING	PRICE QTY	PRICE AT COMPLETION CONTRACTOR ESTIMATE	PROG MGR ESTIMATE
1. <u>PROCUREMENT</u>							
Litton Systems Inc., Ingalls Shipbldg Div. Pascagoula, Mississippi N00024-82-C-2115, CPAF awarded Jul 1982	4.5	-	4.5	4.5	-	4.5	4.5
OPTION I awarded Oct 1982	34.8	-	34.8	34.8	-	34.8	34.8
OPTION II awarded Jan 1983	154.6	1	193.3	193.3	1	180.9	180.9
Scientific Management Associates, Inc. Gloucester, Pennsylvania N00024-81-C-2252, CPFF awarded Aug 1981	.9	-	2.4	2.4	-	2.4	2.4
Spectrum Consultants, Inc. Arlington, Virginia N00024-81-C-2251, CPFF awarded Aug 1981	.5	-	1.4	1.4	-	1.4	1.4
Advanced Technology McLean, Virginia N00024-81-C-2257, CPFF awarded Sep 1981	.3	-	1.4	1.4	-	1.4	1.4
Seaborne Technology & Resource Assoc. Philadelphia, PA N00024-81-C-2256, CPFF awarded Oct 1981	.4	-	1.2	1.2	-	1.2	1.2
Wheeler Industries, Inc. Washington, D.C. N00024-81-C-2247, CPFF awarded Sep 1981	.3	-	1.0	1.0	-	1.0	1.0

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q) 823)
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: June 30, 1984

F. (U) CONTRACTOR COSTS (continued)

2. Cost/Schedule Variances:

Contract N00024-82-C-2115

Cost Variance (CPR May 1984)
Schedule Variance

CUM THRU
29 FEB 84

\$ 6.1M
\$(5.3M)

CUM THRU
31 MAY 84

\$ 4.2M
\$ 0.0M

CHANGE

\$- 1.9M
\$+ 5.3M

3. Changes Since The Previous Report:

USS Iowa commissioned April 28, 1984

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: June 30, 1984
 BASE YEAR: FY 1982

G. (U) PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR			ESCALATED \$	OBLIGATED \$	EXPENDED \$	ESCALATION RATE % 1/
		ADV PROC (NON-ADD) \$	SAIL-AWAY (NON-ADD) \$	TOTAL \$				
APPROPRIATION: RDT&E								
1981	-			3.2	3.1	3.2	3.0	11.90
1982	-			3.8	3.9	3.5	3.0	7.60
1983	-			5.3	5.7	5.3	3.8	4.90
1984	-			2.9	3.2	1.3	-	4.30
1985	-			3.4	4.0	-	-	4.90
1986	-			1.6	2.0	-	-	4.60
1987	-			1.6	2.0	-	-	4.30
TOTAL	-			21.7	23.9	13.3	9.8	
APPROPRIATION: PROCUREMENT								
1981	-	86.1	86.1	86.1	89.0	88.1	79.7	11.90
1982	1	81.4	300.4	308.1	333.3	317.2	282.2	4.40
1983	1	-	276.0	309.5	352.9	291.0	226.7	3.40
1984	-	108.6	108.6	113.6	137.1	26.5	.9	5.59
1985	1	-	263.3	273.2	348.8	-	-	6.37
1986	-	66.9	66.9	83.3	112.1	-	-	5.98
1987	1	-	327.0	336.3	475.4	-	-	5.59
1988	-	-	-	4.8	7.1	-	-	5.20
1989	-	-	-	12.7	19.8	-	-	4.81
1990	-	-	-	.1	.1	-	-	4.81
TOTAL	4	343.0	1,428.4	1,527.8	1,875.6	722.8	589.5	
APPROPRIATION: CONSTRUCTION								
TOTAL	-	-	-	-	-	-	-	-

1/ Since the outlay rates are not included, the escalation rates alone cannot be used to verify the composite indices.

N-8 F-14A/D

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: F-14A/D

REPORT AS OF: June 30, 1984

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OASD(PA) DFOISR 84-T-1546

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5A R-84-141

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: June 30, 1984

BQ. SUMMARY1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None.
- b. Program Status:
- (1) Percent program completed: 53.3% or 16 of 30 years
 - (2) Percent program cost appropriated: 34.2%
 - (3) Sunk Costs: Total program cost is \$38,231.8 of which \$12,710.2 are sunk costs (obligations as of June 30, 1984) and \$25,521.6 is the cost to complete.

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: None.

- b. Schedule Milestones: None.

c. Program Acquisition Costs:	<u>PREVIOUS EST.</u>	<u>CHANGE</u>	<u>CURRENT EST.</u>
(1) Total			
(a) Quantity	899	-	899
(b) Cost (then-year dollars)	\$38,256.7	-24.9	\$38,231.8
(c) Program Unit Cost (then-year dollars)	42.555	-0.028	42.527
 (2) FY84 Procurement Costs			
(a) Quantity	24	-	24
(b) Cost (then-year dollars)			
Procurement Cost	(\$1011.6)	-25.3	(986.3)
Less CY Advanced Proc.	(-178.8)	-	(-178.8)
Plus PY Advanced Proc.	(+202.4)	- 0.1	(+202.3)
Total	1035.2	-25.4	1009.8
 (c) Procurement Unit Cost (then year dollars)	43.133	-1.058	42.075

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

UNCLASSI

AS OF DATE: June 30, 1984
BASE YEAR: FY 1969

E.8 (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. <u>Summary</u>	Base Year/FY 69 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$899.5	\$4491.9	--	\$5391.4	\$774.6	\$6166.0	Esc: Dev +74.5 Proc +700.1 Const --
F-14A	(678.0)						Esc: Dev (+51.2) Proc (+700.1) Const --
F-14B	(221.5)						Esc: Dev (+23.3) Proc -- Const --
<u>Previous Changes</u>							
Economic	--	--	--	--	-119.7	-119.7	Esc: Dev +147.1 Proc -269.6 Const +2.8
Quantity	+287.5	+5204.8	--	+5492.3	+16245.7	+21738.0	Esc: Dev +9.4 Proc +16236.3 Const --
Schedule	+97.2	+180.6	--	+277.8	+1909.9	+2187.7	Esc: Dev +12.2 Proc +1897.7 Const --
Engineering	+537.1	+761.8	--	+1298.9	+3511.6	+4810.5	Esc: Dev +948.0 Proc +2563.6 Const --
Estimating	+27.4	-589.1	-1.1	-562.8	-1893.5	-2456.3	Esc: Dev +23.5 Proc -1916.3 Const -0.7
Support	--	+1588.2	+7.0	+1595.2	+4255.6	+5850.8	Esc: Dev -- Proc +4253.5 Const +2.1
Other	+73.8	--	--	+73.8	+5.9	+79.7	Esc: Dev +5.9 Proc -- Const --
Subtotal	+1023.0	+7146.3	+5.9	+8175.2	+23915.5	+32090.7	Esc: Dev +1146.1 Proc +22765.2 Const +4.2
<u>Current Changes</u>							
Estimating	--	-9.5	--	-9.5	-18.2	-27.7	Esc: Dev -- Proc -18.2 Const --
Support	--	+1.0	--	+1.0	+1.8	+2.8	Esc: Dev -- Proc +1.8 Const --
Subtotal	--	-8.5	--	-8.5	-16.4	-24.9	Esc: Dev -- Proc -16.4 Const --
<u>Total Changes</u>	+1023.0	+7137.8	+5.9	+8166.7	+23899.1	+32065.8	Esc: Dev +1146.1 Proc +22748.8 Const +4.2
<u>Current Estimate</u>	\$1922.5	\$11629.7	\$5.9	\$13558.1	\$24673.7	\$38231.8	Esc: Dev +1220.6 Proc +23448.9 Const +4.2

QUARTERLY SELECT ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: June 30, 1984

E.8 COST VARIANCE ANALYSIS2. Previous Changes:DEVELOPMENT

Economic: Revised escalation rates. Revised escalation indexes increase the values in years not previously affected by alternative outlay assumptions.

Quantity: Change by Congress from PAMN to R&D funding for Lot II A/C; additional F-401 engines; calculation adjustments; Dev. esc. adj.

Schedule: Delays in F-14A and F-14B R&D schedules; calculation adj to escalation.

Engineering: Advance Engine including F101X limited development; Grumman 101X flight test and advance technology engine studies; engine component improvement, PSP/TIS program, addition of multisensor correlation techniques in PSP/TIS program; addition of Radar Improvements and Joint Missile, ALQ-126 des/integ. Increased funding for F-14 Radar Improvement/Avionics Improvement in FY 83. An increase due to additional changes (e.g., alternate fighter engine) associated with the shift from a phased improvement program to a major upgrade (F-14D).

Estimating: F-111B recoupment; P-412 engine; deletion of post FY 74 F-401 engine development and ATE source selection; better definition of the development program escalation changes; recoupments, reprogrammings, roundings and refinement; realignment funding requirements for F101X engine, Target Identification Software Program, Signal Processor. Rounding adj.

Other: Funding Grumman to ceiling; cost overrun on F-401/F-14B program. Calculation adjustment to escalation. Recomputation of escalation.

E.8 COST VARIANCE ANALYSIS (Cont.)

AS OF DATE: June 30, 1984

PROCUREMENT

Economic: Revised escalation rates.

Quantity: Increase/decreases in aircraft quantities; ECM procurement; calculation adjustment; proc. esc. adjustment. Total program procurement increase of 54 A/C (899 vs. 845) is due to up-upgrading the F-14 to meet operational force level reqmts. for three years beyond the termination point established for the F-14A.

Schedule: Changes in procurement by FY; extension of program; Increased production rates; repricing beyond FYDP years; calc. adj.; calc. adj. to escalation. Reduction of six aircraft in 1984 and 1985; addition of 12 aircraft in 1995. A revised delivery rate reflects the closeout of the F-14A and the ramp up/retooling for the F-14D production line.

Engineering: (F-14A) program; configuration change; addition of prior year PSP/TIS cost (FY76/FY79); ALR-67 (Radar Warning Receiver) and TCS (Television Camera Set) non-recurring; planned weapons system improvements including PSP, ALR-67, Radar Improvement Program, AMRAAM and ASPJ; calculation adj; calculation adj esc. Reprogramming of non recurring costs associated with configuration changes planned in FY1983. Reflects increased costs associated with production incorporation of various new systems (e.g., alternate fighter engine) required to shift from Avionics/Radar improvement program to a major upgrade (F-14D).

Estimating: Various repricings; impact of Iranian procurements; reprogramming and rounding adjustments; correction in breakdown between econ. esc. and other est. costs; various factors as effected by Grumman; additional weapons rails; prod. adv. proc. reapplied; FY80 and prior year orders placed and definitized at lower prices; FY1971, 72, 73 interim billing amendment increase pending redetermination on production contract; claim settlement on various contracts FY71 thru FY76; disapproval by Congress of FY1982 reprogramming request for escalation; prior year orders definitized higher; various reprogrammings to support aircraft modifications. FY1982 APN refined estimates. Repricing of program based on cost savings achieved in FY1983 and refinement of avionics installation costs from 1989 to 1995. Refinement of FY 1983 Advance Procurement requirements and definitization of prior year orders. Repricing of program based on cost savings achieved in FY-84 and adjustment to production costs of the avionic/radar portion of the F-14D. Reduction in FY 81 due to unanticipated savings achieved dur. nego. and posting updates.

Support: Repricing and realignments and spare adjustments; extension of program; re-estimations and rounding adjustments; PSP/TIS and additional spare engines; esc. adj. The increase of 336 aircraft and an extension of the total program through 1996 results in associated additional support as follows:

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

E.8 COST VARIANCE ANALYSIS (Cont.)

AS OF DATE: June 30, 1984

Outfit six additional squadrons, Initial Spares, update 24 squadron outfittings, update 12 carrier outfittings, update 4 shorebased support sites, update two depots, update software, update Maintenance Publications, update Integrated Logistics Support, Joint Tactical Information Display System (JTIDS) support, Airborne Self Protection Jammer (ASPJ) support, Programmable Signal Processor, Airborne Countermeasures Receiver (ALR-67) support, Radar Improvement Program, and Avionics Improvement Program. Requirements not in DE, FY79 requirement, re-estimations and rounding adjustments. AWM-23 contract definitization prior year orders placed and definitized higher than anticipated. Spare increase due to engine cost increase of; Carrier Aircraft Inertial Navigation System increase; decrease in software support; prior year orders placed for PGSE and training definitized lower. FY1982 spare refined estimates. Increase in spares requirements for FY 1984 thru FY 1988 and decreases of support requirements for FY 1989-FY 1995. Reconciliation of prior year orders for PGSE. Reconciliation of obligations and expenditures for FY 1983 spares. Reduction due to lower than expected cost for initial engine spares for FY 83. Increase in spares and peculiar ground support equipment assoc. with the F-14D.

CONSTRUCTION

Economic: Revised Escalation Indices

Estimating: Rounding adjustment. Adjustment to actual obligation.

3. Changes Since Previous Report:

	<u>BASE YEAR \$</u>	<u>CURRENT \$</u>
<u>PROCUREMENT</u>		
Estimating: Reduction in FY 84 (-25.3) due to unanticipated savings achieved dur. negotiations and FY 71-81 (-2.4) due to posting updates.	-9.5	-27.7
Support: Increase in FY 81 spares (1.5M). Increase in FY 84 (1.3M) due to realignment of support (AWM-23 Off-Load).	<u>+1.0</u>	<u>+2.8</u>
TOTAL Procurement Cost Changes	<u>-8.5</u>	<u>-24.9</u>
TOTAL PROGRAM COST CHANGES	<u>-8.5</u>	<u>-24.9</u>

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: F-14A/D

AS OF DATE: March 31, 1984

F. <u>CONTRACTOR COSTS</u>	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgr's. Estimate</u>
<u>2. PROCUREMENT</u>								
Grumman Aero. Corp. N00019-81-C-0003 (FFP)* (FY 1982) dtd 3 Dec 80	\$555.7		30	N/A	555.7	30	555.7	555.7
Grumman Aero. Corp. N00019-82-C-0001 (FFP)* (FY 1983) dtd 23 Oct 81	\$522.9		24	N/A	522.9	24	522.9	522.9
Grumman Aero. Corp. N00019-83-C-0008 (FFP)* (FY 1984) dtd 29 Dec 82	\$521.2		24	N/A	521.2	24	521.2	521.2
Hughes Aircraft Co. N00019-82-C-0006 (FFP)* (FY 1983 AWG-9) dtd 27 Nov 81	\$ 97.1		30	N/A	97.1	30	97.1	97.1
Hughes Aircraft Co. N00019-83-C-0002 (FFP)* (FY 1984) dtd 29 Dec 82	\$ 95.0		24	N/A	95.0	24	95.0	95.0
Grumman Aero. Corp. N00019-84-C-0001 (AAC)# (FY 1985) dtd 26 Nov 83	\$543.0		24	N/A	543.0	24	543.0	543.0

2. VARIANCE ANALYSIS

- a. Cost/Schedule Variance None
- b. Changes Since Previous Report None

* Firm Fixed Price contracts do not have Targets or Ceilings.

Advance Acquisition Contracts. (A fully structured contract initially containing advance procurement funds which is converted to an FFP contract in the full funding year.)

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: F-14N/D

AS OF DATE: June 30, 1984

Base Year: FY 1969

G. PROGRAM FUNDING SUMMARYCURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&E									
1969	12	-	-	-	168.7	172.5	172.5	172.4	1.0
1970	-	-	-	-	479.7	512.2	511.9	511.7	3.0
1971	-	-	-	-	308.1	342.1	342.1	341.0	3.0
1972	-	-	-	-	195.9	226.0	225.9	225.3	3.3
1973	-	-	-	-	132.5	160.4	159.9	159.2	4.5
1974	-	-	-	-	42.0	54.2	53.5	53.2	4.8
1975	-	-	-	-	10.0	13.9	13.9	13.5	5.0
1976	-	-	-	-	0.7	1.0	1.0	1.0	9.0
1977	-	-	-	-	1.0	1.6	1.6	1.6	2.0
1977	-	-	-	-	1.5	2.4	2.4	2.3	7.0
1978	-	-	-	-	21.2	36.6	36.6	36.4	6.8
1979	-	-	-	-	10.7	20.4	20.4	20.2	6.8
1980	-	-	-	-	12.4	26.1	26.1	26.0	9.4
1981	-	-	-	-	15.5	35.9	35.9	35.5	11.9
1982	-	-	-	-	8.0	19.5	19.5	18.2	7.6
1983	-	-	-	-	8.5	21.6	15.0	10.3	4.9
1984	-	-	-	-	16.9	45.0	0.5	0.2	4.3
1985	-	-	-	-	108.1	301.9	-	-	4.9
1986	-	-	-	-	188.8	550.5	-	-	4.6
1987	-	-	-	-	103.5	314.2	-	-	4.3
1988	-	-	-	-	51.5	162.3	-	-	4.0
1989	-	-	-	-	32.0	104.8	-	-	3.7
1990	-	-	-	-	5.3	18.0	-	-	3.7
TOTAL	12	-	-	-	1,922.5	3,143.1	1,638.7	1,628.0	

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A /D

AS OF DATE: June 30, 1984
Base Year: FY 1969

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS				ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED		
			NON-REC	REC						
APPROPRIATION: APN										
1970	-	8.0	-	-	8.0	9.1	9.1	9.1	3.0	
1971	26	50.1	-	365.2	585.6	691.7	691.7	689.1	3.0	
1972	48	68.1	1.2	413.5	636.4	787.5	787.5	785.8	3.3	
1973	48	56.4	-	322.0	427.2	565.3	565.2	564.4	4.5	
1974	50	40.8	-	392.3	494.0	685.1	685.1	684.9	4.8	
1975	50	50.9	-	381.2	489.5	716.2	716.2	711.1	5.0	
1976	36	60.5	1.5	290.0	396.0	618.1	618.1	612.5	9.0	
1977	9	30.1	-	107.4	80.7	133.2	133.2	130.8	2.5	
1977	36	69.8	6.6	280.5	402.4	694.2	693.9	684.1	11.0	
1978	44	70.4	0.1	370.9	435.0	817.8	817.4	816.3	7.0	
1979	36	72.0	4.7	337.7	409.8	850.5	847.2	836.3	6.8	
1980	30	58.2	-	291.1	336.8	765.2	763.9	732.4	9.7	
1981	30	59.4	5.7	318.8	367.7	903.2	901.7	891.0	11.9	
1982	30	68.3	2.6	342.0	444.6	1,170.6	1,164.6	1,108.0	7.3	
1983	24	72.3	10.0	269.2	348.9	976.5	942.0	576.5	9.0	
1984	24	60.2	3.1	255.9	332.3	986.3	724.8	122.1	5.5	
1985	24	60.5	2.5	260.7	313.8	985.8	-	-	6.3	
1986	24	30.2	28.1	252.2	300.1	994.3	-	-	5.9	
1987	12	76.1	19.8	151.4	256.5	893.2	-	-	5.5	
1988	12	106.3	24.7	197.9	372.1	1,358.4	-	-	5.2	
1989	24	104.5	30.2	339.0	508.6	1,946.3	-	-	4.8	
1990	30	104.5	-	376.5	510.1	2,045.9	-	-	4.8	
1991	30	104.5	-	362.5	474.3	1,993.8	-	-	4.8	
1992	30	104.5	-	352.1	464.3	2,045.6	-	-	4.8	
1993	30	104.5	-	344.9	457.3	2,111.7	-	-	4.8	
1994	30	104.5	-	339.2	411.7	1,992.8	-	-	4.8	
1995	30	104.5	-	334.6	406.0	2,059.7	-	-	4.8	
1996	30	104.5	-	330.9	361.1	1,919.8	-	-	4.8	
1997	30	109.4	-	327.7	354.5	1,975.6	-	-	4.8	
1998	30	-	-	328.3	244.4	1,385.2	-	-	4.8	
TOTAL	887	2,114.0	140.8	9,035.6	11,629.7	35,078.6	11,061.6	9,954.4		

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: F-14A/D

AS OF DATE: June 30, 1984

Base Year: FY 1969

G. PROGRAM FUNDING SUMMARYCURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: CONSTRUCTION									
1971	-	-	-	-	2.4	3.2	3.1	3.1	4.0
1972	-	-	-	-	-	-	-	-	4.0
1973	-	-	-	-	0.5	0.8	0.8	0.8	3.3
1974	-	-	-	-	1.6	3.0	3.0	3.0	7.3
1975	-	-	-	-	-	-	-	-	6.4
1976	-	-	-	-	0.5	1.0	1.0	1.0	9.0
1977	-	-	-	-	-	-	-	-	2.5
1977	-	-	-	-	-	-	-	-	11.0
1978	-	-	-	-	-	-	-	-	7.0
1979	-	-	-	-	0.9	2.1	2.0	2.0	9.8
TOTAL	-	-	-	-	5.9	10.1	9.9	9.9	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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A-3 HELLFIRE

QUARTERLY SELECTED ACQUISITION REPORT RCS DD COMPT (Q) 823
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

REPORT AS OF: 30 Sep 84

INDEX

84-046

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OCT 25 1984 5

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DEPARTMENT OF DEFENSE

OASD(PA) DFOISR

84-T-1834

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BQ. 8 Y

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report

(1) Third year production contracts for all-up-round missiles were awarded to Rockwell International Corporation and Martin Marietta Corporation. The awards represent the first competitive procurement of HELLFIRE missiles and implementation of the revised acquisition strategy.

(2) Production of HELLFIRE launchers has been broken out competitively and the contract was awarded to Marvin Engineering Company, Inglewood, California.

b. Program Status

(1) Percent program completed: 68 percent

(2) Percent program cost appropriated: 37.5 percent

2. CHANGES SINCE LAST REPORT

a. The current estimate for completion of production validation test is slipped 5 months (May 84 to Oct 84) because of problems associated with first article tests.

b. Program Acquisition Cost:

(1) Total	<u>Previous Estimate</u>	<u>Change</u>	<u>Current Estimate</u>
(a) Quantity	48,925	-	48,925
(b) Cost	2,424.6	-	2,424.6
(c) Program Unit Cost	49,557	-	49,557
(2) FY 84 Procurement cost:	<u>Previous Estimate</u>	<u>Change</u>	<u>FY 84 Current Estimate</u>
Procurement cost	218.6	-	218.6
Less Adv Proc	NA	NA	NA
Plus Adv Proc	NA	NA	NA
TOTAL	218.6	-	218.6
Quantity	4,651	-	4,651
Procurement Unit Cost	47,001	-	47,001

(3) Program cost variances, section E8, have been adjusted in accordance with current OSD guidance.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE= Sep 84
BASE YEAR: FY 75

E-8 COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY 75 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$210.3	\$276.7	-0-	\$487.0	\$216.4	\$703.4	Eso: Dev.55.9; Proc.160.5
Previous Changes							
Economic	-	-	-	-	+257.6	+257.6	Eso: Dev.+9.3; Proc.+248.6; Const. -.3
Quantity	-2.7	+296.8	-	+294.1	+606.0	+900.1	Eso: Dev. -.8; Proc.+606.8
Schedule	+9.1	+21.3	-	+30.4	+138.2	+168.6	Eso: Dev.+5.5; Proc.+132.3; Const. +.4
Engineering	+10.7	+35.2	-	+45.9	+52.7	+98.6	Eso: Dev.+8.1; Proc.+44.6
Estimating	+6.4	+114.0	+2.0	+122.4	+116.6	+239.0	Eso: Dev.+10.5; Proc.+103.9 Const. +2.2
Support	+6.3	+17.1	-	+23.4	+33.9	+57.3	Eso: Dev.+7.2; Proc.+26.7
Subtotal	+29.8	+484.4	+2.0	+516.2	+1,205.0	+1,721.2	Eso: Dev.+39.8; Proc.+1,162.9 Const. +2.3
Current Changes							
Economic	-	-	-	-	-	-	
Quantity	-	-143.2	-	-143.2	-294.6	-437.8	Eso: Proc -294.6
Schedule	-	+20.8	-	+20.8	+176.1	+196.9	Eso: Proc +176.1
Engineering	-	+34.3	-	+34.3	+38.8	+73.1	Eso: Proc +38.8
Estimating	-	+111.2	-	+111.2	+111.9	+223.1	Eso: Proc +111.9
Support	-	-23.1	-	-23.1	-32.2	-55.3	Eso: Proc -32.2
Subtotal	-	0	-	0	0	0	Eso: Proc 0
Total Changes	+29.8	+484.4	+2.0	+516.2	+1,205.0	+1,721.2	Eso: Dev.+39.8, Proc +1,162.9 Const +2.3
Current Estimate	240.1	761.1	2.0	1,003.2	1,421.4	2,424.6	Eso: Dev.+95.7, Proc +1,323.4 Const +2.3

2. Previous Changes:

DEVELOPMENT

Economic: Increase due to application of OSD indices from Jun 76 to Jan 84.

Quantity: Decrease due to deletion of 12 practice missiles; changes in seeker quantity.

Schedule: Increase due to budget reduction in FY 78; slips in production validation test.

Engineering: Increase due to addition of competitive low cost seeker program, seeker hardening (+11.0) and warhead improvement (+.8) to meet an evolving threat.

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QUARTERLY ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Sep 84
BASE YEAR: FY 75

E-8 COST VARIANCE ANALYSIS (continued)

Estimating: Increase due to exercise of the metric option in the contract, reinstatement of FY 78 reprogramming, adjustment to application of Dec 77 inflation indices, additional effort for shelf life surveillance, C/CM analysis, and warhead, seeker, and propulsion sections improvement; decrease due to reduction in FY 81 RDTE funding, revision of deflator, adjustment of prior years to actuals and FY 83 Congressional decrement to TRACE. Decrease due to deobligation of prior year funds.

Support: Decrease due to reduction in missile test requirement and FY 78 budget adjustment; and revised estimate for EQUATE test program sets; increase due to addition of two ATAFCS for use in DT/OT with Cobra, added test support requirement, requirement for battlefield obscuration test, and requirement for use of AN/USM-410 test set. Also due to revised estimate and deferral of development of missile test program sets to FY 89.

PROCUREMENT

Economic: Increase due to application of OSD indices from Jun 76 to Jan 84.

Quantity: Net increase due to addition of 24,096 missiles.

Schedule: Increase due to delays in start of production, impact of RDTE funding constraints, and inefficient production rates/program stretchout resulting from FY 82 Congressional decrement and FY 84 funding decrement, which stretched out procurement by deferring 700 missiles from FY 84 to FY 89 - 90 time frame.

Engineering: Increase due to requirement changes in missile.

Estimating: Increase due to refinement of missile production cost estimates, revised cost estimating relationships for engineering services, refinement of IPF estimate, and revision of baseline cost estimate which resulted in a new missile flyaway cost estimate. Decrease due to inadequate adjustment of Jan 82 inflation indices and revised BCE for dual source competitive procurement strategy. Decrease due to change in FY 82 to FY 75 deflator from 1.7157 to 1.9558 (-29.0), application of Jan 84 revised inflation indices (-36.0), and correction of previous estimating errors (-12.8).

Support: Increase due to addition of training hardware, depot capital equipment, allowance for cost of money, Government warranty on parts, revised data estimate, changes in support hardware, warhead LAP facility, and addition of payback for deferred cost of competition (expansion of production base); decrease due to reduction in initial spares requirement, test set quantity and training equipment.

CONSTRUCTION

Estimating: Increase in cost for construction of five ammunition storage bunkers.

UNCLASSIFIED

QUARTERLY SELECT ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 15 Sep 84
BASE YEAR: FY 75

E-8 COST VARIANCE ANALYSIS (continued)

3. Changes Since Previous Report: Ch E-1

DEVELOPMENT: None.

PROCUREMENT:

Changes are for the purpose of correcting past quantity, schedule, engineering, estimating, and support variance category computations to reflect guidance from OASD(C) SAR Review Team in September 1984. The changes accomplish the following: (a) Includes "payback of deferred cost of competition" into total flyaway cost; this cost was previously miscategorized. Previously, this cost was excluded from flyaway cost. (b) Corrects the quantity variance to include the amount calculated from the development estimate (DE) cost quantity curve. (c) Corrects the schedule program change relation (PCR) escalation variance based on the current estimate (CE) cost quantity curve. (d) Corrects the support variance to include only changes associated with nonflyaway costs, i.e., data, training equipment, peculiar support equipment, and initial spars and repair parts. (e) Allocates the remaining quantity and support variance amounts to the schedule, engineering, and estimating variance categories.

SUMMARY OF CHANGES	<u>ADJUSTED TOTALS</u>			<u>JUN 84 SAR</u>			<u>CURRENT CHANGES</u>		
	<u>BASE YEAR</u> <u>DOLLARS</u>	<u>CURRENT</u> <u>YEAR \$</u>	<u>ESC</u> <u>AMOUNT</u>	<u>BASE YEAR</u> <u>DOLLARS</u>	<u>CURRENT</u> <u>YEAR \$</u>	<u>ESC</u> <u>AMOUNT</u>	<u>BASE YEAR</u> <u>DOLLARS</u>	<u>CURRENT</u> <u>YEAR \$</u>	<u>ESC</u> <u>AMOUNT</u>
DEVELOPMENT ESTIMATE	276.7	437.2	160.5	276.7	437.2	160.5	0	0	0
ECONOMIC CHANGE	0	248.6	248.6	0	248.6	248.6	0	0	0
QUANTITY CHANGE	153.6	465.8	312.2	296.8	903.6	606.8	-143.2	-437.8	-294.6
SCHEDULE CHANGE	42.1	350.5	308.4	21.3	153.6	132.3	20.8	196.9	176.1
ENGINEERING CHANGE	69.5	152.9	83.4	35.2	79.8	44.6	34.3	73.1	38.8
ESTIMATING CHANGE	225.2	441.0	215.8	114.0	217.9	103.9	111.2	223.1	111.9
SUPPORT CHANGE	-6.0	-11.5	-5.5	17.1	43.8	26.7	-23.1	-55.3	-32.2
TOTAL CHANGES	484.4	1,647.3	1,162.9	484.4	1,647.3	1,162.9	0	0	0
CURRENT ESTIMATE	761.1	2,084.5	1,323.4	761.1	2,084.5	1,323.4	0	0	0

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: 30 Sep 84

F. CONTRACTOR COSTS

	(Dollars in Millions)						(3)	
	(1)			(2)			Price At Completion	
	Initial Contract Price			Current Contract Price			Contractor	Program Managers
	Target	Ceiling	Qty	Target	Ceiling	Qty	Estimate	Estimate
1. <u>DEVELOPMENT</u> : None.								
2. <u>PROCUREMENT</u>								
Production								
(Laser Seeker) 1/	\$ 27.7	\$33.5	762	\$ 27.9	\$33.6	762		
Martin Marietta Corp				(Ch F-1)				
DAAH01-82-C-A170								
FPI, 25 Feb 82								
Definitized								
Production 1/	\$ 40.2	\$45.5		\$ 40.5	\$45.6			
(Missiles)			680		(Ch F-3)	680		
(Launchers)			135			135		
Rockwell Int Corp								
DAAH01-82-C-A169								
FPI, 31 Mar 82								
Definitized								
Production 1/	\$96.6	\$105.9		\$97.8	\$107.1			
(Missiles - AUR)			947	(Ch F-5)		947		
(Seeker)			2077			2077		
Martin Marietta Corp								
DAAH01-83-C-A040								
14 Jan 83								
Letter Order (NTE)								
Definitization Date 11 Jul 83								

(b)(4)

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Sep 84

F. CONTRACTOR COSTS (Continued)

(Dollars in Millions)

	(1)			(2)			(3)	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor</u> <u>Estimate</u>	<u>Program Managers</u> <u>Estimate</u>
Production 1/ (Missiles - AUR) (Missile Bus/TM Mal) (Launcher)	\$96.4	\$110.1	947 2077 338	\$98.0	\$109.4	947 2077 338	(b)(4)	
Rockwell International Corp DAAH01-83-C-A039 4 Feb 83 Letter Order (NTE) Definitization Date 29 Jul 83								
Production 1/ (Ch F-9) (Missiles)	\$113.2	NA	2651	\$113.2	NA	2651	\$113.2	\$113.2
Rockwell International Corp DAAH01-84-C-A162 FFP, 29 Jun 84 Definitized								
Production 1/ (Ch F-9) (Missiles)	\$98.9	NA	2000	\$98.9	NA	2000	\$98.9	\$98.9
Martin Marietta Corp DAAH01-84-C-A163 FFP, 29 Jun 84 Definitized								

3. CONSTRUCTION: None

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Sep 84

F. CONTRACTOR COSTS (Continued)

4. VARIANCE ANALYSIS:

a. Cumulative Cost/Schedule Variance.

<u>CONTRACT</u>	<u>COST VARIANCE 2/</u>	<u>SCHEDULE VARIANCE 2/</u>
DAAH01-82-C-A170	.027	(.559)
DAAH01-82-C-A169	1.205	(4.476)
DAAH01-83-C-A040	4.620	(5.673)
DAAH01-83-C-A039	.541	(5.827)
DAAH01-84-C-A162	NA	NA
DAAH01-84-C-A163	NA	NA

b. Changes Since Previous Report:

Ch. F-1 - The current target price and contractor estimate of price at completion are increased \$0.1M (27.8 to 27.9) as a result of finalization of change orders.

Ch. F-2 - The PM's estimate of price at completion is increased (b)(4) because of an anticipated cost increase to correct a seeker guidance noise problem.

Ch. F-3 - The current contract ceiling is increased \$0.1M (45.5 to 45.6) because of finalization of change orders.

Ch. F-4 - The contractor's estimate at completion is increased \$0.3M (40.5 to 40.8) because of finalization of change orders and the cost to correct a CCA assembly process. The PM's EAC is increased (b)(4) because of costs incurred in correcting the assembly process problem and the impact of the seeker guidance noise problem on FAT.

Ch. F-5 - The target price is increased \$0.1M (97.7 to 97.8) due to definitization of ECPs.

Ch. F-6 - The PM's EAC is increased (b)(4) due to the expected cost impact of correcting the seeker guidance noise problem in the first production buy.

Ch. F-7 - The contractor's EAC is decreased \$0.6M (98.0 to 97.4) due to finalization of change orders at a price less than anticipated.

Ch. F-8 - The PM's EAC is increased (b)(4) because of expected cost impact of assembly process and guidance noise problems in the first production buy and the associated schedule slip.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: 30 Sep 84

F. CONTRACTOR COSTS (continued)

Ch. F-9 - Contracts DAAH01-84-C-A162 and DAAH01-84-C-A163 are added for the first time. Contracts DAAH01-82-C-A208 and DAAH01-81-C-B026 are dropped because they are no longer reportable.

FOOTNOTES:

1/ RIC CPR data as of 27 Jul 84; MMC CPR data as of 29 Jul 84.

2/ Explanation of Cumulative Variances:

Contract DAAH01-82-C-A170

Cost - \$.027 - The positive cost variance is due primarily to less use of labor than planned due to delays caused by technical problems.

Schedule - (\$.559) - The negative schedule variance is due to problems with the detector support and plastic molding, late delivery of dies from the vendor, and seeker guidance noise problems.

Contract DAAH01-82-C-A169

Cost - \$1.205 - The variance is primarily due to delays in completion of level of effort tasks caused by FAT problems. The variance is expected to diminish when FAT is complete.

Schedule - (\$4.476) - The variance is due to delays in completion of First Article Tests caused by use of an improper flux in the manufacture of circuit card assemblies and seeker guidance noise problems.

Contract DAAH01-83-C-A040

Cost - \$4.620 - The increase in the positive cost variance is caused by the use of less manpower than planned because of technical problems in the first production buy.

Schedule - (\$5.673) - The negative variance is due to slow start up which is related to problems in the first production contract.

Contract DAAH01-83-C-A039

Cost - \$.541 - The variance is due to less use of level of effort than planned which resulted from problems and production delays in the first buy.

Schedule - (\$5.827) - The negative schedule variance is due to problems encountered with FAT in the first production contract.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Sep 84
BASE YEAR: FY 75

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDTE									
1972	-	-	-	-	4.9	4.9	4.9	4.9	5.6
1973	14	-	-	-	5.0	5.0	5.0	5.0	4.6
1974	-	-	-	-	6.1	6.1	6.1	6.1	3.7
1975	-	-	-	-	14.0	14.0	14.0	13.9	6.8
1976	-	-	-	-	3.6	3.9	3.9	3.9	7.0
1977	-	-	-	-	.6	.7	.7	.7	1.8
1977	215	-	-	-	16.1	19.2	19.2	19.2	6.0
1978	-	-	-	-	41.1	52.1	52.1	51.4	6.9
1979	-	-	-	-	49.3	66.2	66.2	65.7	8.4
1980	-	-	-	-	41.0	57.8	57.8	57.5	6.5
1981	-	-	-	-	26.8	44.4	43.9	43.5	9.4
1982	-	-	-	-	12.7	22.4	22.2	20.8	7.6
1983	-	-	-	-	8.6	15.9	15.3	11.9	4.9
1984	-	-	-	-	29.1	313.1	.5	.3	4.3
(b)(4)							-	-	4.9
1986	-	-	-	-	1.6	3.4	-	-	4.6
1987	-	-	-	-	3.2	7.1	-	-	4.3
1988	-	-	-	-	1.3	2.9	-	-	4.0
1989	-	-	-	-	3.7	8.8	-	-	3.7
TOTAL	229	-	-	-	240.1	335.8	311.8	304.8	

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

AS OF DATE: 30 Sep 84
 BASE YEAR: FY 75

G. PROGRAM FUNDING SUMMARY (continued)

CURRENT ESTIMATE
 (Dollars in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: MISSILE PROCUREMENT

1981	LLI	1.2	9.9	1.7	11.7	23.3	23.1	22.2	11.9
1982	680	-	9.4	35.9	48.4	106.9	105.4	78.3	14.3
1983	3,971	-	3.3	96.7	105.4	247.4	220.5	59.2	9.0
1984	4,651	-	-	84.3	87.9	218.6	210.6	9.3	5.6
1985	6,026	-	-	88.8	91.8	237.5	-	-	6.4
1986	6,576	-	-	86.6	88.7	241.9	-	-	6.0
1987	6,576	-	-	82.8	83.0	238.0	-	-	5.6
1988	6,576	-	-	79.4	79.6	239.4	-	-	5.2
1989	6,758	-	-	79.6	79.8	251.5	-	-	4.8
1990	6,882	-	-	84.5	84.8	280.0	-	-	4.8
TOTAL	48,696	1.2	22.6	720.3	761.1	2,084.5	559.6	169.0	

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	.7	1.5	-	-	4.6
1986	-	-	-	-	0	0	-	-	(b)(4)
1987	-	-	-	-	1.3	2.8	-	-	4.3
TOTAL	-	-	-	-	2.0	4.3	-	-	

1/ Since spend-out rates are not included, the escalation rates cannot be used to verify the composite index.

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QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (O&A) 823)
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984

INDEX

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AND SECURITY REVIEW (OASU-PA)
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SAK-84-147

SAF/PAS

84-0891-T

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

The investigation into the cause of the 14 June 1984 unsuccessful flight has been completed. The ALCM generator-regulator was the primary subsystem that caused the unsuccessful flight. Corrective actions have been taken. The ALCM Operational Test Launch Program (OTL) has resumed.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 10./ 15. = 66.667%

(2) PERCENT PROGRAM COST APPROPRIATED: 3943.80/ 4510.00 = 87.446%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. SCHEDULE MILESTONES:

None

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984

B0. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	1787.	0.	1787.
(b) COST (THEN-YEAR DOLLARS)	4495.70	14.30	4510.00
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	2.5158	0.0080	2.5238
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	240.	0.	240.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	422.30	0.00	422.30
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	4.90	0.00	4.90
TOTAL	427.20	0.00	427.20
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	1.7800	0.0000	1.7800

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984

BASE YEAR: FY 1977

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST	
DEVELOPMENT ESTIMATE	696.1	2311.6	121.4	3129.1	1054.9	4184.0	Esc:	55.5	970.2	29.2
PREVIOUS CHANGES										
ECONOMIC	--	--	--	--	746.3	746.3	Esc:	29.2	675.9	41.2
QUANTITY	-6.4	-786.7	--	-793.1	-867.8	-1660.9	Esc:	-1.1	-866.7	--
SCHEDULE	83.3	-29.5	37.3	91.1	262.3	353.4	Esc:	25.9	173.2	63.2
ENGINEERING	195.1	-3.1	5.9	197.9	79.1	277.0	Esc:	84.4	-9.8	4.5
ESTIMATING	-19.8	-143.1	-4.9	-167.8	-123.8	-291.6	Esc:	3.8	-124.8	-2.8
OTHER	-0.2	--	--	-0.2	--	-0.2	Esc:	--	--	--
SUPPORT	36.7	315.5	57.0	409.2	478.5	887.7	Esc:	30.7	394.8	53.0
SUBTOTAL	288.7	-646.9	95.3	-262.9	574.6	311.7	Esc:	172.9	242.6	159.1
CURRENT CHANGES										
ECONOMIC	--	--	--	--	--	--	Esc:	--	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	-0.1	7.8	--	7.7	6.6	14.3	Esc:	-0.1	6.7	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	-0.1	7.8	--	7.7	6.6	14.3	Esc:	-0.1	6.7	--
TOTAL CHANGES	288.6	-639.1	95.3	-255.2	581.2	326.0	Esc:	172.8	249.3	159.1
CURRENT ESTIMATE	984.7	1672.5	216.7	2873.9	1636.1	4510.0	Esc:	228.3	1219.5	188.3

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

E8. COST VARIANCE ANALYSIS (Continued)

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
(Dollars in Millions)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
DEVELOPMENT		
ESTIMATING:		
Reduction in FY84 funds; no longer required as a result of management reserve being reduced.	-0.1	-0.2
TOTAL DEVELOPMENT	-0.1	-0.2
PROCUREMENT		
ESTIMATING:		
Re-instatement of FY83 program funds for engine technology modernization program.	7.8	14.5
TOTAL PROCUREMENT	7.8	14.5
TOTAL PROGRAM COST CHANGE	7.7	14.3

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984
(Dollars in Millions)

F. CONTRACTOR COSTS	(1)			(2)			(3)	
	Initial Contract Price Target Ceiling Qty			Current Contract Price Target Ceiling Qty			Price At Completion Contractor Estimate	Program Mgrs. Estimate
1. PROCUREMENT								
a. Boeing Aerospace Co 1/2/	283.5	305.4	440.	288.5	319.6	440.	277.6 ChF1	277.6 ChF1
b. Wms International 1/2/3/4/	165.1	175.0	628	165.3	175.5	628	161.2 ChF2	161.2 ChF2
c. Wms International 1/2/3/	95.8	101.2	443.	96.2 ChF3	100.8	443.	94.4 ChF2	94.4 ChF2
d. Litton Canada 3/	N/A	N/A	230.	N/A	N/A	230.	41.0	41.0
e. Litton Guidance 3/	N/A	N/A	100.	N/A	N/A	100.	19.9	19.9
f. Honeywell, Inc 3/	N/A	N/A	441.	N/A	N/A	441.	7.0	7.0

1/ Contract prices and contractor estimates obtained from contractor Cost Performance Reports as of 31 July 1984.

2/ The FY82 Boeing and FY82/83 Williams are the only contracts subject to C/SCSC remaining on the ALCM Program.

3/ Reflects consolidated ALCM, SLCM, GLCM procurement by Joint Cruise Missile Project Office (JCMPO).

4/ Reflects final CPR data.

CONTRACT IDENTIFICATION

a. Boeing Aerospace Co., Seattle WA (FY82); Contract No. F33657-82-C-2204, 8 December 1982; Fixed Price Incentive Firm, Definitized (Procurement)

b. Williams International, Walled Lake MI (FY82); Contract No. N00019-82-C-3208, 2 December 1982; Fixed Price Incentive, Definitized (Procurement)

c. Williams International, Walled Lake MI (FY83); Contract No. N00019-83-C-3332, 27 January 1984; Fixed Price Incentive, Definitized (Procurement)

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

CONTRACT IDENTIFICATION

- d. Litton Canadian Commercial Corporation, Hull, Quebec (FY83); Contract No. N00032-83-C-3346,
1 July 1983; Firm Fixed Price, Definitized (Procurement)
- e. Litton Guidance and Control Systems, Woodland Hills, CA (FY83); Contract No. N00032-83-C-3345,
1 July 1983; Firm Fixed Price, Definitized (Procurement)
- f. Honeywell, Inc., St Louis Park, Minnesota (FY82); Contract No. N00019-82-C-3232, 8 October 1982;
Firm Fixed Price, Definitized (Procurement)

VARIANCE ANALYSIS

1. Changes Since Previous Report:

- ChF1 Reflects projection of further underrun.
- ChF2 Change reflects revised EACs, updating the underrun estimate, as the contract progresses.
- ChF3 Definitization of CCPs and ECPs, such as Addition of Government Furnished Property Airframe and Support
for Operational Environmental Testing.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

PROCUREMENT

	CUM THRU 30 Apr 84	CUM THRU 31 Jul 84	CHANGE
a. Boeing Aerospace Co. (FY 82)			\$
Cost Variance	5.3	8.6	3.3
Schedule Variance	-3.3	-0.8	2.5

Cost variance reflects projected contract underrun. Cumulative schedule variance has no impact since deliveries are ahead of schedule and no major problems are anticipated.

	CUM THRU 30 Apr 84	CUM THRU 31 Jul 84	CHANGE
b. Williams International (FY 82)			\$
Cost Variance	2.5	2.1	-0.4
Schedule Variance	-2.5	-2.3	0.2

The cumulative schedule variance has no impact since deliveries are ahead of schedule and no problems are anticipated. The cost variance has no impact since it is projected that the contract will underrun.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

PROCUREMENT	CUM THRU	CUM THRU	CHANGE
c. Williams International (FY 83)	30 Apr 84	31 Jul 84	\$
Cost Variance	2.3	2.8	0.5
Schedule Variance	-0.6	-1.4	-0.8

The favorable cost variance is primarily the result of reduced prices on low pressure section hardware that Williams has obtained from the vendor. The unfavorable schedule variance is being driven by backlogs at the N/C mill in Ogden, Utah and the Walled Lake fabrication plant. Both facilities produce parts associated with the high pressure section. No contract or program impact.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1975	--	--	--	--	58.6	58.6	58.6	58.6	9.4
1976	--	--	--	--	49.1	49.1	49.1	49.1	8.0
1977	--	--	--	--	15.0	15.0	15.0	15.0	4.7
1978	--	--	--	--	76.6	78.4	78.4	78.4	4.2
1979	--	--	--	--	252.5	278.5	278.5	278.5	7.6
1980	--	--	--	--	281.1	340.4	340.4	340.4	8.4
1981	--	--	--	--	67.3	90.6	90.6	90.6	9.4
1982	--	--	--	--	72.8	108.5	108.5	100.2	11.9
1983	--	--	--	--	42.9	68.7	67.0	63.2	9.2
1984	--	--	--	--	11.1	18.6	17.8	10.6	5.0
1985	--	--	--	--	20.6	35.9	18.0	6.8	4.3
1986	--	--	--	--	15.3	28.0	--	--	4.9
1987	--	--	--	--	13.9	26.6	--	--	4.6
1988	--	--	--	--	4.6	9.2	--	--	4.3
1989	--	--	--	--	3.3	6.9	--	--	4.0
TOTAL	24.0	--	--	--	984.7	1213.0	1121.9	1091.4	3.7

1/ Reflects program office records as of 15 September 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT - MISSILE

APPROPRIATION: PROCUREMENT - MISSILE									
FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1978	24.0	--	13.7	67.7	88.1	104.6	104.6	104.6	7.5
1979	24.0	--	4.4	54.0	68.5	90.8	90.8	90.8	8.7
1980	225.0	0.3	40.9	172.6	249.0	375.7	375.2	366.0	9.7
1981	480.0	0.6	21.6	248.1	341.8	563.9	553.3	481.9	11.9
1982	440.0	0.7	11.8	274.2	321.7	567.5	531.5	493.6	9.6
1983	330.0	2.6	12.0	199.3	255.9	473.9	364.5	165.8	9.0
1984	240.0	--	7.0	148.5	216.1	422.3	228.7	22.2	5.6
1985	--	--	--	--	38.8	80.4	--	--	6.4
1986	--	--	--	--	33.7	73.5	--	--	6.0
1987	--	--	--	--	33.5	76.9	--	--	5.6
1988	--	--	--	--	12.7	30.5	--	--	5.2
1989	--	--	--	--	12.7	32.0	--	--	4.8
TOTAL	1763.0	4.2	111.4	1164.4	1672.5	2892.0	2248.6	1724.9	

1/ Reflects program office records as of 15 September 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: ALCM

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1980	--	--	--	--	9.2	14.2	10.8	10.8	10.4
1981	--	--	--	--	40.0	66.3	54.3	54.1	11.9
1982	--	--	--	--	58.9	102.3	60.9	60.6	9.2
1983	--	--	--	--	--	--	--	--	4.9
1984	--	--	--	--	10.7	20.0	17.8	0.4	4.3
1985	--	--	--	--	23.6	46.1	--	--	4.9
1986	--	--	--	--	28.7	58.4	--	--	4.6
1987	--	--	--	--	32.6	68.8	--	--	4.3
1988	--	--	--	--	6.5	14.2	--	--	4.0
1989	--	--	--	--	6.5	14.7	--	--	3.7
TOTAL	--	--	--	--	216.7	405.0	143.8	125.9	

1/ Reflects program office records as of 31 August 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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AF-3 DSCS

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984

BQ. (U) SUMMARY

1. (U) PROGRAM HIGHLIGHTS

a. (U) SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

Negotiations of a Multiyear Procurement contract for the last seven DSCS III production satellites (B8-14) were concluded on 2 Aug 84. DSCS III-A2 launch was delayed due to reassignment of launch vehicle to a higher priority program.

b. (U) PROGRAM STATUS

(1) (U) PERCENT PROGRAM COMPLETED: 9./ 17. = 52.941%

(2) (U) PERCENT PROGRAM COST APPROPRIATED: 829.40/ 1499.50 = 55.312%

2. (U) CHANGES SINCE LAST REPORT

a. (U) OPERATIONAL AND TECHNICAL CHARACTERISTICS: NONE

b. ~~(S)~~ SCHEDULE MILESTONES:

FROM 31 DEC 83 SAR:

DEVELOPMENT EST

APPROVED
PROGRAM

CURRENT EST

Second Development Flight
Satellite III-A2 Launch

Jun 80

(b)(1)

CURRENT POSITION:

Second Development Flight
Satellite III-A2 Launch

Jun 80

(b)(1)

* ~~(S)~~ JCS-Directed a delay in this launch to (b)(1) and reassigned launch vehicle to a higher priority program.

** ~~(S)~~ JCS is reviewing future launch requirements and may direct a further delay to (b)(1) again reassigning the (b)(1) launch vehicle to a higher priority program.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST:

	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	14.	0.	14.
(b) COST (THEN-YEAR DOLLARS)	1577.00	-77.50	1499.50
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	112.6429	-5.5358	107.1071
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	0.	0.	0.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	107.70	0.00	107.70
LESS CY ADVANCE PROC.	81.60	0.00	81.60
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	26.10	0.00	26.10
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	N/A	N/A	N/A

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984

BASE YEAR: 1977

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS

1. SUMMARY

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST	
DEVELOPMENT ESTIMATE	134.3	496.8	--	631.1	262.5	893.6	Esc:	17.5	245.0	--
PREVIOUS CHANGES										
ECONOMIC	--	--	--	--	129.8	129.8	Esc:	3.5	126.3	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	16.3	31.3	--	47.6	61.6	109.2	Esc:	13.5	48.1	--
ENGINEERING	45.2	15.9	--	61.1	37.7	98.8	Esc:	22.0	15.7	--
ESTIMATING	61.7	42.8	--	104.5	163.7	268.2	Esc:	40.3	123.4	--
OTHER	--	38.4	--	38.4	39.0	77.4	Esc:	--	39.0	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	123.2	128.4	--	251.6	431.8	683.4	Esc:	79.3	352.5	--
CURRENT CHANGES										
ECONOMIC	--	--	--	--	--	--	Esc:	--	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	-0.5	-35.6	--	-36.1	-41.4	-77.5	Esc:	-0.4	-41.0	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	-0.5	-35.6	--	-36.1	-41.4	-77.5	Esc:	-0.4	-41.0	--
TOTAL CHANGES	122.7	92.8	--	215.5	390.4	605.9	Esc:	78.9	311.5	--
CURRENT ESTIMATE	257.0	589.6	--	846.6	652.9	1499.5	Esc:	96.4	556.5	--

122.7
78.9
201.6

134.3
12.5
151.8

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984

BASE YEAR: 1977

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS (Continued)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
DEVELOPMENT		
ESTIMATING:		
Lower First Time Integration Costs of the DSCS III/III STS/IUS Mission	-0.5	-0.9
TOTAL DEVELOPMENT	-0.5	-0.9
PROCUREMENT		
ESTIMATING:		
Fewer Engineering Changes to the DSCS III Production Satellites	-2.7	-5.0
Revised DSCS III Production Satellite Multiyear Cost Estimate Based on Proposal Data	-32.9	-71.6
TOTAL PROCUREMENT	-35.6	-76.6
TOTAL PROGRAM COST CHANGE	-36.1	-77.5

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984
(Dollars in Millions)

	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs. Estimate
F. CONTRACTOR COSTS								
1. DEVELOPMENT								
a. General Electric Co. <u>A/ B/</u>	25.3	N/A	0	24.6 (Ch-F1)	N/A	0	23.2 (Ch-F2)	24.6 (Ch-F3)
2. PROCUREMENT								
a. General Electric Co. <u>A/ C/</u>	13.2	14.5	1	64.9	69.9	1	62.1	64.9
b. General Electric Co. <u>A/ D/</u>	46.0	50.5	4	330.7 (Ch-F4)	357.7	4	327.4 (Ch-F5)	330.7 (Ch-F6)
c. General Electric Co. <u>E/</u>	70.1	N/A	0	71.4 (Ch-F7)	N/A	0	71.4 (Ch-F7)	71.4 (Ch-F7)

A/ Contract prices and contractor estimate obtained from the contractor Cost Performance Report as of 5 Aug 84.

B/ Separate Line Item on Production Contract for Launch Vehicle First Time Integration.

C/ Initial Contract award for advance buy parts for use in the refurbishment of the DSCS III Qualification Satellite. Current Contract Price and Price at Completion include the added satellite refurbishment and STS configuration efforts.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

- D/ Initial Contract award for four sets of advance buy parts to be used in production of DSCS III. Current Contract Price and Price at Completion reflect addition of four DSCS III Production Satellites (B4-7).
- E/ Initial Multiyear Contract award for economic order quantity of advance buy parts to be used in production of seven DSCS III Satellites (B8-14).

CONTRACT IDENTIFICATION

- 1.a. General Electric Company - Contract F04701-81-C-0004; 15 March 1982: Cost Plus Fixed Fee, Definitized (Development)
- 2.a. General Electric Company - Contract F04701-80-C-0058; 31 October 1980: Fixed Price Incentive Firm, Definitized (Procurement)
- 2.b. General Electric Company - Contract F04701-81-C-0004; 26 November 1980: Fixed Price Incentive Firm, Definitized (Procurement)
- 2.c. General Electric Company - Contract F04701-84-C-0009; 23 January 1984: Firm Fixed Price, Definitized (Procurement)

VARIANCE ANALYSIS

Changes Since Previous Report:

(Ch-F1) Increase of \$1.1M in Current Target Price is due to the addition of DSCS III-A3 non-recurring shuttle integration effort.

(Ch-F2) Increase of \$0.7M in Contractor Estimate is due to revised contractor reported variance at completion. The addition of the non-recurring shuttle effort contributed to this increase.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

VARIANCE ANALYSIS

(Ch-F3) Increase of \$1.1M in Program Manager's Estimate is due to the addition of DSCS III-A3 non-recurring shuttle integration effort.

(Ch-F4) Increase of \$7.1M in Current Target Price and \$7.8M in Current Ceiling Price is due to procurement of spare critical production components, SHF beacon reliability improvement redesign, and addition of a third heater circuit to conform to shuttle safety requirements.

(Ch-F5) Increase of \$7.3M in Contractor Estimate is due to revised contractor reported variance at completion. The procurement of spare critical production components, redesign of the SHF beacon, and addition of a heater circuit contributed to this increase.

(Ch-F6) Increase of \$7.1M in Program Manager's Estimate is due to procurement of spare critical production components, redesign of the SHF beacon, and addition of a heater circuit.

(Ch-F7) Decrease of \$0.2M in Current Target Price, Contractor Estimate, and Program Manager's Estimate is due to definitization of Traveling Wave Tube Amplifier parts purchase.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

DEVELOPMENT

	CUM THRU 6 May 84	CUM THRU 5 Aug 84	CHANGE
General Electric Company F04701-81-C-0004			\$
Cost Variance	1.9	2.2	0.3
Schedule Variance	--	-0.1	-0.1

Change in cost variance is due to favorable labor rates. These variances do not affect price-at-completion estimates.

PROCUREMENT

	CUM THRU 6 May 84	CUM THRU 5 Aug 84	CHANGE
General Electric Company F04701-80-C-0058			\$
Cost Variance	3.9	4.2	0.3
Schedule Variance	-0.6	-0.8	-0.2

Favorable labor rate variances continue to add to the favorable cost variance. Schedule variance is due to late delivery of three subcontracted components (Earth Sensor, Propulsion Subsystem, and Sun Sensor). Late delivery is not affecting contract schedule.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

	CUM THRU 6 May 84	CUM THRU 5 Aug 84	CHANGE \$
General Electric Company			
F04701-81-C-0004			
Cost Variance	2.5	0.6	-1.9
Schedule Variance	-7.2	-8.0	-0.8

Change in cost variance is a result of a change to the contractor's material measurement system. The current cost variance does not affect the price-at-completion estimate. The change in schedule variance is due to late delivery of various subcontracted components for spacecraft which have not entered satellite assembly. Also, late start of the III-B4 system test is a significant portion of the schedule variance. The use of residuals is mitigating late subcontract deliveries. Late start of the III-B4 system test has reduced schedule contingency but has not impacted the satellite delivery schedule.

+ = Favorable
- = Unfavorable

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984

BASE YEAR: 1977

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1976	--	--	--	--	11.3	10.5	10.5	10.5	7.0
1977	--	--	--	--	2.8	2.8	2.8	2.8	3.6
1977	--	--	--	--	28.1	28.7	28.7	28.7	4.7
1978	--	--	--	--	54.5	59.5	59.5	59.5	7.0
1979	--	--	--	--	24.3	29.3	29.3	29.3	8.4
1980	--	--	--	--	14.8	19.8	19.8	19.8	9.4
1981	--	--	--	--	19.6	29.0	29.0	28.9	11.9
1982	--	--	--	--	32.8	52.2	52.2	47.3	9.2
1983	--	--	--	--	24.1	40.0	39.7	36.3	5.0
1984	--	--	--	--	19.4	33.6	24.0	11.5	4.3
1985	--	--	--	--	17.4	31.6	--	--	4.9
1986	--	--	--	--	1.6	3.1	--	--	4.6
1987	--	--	--	--	1.5	3.0	--	--	4.3
1988	--	--	--	--	1.4	2.8	--	--	4.0
1989	--	--	--	--	1.2	2.6	--	--	3.7
1990	--	--	--	--	1.1	2.4	--	--	3.7
1991	--	--	--	--	0.8	1.8	--	--	3.7
1992	--	--	--	--	0.3	0.7	--	--	3.7
TOTAL	2.0	--	--	--	257.0	353.4	295.5	274.6	

1/ Reflects program office records as of 20 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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SYSTEM: QUARTERLY SELECTED ACQUISITION REPORT
DSCS III (SPACE SEGMENT)

REPORT AS OF: 30 September 1984

BASE YEAR: 1977

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - MISSILE

APPROPRIATION: PROCUREMENT - MISSILE									
FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1978	--	--	--	--	35.7	43.0	43.0	43.0	7.0
1979	--	4.4	--	--	4.7	6.2	6.2	6.2	8.7
1980	--	7.0	--	--	7.4	11.1	11.1	11.1	9.7
1981	1.0	29.7	--	--	47.5	78.0	77.7	66.5	11.9
1982	2.0	--	--	--	66.9	117.5	106.6	80.9	9.6
1983	2.0	--	--	--	87.1	160.5	136.8	61.9	9.0
1984	--	42.0	--	--	55.4	107.7	99.3	11.9	5.6
1985	2.0	25.4	--	--	121.8	251.2	--	--	6.4
1986	2.0	6.3	--	--	68.6	149.2	--	--	6.0
1987	2.0	2.4	--	--	56.6	129.2	--	--	5.6
1988	1.0	--	--	--	28.9	69.2	--	--	5.2
1989	--	--	--	--	4.9	12.4	--	--	4.8
1990	--	--	--	--	3.4	8.9	--	--	4.8
1991	--	--	--	--	0.5	1.4	--	--	4.8
1992	--	--	--	--	0.2	0.6	--	--	4.8
TOTAL	12.0	117.2	--	--	589.6	1146.1	480.7	281.5	

1/ Reflects program office records as of 20 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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AF-4 F-15

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: F-15

REPORT AS OF: 30 September 1984

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

The F-15 Program received direction to incorporate the Pratt & Whitney -220 Engine in part of the FY85 engine buy (17 A/C). Currently the F-15 Program has a reprogramming request at Congress for additional Advance Buy Funds in FY84 to be applied against the FY85 engine procurement. This request for additional funding is reflected in the current SAR submission.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 18./ 25. = 72.000%

(2) PERCENT PROGRAM COST APPROPRIATED: 17155.80/ 38090.90 = 45.039%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:
None.

b. SCHEDULE MILESTONES:
None.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	1376.	0.	1376.
(b) COST (THEN-YEAR DOLLARS)	38078.80	12.10	38090.90
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	27.6735	0.0088	27.6823
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	36.	0.	36.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	1513.20	12.10	1525.30
LESS CY ADVANCE PROC.	131.90	12.10	144.00
PLUS PY ADVANCE PROC.	158.70	0.00	158.70
TOTAL	1540.00	0.00	1540.00
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	42.7778	0.0000	42.7778

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984
BASE YEAR: FY 1970

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY

	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	1654.9	4333.2	--	5988.1	1367.1	7355.2	Esc:	123.7	1243.4
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	2450.5	2450.5	Esc:	3.7	2446.8
QUANTITY	--	3612.5	--	3612.5	12883.4	16495.9	Esc:	--	12883.4
SCHEDULE	--	931.3	--	931.3	1576.0	2507.3	Esc:	--	1576.0
ENGINEERING	291.7	807.7	--	1099.4	3332.8	4432.2	Esc:	278.2	3054.6
ESTIMATING	2.0	-577.2	--	-575.2	-904.4	-1479.6	Esc:	-10.7	-893.7
OTHER	173.9	445.2	--	619.1	148.6	767.7	Esc:	34.7	113.9
SUPPORT	-42.0	1295.1	--	1253.1	4296.5	5549.6	Esc:	12.5	4284.0
SUBTOTAL	425.6	6514.6	--	6940.2	23783.4	30723.6	Esc:	318.4	23465.0
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc:	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--
ESTIMATING	--	3.1	--	3.1	9.0	12.1	Esc:	--	9.0
OTHER	--	--	--	--	--	--	Esc:	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--
SUBTOTAL	--	3.1	--	3.1	9.0	12.1	Esc:	--	9.0
TOTAL CHANGES	425.6	6517.7	--	6943.3	23792.4	30735.7	Esc:	318.4	23474.0
CURRENT ESTIMATE	2080.5	10850.9	--	12931.4	25159.5	38090.9	Esc:	442.1	24717.4

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984
BASE YEAR: FY 1970

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS (Continued)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
PROCUREMENT		
ESTIMATING:		
Request for Congressional reprogramming in FY 84 to fund advanced buy for FY85 Incorporation of P&W -220 engines on 17 aircraft.	3.1	12.1
TOTAL PROCUREMENT	3.1	12.1
TOTAL PROGRAM COST CHANGE	3.1	12.1

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Contractor	Price At Completion
	Target-	Ceiling	Qty	Target	Ceiling	Qty	Estimate	Program Mgrs. Estimate
1. DEVELOPMENT								
a. McDonnell Douglas	341.8	N/A	0.	379.8	N/A	0.	379.8	380.6
b. Northrop Corporation	N/A	216.6	0.	N/A	216.6	0.	202.9(Ch-F1)	202.9(Ch-F1)
2. PROCUREMENT								
c. McDonnell Douglas	N/A	N/A	39	N/A	N/A	39	615.1	615.1
d. McDonnell Douglas	N/A	N/A	216	N/A	N/A	216	3027.9(Ch-F2)	3027.9 (Ch-F2)
e. Pratt & Whitney	N/A	N/A	72	N/A	N/A	72	184.2(Ch-F3)	182.2 (Ch-F3)
f. Pratt & Whitney	N/A	N/A	78	N/A	N/A	78	187.3(Ch-F4)	187.3 (Ch-F4)

CONTRACT IDENTIFICATION

- a. McDonnell Douglas- Contract F33657-83-C-0043/PZ0003; 02 December 1983: Cost Plus Incentive Fee (CPIF), Definitized (Multi-Staged Improvement Program (MSIP), Phase II - Development)
- b. Northrop Corporation - Contract F33657-83-C-2149; Fixed Price Incentive Fee (FPIF), Letter (Band III, Internal Countermeasures Sets - Development)
- c. McDonnell Douglas- Contract F33657-83-C-2133; Firm Fixed Price (FFP), Definitized (FY83 Buy - Procurement)
- d. McDonnell Douglas- Contract F33657-79-C-0779; 17 July 1979 (FY79 Buy), 26 September 1980 (FY80 Buy), 14 May 1981 (FY81 Buy) and 20 April 1983 (FY82 Buy): Firm Fixed Price (FFP), Definitized (Procurement)

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

CONTRACT IDENTIFICATION

e. Pratt & Whitney - Contract F33657-83-C-2001; 14 September 1984 (Lot 13 Buy); Firm Fixed Price (FFP), Definitized (Procurement)

f. Pratt & Whitney - Contract F33657-82-C-0258; 24 September 1982, Firm Fixed Price (FFP), Definitized (Lot 12 Buy - Procurement)

VARIANCE ANALYSIS

1. Changes Since Previous Report:

(Ch-F1) Increase based on negotiations completed 29 August 1984. Contract remains undefinitized.

(Ch-F2) Change in estimated price based on additional authorized work; e.g., to incorporate countermeasures dispenser (\$11.5), to incorporate conformal fuel tanks (\$38.0), and ECPs for flight control adjustments, support equipment, etc.

(Ch-F3) First time reported, baseline SAR. Contract F33657-80-C-0333 over 90% complete and deleted from report.

(Ch-F4) Estimates contained in June 84 SAR erroneous, contract definitized at \$187.3M.

Cost and schedule variances are not provided in Contract Funds Status Reports received on the Firm Fixed Price contracts.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

DEVELOPMENT

	CUM THRU 30 Apr 84	CUM THRU 31 Jul 84	CHANGE \$
F33657-83-C-0043/PZ0003			
Cost Variance	2.6	0.0	-2.6
Schedule Variance	-1.0	-8.6	-7.6

The negative schedule variance is driven by the delay of a major subcontractor's performance under an FPI contract. The latest revised estimates from the prime and subcontractor indicate no variance at completion. The situation is being closely monitored.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 September 1984
BASE YEAR: FY 1970
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1967	--	--	--	--	1.0	1.0	1.0	1.0	--
1968	--	--	--	--	1.0	1.0	1.0	1.0	--
1969	--	--	--	--	75.5	75.5	75.5	75.5	--
1970	--	--	--	--	175.1	175.1	175.1	175.1	--
1971	--	--	--	--	338.3	349.5	349.5	349.5	3.3
1972	--	--	--	--	397.1	422.9	422.9	422.9	3.1
1973	--	--	--	--	408.6	454.4	454.4	454.4	4.4
1974	--	--	--	--	223.8	258.0	258.0	258.0	3.7
1975	--	--	--	--	154.2	184.2	184.2	184.2	3.6
1976	--	--	--	--	28.2	34.9	34.9	34.9	3.6
1977	--	--	--	--	3.9	5.3	5.3	5.3	4.4
1977	--	--	--	--	43.3	59.6	59.6	59.6	4.6
1978	--	--	--	--	41.7	61.1	61.1	61.1	7.0
1979	--	--	--	--	7.2	11.7	11.7	11.7	8.4
1980	--	--	--	--	1.4	2.5	2.5	2.5	9.4
1981	--	--	--	--	5.8	11.6	11.6	11.5	11.9
1982	--	--	--	--	15.6	33.7	33.3	32.5	9.2
1983	--	--	--	--	51.1	114.8	113.4	105.2	5.0
1984	--	--	--	--	46.9	110.0	108.1	53.4	4.3
1985	--	--	--	--	33.7	82.9	--	--	4.9

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

G. PROGRAM FUNDING SUMMARY (Continued)

REPORT AS OF: 30 September 1984
BASE YEAR: FY 1970
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1986	--	--	--	--	13.4	34.3	--	--	4.6
1987	--	--	--	--	6.2	16.6	--	--	4.3
1988	--	--	--	--	1.9	5.3	--	--	4.0
1989	--	--	--	--	2.0	5.7	--	--	3.7
1990	--	--	--	--	2.0	6.0	--	--	3.7
1991	--	--	--	--	1.6	5.0	--	--	3.7
TOTAL	20.0	--	--	--	2080.5	2522.6	2363.1	2299.3	

1/ Reflects program office records as of 30 September 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-15

REPORT AS OF: 30 September 1984
BASE YEAR: FY 1970
CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1973	30.0	--	3.3	269.6	344.4	478.1	478.1	478.1	7.9
1974	62.0	--	15.4	425.7	575.3	903.1	903.1	903.1	10.7
1975	72.0	18.1	1.6	434.4	542.1	927.0	927.0	927.0	13.8
1976	108.0	20.2	11.4	649.4	827.0	1522.3	1522.3	1522.3	12.5
1977	24.0	--	4.8	135.0	143.0	322.2	322.2	322.2	5.3
1977	108.0	25.8	6.1	617.1	730.9	1418.6	1418.6	1418.6	5.0
1978	97.0	32.6	3.5	598.4	710.0	1517.2	1517.2	1517.2	7.4
1979	78.0	31.5	0.7	435.5	531.4	1386.8	1386.8	1386.8	8.7
1980	60.0	27.0	--	331.9	363.0	1056.5	1052.8	1052.8	9.7
1981	42.0	39.9	--	263.7	350.0	1103.4	1102.0	1078.7	11.9
1982	36.0	32.6	--	257.3	340.5	1149.5	1078.8	989.3	9.6
1983	39.0	45.3	7.1	265.1	420.6	1479.0	1299.8	843.2	9.0
1984	36.0	39.3	32.6	278.5	414.2	1525.3	573.6	58.9	5.6
1985	48.0	53.9	11.8	361.9	567.6	2213.5	--	--	6.4
1986	60.0	54.4	2.6	434.0	609.8	2510.1	--	--	6.0
1987	72.0	77.1	--	486.2	646.7	2796.4	--	--	5.6
1988	96.0	75.4	--	592.2	796.9	3614.2	--	--	5.2
1989	96.0	76.1	--	543.0	685.1	3258.6	--	--	4.8
1990	96.0	62.2	--	560.9	652.0	3251.2	--	--	4.8
1991	96.0	--	--	609.5	600.4	3135.3	--	--	4.8
TOTAL	1356.0	711.4	100.9	8549.3	10850.9	35568.3	13582.3	12498.2	

1/ Reflects program office records as of 30 September 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

N-5 F-18

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)

PROGRAM: F/A-18

REPORT AS OF: 30 SEP 1984

INDEX (U)		
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CLASSIFIED
FOR OPEN PUBLICATION

OCT 29 1984 25

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (DASD-PA)
DEPARTMENT OF DEFENSE

OASD(PA) DFOISR 84-1820

UNCLASSIFIED

SMR-84-057

BQ. (U) SUMMARY

AS OF DATE: 30 SEP 1984

1. Program

a. Significant Highlights Since Last Report: The FY85 advance acquisition engine contract was approved on 10 August 1984.

b. Program Status:

- (1) Percent program completed: 58.8% or 10 of 17 years
- (2) Percent program cost appropriated: 34.9% or \$13950.1M of \$39956.8M
- (3) Sunk Costs: The Total Program Acquisition Cost is \$39956.8M of which \$13329.9M are sunk costs (obligations as of 30 Sep 84)

2. Changes Since Last Report

a. Operational and Technical Characteristics: No Change

b. Schedule Milestone Changes: No Change

c. Program Acquisition Cost:

	<u>Previous Est.</u>	<u>Change</u>	<u>Current Est.</u>
(1) Total			
a) Quantity	1377	0	1377
b) Cost (then yr dollars)	39953.7	+ 3.1	39956.8
c) Program Unit Cost (then yr dollars)	29.015	+ .002	29.017
(2) FY84 Procurement Costs:			
a) Quantity	84	84	84
b) Cost (then yr dollars)			
Procurement Cost	2497.7	-13.3	2484.4
Less CY Adv Proc	-218.4	0	-218.4
Plus PY Adv Proc	+248.2	0	+248.2
TOTAL	2527.5	-13.3	2514.2
c) Procurement Unit Cost (then yr dollars)	30.089	- 0.158	29.931

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F/A-18 Strike Fighter
(Dollars in Millions)

AS OF DATE 30 Sep 1984

Base Year: FY 1975

E.B. (U) COST VARIANCE ANALYSIS

1. Summary	Base Year/FY 75 Constant \$			SUBTOTAL	ESCALATION	TOTAL	REMARKS
	DEV	PROC	MILCON				
Development Estimate	\$1437.7	\$6560.9	\$18.0	\$8016.6	\$4858.7	\$12875.3	Esc: Dev \$396.7; Proc \$4451.7; MILCON \$10.3
<u>Previous Changes</u>							
Economic	-	-	-	-	+ 9136.6	+ 9136.6	Esc: Dev +190.7; Proc +8947.1; MILCON -1.2
Quantity	-	+3079.6	-	+3079.6	+3790.8	+6870.4	Esc: Proc +3790.8
Schedule	+9.4	+393.3	-	+402.7	+3016.1	+3418.8	Esc: Dev + 5.2; Proc +3009.3; MILCON +1.6
Engineering	+37.8	+428.4	-	+466.2	+949.9	+1416.1	Esc: Dev + 17.8; Proc +932.1
Estimating	+162.1	+1452.4	+9.1	+1623.6	+2715.0	+4338.6	Esc: Dev +138.1; Proc +2561.1; MILCON +15.8
Support	+1.5	+695.5	-0.5	+696.5	+1194.9	+1891.4	Esc: Dev + 1.5; Proc +1194.3; MILCON -0.9
Other	+4.5	-	-	+4.5	+2.0	+6.5	Esc: Dev + 2.0
Subtotal	+215.3	+6049.2	+ 8.6	+6273.1	+20805.3	+27078.4	Esc: Dev +355.3; Proc +20434.7; MILCON +15.3
<u>Current Changes</u>							
Estimating	-	-15.5	-	-15.5	+18.6	+3.1	Esc: Proc +18.6
Subtotal	-	-15.5	-	-15.5	+18.6	+3.1	Esc: Proc +18.6
<u>Total Changes</u>	+215.3	+6033.7	+8.6	+6257.6	+20823.9	+27081.5	Esc: Dev +355.3; Proc +20453.3; MILCON +15.3
<u>Current Estimate</u>	\$1653.0	\$12594.6	\$26.6	\$14274.2	\$25682.6	\$39956.8	Esc: Dev +752.0; Proc +24905.0; MILCON +25.6

E8. COST VARIANCE ANALYSIS CONT.

2. (U) Previous Changes

Development

Economic: Revision to escalation rates
Schedule: Slower production build up and extension of the radar test bed aircraft usage
Engineering: Commonality of fighter and attack aircraft and extended testing requirements
Estimating: Revisions for budget changes, flight test costs, and equipment price analysis
Support: Additional operational test time supported.
Other: Court ruling on previous year allowable cost to the government

Procurement

Economic: Revisions to escalation rates
Quantity: 566 additional aircraft
Schedule: Fluctuations in production rates and final year of production
Engineering: Commonality, additional equipment and correction of defects changes
Estimating: Revised program estimates based on more current information
Support: Changes in projected sites, distribution of aircraft, and increased aircraft quantity

Construction:

Economic: Revisions to escalation rates
Estimating: Redistribution of requirements and updated estimates
Support: Realignment of facilities

3. (U) Changes Since Previous Report: (Dollars in Millions)

	<u>Base Year Dollars</u>	<u>Current Dollars</u>
<u>Development</u>		
None		
<u>Procurement</u>		
Estimating: Estimating revision in spares (-8.5), Automatic Test Equipment (ATE) realignment (+12.8), correction of previous recording error (-19.8) in FY80 Base YR Total in previous SAR.	-15.5	+ 3.1
Total Procurement Cost Change	-15.5	+ 3.1
<u>Total Program Cost Change</u>	<u>-15.5</u>	<u>+ 3.1</u>

QUARTERLY SELECTED ACQUISITION REPORT
System: F/A-18

UNCLASSIFIED
AS OF DATE: 30 SEP 1983

F. (U) CONTRACTOR COSTS (\$M)	(1) Initial Contract			(2) Current Price			(3) Price at Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs Estimate
<u>1. Procurement:</u>								
McDonnell Douglas Corp. N00019-81-C-0157 FPI dated 11 Nov 81	1074.0 ^{2/}	1180.0	60	1391.0	1531.0	60	1453.9	1453.9
McDonnell Douglas Corp. N00019-82-C-0501 FFP dated 24 Mar 83	1140.0	1140.0	63	1140.0	1140.0	63	1140.0	1140.0
General Electric Co. N00019-81-C-0050 FFP dated 9 Feb 83	262.0	262.0	141	262.0	262.0	141	262.0	262.0
General Electric Co N00019-82-C-0042 FFP dated 30 Jan 84 CH-F1	296.5	296.5	168	296.5	296.5	168	296.5	296.5
McDonnell Douglas Corp N00019-83-C-0272 FFP ^{3/} dated 18 Jun 84 CH-F3	1414.6 ^{1/}	1414.6	84	1414.6	1414.6	84	1414.6	1414.6
McDonnell Douglas Corp N00019-83-C-0272 FFP ^{3/} dated 15 Jun 84 CH-F3	1380.1 ^{1/}	1380.1	84	1380.1	1380.1	84	1380.1	1380.1

NOTES:

- ^{1/} Basic aircraft contract only. Provisioned items negotiated later.
- ^{2/} Sep 83 CPR Data - Last CPR, all aircraft delivered. Only definitization of support remains.
- ^{3/} Separate line items - FY83 and FY84 negotiated at same time under one contract number.

2. (U) Variance Analysis

None.

QUARTERLY SELECT ACQUISITION REPORT
System: F/A-18 Hornet Fighter

UNCLASSIFIED
AS OF: 30 SEP 1984
BASE YEAR: FY 1975

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ IN MILLIONS)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS				ESCALATION ^{1/} RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED		
			NON-REC	REC						
APPROPRIATION: RDT&E										
1975	-	-	-	-	19.5	20.0	20.0	20.0	--	
1976	-	-	-	-	100.1	110.4	110.4	110.4	9.0	
1977	-	-	-	-	18.9	22.2	22.2	22.2	2.25	
1977	-	-	-	-	271.3	341.9	341.9	341.9	7.0	
1978	1	-	-	-	462.8	626.8	626.8	626.8	7.0	
1979	8	-	-	-	336.3	496.1	496.1	496.1	9.0	
1980	2	-	-	-	192.8	314.8	314.8	314.8	11.0	
1981	-	-	-	-	96.6	173.1	173.1	173.1	11.9	
1982	-	-	-	-	100.8	191.9	191.9	191.9	7.6	
1983	-	-	-	-	53.9	107.8	107.8	87.6	5.0	
Total	TT	-	-	-	1653.0	2405.0	2405.0	2384.8		

APPROPRIATION: PROCUREMENT (APN)										
1978		19.8	-	-	19.8	34.1	34.1	34.3	7.0	
1979	9	30.4	28.1	201.2	308.4	591.9	576.1	556.8	9.0	
1980	25	54.1	43.4	378.7	569.6	1185.4	1160.2	1097.7	11.0	
1981	60	52.9	18.8	670.9	978.6	2125.1	2072.3	1954.6	11.9	
1982	63	74.1	56.2	599.3	1022.5	2482.4	2465.0	2032.3	14.3	
1983	84	91.9	105.5	688.4	1002.6	2606.0	2526.5	1403.4	9.0	
1984	84	76.5	36.0	627.8	931.6	2484.4	2062.0	91.4	5.59	
1985	84	112.2	71.1	618.7	937.7	2797.6	0.0	0.0	6.37	
1986	102	114.6	103.1	694.8	963.0	2925.1	0.0	0.0	5.98	
1987	120	110.1	98.0	790.5	1051.7	3331.8	0.0	0.0	5.59	
1988	120	107.0	98.1	759.8	1014.6	3377.7	0.0	0.0	5.20	
1989	120	105.3	93.9	686.5	847.4	2957.1	0.0	0.0	4.81	
1990	248	152.6	185.9	1293.1	1588.1	5990.4	0.0	0.0	4.81	
1991	247	0.0	60.4	1269.5	1359.0	4610.6	0.0	0.0	4.81	
Total	1366	1102.3	998.5	9279.2	12594.6	37499.6	10896.2	7170.5		

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT
System F/A-18

AS OF: 30 SEP 1984
BASE YEAR: FY 1975

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ IN MILLIONS)

FISCAL YEAR	QTY	BASE YEAR DOLLARS			THEN YEAR DOLLARS				ESCALATION ^{1/} RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: CONSTRUCTION									
1977				0.8	1.0	1.0	1.0	2.4	
1980				3.8	6.5	6.5	6.5	10.4	
1981				0.2	0.4	0.4	0.4	11.9	
1982				6.9	12.9	9.9	9.9	7.6	
1983				2.8	5.6	4.5	4.5	4.9	
1984				4.6	9.4	6.4	2.8	4.3	
1985				0.4	0.8	0.0	0.0	4.9	
1986				1.9	4.0	0.0	0.0	4.6	
1987				3.3	7.1	0.0	0.0	4.3	
1988				0.0	0.0	0.0	0.0	4.0	
1989				0.0	0.0	0.0	0.0	3.7	
1990				1.9	4.5	0.0	0.0	3.7	
TOTALS				26.6	52.2	28.7	25.1		

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

N-7 SPARROW

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)

System: Sparrow (AIM/RIM-7M)

REPORT AS OF: September 30, 1984

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OCT 23 1984

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (DFA)
DEPARTMENT OF DEFENSE

UNCLASSIFIED

OASD(PA) DFOISR 84-1816

SAR-84-076

U N C L A S S I F I E D

QUARTERLY SELECTED ACQUISITION REPORT
System: Sparrow (AIM/RIM-7M)

AS OF DATE: September 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None.
- b. Program Status:
 - (1) Percent program completed: 71% complete, or 10 of 15 years.
 - (2) Percent program cost appropriated: 32% has been appropriated.
 - (3) Total program costs are \$1,972.7M of which \$553.9M are sunk costs (obligated as of 30 Sep 1984) and \$1,418.8M is the program cost to complete.

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: None.
- b. Schedule Milestones: None.
- c. Program Acquisition Cost (\$M):

	<u>PREVIOUS ESTIMATE</u>	<u>CHANGE</u>	<u>CURRENT ESTIMATE</u>
(1) Total			
(a) Quantity	9,230	-	9,230
(b) Cost (then-year dollars)	\$1,977.1	\$-4.4	\$1,972.7
(c) Program Unit Cost (then-year dollars)	.214	-	.214
(2) FY 1983 Procurement Costs:			
(a) Quantity	695	-	695
(b) Cost (then-year dollars)	\$145.5	\$-4.4	\$141.1
Procurement Cost			
Less CY Advanced Procurement	-	-	-
Plus PY Advanced Procurement	-	-	-
Total	\$145.5	\$-4.4	\$141.1
(c) Procurement Unit Cost (then-year dollars)	.209	-	.203

U N C L A S S I F I E D

U N C L A S S I F I E D

QUARTERLY SELECTED ACQUISITION REPORT

System: Sparrow (AIM/RIM-7M)
(Dollars in Millions)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1978

E.8. COST VARIANCE ANALYSIS

1. SUMMARY

	Base Year/FY-78 Constant \$				ESCAL	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL					
Development Estimate	\$51.6	\$581.8	-	\$633.4	\$261.5	\$894.9	Esc: Dev	\$2.4M; Proc	\$259.1M
<u>Previous Changes</u>									
Economic	-	-	-	-	+106.5	+106.5	Esc: Dev	+0.4M; Proc	+106.1M
Quantity	-	+135.3	-	+135.3	+273.2	+408.5	Esc:	Proc	+273.2M
Schedule	-	+123.2	-	+123.2	+177.5	+300.7	Esc:	Proc	+177.5M
Estimating	-.6	+112.2	-	+111.6	+34.5	+146.1	Esc: Dev	+1.7M; Proc	+32.8M
Support	-	+56.1	-	+56.1	+64.3	+120.4	Esc:	Proc	+64.3M
Subtotal	-.6	+426.8	-	+426.2	+656.0	+1082.2	Esc: Dev	+2.1M; Proc	+653.9M
<u>Current Changes</u>									
Estimating	-	-2.5	-	-2.5	-1.9	-4.4	Esc:	Proc	-1.9M
Subtotal	-	-2.5	-	-2.5	-1.9	-4.4	Esc:	Proc	-1.9M
Total Changes	-.6	+424.3	-	+423.7	+654.1	+1077.8	Esc: Dev	+2.1M; Proc	+652.0M
Current Estimate	\$51.0	\$1006.1	-	\$1057.1	\$915.6	\$1972.7	Esc: Dev	\$4.5M; Proc	\$911.1M

U N C L A S S I F I E D

U N C L A S S I F I E D

QUARTERLY SELECTED ACQUISITION REPORT

System: Sparrow (AIM/RIM-7M)
(Dollars in Millions)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1978

E.8. COST VARIANCE ANALYSIS (continued)

2. Previous Changes:

DEVELOPMENT

Economic: Revised escalation rates
Estimating: Reprogramming to higher priority programs

PROCUREMENT

Economic: Revised escalation rates
Quantity: Production quantities increased by 1,811 missiles
Schedule: Total program restructured to reflect revised Air Force and Navy procurement strategies. FY82 Congressional reduction to requested appropriations.
Estimating: Revised quantities FY83-88; revised estimates based on actual contractor proposals; increase in contract growth from target to ceiling
Support: Increased procurement from six to nine years and revised escalation rates.

3. Changes Since Previous Report:

PROCUREMENT

Estimating: Decrease of \$4.4M in FY 1984 is the result of reprogramming initial spares to Harpoon and replenishment spares.

Base Year \$
-2.5

Current \$
-4.4

TOTAL PROGRAM COST CHANGE

-2.5

-4.4

U N C L A S S I F I E D

U N C L A S S I F I E D

QUARTERLY SELECTED ACQUISITION REPORT

System: Sparrow (AIM/RIM-7M)
(Then Year Dollars in Millions)

AS OF DATE: September 30, 1984

F. <u>Contractor Costs (\$M)</u>	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price at Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Prog Mgr's Estimate
1. <u>PROCUREMENT</u>								
<u>Raytheon Company, Lowell</u>								
N00019-81-C-0103	85.6	85.6	1490	240.1	240.1	1490	237.7 ^{1/}	238.1
FPI-17 Jun 81 (Air Force)	(46.1)	(46.1)	(865)	(144.6)	(144.6)	(865)	(137.9)	(138.1)
N00019-83-C-0071 ^{2/}	121.7	121.7	1711	N/A	238.1 CH-F1	1711	237.7	237.7
FFP-27 Dec 82 (Air Force)	(81.5)	(81.5)	(1167)	N/A	(159.2)	(1167)	(159.2)	(159.2)
(FMS)	(10.1)	(10.1)	(135)	N/A	(19.9)	(135)	(19.9)	(19.9)
N00019-84-C-0161 CH-F2	N/A	213.6	1584	N/A	213.6	1584	213.6	213.6
FFP-3 Mar 84 (Air Force)	N/A	(102.1)	(746)	N/A	(102.1)	(746)	(102.1)	(102.1)
(FMS)	N/A	(32.4)	(240)	N/A	(32.4)	(240)	(32.4)	(32.4)
<u>General Dynamics, Pomona</u>								
N00019-81-C-0468	4.0	4.0	690	170.2 CH-F3	170.2 CH-F3	690	171.0 ^{1/}	171.0
FPI-20 Nov 81 (Air Force)	(4.0)	(4.0)	(440)	(99.6)	(70.6)	(440)	(103.7)	(103.7)
N00019-83-C-0070-Ltr Cont	107.9	107.9	1344	N/A	215.8 ^{3/}	1344	215.8	215.8
FFP-27 Dec 82 (Air Force)	(55.1)	(55.1)	(689)	N/A	(110.1)	(689)	(110.1)	(110.1)
(FMS)	(10.8)	(10.8)	(135)	N/A	(21.6)	(135)	(21.6)	(21.6)

^{1/} Contractor estimate data as of June 1984

^{2/} Contract definitized 5 March 1984

^{3/} Reflects ceiling price

U N C L A S S I F I E D

U N C L A S S I F I E D

QUARTERLY SELECTED ACQUISITION REPORT

System: Sparrow (AIM/RIM-7M)

AS OF DATE: September 30, 1984

F.2. VARIANCE ANALYSIS

	CUM THRU 31 Oct 83	CUM THRU* 30 Jun 84	Change
a. Contract N00019-81-C-0103			
Cost Variance	\$(7.8M)	\$(9.4M)	+\$1.6M
Schedule Variance	\$(2.6M)	\$(1.7M)	-\$.9M

Unfavorable variances result from: (1) mandatory changes as a result of OPEVAL testing, which caused cost and schedule increases; (2) contractor underestimated complexity of YIG filters; and (3) support labor at higher rate than scheduled. Variances are listed as unfavorable since the contractor is in a cost overrun mode now. Program Impact: variances have been taken into consideration in the program manager's estimated price at completion.

b. Contract N00019-81-C-0468			
Cost Variance	-	\$(5.5M)	No variance can be shown since this
Schedule Variance	-	\$(7.4M)	contract has not been reported before.

Unfavorable variances result from: (1) delayed manufacturing start-up (labor not staffed as scheduled), (2) additional manpower and overtime to expedite hardware and enhance labor efficiencies, and (3) mandatory OPEVAL changes. Variances are listed as unfavorable since the contractor is in a cost overrun mode now. Program Impact: variances have been taken into consideration in the program managers estimated price at completion.

c. Changes Since Previous Report: CH-F1 - Reflects additional funds for engineering services and an engineering change.
 CH-F2 - Reflects 1584 guidance and control units.
 CH-F3 - Reflects partial funding from target to ceiling and an engineering change.

*This is the most current data available from the contractor.

U N C L A S S I F I E D

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QUARTERLY SELECTED ACQUISITION REPORT

System: Sparrow (AIM/RIM-7M)

CURRENT ESTIMATE

(\$ in Millions)

AS OF DATE: September 30, 1984

BASE YEAR: FY 1978

G. PROGRAM FUNDING SUMMARY

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE YEAR DOLLARS		TOTAL	THEN YEAR DOLLARS			ESCALATION RATE (%)
			NET FLYAWAY (NON ADD)			TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&EN									
1975	-	-	-	-	2.4	2.4	2.4	2.4	8.8
1976	-	-	-	-	7.8	7.8	7.8	7.8	6.6
1977	-	-	-	-	.8	.8	.8	.8	3.6
1977	38	-	-	-	12.8	12.8	12.8	12.7	3.8
1978	-	-	-	-	-	-	-	-	-
1979	6	-	-	-	11.9	12.9	12.9	12.6	8.7
1980	-	-	-	-	12.0	13.8	13.8	13.0	9.7
1981	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	3.3	5.0	5.0	3.9	7.6
TOTAL	44	-	-	-	51.0	55.5	55.5	53.2	
APPROPRIATION: WPN									
1980	60	-	2.9	20.2	25.0	34.3	34.3	22.3	9.7
1981	625	-	1.2	92.3	99.5	148.0	140.5	136.9	11.9
1982	559	-	8.5	68.2	80.4	128.0	127.6	92.2	6.9
1983	620	-	-	66.9	73.1	123.8	104.0	54.6	9.0
1984	695	-	-	69.9	78.6	141.1	92.0	12.8	5.6
1985	1250	-	-	124.9	135.0	256.4	-	-	6.4
1986	1692	-	-	161.0	172.1	344.4	-	-	6.0
1987	1862	-	-	169.5	181.0	380.6	-	-	5.6
1988	1340	-	-	105.0	116.3	256.4	-	-	5.2
1989	483	-	-	38.1	45.1	104.2	-	-	4.8
TOTAL	9186	-	12.6	916.0	1006.1	1917.2	498.4	318.8	

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP (Q&A) 823)
SYSTEM: CG 47 AEGIS CRUISER

Report as of: 30 September 1984

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984BQ. SUMMARY1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report:

- (1) YORKTOWN, CG 48, was commissioned at Yorktown, Virginia on 4 July 1984.
- (2) YORKTOWN, CG 48, successfully concluded the planned shock tests during September. No major ship or combat systems discrepancies resulted from the shock tests.
- (3) VALLEY FORGE, CG 50, was christened on 29 September 1984.
- (4) Construction of THOMAS S. GATES, CG 51, at the Bath Iron Works, Bath, Maine, is proceeding on schedule.
- (5) Requests for reprogramming of FY 84 CG 47 SCN funds in the amount of \$260.3M to other programs have been prepared for submission and approval.

b. Program Status

- (1) Percent program completed: 41.2%
- (2) Percent program cost appropriated: 44.4%
- (3) Sunk Costs: Total program cost is \$28,487.5 of which \$9,327.8 are sunk costs (obligations as of September 30, 1984) and \$19,159.7 is the cost to complete.

2. CHANGES SINCE LAST REPORT

a. Operational and Technical Characteristics: None.

b. Schedule Milestones: None.

c. Program Acquisition Cost:

	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity	26	-	26
(b) Cost (then-year dollars)	\$28,747.8	\$-260.3	\$28,487.5
(c) Program Unit Cost (then-year dollars)	\$ 1,105.685	-10.012	\$ 1,095.673

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984

2.c. Program Acquisition Cost (continued):

(2) FY 84 Procurement Costs:

(a) Quantity

(b) Cost (then-year dollars)

Procurement Cost

(Less CY Advanced Proc.)

(Plus PY Advanced Proc.)

(-OF/PD, CG, & ESC on PY Progs.)

(c) Procurement Unit Cost (then-year dollars)

PREVIOUS ESTCHANGECURRENT EST

	3	-	3
	\$ 3,202.6	\$ -260.3	\$ 2,942.3
	(3,232.5)	(-260.3)	(2,972.2)
	(-)		(-)
	(-3.6)		(-3.6)
	(-26.3)		(-26.3)
	\$ 1,067.533	-86.766	\$ 980.767

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E.8.(U) COST VARIANCE ANALYSIS

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER
(Dollars in Millions)As of date: 30 September 1984
Base year: 1978

a. Summary

	Dev	Proc	Const	Subtotal	Escalation	Total	Remarks
Development Estimate	\$55.5	\$ 8,958.2	-	\$ 9,013.7	\$ 5,069.8	\$14,083.5	Eso: Dev. \$ 1.8M; Proc. \$ 5,068.0M
<u>Previous Changes</u>							
Economic	-	-	-	-	+ 1,561.1	+ 1,561.1	Eso: Dev. + 1.6M; Proc. + 1,559.5M
Quantity	-	+ 4,996.2	-	+ 4,996.2	+ 5,682.1	+10,678.3	Eso: Proc. + 5,682.1M
Schedule	-	-	-	-	+ 564.3	+ 564.3	Eso: Proc. + 564.3M
Engineering	+ 7.6	+ 587.9	-	+ 595.5	+ 385.1	+ 980.6	Eso: Dev. + 2.1M; Proc. + 383.0M
Estimating	+10.4	+ 432.5	-	+ 442.9	+ 160.0	+ 282.9	Eso: Dev. + 6.5M; Proc. - 166.5M
Support	-	+ 268.4	+13.7	+ 282.1	+ 315.0	+ 597.1	Eso: Proc. + 305.2M; Const. + 9.8M
Subtotal	+18.0	+ 6,285.0	+13.7	+ 6,316.7	+ 8,347.6	+14,664.3	Eso: Dev. + 10.2M; Proc. + 8,327.6M; Const. +9.8M
<u>Current Changes</u>							
Estimating	+	- 127.5	-	- 127.5	- 132.8	- 260.3	Eso: Proc. - 132.8M
Subtotal	+	- 127.5	-	- 127.5	- 132.8	- 260.3	Eso: Proc. - 132.8M
Total Changes	+18.0	+ 6,157.5	+13.7	+ 6,189.2	+ 8,214.8	+14,404.0	Eso: Dev. + 10.2M; Proc. + 8,194.8M; Const. +9.8M
Current Estimate	\$73.5	\$15,115.7	\$13.7	\$15,202.9	\$13,284.6	\$28,487.5	Eso: Dev. \$ 12.0M; Proc. \$13,262.8M; Const. \$+9.8M

b.(U) Previous Changes:

Development

Economic: Revised escalation rates.
 Engineering: HDF and SDMS design changes.
 Estimating: Refinement of R&D estimates.

Procurement

Economic: Revised escalation rates.
 Quantity: Addition of 10 cruisers.
 Schedule: Stretchout of ship acquisition schedules.
 Engineering: Engineering enhancements including introduction of the Vertical Launch System.
 Estimating: Refinements of procurement estimates.
 Support: Adjustment of outfitting and post delivery costs corresponding to program changes.

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: CG 47 AEGIS CRUISER

(Dollars in Millions)

As of date: 30 September 1984E.8.c.(U) Changes Since Previous Report

	<u>Base Year \$</u>	<u>Then Year \$</u>
<u>DEVELOPMENT</u>	-	-
<u>PROCUREMENT</u>		
Estimating: Reprogramming action submitted to the Congress for permission to apply contract award savings for the Battleship reactivation program.	-110.3	-229.9
Reprogramming action submitted to the Congress for permission to apply contract award savings for the ADP/OPN program.	-19.3	-34.1
Recovery of funds previously reprogrammed in last SAR submittal.	+2.1	+3.7
<u>CONSTRUCTION</u>	<u>-</u>	<u>-</u>
<u>TOTAL PROGRAM COST CHANGE</u>	-127.5	-260.3

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984

F.(U) Contractor Costs (\$ in Millions)	(1) Initial Contract		(2) Current Contract Price			(3) Price at Completion	
	Price	Qty	Target	Ceiling	Qty	Contractor Estimate	Pgm Mgr. Estimate
1. Procurement:							
a. AEGIS Weapon System - CG 49/50							
RCA Government Systems Moorestown, New Jersey N00024-81-C-5106-CPAF Contract Awarded April 1981	240.7 (Ch F-1)	2	257.3	N/A	2	264.7 (Ch F-2)	264.7 (Ch F-2)
b. AEGIS Weapon Systems - 51/52/53							
RCA Government Systems Moorestown, New Jersey N00024-82-C-5110-FPI/PP Contract Awarded July 1982	320.2	3	326.3 (Ch F-3)	348.9	3	326.3 (Ch F-4)	326.3 (Ch F-4)
c. AEGIS Weapon Systems - 54/55/56							
RCA Government Systems Moorestown, New Jersey N00024-82-C-5116-FPI/PP Contract Awarded April 1983	303.8	3	303.7 (Ch F-5)	331.0 (Ch F-6)	3	303.7 (Ch F-7)	303.7 (Ch F-7)

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984

	(1) Initial Contract		(2) Current Contract Price			(3) Price at Completion	
	Price	Qty	Target	Ceiling	Qty	Contractor Estimate	Pgm Mgr. Estimate
F.1.(U) <u>PROCUREMENT</u> (continued):							
d. Detail Design and Follow Ship Construction - CG 49/50/52/53							
Litton Industries Ingalls Shipbuilding Division Pascagoula, Mississippi N00024-81-C-2049-CPAF Contract Awarded August 1981 for CG 49/50 and modified for CG 52/53 January 1982							
	1,331.2	4	1,431.5 (Ch F-8)	N/A	4	1,457.1 (Ch F-9)	1,457.1 (Ch F-9)
e. Detail Design and Follow Ship Construction - CG 51							
Bath Iron Works Bath, Maine N00024-82-C-2011-CPAF Contract Awarded May 1982							
	305.2	1	311.2 (Ch F-10)	N/A	1	309.2 (Ch F-11)	309.2 (Ch F-11)
f. Follow Ship Construction - CG 54/55/56							
INGALLS Shipbuilding Division Pascagoula, Mississippi N00024-83-C-2013-FPI Contract Awarded June 1983							
	933.8	3	938.7 (Ch F-12)	1,090.4 (Ch F-13)	3	969.3 (Ch F-14)	969.3 (Ch F-14)

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984

	(1) Initial Contract Price Qty		(2) Current Contract Price Target Ceiling Qty			(3) Price at Completion Contractor Pgm Mgr. Estimate Estimate		
F.1.(U) <u>PROCUREMENT</u> (continued):								
g. Follow Ship Construction - CG 57/59								
Ingalls Shipbuilding Division Pascagoula, Mississippi N00024-84-C-2004-FPI Contract Awarded December 1983								
	325.5	2	325.5	366.8	2	329.0 (Ch-15)	329.0 (Ch-15)	
h. Follow Ship Construction - CG 58								
Bath Iron Works Bath, Maine N00024-84-C-2005-FPI Contract Awarded December 1983								
	252.8	2	253.5 (Ch F-16)	286.2	2 (Ch F-17)	256.2 (Ch F-18)	256.2 (Ch F-18)	

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984

F.2.(U) Changes Since Previous Report:

Ch F-1 - 0.1	Contract price revised to reflect the deletion of funds applicable to tool kits no longer required.
Ch F-2 - 0.2	Estimate revised downward to reflect deletion of tool kit items no longer required.
Ch F-3 + 6.1	Target price adjusted to reflect the negotiation of additional effort.
Ch F-4 + 5.7	Estimate to complete increased to reflect the negotiation of additional effort.
Ch F-5 - 0.1	Target price adjusted to reflect unearned award fee.
Ch F-6 + 1.0	Ceiling price adjusted to reflect rounding off error contained in previous report.
Ch F-7 - 0.1	Estimate to complete revised to reflect award fee not earned during last progress review.
Ch F-8 + 20.9	Contract modifications definitized.
Ch F-9 + 2.6	Estimates revised to include modifications authorized but not negotiated.
Ch F-10 + 0.8	Contract modifications definitized.
Ch F-11 + 2.9	Estimates revised to include modifications authorized but not negotiated.
Ch F-12 + 2.7	Contract target price adjusted to reflect results of negotiated contract modifications.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984

F.2.(U) Changes Since Previous Report (continued):

Ch F-13 + 68.2	Ceiling price adjusted to reflect funds negotiated into the contract to cover ship spares requirement and changes resulting from displacement reduction efforts.
Ch F-14 + 2.6	Engineering change proposals authorized but not negotiated which are included in the latest revised estimate to complete.
Ch F-15 + 3.5	Estimates revised to include modifications authorized but not negotiated.
Ch F-16 + 0.4	Contract target price adjusted to reflect results of negotiated contract modifications.
Ch F-17 + 0.5	Contract ceiling price adjusted to reflect negotiated contract modifications.
Ch F-18 + 0.3	Estimates revised to include modifications authorized but not negotiated.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: CQ 47 AEGIS CRUISER

As of date: 30 September 1984
Base Year: FY 1978

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE-YEAR \$		TOTAL	THEN-YEAR \$		OBLIGATED	EXPENDED	ESCALATION RATE (%) ^{1/}
			NET SAILAWAY (NON-ADD)			TOTAL	TOTAL			
			NONREC	REC						
APPROPRIATION: RDT&E,N										
1978	-	-	-	-	39.4	39.4	39.4	39.4	-	
1979	-	-	-	-	9.9	10.8	10.8	10.8	8.72	
1980	-	-	-	-	5.4	6.5	6.5	6.5	9.70	
1981	-	-	-	-	3.4	4.5	4.5	4.5	11.90	
1982	-	-	-	-	5.0	7.2	7.2	7.2	7.60	
1983	-	-	-	-	2.1	3.1	3.1	3.1	4.90	
1984	-	-	-	-	1.0	1.5	1.5	1.5	4.30	
1985	-	-	-	-	3.1	5.1	-	-	4.90	
1986	-	-	-	-	2.4	4.1	-	-	4.60	
1987	-	-	-	-	0.6	1.1	-	-	4.30	
1988	-	-	-	-	0.6	1.1	-	-	4.00	
1989	-	-	-	-	0.6	1.1	-	-	3.70	
TOTAL	-	-	-	-	73.5	85.5	73.0	73.0		
APPROPRIATION: SCN										
1978	1	-	-	786.9	786.9	926.0	924.0	912.0	-	
1979	-	-	-	-	-	1.9	1.7	1.2	9.95	
1980	1	-	-	581.7	581.7	820.2	782.9	711.0	9.89	
1981	2	-	-	1,196.1	1,197.0	1,939.4	1,676.8	1,262.6	10.10	
1982	3	81.5	-	1,823.4	1,826.0	2,925.9	2,314.3	1,177.9	4.39	
1983	3	12.4	-	1,584.5	1,599.1	2,972.7	1,980.3	508.2	3.40	
1984	3	-	-	1,594.8	1,612.1	2,972.2	1,559.8	81.9	5.59	
1985	3	0.6	-	1,609.6	1,636.9	3,194.0	-	-	6.37	
1986	3	6.9	-	1,608.7	1,652.7	3,326.9	-	-	5.98	
1987	3	18.1	-	1,601.9	1,657.2	3,477.6	-	-	5.59	
1988	2	-	-	1,122.0	1,178.8	2,608.1	-	-	5.20	
1989	2	-	-	1,126.1	1,183.3	2,758.3	-	-	4.81	
1990	-	-	-	-	57.1	119.0	-	-	4.81	
1991	-	-	-	-	56.6	123.7	-	-	4.81	
1992	-	-	-	-	49.3	112.9	-	-	4.81	
1993	-	-	-	-	29.8	71.6	-	-	4.81	
1994	-	-	-	-	11.2	28.1	-	-	4.81	
TOTAL	26	119.5	-	14,635.7	15,115.7	28,378.5	9,239.8	4,654.8		

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

UNCLASSIFIED

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QUARTERLY SUBMITTED ACQUISITION REPORT
SYSTEM: CG 47 AEGIS CRUISER

As of date: 30 September 1984
Base Year: FY 1978

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE-YEAR \$		TOTAL	THEN-YEAR \$				
			NET SAILAWAY (NON-ADD)			TOTAL	OBLIGATED	EXPENDED	ESCALATION RATE (%) ^{1/}	
			NONREC	RBC						
APPROPRIATION: MILCON										
1978	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	9.60
1980	-	-	-	-	-	-	-	-	-	10.40
1981	-	-	-	-	-	-	-	-	-	11.90
1982	-	-	-	-	0.8	1.2	1.2	1.2	1.2	7.60
1983	-	-	-	-	6.6	10.8	10.8	4.9	4.9	4.90
1984	-	-	-	-	2.5	4.2	3.0	0.7	0.7	4.30
1985	-	-	-	-	-	-	-	-	-	4.90
1986	-	-	-	-	-	-	-	-	-	4.60
1987	-	-	-	-	3.8	7.3	-	-	-	4.30
TOTAL	-	-	-	-	13.7	23.5	15.0	6.8	-	-

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

UNCLASSIFIED

AF-B SPARROW

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: AIM-7M

REPORT AS OF: 30 September 1984

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DEPARTMENT OF DEFENSE

84-T-1807
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84-0890-T

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AIM-7M

REPORT AS OF: 30 September 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

None.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 5./ 5. = 100.000%

(2) PERCENT PROGRAM COST APPROPRIATED: 894.00/ 894.00 = 100.000%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. SCHEDULE MILESTONES:

None

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AIM-7M

REPORT AS OF: 30 September 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	4344.	62.	4406.
(b) COST (THEN-YEAR DOLLARS)	884.00	10.00	894.00
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	0.2035	-0.0006	0.2029
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	1005.	0.	1005.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	185.30	0.00	185.30
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	185.30	0.00	185.30
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	0.1844	0.0000	0.1844

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AIM-7M

REPORT AS OF: 30 September 1984

(Dollars in Millions)

1. SUMMARY

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST	
DEVELOPMENT ESTIMATE	2.9	277.4	--	280.3	82.9	363.2	Esc:	0.4	82.5	--
PREVIOUS CHANGES										
ECONOMIC	--	--	--	--	-56.3	-56.3	Esc:	0.2	-56.5	--
QUANTITY	--	4.1	--	4.1	-24.1	-20.0	Esc:	--	-24.1	--
SCHEDULE	0.1	-12.5	--	-12.4	14.2	1.8	Esc:	--	14.2	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	0.3	263.6	--	263.9	328.7	592.6	Esc:	0.6	328.1	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	5.9	--	5.9	-3.2	2.7	Esc:	--	-3.2	--
SUBTOTAL	0.4	261.1	--	261.5	259.3	520.8	Esc:	0.8	258.5	--
CURRENT CHANGES										
ECONOMIC	--	--	--	--	--	--	Esc:	--	--	--
QUANTITY	--	4.9	--	4.9	3.5	8.4	Esc:	--	3.5	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	--	0.8	--	0.8	0.8	1.6	Esc:	--	0.8	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	--	5.7	--	5.7	4.3	10.0	Esc:	--	4.3	--
TOTAL CHANGES	0.4	266.8	--	267.2	263.6	530.8	Esc:	0.8	262.8	--
CURRENT ESTIMATE	3.3	544.2	--	547.5	346.5	894.0	Esc:	1.2	345.3	--

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AIM-7M

REPORT AS OF: 30 September 1984
BASE YEAR: 1978

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS (Continued)

3. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	Current \$
PROCUREMENT		
QUANTITY:		
Procurement of 62 additional missiles in FY83	4.9	8.4
ESTIMATING:		
Estimating component of quantity change associated with the procurement of 62 additional missiles	0.9	1.6
Correction to base year dollars in FY 1982	-0.1	0.0
TOTAL PROCUREMENT	5.7	10.0
TOTAL PROGRAM COST CHANGE	5.7	10.0

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AIM-7M

REPORT AS OF: 30 September 1984

BASE YEAR: 1978

CURRENT ESTIMATE

(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1980	--	--	--	--	1.1	1.4	1.4	1.4	9.4
1981	--	--	--	--	2.2	3.1	3.1	1.0	11.9
TOTAL	--	--	--	--	3.3	4.5	4.5	2.4	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AIM-7M

REPORT AS OF: 30 September 1984

BASE YEAR: 1978

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - MISSILE

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1980	330.0	--	2.9	52.8	55.7	77.3	77.3	77.0	9.7
1981	865.0	--	12.5	103.7	124.0	187.7	182.2	160.0	11.9
1982	957.0	--	5.6	117.9	137.2	222.3	219.3	100.3	9.6
1983	1249.0	--	1.7	116.0	125.9	216.9	193.0	101.4	9.0
1984	1005.0	--	--	97.6	101.4	185.3	78.1	3.9	5.6
TOTAL	4406.0	--	22.7	488.0	544.2	889.5	749.9	442.6	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

CLASSIFIED

N-1 AV-8B

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

BQ.(U) SUMMARY

1. PROGRAM HIGHLIGHTS:

a. Significant Highlights Since Last Report.

AV-8B aircraft Number 1 and 2 are being modified at McDonnell Douglas Corporation in St. Louis to accept the -406 engine and digital electronic fuel control system. Testing will continue at Edwards Air Force Base and NATC Patuxent River, Md. As of 1 October 1984 the four FSD AV-8B aircraft have flown a total of 1623 sorties and 1829 flight hours. The AV-8B FSD ground and flight test are on schedule to support the commencement of OPEVAL Phase II in February 1985. Nine of the FY-82 pilot production AV-8B's have been accepted by the Navy to date.

b. Program Status

- (1) Percentage program completed: 60% or 9 of 15 years
- (2) Percentage program cost appropriated: 37%
- (3) Sunk cost: (Total cost \$9,945.1, sunk cost \$3,212.5 (obligations as of Sept 30, 1984) and costs to complete (\$6,732.6).

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

BQ.(U) SUMMARY

2. CHANGES SINCE LAST REPORT

a. <u>Operational and Technical Characteristics:</u>	PREVIOUS	CHANGE*	CURRENT
	EST		EST
None.			
b. <u>Schedule Milestones:</u>			
(1) TECHEVAL Avionics	Jul 84	+3 mos.	Oct 84
(2) OPEVAL (Phase I/Phase II)	Feb 85	+1 mo.	Mar 85
(3) Milestone I11B	N/A	N/A	Apr 85

*Reason for Change:

- (1) Phase I avionics TECHEVAL completed Dec 1983. Phase II avionics TECHEVAL will be completed Oct 1984.
- (2) Phase I OPEVAL (air-to-ground) will be completed Feb 1985. Phase II will commence Feb 1985 and is scheduled to be completed during Mar 1985.
- (3) Milestone I11B (AFP) scheduled for Apr 1985. (Approval for Full Production (AFP))

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

BQ.(U) SUMMARY (continued)

2. CHANGES SINCE LAST REPORT (continued)

c. Program Acquisition Costs:

	<u>PREVIOUS EST.</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity	334	0	334
(b) Cost (then-year dollar)	\$9,954.1	-9.0	\$ 9,945.1
(c) Program unit cost (then-year dollars)	29.803	-.027	29.776
(2) FY1984 Procurement Costs:			
(a) Quantity	27	0	27
(b) Cost (then-year dollars)			
Procurement Cost	\$907.5	\$-7.6	\$899.9
Less CY Advance Proc.	-98.4	0	-98.4
Plus PY Advance Proc.	+61.3	-.2	+61.1
Total	\$870.4	\$-7.8	862.6
(c) Procurement Unit Cost (then-year dollars)	32.237	-.289	31.948

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: AV-8B

AS OF DATE: September 30, 1984

BASE YEAR: FY 1979

E8. (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary

	Base Year/FY79		Constant \$		ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
<u>Development Estimate</u>	\$872.7	\$4862.4	\$5.5	\$5740.6	\$3384.9	\$9125.5	Esc: Dev.\$185.3;Proc. \$3196.8;Const. \$2.8
<u>Previous Changes</u>							
Economic	--	--	--	--	+149.4	+149.4	Esc: Dev. +12.6;Proc. +136.8;Const. --
Quantity	--	-77.6	--	-77.6	-93.4	-171.0	Esc: Dev. --;Proc. -93.4;Const. --
Schedule	+10.8	+430.3	--	+441.1	+458.0	+899.1	Esc: Dev. +6.9;Proc. +451.1;Const. --
Engineering	+46.4	+42.6	--	+89.0	+68.1	+157.1	Esc: Dev. +20.1;Proc. +48.0;Const. --
Estimating	+65.1	-451.1	-3.8	-389.8	-222.3	-612.1	Esc: Dev. +45.4;Proc. -265.7;Const. -2.0
Support	--	+108.6	--	+108.6	+297.5	+406.1	Esc: Dev. --;Proc. +297.5;Const. --
Subtotal	+122.3	+52.8	-3.8	+171.3	+657.3	+828.6	Esc: Dev. +85.0;Proc. +574.3;Const. -2.0
<u>Current Changes</u>							
Estimating	-0.1	-0.2	--	-0.3	--	-0.3	Esc: Dev. --;Proc. --;Const. --
Support	--	-5.4	--	-5.4	-3.3	-8.7	Esc: Dev. --;Proc. -3.3;Const. --
Subtotal	-0.1	-5.6	--	-5.7	-3.3	-9.0	Esc: Dev. --;Proc. -3.3;Const. --
<u>Total Changes</u>	+122.2	+47.2	-3.5	+165.6	+654.0	+819.6	Esc: Dev. +85.0;Proc. +571.0;Const. -2.0
<u>Current Estimate</u>	\$994.9	\$4909.6	\$1.7	\$5906.2	\$4038.9	\$9945.1	Esc: Dev.\$270.3;Proc. \$3767.8;Const. \$0.8

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

E.8.(U) COST VARIANCE ANALYSIS (Continued)

2. Previous Changes:

DEVELOPMENT

Economic: Revised escalation rates.
Schedule: Extend flight test program 2 years for follow-on flight test program.
Engineering: Addition of design/fabrication/integrated/test of 25mm gun pack, development of the TAV-8B.
Estimating: Decreased currency conversion rate for engine procurement, decrease offset for new economic indices and refinement of estimate, base year adjustment and prior year reprogrammings, prior year increase due to foreign exchange adjustment and increase for TAV-8B, and decrease in prior year orders placed and negotiated.

PROCUREMENT

Economic: Correction of application of procurement outlay factors, and revised escalation rates.
Quantity: Reduction of aircraft from 336 to 328.
Schedule: Revised procurement schedule for 336 aircraft, accelerated procurement schedule, stretch in procurement schedule from:

<u>FY 84</u>	<u>FY 85</u>	<u>FY 86</u>	<u>FY 87</u>	<u>FY 88</u>	<u>FY 89</u>
32	48	60	60	60	35

to new production schedule:

<u>FY 84</u>	<u>FY 85</u>	<u>FY 86</u>	<u>FY 87</u>	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>
27	32	46	47	48	60	35

Engineering: Addition of ASPJ.
Estimating: Decrease currency conversion rate for engine procurement, offset for new economic indices decrease, correction of procurement outlay factor, and refinement of estimate, decrease dollar/pound exchange rate, base year adjustment, and FY 82/FY 83 reprogramming, correction of prior computation in base year dollars, support for TAV-8B transferred to RDT&E, spares due to engine prices lower than budget, 25MM gun increase, transfers to other programs, AYK-14 second source and minor reprogramming, program reestimated due to favorable foreign exchange rate.
Support: Increase spares and PSE due to redefinition and refinement of requirements, reduce spares required due to reduction of aircraft buy, spares decrease in escalation, dollar per pound exchange rate change, and migration of spares to NSA stock fund, other support escalation dollar per pound exchange rate change, and programs reestimated due to favorable foreign exchange rate.

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

E.8(U) COST VARIANCE ANALYSIS (Continued)

2. Previous changes: (continued)

CONSTRUCTION

Economic: Revised escalation rates
Estimating: Base year adjustment

3. Changes Since Previous Report:

		<u>Base Year \$</u>	<u>Current \$</u>
<u>DEVELOPMENT</u>			
Estimating:	Decrease in prior year orders placed and negotiated	<u>-.1</u>	<u>-.1</u>
	TOTAL Development Cost Change	<u>-.1</u>	<u>-.1</u>
<u>PROCUREMENT</u>			
Estimating:	Decrease in prior years orders placed and negotiated.	<u>-.2</u>	<u>-.2</u>
Support:	Decrease in spares, training and ILS/maintenance due to contract prices lower than anticipated.	<u>-5.4</u>	<u>-8.7</u>
	TOTAL Procurement Cost	<u>-5.6</u>	<u>-8.9</u>
<u>TOTAL PROGRAM COST CHANGE</u>		<u>-5.7</u>	<u>-9.0</u>

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

F. CONTRACTOR COSTS	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1. <u>DEVELOPMENT</u>								
a. McDonnell Douglas Corp. N00019-79-C-0165/ CPIF April 12, 1979	626.3	N/A	4	642.9	N/A	4	642.9	656.3
b. Rolls Royce, Ltd. N00019-79-C-0097/ Cost Reimbursable March 15, 1979	19.4	N/A	8	24.1	N/A	8	24.1	24.1
2. <u>PROCUREMENT</u>								
a. McDonnell Douglas Corp. N00019-80-C-0655/ CPIF April 23, 1981	476.3	N/A	12	536.5 CH-F1	N/A	12	536.5 CH-F1	536.5 CH-F1
b. Rolls Royce, Ltd. N00019-80-C-0657/ Cost Reimbursable March 23, 1981	31.9	N/A	12	38.3	N/A	12	38.3	38.3

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: AV-8B

AS OF DATE: SEP 30, 1984

1. <u>CONTRACTOR</u>	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
2. <u>PROCUREMENT</u> (continued)								
c. McDonnell Douglas Corp. N00019-81-C-0497 FFP April 30, 1982	434.4	N/A	21	434.4	N/A	21	434.4	434.4
d. Rolls Royce, Ltd. N00019-81-C-0356 FFP March 11, 1982	129.0	N/A	50	129.0	N/A	50	129.0	129.0

3. VARIANCE ANALYSIS

- 1.a. The cumulative negative cost variance is \$25.9M which is an increase of \$5.2M due to engineering, tooling, production and BAe. The schedule variance is \$-2.1M which is a decrease of \$-2.8M due to a change in CFE. No significant program impact.
- 2.a. The cumulative positive cost variance is \$.9M which is a decrease of \$-1.1M due to tooling, BAe and G&A. The schedule variance is \$-2.8M which is a decrease of \$-0.8M due to production quality assurance and G&A. No significant program impact.

CH-F1 Correct previous error to reflect price vs. cost.

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: AV-8B

AS OF DATE: September 30, 1984

BASE YEAR: FY 1979

C. (U) PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE YEAR DOLLARS		TOTAL	THEN YEAR DOLLARS				ESCALATION 1/ RATE (%)
			NET FLYAWAY (NON-ADD)			TOTAL	OBLIGATED	EXPENDED		
			NON-REC	REC						
APPROPRIATION: RDT&E,N										
1976	-	-	-	-	4.1	4.3	4.3	4.3	6.6	
1977	-	-	-	-	1.7	1.9	1.9	1.9	2.9	
1977	-	-	-	-	31.8	33.6	33.6	33.6	2.6	
1978	-	-	-	-	55.8	58.9	58.9	58.9	6.8	
1979	2	-	-	-	158.2	167.0	167.0	167.0	8.4	
1980	-	-	-	-	155.0	182.4	182.4	182.4	9.4	
1981	-	-	-	-	185.9	239.1	239.1	235.8	11.9	
1982	4	-	-	-	187.3	226.2	226.2	222.4	7.6	
1983	-	-	-	-	83.3	117.8	117.5	94.8	4.9	
1984	-	-	-	-	68.9	101.9	98.5	20.9	4.3	
1985	-	-	-	-	45.4	70.4	-	-	4.9	
1986	-	-	-	-	23.8	38.5	-	-	4.6	
1987	-	-	-	-	11.3	19.0	-	-	4.3	
1988	-	-	-	-	2.4	4.2	-	-	4.0	
TOTAL	6	-	-	-	934.9	1,265.2	1,129.4	1,022.0		
APPROPRIATION: APN										
1981	-	60.1	-	-	60.1	86.6	86.5	83.1	11.9	
1982	12	25.3	15.9	367.4	464.6	657.3	654.4	535.6	7.3	
1983	21	40.8	-	350.3	585.0	879.1	848.6	275.8	4.6	
1984	27	61.9	-	345.6	563.8	899.9	491.4	7.2	5.6	
1985	32	47.8	6.0	360.2	555.3	939.8	-	-	6.4	
1986	46	53.2	-	470.3	625.9	1,114.1	-	-	6.0	
1987	47	54.3	-	473.1	577.7	1,081.2	-	-	5.6	
1988	48	86.4	-	471.5	578.2	1,134.2	-	-	5.2	
1989	60	41.6	-	566.6	578.1	1,192.1	-	-	4.8	
1990	35	-	-	333.4	320.9	693.1	-	-	4.8	
TOTAL	328	471.4	21.9	3,738.4	4,909.6	8,677.4	2,080.9	901.7		
APPROPRIATION: MILCOM										
1983	-	-	-	-	1.7	2.5	2.2	1.6	4.9	
TOTAL	-	-	-	-	1.7	2.5	2.2	1.6		

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index

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N-6 Phoenix

QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q&A)823)
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: September 30, 1984

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DEPARTMENT OF DEFENSE

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OASD(PA) DFOISR 84-T-1817

SAR-84-072

AS OF DATE: September 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None.
- b. Program Status:
 - (1) Percent program completed: 50% or 6 of 12 years
 - (2) Percent program cost appropriated: 29%
 - (3) Sunk Costs: Total Cost: 4021.3M, Sunk Costs: 812.9, Cost to Complete 3208.4M

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: Acceptance of AIM-54C production missiles has been temporarily halted pending review of contractor quality control measures.

b. Schedule Milestones: DNSARC IIIB AIM-54C IOC	Dec 83 Estimate	Current estimate
	Jun 84 (1) Aug 84 (2)	Dec 84 Jun 85

Notes: (1) DNSARC IIIB delayed due to OPEVAL report being released later than anticipated and resolution of Q&A problems at Hughes Aircraft Company (HAC), Tuscon.
(2) IOC delayed due to halt in production to correct quality control problems.

c. Program Acquisition Costs:	PREVIOUS EST.	CHANGE	CURRENT EST.
(1) Total			
(a) Quantity	3467	-	3467
(b) Cost (then-year dollars)	\$4029.8	-8.5	\$4021.3
(c) Program Unit Cost (then-year dollars)	1.162		1.160
(2) FY84 Procurement Costs			
(a) Quantity	265	-	265
(b) Cost (then-year dollars)			
Procurement Cost	(\$335.9)	-4.1	(\$331.8)
* Less CY Advanced Proc.	(-27.1)	+3.1	(-24.0)
* Plus PY Advanced Proc.	(+24.4)	-	(+24.4)
Total	333.2	-1.0	332.2
(c) Procurement Unit Cost (then year dollars)	1.257	-	1.254

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: September 30, 1984
 BASE YEAR: FY 1977

E.8 (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. <u>Summary</u>	Base Year/FY77 Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL						
Development Estimate	\$73.8	\$296.7	\$1.5	\$372.0	\$92.3	\$464.3	Esc: Dev	+11.4	Proc	+80.7 Const +0.2
<u>Previous Changes</u>										
Economic	--	--	--	--	-28.3	-28.3	Esc: Dev	+12.3	Proc	-40.7 Const +0.1
Quantity	--	+959.6	--	+959.6	+1301.0	+2260.6	Esc: Dev	--	Proc	+1301.0 Const --
Schedule	+3.0	+47.3	--	+50.3	+124.4	+174.7	Esc: Dev	+7.1	Proc	+117.3 Const --
Engineering	+16.0	+137.9	--	+153.9	+183.9	+337.8	Esc: Dev	+7.6	Proc	+176.3 Const --
Estimating	+29.0	+204.6	-0.2	+233.4	+123.0	+356.4	Esc: Dev	+10.3	Proc	+112.6 Const +0.1
Support	--	+166.6	--	+166.6	+256.7	+423.3	Esc: Dev	--	Proc	+256.7 Const --
Other	--	+20.5	--	+20.5	+20.5	+41.0	Esc: Dev	--	Proc	+20.5 Const --
Subtotal	+48.0	+1536.5	-0.2	+1584.3	+1981.2	+3565.5	Esc: Dev	+37.3	Proc	+1943.7 Const +0.2
<u>Current Changes</u>										
Estimating	-0.1	-13.0	--	-13.1	+3.3	-9.8	Esc: Dev	-0.1	Proc	+3.5 Const -0.1
Support	--	+0.7	--	+0.7	+0.6	+1.3	Esc: Dev	--	Proc	+0.6 Const --
Subtotal	-0.1	-12.3	--	-12.4	+3.9	-8.5	Esc: Dev	-0.1	Proc	+4.1 Const -0.1
<u>Total Changes</u>	+47.9	+1524.2	-0.2	+1571.9	+1985.1	+3557.0	Esc: Dev	+37.2	Proc	+1947.8 Const +0.1
<u>Current Estimate</u>	\$121.7	\$1820.9	\$1.3	\$1943.9	\$2077.4	\$4021.3	Esc: Dev	+48.6	Proc	+2028.5 Const +0.3

2 10.3 124.3 346.6

41.0

2

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: September 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

2. Previous Changes:

DEVELOPMENT

- Economic: Changes resulting from revised OSD/OMB escalation rates applied throughout the program.
- Schedule: Resolution of technical problems in the development program, addressed in the 31 Dec 1979 SAR.
- Engineering: Reprogramming into FY-80 RDT&E; addition of ECCM expansion in the R&D program.
- Estimating: Changes in material and labor rates; prior year RDT&E price adjustments as reflected in the 30 June 1980 SAR. Reduction as result of FY83 Defense Authorization Bill. Addition to the FY82 budget from reprogramming action. Revised RDT&E funding estimates.

PROCUREMENT

- Economic: Changes resulting from revised OSD/OMB escalation rates applied throughout the program.
- Quantity: Addition of 35 missiles during the 31 Dec 1978 SAR; reduction of 68 missiles in the 31 Dec 1979 SAR; additional 661 missiles and an extra year of procurement (FY 1986) from the 31 Dec 1980 SAR.
- Addition of 1302 missiles through FY 1988 as a result of an Inventory Objective revision during the 31 Dec 1981 SAR, (including \$132.3M of fixed costs). Addition of 717 missiles through Inventory Objective revision (+471) and cancellation of AIM-54A to C retrofit program (+246).
- Schedule: Stretch out of missile procurement to FY 1984, as reflected in the 31 Dec 1978 SAR.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

UNCLASSIFIED

AS OF DATE: September 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

Reducing procurement quantities in FY 1981 by 80 units, FY 1982 by 108 units, and FY 1983 by 60 units, and moving the procurement of those units to FY 1985, as reflected in the 31 Dec 1979 SAR. Compressing the planned procurements in FY 1983, FY 1984, as reflected in the 31 Dec 1980 SAR.

Moving the procurement of 50 units in FY 1986 to FY 1983, during the 31 Mar 1981 SAR. Deferring 162 missiles planned for FY 1983 procurement to outyears in the 31 Dec 1981 SAR. Moving the procurement of 70 missiles in FY 1984 to FY 1989. Revised missile delivery schedule in FY 1984 to FY 1989 due to reduction in FY 1984 quantity by Congressional action during FY 1984 budget cycle. These missiles were added back in the schedule in FY 1990

Engineering: Expected recurring costs due to inclusion of ECCM improvements beginning late in the FY 1983 procurement.

Addition of non-recurring costs for implementation of the "Sealed Missile" product improvement in FY 1983.

Increased tooling and test equipment in FY 1983 and FY 1984 required to reach the high-rate production leading to the current I.O. with the FY 1988 buy. Recurring cost of engineering changes to seal the missile and add ECCM capability in FY 1984. Addition of environmental stress screening tooling in FY 1985. Increase in Systems Engineering/Management to support ECCM/Sealed implementation.

Estimating: Estimating changes in material and labor costs during the initial production of the AIM-54C missile. Added costs due to Iranian procurement termination, reducing the business base of the prime contractor and shifting all previously amortized fixed engineering and tooling costs to the U.S. Government. Resulting from Congressional denial of a DD 1415 reprogramming to cover revised escalation indices. Result of negotiations on the prime FY81/82 contract.

QUARTERLY SELECTED ACQUISITION REPORT
 SYSTEM: PHOENIX (AIM-54C)

AS OF DATE: September 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

- Estimating:** Revised estimates of Target Detection Device and Propulsion Section costs based on FY81/82 actuals, addition of FY 1984 funding to support production surge capability. Increased cost of FY 1979 Target Detection Device due to producibility problems. Reduction of excess FY 1981 funds due to CNM mid-year review. Transfer of FY 1983 funds to Weapons Industrial Fund in exchange for FY 1979 funds used on the Target Detection Device. Reduction in FY 1979 due to accounting adjustments. Reduction in FY 1982 due to reestimation of requirements during CNM mid-year review. Addition in FY 1980 due to inclusion of unrecorded obligation.
- Support:** Repricing of support costs and an increase in Fleet Support Requirements resulting from an increased inventory objective. These increases represent the addition of 1930 units extending the procurement/support program by five years to FY 1988. Reductions of Fleet Support requirement. Transfer of FY 1983 funds to support another appropriation. Increased unfunded spares requirement. Reduction in FY 1983 Fleet Support to fund new WPN Modification requirement. Reduction of excess FY 1981 funds as a result of CNM mid-year review. Additional spares requirement to support AIM-54C+ (ECCM/Sealed) missile due to finding of Logistics Review Board that AIM-54C+ spares were underfunded. Increase in production support requirements to update peculiar support equipment. Reduction in FY 1983 spares to support another appropriation.
- Other:** Additional support costs associated with additional quantity of missiles, increased requirements for establishment of support NARF; additional spares required in FY 1985-1986.

CONSTRUCTION

- Economic:** Changes resulting from revised OSD/OMB escalation rates applied throughout the program.
- Estimating:** Resulted from Congressional denial of a DD 1415 reprogramming to cover revised escalation indices. Revised total for MILCON funding.

QUARTERLY SELECT ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

UNCLASSIFIED

AS OF DATE: September 30, 1984

E.8 (U) COST VARIANCE ANALYSIS (Cont.)

(Dollars in Millions)

3. Changes Since Previous Report:

	<u>BASE YEAR \$</u>	<u>CURRENT \$</u>
<u>DEVELOPMENT -</u>		
Estimating: Reduction in FY 1984 due to ASN reprogramming action (-0.2).	-0.1	-0.2
<u>PROCUREMENT</u>		
Estimating: Addition in FY 1980 due to inclusion of unrecorded obligation (+0.5). Addition in FY 1981 due to correction of rounding error (+0.1). Reduction in FY 1982 due to NAVMAT directed mid-year review reprogramming (-4.7). Reduction in FY 1983 due to NAVMAT directed mid-year review reprogramming (-1.3). Reduction in FY 1984 due to transfer of funds to Mods line (-1.0), and reduction of advance procurement line due to NAVCOMPT reprogramming action (-3.1).	-13.0	-9.5
Support: Reduction in FY 1982 due to NAVMAT directed mid-year review reprogramming action (-0.3). Addition in FY 1983 spares line due to NAVMAT directed mid-year review reprogramming action (+1.6).	+0.7	+1.3
<u>CONSTRUCTION</u>		
Estimating: Reduction in FY 1978 reflects final MILCON expenditure report (-0.1).	-0.0	-0.1
TOTAL PROGRAM COST CHANGES	-12.4	-8.5

QUARTERLY SELECTED ACQUISITION REPORT
 SYSTEM: PHOENIX (AIM-54C)
 (\$ in Millions)

UNCLASSIFIED

AS OF DATE: September 30, 1984

F. (U) CONTRACTOR COSTS	Initial Contract Price			Current Contract Price			Price At Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgr's. Estimate
<u>1. DEVELOPMENT</u>								
Hughes Aircraft Co. N00019-79-C-0085/FFP (Pilot Production) 28 Sep 79	44.1	44.1	60	N/A	N/A		44.1	44.1
<u>2. PROCUREMENT</u>								
Hughes Aircraft Co. N00019-81-C-0015 (FPI) (FY 1981/82) 26 Mar 81	193.4	209.0	60/72	193.4	209.0	60/72	193.4	193.4
Hughes Aircraft Co. N00019-82-C-0106/FPI (FY83) 12 Mar 84	114.8	119.8	108	114.8	119.8	108	114.8	119.8
Hughes Aircraft Co. N00019-79-C-0628 (FFP) (FY 1980) 5 Dec 1979	84.0	84.0	60	N/A	N/A		96.0 CH-F1	96.0 CH-F1
Motorola Corporation N00019-82-C-0450/FPI (FY82/83 Target Detection Device) 18 Nov 82 (AAC date)	N/A	N/A	72/108	N/A	N/A		FY-82 9.5M currently FY-83 9.3M in negotiation	
Hughes Aircraft Co. N00019-81-C-0174/CPIF (Target Detection Device) 12 Mar 82	15.0		N/A	15.0			15.0	
<u>4. VARIANCE ANALYSIS:</u> none								

CH-F1-The \$12.0 million increase to contract N000190-79-C-0628 resulted from modification to the basic contract to procure manufacturing data, logistic support and peculiar ground support equipment.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PHOENIX (AIM-54C)

UNCLASSIFIED

AS OF DATE: September 30, 1984
Base Year: FY 1977

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%) -
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E

1977	-	-	-	-	9.2	9.5	9.5	9.5	3.7
1978	-	-	-	-	6.4	7.1	7.1	7.1	6.8
1979	15	-	-	-	19.1	23.5	23.5	23.5	8.7
1980	30	-	-	-	27.9	38.0	38.0	38.0	9.7
1981	-	-	-	-	23.7	35.4	35.4	35.4	11.9
1982	-	-	-	-	20.0	31.4	31.4	29.5	7.6
1983	-	-	-	-	13.9	22.8	22.8	14.8	4.9
1984	-	-	-	-	1.5	2.6	2.6	1.0	4.3
TOTAL	45	-	-	-	121.7	170.3	170.3	158.8	

APPROPRIATION: WPN

1979	-	7.3	-	-	7.3	10.7	10.7	10.7	8.7
1980	60	4.8	16.0	51.4	72.8	107.4	107.4	106.6	9.7
1981	60	3.3	10.7	60.3	78.8	125.6	125.6	122.0	11.9
1982	72	11.4	8.6	55.1	88.8	151.8	145.5	121.9	6.8
1983	108	12.7	29.4	78.0	134.4	244.5	180.9	114.3	9.0
1984	265	11.8	15.5	133.1	172.4	331.8	70.9	19.8	5.5
1985	400	17.2	20.1	176.8	236.6	481.8	-	-	6.3
1986	567	17.1	4.5	219.5	255.2	546.9	-	-	5.9
1987	567	17.4	3.9	210.0	243.8	549.5	-	-	5.5
1988	567	17.1	3.9	204.6	230.1	544.0	-	-	5.2
1989	567	16.7	3.9	181.1	204.0	505.5	-	-	4.8
1990	189	-	3.2	94.6	96.7	249.9	-	-	4.8
TOTAL	3422	136.8	119.7	1,464.5	1,820.9	3,849.4	641.0	495.3	

APPROPRIATION: CONSTRUCTION

1978	-	-	-	-	1.3	1.6	1.6	1.6	8.0
TOTAL	-	-	-	-	1.3	1.6	1.6	1.6	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

AF-2 AMRAAM

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: AMRAAM (AIM-120A)

REPORT AS OF: 30 September 1984

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SAE-84-108-

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AMRAAM (AIM-120A)

REPORT AS OF: 30 September 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

During this reporting period, the prepriced production options were not exercised. This has necessitated rescheduling the production program. Slippage has also occurred in the full scale development (FSD) program. As a result, restructured program options are being explored with schedule and cost impacts still not determined. Adjustments to the AMRAAM production program will result in significant cost increases. Unit cost breaches will be reported, if applicable, when a restructured program is approved and the cost impact assessed.

First launch of a separation control vehicle is anticipated in December 1984.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 8./ 18. = 44.444%

(2) PERCENT PROGRAM COST APPROPRIATED: 666.20/ 7721.50 = 8.628%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS: NONE

b. SCHEDULE MILESTONES:

Due to slippage of the FSD program and the rescheduling of the production program addressed in the program highlights, the following schedule milestones have changed as shown:

<u>Milestone</u>	<u>Current Estimate</u>	<u>Last SAR (31 Dec 83)</u>
AFSARC (Lot I Low Rate Initial Production) 1/	30 FY 85	2Q FY 84
Exercise Production Long Lead Option Lot I	Jun 85	Feb 84
First Production Option	Feb 86	Nov 84
AFSARC (Lot II Production) 2/	2Q FY 87	1Q FY 85
IOC	3Q FY 88	4Q FY 86

1/ AFSARC IIIA in 31 December 1983 SAR Schedule. This is still an AFSARC decision, but it occurs at a different point in the production program.

2/ AFSARC IIIB in 31 December 1983 SAR Schedule. This is still an AFSARC decision, but it occurs at a different point in the production program.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AMRAAM (AIM-120A)

REPORT AS OF: 30 September 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	17217.	0.	17217.
(b) COST (THEN-YEAR DOLLARS)	7721.50	0.00	7721.50
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	0.4485	0.0000	0.4485
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	0.	0.	0.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	57.90	0.00	57.90
LESS CY ADVANCE PROC.	29.40	0.00	29.40
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	28.50	0.00	28.50
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	N/A	N/A	N/A

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AMRAAM (AIM-120A)

REPORT AS OF: 30 September 1984

BASE YEAR: FY 1978

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS

1. SUMMARY

	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	601.6	2863.8	--	3465.4	4874.8	8340.2	Esc:	370.8	4504.0
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	-712.8	-712.8	Esc:	-19.1	-693.7
QUANTITY	--	--	--	--	--	--	Esc:	--	--
SCHEDULE	--	-21.9	--	-21.9	25.6	3.7	Esc:	--	25.6
ENGINEERING	30.1	29.1	--	59.2	61.9	121.1	Esc:	26.6	35.3
ESTIMATING	3.8	-7.0	--	-3.2	-29.0	-32.2	Esc:	2.2	-31.2
OTHER	--	--	--	--	--	--	Esc:	--	--
SUPPORT	--	0.2	--	0.2	1.3	1.5	Esc:	--	1.3
SUBTOTAL	33.9	0.4	--	34.3	-653.0	-618.7	Esc:	9.7	-662.7
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc:	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--
ESTIMATING	--	--	--	--	--	--	Esc:	--	--
OTHER	--	--	--	--	--	--	Esc:	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--
SUBTOTAL	--	--	--	--	--	--	Esc:	--	--
TOTAL CHANGES	33.9	0.4	--	34.3	-653.0	-618.7	Esc:	9.7	-662.7
CURRENT ESTIMATE	635.5	2864.2	--	3499.7	4221.8	7721.5	Esc:	380.5	3841.3

2. CHANGES SINCE PREVIOUS REPORT: None

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AMRAAM (AIM-120A)

REPORT AS OF: 30 September 1984

(Dollars in Millions)

	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
F. CONTRACTOR COSTS	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1. DEVELOPMENT								
a. Hughes Aircraft Company A/	398.1	526.5	94	419.6 Ch-F1	554.9	107	554.9 Ch-F2	554.9 Ch-F2
b. Raytheon Company B/	17.0	17.8	--	17.0	17.8	--	17.0	17.0

A/ Current contract prices and contractor estimate obtained from the Cost Performance Report as of 27 July 1984 (Hughes).

B/ Current contract prices and contractor estimate obtained from Cost/Schedule Status Report as of 29 July 1984 (Raytheon).

CONTRACT IDENTIFICATION

- a. Hughes Aircraft Company - Contract F08635-82-C-0001; December 1981; Fixed Price Incentive Firm Target (Award Fee), Definitized (Development).
- b. Raytheon Company - Contract F08635-83-C-0105; January 1983; Fixed Price Incentive Firm Target, Definitized (Development).

VARIANCE ANALYSIS

Changes Since Previous Report:

Ch-F1 - Target Price and Ceiling Price increased due to contract modifications which include requirements for Aircraft Software Simulation Missile Systems and two Integration Test Vehicles.

CH-F2 - The estimates shown represent contract ceiling price, which is the limit of the government's liability. At present, updated estimates of contractor costs that will be incurred to complete the scope of the FSD contract are being prepared. These estimates will include the contractor's above ceiling costs associated with extending the FSD program to accommodate an anticipated 8 to 10 months overall slippage in the original schedule.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AMRAAM (AIM-120A)

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

VARIANCE ANALYSIS

DEVELOPMENT

	CUM THRU 25 Nov 83	CUM THRU 27 Jul 84	CHANGE \$
a. Hughes Aircraft Company F08635-82-C-0001			
Cost Variance	-55.0	-115.1	-60.1
Schedule Variance	-27.0	-41.1	-14.1

Air vehicle continues to be the primary schedule variance driver. Major sources of the variance are problems encountered in developing the Guidance Section, Missile Integration and Assembly, and Special Test Equipment. Delays in hardware delivery for integration and increased manpower to maintain schedule have resulted in the unfavorable variance increase. These same areas are also sources of the cost variance. Impact on contract: Cost will exceed ceiling and FSD schedule completion is delayed 8 to 10 months.

	CUM THRU 27 Nov 83	CUM THRU 29 Jul 84	CHANGE \$
b. Raytheon Company F08635-83-C-0105			
Cost Variance	0.0	0.0	0.0
Schedule Variance	-0.6	-1.4	-0.8

The Air Vehicle, Support Equipment, and System Program Management are behind schedule due to later than anticipated receipt of missile design data from the leader, Hughes Aircraft.

There is no change/impact to the program manager's estimate at completion.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AMRAAM (AIM-120A)

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 September 1984
BASE YEAR: FY 1978
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1977	--	--	--	--	4.8	4.8	4.8	4.8	--
1978	--	--	--	--	6.6	6.7	6.7	6.7	6.0
1979	--	--	--	--	14.3	16.1	16.1	16.1	8.4
1980	--	--	--	--	20.9	26.2	26.2	26.2	9.4
1981	--	--	--	--	16.5	22.9	22.9	22.4	11.9
1982	--	--	--	--	92.6	137.8	137.8	132.9	9.2
1983	--	--	--	--	133.4	207.1	206.3	199.9	5.0
1984	--	--	--	--	115.3	186.7	182.9	95.9	4.3
1985	--	--	--	--	128.1	217.7	--	--	4.9
1986	--	--	--	--	58.2	103.4	--	--	4.6
1987	--	--	--	--	10.6	19.7	--	--	4.3
1988	--	--	--	--	17.1	32.9	--	--	4.0
1989	--	--	--	--	17.1	34.0	--	--	3.7
TOTAL	94.0	--	--	--	635.5	1016.0	603.7	504.9	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: AMRAAM (AIM-120A)

REPORT AS OF: 30 September 1984

BASE YEAR: FY 1978

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - MISSILE

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1984	--	16.2	15.6	--	31.8	57.9	--	--	5.6
1985	174.0	33.7	55.2	127.7	223.7	431.0	--	--	6.4
1986	1042.0	26.8	49.6	321.2	414.8	842.9	--	--	6.0
1987	1944.0	20.9	32.5	398.4	487.7	1041.3	--	--	5.6
1988	2400.0	11.6	19.5	369.7	411.2	920.6	--	--	5.2
1989	1800.0	11.7	--	249.6	270.9	635.5	--	--	4.8
1990	1800.0	10.4	--	208.4	213.9	526.0	--	--	4.8
1991	1800.0	10.2	--	196.2	202.9	523.1	--	--	4.8
1992	1800.0	10.1	--	183.0	189.6	512.3	--	--	4.8
1993	1800.0	14.8	--	171.3	182.7	517.4	--	--	4.8
1994	2563.0	--	--	238.9	235.0	697.5	--	--	4.8
TOTAL	17123.0	166.4	172.4	2464.4	2864.2	6705.5	--	--	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

AF-6 IUS

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: IUS

REPORT AS OF: 30 September 1984

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

The IUS Anomaly Recovery Plan has been negotiated with the contractor and the fix has been verified by means of a successful test firing. The remaining IUS vehicles are being reworked to incorporate redesigned nozzles. An Independent Readiness Review (IRR) was completed and the next flight is expected to launch on schedule.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 9./ 15. = 60.000%

(2) PERCENT PROGRAM COST APPROPRIATED: 977.90/ 1686.80 = 57.974%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:

None

b. SCHEDULE MILESTONES:

None

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	10.	0.	10.
(b) COST (THEN-YEAR DOLLARS)	1675.60	11.20	1686.80
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	167.5600	1.1200	168.6800
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	0.	0.	0.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	80.40	4.40	84.80
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	80.40	4.40	84.80
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	N/A	N/A	N/A

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984
BASE YEAR: 1975

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST	
DEVELOPMENT ESTIMATE	424.2	533.6	5.2	963.0	1049.3	2012.3	Esc:	269.0	777.2	3.1
PREVIOUS CHANGES										
ECONOMIC	--	--	--	--	-4.2	-4.2	Esc:	-0.2	-4.0	--
QUANTITY	--	-182.7	--	-182.7	-333.1	-515.8	Esc:	--	-333.1	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	-11.4	84.9	-0.6	72.9	110.4	183.3	Esc:	-19.6	130.4	-0.4
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	-11.4	-97.8	-0.6	-109.8	-226.9	-336.7	Esc:	-19.8	-206.7	-0.4
CURRENT CHANGES										
ECONOMIC	--	--	--	--	--	--	Esc:	--	--	--
QUANTITY	--	--	--	--	--	--	Esc:	--	--	--
SCHEDULE	--	--	--	--	--	--	Esc:	--	--	--
ENGINEERING	--	1.9	--	1.9	2.5	4.4	Esc:	--	2.5	--
ESTIMATING	--	3.9	--	3.9	2.9	6.8	Esc:	--	2.9	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	--	--	--	--	--	--	Esc:	--	--	--
SUBTOTAL	--	5.8	--	5.8	5.4	11.2	Esc:	--	5.4	--
TOTAL CHANGES	-11.4	-92.0	-0.6	-104.0	-221.5	-325.5	Esc:	-19.8	-201.3	-0.4
CURRENT ESTIMATE	412.8	441.6	4.6	859.0	827.8	1686.8	Esc:	249.2	575.9	2.7

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984

BASE YEAR: 1975

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS (Continued)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	CURRENT \$
PROCUREMENT		
ENGINEERING:		
Reprogramming in FY84 for the Solid Rocket Motor-1 nozzle reliability improvement.	1.9	4.4
ESTIMATING:		
Reprogramming of FY 82 funds for the anomaly fix.	4.9	10.0
Deletion of technical assistance requirement in FY 90.	-1.0	-3.2
TOTAL PROCUREMENT	5.8	11.2
TOTAL PROGRAM COST CHANGE	5.8	11.2

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984
(Dollars in Millions)

	(1)			(2)			(3)	
	<u>Initial Contract Price</u>	<u>Target Ceiling</u>	<u>Qty</u>	<u>Current Contract Price</u>	<u>Target Ceiling</u>	<u>Qty</u>	<u>Price At Completion</u>	<u>Contractor Program Mgrs.</u>
	<u>Target</u>	<u>Estimate</u>		<u>Target</u>	<u>Estimate</u>		<u>Estimate</u>	<u>Estimate</u>
F. CONTRACTOR COSTS								
1. DEVELOPMENT								
Boeing Aerospace Company	602.8	752.5	8 B/	718.7	917.7	8 B/	829.8	843.5
Full Scale Development (FSD)				(Ch F1)	(Ch F1)		(Ch F1)	(Ch F1)
2. PROCUREMENT								
Boeing Aerospace Company	130.9	138.6	6 C/	344.8	371.7	6 C/	336.6	327.0
				(Ch F2)	(Ch F2)		(Ch F3)	(Ch F3)

A/ Current Contract Price includes engineering change proposals, not to exceed effort.

B/ FSD vehicles are all user funded.

C/ Five production vehicles are funded by PE 35171F and one is user funded.

CONTRACT IDENTIFICATION

1. Boeing Aerospace Co.- Contract F04701-78-C-0040 (FSD); March 1978: Cost Plus Incentive Fee Plus Mission Success Fee, Definitized.

2. Boeing Aerospace Co.- Contract F04701-82-C-0110 (Production); January 1983: Fixed Price Incentive (Firm), Definitized.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

VARIANCE ANALYSIS

Changes Since Previous Report:

(Ch F1) Change from last report of \$48.9M target, \$88.3M ceiling, \$42.5M contractor estimate, and \$56.2M program manager's estimate are due to the final negotiation of ECP-988 (IUS 1 Anomaly Corrective Action Plan).

(Ch F2) Change from last report of \$4.3M target and \$7.4M ceiling due to the final negotiation of ECP-988.

(Ch F3) Change from last report of \$-1.0M contractor estimate and \$-13.5M program manager's estimate due to the net effect of increase in amount of underrun and final negotiation of ECP-988.

DEVELOPMENT

Boeing Aerospace Company	CUM THRU	CUM THRU	CHANGE
Full Scale Development F04701-78-C-0040	24 Nov 83	29 Jul 84	\$
Cost Variance	-1.6	-6.9	-5.3
Schedule Variance	-1.8	-1.9	-0.1

Cost Variance: Deterioration of -5.3M due to expenditures for initial anomaly investigation, increased management efforts in support of the anomaly investigation, and depot spares repair overrun, and associated overhead costs. No contract or program impact at completion.

Schedule Variance:

No significant schedule variance change since last report.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

PROCUREMENT

Boeing Aerospace Company	CUM THRU	CUM THRU	CHANGE
First Production Buy F04701-82-C-0110	24 Nov 83	29 Jul 84	\$
Cost Variance	6.7	8.4	1.7
Schedule Variance	-4.8	-8.3	-3.5

Cost Variance: Increase of 1.7M due to higher than expected effort on the Full Scale Development contract resulting in lower allocations to this contract.

No contract or program impact at completion.

Schedule Variance: Decrease of -3.5M due to late delivery of subcontractor parts.

No contract or program impact at completion.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

REPORT AS OF: 30 September 1984

BASE YEAR: 1975

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1976	--	--	--	--	4.5	4.9	4.9	4.9	7.0
1977	--	--	--	--	21.9	25.7	25.7	25.7	7.4
1978	--	--	--	--	55.1	69.8	69.8	69.8	7.0
1979	--	--	--	--	74.7	103.3	103.3	103.3	8.4
1980	--	--	--	--	64.2	98.8	98.8	98.8	9.4
1981	--	--	--	--	63.4	108.0	108.0	108.0	11.9
1982	--	--	--	--	24.0	43.9	43.9	43.5	9.2
1983	--	--	--	--	60.5	115.4	114.6	99.0	5.0
1984	--	--	--	--	17.9	35.7	32.6	4.3	4.3
1985	--	--	--	--	20.4	42.6	--	--	4.9
1986	--	--	--	--	3.1	6.8	--	--	4.6
1987	--	--	--	--	3.1	7.1	--	--	4.3
1988	--	--	--	--	--	--	--	--	4.0
1989	--	--	--	--	--	--	--	--	3.7
1990	--	--	--	--	--	--	--	--	3.7
TOTAL	1.0	--	--	--	412.8	662.0	601.6	557.3	

1/ Reflects program office records as of 30 September 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 September 1984

BASE YEAR: 1975

CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT - MISSILE

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1978	--	--	--	--	0.7	1.0	1.0	1.0	7.0
1979	--	--	--	14.4	35.5	54.6	54.6	54.6	8.7
1980	--	--	--	12.6	24.0	41.9	41.9	34.7	9.7
1981	--	--	--	--	8.8	16.8	16.8	16.8	11.9
1982	2.0	--	--	32.6	38.4	78.4	77.2	25.6	9.6
1983	2.0	--	--	33.9	40.9	87.6	74.0	30.5	9.0
1984	--	--	--	4.8	37.5	84.8	41.0	10.4	5.6
1985	--	38.3	--	38.3	58.4	139.9	--	--	6.4
1986	2.0	51.4	--	106.1	107.1	270.5	--	--	6.0
1987	3.0	--	--	72.9	73.9	196.2	--	--	5.6
1988	--	--	--	--	15.4	42.8	--	--	5.2
1989	--	--	--	--	1.0	3.0	--	--	4.8
1990	--	--	--	--	--	--	--	--	4.8
TOTAL	9.0	89.7	--	315.6	441.6	1017.5	306.5	173.6	

1/ Reflects program office records as of 30 September 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: IUS

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 September 1984
BASE YEAR: 1975
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1979	--	--	--	--	4.6	7.3	7.3	7.3	9.6
TOTAL	--	--	--	--	4.6	7.3	7.3	7.3	

1/ Reflects program office records as of 30 September 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

AF-5 HH-60

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

(1) Avionics CDR was completed 19 April 1984. The first prototype aircraft (T-1) is proceeding on schedule, currently undergoing airframe flight testing to be completed in November 1984.

(2) This SAR represents the currently approved 155 HH-60D/E helicopter program. However, the HH-60D/E program is undergoing a change in program direction since the last SAR as a result of FY 1984 Congressional funding reductions and Air Force re-evaluation of the requirement. Procurement quantities will be reduced to 90 HH-60A (no multi-mode radar and no helmet mounted display) low level night-VFR aircraft. Initial production and IOC will be delayed by one year. IOC quantity will be reduced from 4 to 3. The second test aircraft (T-2) will be deleted from FSD. The redefined HH-60D/E (HH-60A) program is expected to meet operational mission requirements.

(3) If the revised HH-60D/E (HH-60A) program is sustained through the budget process and incorporated into the FY 1986 President's Budget, the cost will no longer exceed the SAR reporting thresholds of \$200 million RDT&E (FY 1980\$) or \$1 billion Procurement (FY 1980\$).

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 3./ 10. = 30.000%

(2) PERCENT PROGRAM COST APPROPRIATED: 81.50/ 3038.30 = 2.682%

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:
NONE

b. SCHEDULE MILESTONES:

(1) The first prototype aircraft (T-1) successfully completed its initial flight on 26 January 1984 slightly ahead of the February 1984 date shown in the 31 December 1983 SAR.

(2) AFSARC II is now scheduled for 29 October 1984 instead of July 1984 as shown in the 31 December 1983 SAR; slip occurred due to contract renegotiations.

c. PROGRAM ACQUISITION COST:

	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	155.	0.	155.
(b) COST (THEN-YEAR DOLLARS)	3039.00	-0.70	3038.30
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	19.6065	-0.0046	19.6019
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	0.	0.	0.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	0.00	0.00	0.00
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	0.00	0.00	0.00
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	N/A	N/A	N/A

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984

BASE YEAR: FY 1979

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY

1. SUMMARY	Base Year Constant \$				ESC	TOTAL	REMARKS			
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST	
DEVELOPMENT ESTIMATE	92.9	2263.0	--	2355.9	2663.3	5019.2	Esc:	45.6	2617.7	--
PREVIOUS CHANGES										
ECONOMIC	--	--	--	--	-111.4	-111.4	Esc:	-1.3	-110.1	--
QUANTITY	--	-568.8	--	-568.8	-736.0	-1304.8	Esc:	--	-736.0	--
SCHEDULE	18.8	--	--	18.8	125.9	144.7	Esc:	13.2	112.7	--
ENGINEERING	--	-119.5	--	-119.5	-143.7	-263.2	Esc:	--	-143.7	--
ESTIMATING	18.8	-260.7	--	-241.9	-321.8	-563.7	Esc:	11.3	-333.1	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	41.7	11.9	--	53.6	64.6	118.2	Esc:	35.6	29.0	--
SUBTOTAL	79.3	-937.1	--	-857.8	-1122.4	-1980.2	Esc:	58.8	-1181.2	--
CURRENT CHANGES										
ECONOMIC	--	--	--	--	40.0	40.0	Esc:	--	40.0	--
QUANTITY	--	-78.9	--	-78.9	-198.5	-277.4	Esc:	--	-198.5	--
SCHEDULE	--	--	--	--	62.5	62.5	Esc:	--	62.5	--
ENGINEERING	--	--	--	--	--	--	Esc:	--	--	--
ESTIMATING	-6.8	168.1	--	161.3	208.8	370.1	Esc:	-4.1	212.9	--
OTHER	--	--	--	--	--	--	Esc:	--	--	--
SUPPORT	6.4	-89.2	--	-82.8	-113.1	-195.9	Esc:	3.8	-116.9	--
SUBTOTAL	-0.4	0.0	--	-0.4	-0.3	-0.7	Esc:	-0.3	0.0	--
TOTAL CHANGES	78.9	-937.1	--	-858.2	-1122.7	-1980.9	Esc:	58.5	-1181.2	--
CURRENT ESTIMATE	171.8	1325.9	--	1497.7	1540.6	3038.3	Esc:	104.1	1436.5	--

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984

BASE YEAR: FY 1979

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS (Continued)

2. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	Current \$
DEVELOPMENT		
Funding reduced in FY 1983 and FY 1984 by reprogramming action; however, these funds are no longer required (Estimating)	-0.4	-0.7
Correction for miscategorization in the 30 June 1983 SAR		
Estimating	-6.4	-10.2
Support	6.4	10.2
TOTAL DEVELOPMENT	-0.4	-0.7
PROCUREMENT		
Correction for miscategorization in the 30 June 1983 SAR		
Estimating	89.2	206.1
Support	-89.2	-206.1
Correction for miscategorization in the 31 December 1983 SAR (used current estimate cost quantity curve for Quantity change)		
Quantity	-78.9	-174.9
Estimating	78.9	174.9
Correction for miscategorization in the 31 December 1983 SAR (Economic category adjustment required for negative Quantity change)		
Economic		40.0
Quantity		-40.0
Correction to computation of Schedule change in 31 December 1983 SAR		
Quantity		-62.5
Schedule		62.5
TOTAL PROCUREMENT	0.0	0.0
TOTAL PROGRAM COST CHANGE	-0.4	-0.7

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984

(Dollars in Millions)

	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate	Program Mgrs. Estimate
F. CONTRACTOR COSTS								
1. DEVELOPMENT								
a. IBM Corporation 1/ 2/	69.9	81.1	0	69.9	81.1	0	69.9	(Ch-F1)
b. Sikorsky Aircraft Co. 1/ 2/	36.6	40.7	0	36.6	40.7	0	36.6	(Ch-F1)

1/ Current contract prices and contractor estimates obtained from the cost performance reports as of 31 Jul 1984.

2/ Contract values do not reflect the restructured program. Both contracts are being renegotiated.

CONTRACT IDENTIFICATION

- a. IBM Corporation - Contract F33657-82-C-0191; October 1982: Fixed Price Incentive Firm, Definitized (Development).
- b. Sikorsky Aircraft Company - Contract F33657-82-C-0225; November 1982: Fixed Price Incentive Firm, Definitized (Development).

VARIANCE ANALYSIS

Changes Since Previous Report:

(Ch-F1) Program manager's estimate at completion omitted. Disclosure may jeopardize negotiating position.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

DEVELOPMENT

	CUM THRU 30 NOV 83	CUM THRU 31 JUL 84	CHANGE \$
IBM Corporation			
Contract # F33657-82-C-0191			
Cost Variance	--	--	--
Schedule Variance	--	--	--

The FY84 \$30M Congressional funding cut necessitates a restructuring of the FSED Avionics contract. This will result in a revision of the performance measurement baseline. Until a new baseline is negotiated, IBM was authorized to report only actual costs in the CPR. The contract is expected to be renegotiated by 31 Oct 84. IBM has been directed to continue to maintain the old baseline to insure a track to the new baseline.

Since only actual costs are reported in the July 1984 CPR, no variance analysis is possible.

	CUM THRU 30 NOV 83	CUM THRU 31 JUL 84	CHANGE \$
Sikorsky Aircraft Co.			
Contract # FF 33657-82-C-0225			
Cost Variance	-0.5	0.1	0.6
Schedule Variance	-1.9	-1.3	0.6

The cumulative unfavorable schedule variance results from the following: work on the T-2 aircraft was stopped (All T-2 tasks were included in the time-phased budget baseline plan.); delayed start-up of technical publications writer activities, coupled with late billings for vendor services; unavailability of the T-1 aircraft to perform the chemical warfare defense study and the night goggle compatability test; and delays in receiving hardware for mechanical testing. No impact on estimate at completion is expected. The contractor is expected to maintain schedule in the areas that are unaffected by the restructure.

+ = Favorable
- = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1979
CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1982	--	--	--	--	13.7	18.8	18.8	18.5	9.2
1983	--	--	--	--	18.9	27.0	26.8	25.6	5.0
1984	--	--	--	--	23.9	35.7	34.6	23.9	4.3
1985	--	--	--	--	51.9	81.3	--	--	4.9
1986	--	--	--	--	17.7	29.0	--	--	4.6
1987	--	--	--	--	4.3	7.3	--	--	4.3
1988	--	--	--	--	8.1	14.3	--	--	4.0
1989	--	--	--	--	16.8	30.8	--	--	3.7
1990	--	--	--	--	13.7	26.2	--	--	3.7
1991	--	--	--	--	2.8	5.5	--	--	3.7
TOTAL	--	--	--	--	171.8	275.9	80.2	68.0	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: HH-60D/E

REPORT AS OF: 30 SEPTEMBER 1984

BASE YEAR: FY 1979

CURRENT ESTIMATE
(\$ in Millions)

G. PROGRAM FUNDING SUMMARY

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1985	--	12.7	--	--	12.7	22.5	--	--	6.4
1986	3.0	17.7	34.2	30.7	104.4	195.6	--	--	6.0
1987	25.0	24.5	4.4	205.9	284.5	558.4	--	--	5.6
1988	35.0	22.9	0.8	258.5	351.6	724.0	--	--	5.2
1989	48.0	18.0	--	276.0	317.9	685.9	--	--	4.8
1990	44.0	--	--	236.8	254.8	576.0	--	--	4.8
TOTAL	155.0	95.8	39.4	1007.9	1325.9	2762.4	--	--	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

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A-2 JTACMS

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

REPORT AS OF: SEP 30, 1984

INDEX

84-037

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OASD(PA) DFOISR

84-T-1827

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

CONTAINS NSE

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COMPREHENSIVE ANNUAL ~~ATED~~ ACQUISITION REPORT
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

AS OF DATE: SEP 30, 1984

A. REFERENCES

1. DATE: 30 JUN 84
2. DESIGNATION: JTACMS
3. NOMENCLATURE: Joint Tactical Missile System
4. POPULAR NAME: JTACMS
5. MISSION AND DESCRIPTION: The Joint Tactical Missile System will be developed for the Army to attack high value land targets and for the Air Force to attack high value land and sea targets from deep stand-off ranges. The Army requires an enhancement of corps long range fire support to effectively engage high priority targets beyond the range of cannons, rockets and the current LANCE missile system in all weather, day or night, delivering conventional warheads. The Air Force requires a stand-off weapon to attack high value, heavily defended land and sea targets for global force employment.
6. RELATED PROGRAMS: Joint Tactical Fusion, Joint Surveillance and Target Attack Radar System, Joint Suppression of Enemy Air Defense Systems.
7. PRIME/ASSOCIATED PRIME CONTRACTOR NAME AND MAJOR SYSTEM/SUBSYSTEM:

<u>Contractor</u>	<u>Location</u>	<u>System/Subsystem</u>
N/A	N/A	N/A

8. DoD COMPONENT: Department of the Army. Air Force participation in this program under a Joint Service agreement.

9. RESPONSIBLE OFFICE AND PHONE NUMBER:

Project Manager Joint Tactical Missile System
William J. Fiorentino, Colonel, Ord
Date of Assignment: 30 April 84
TELEPHONE: AV 46-1141, COMMERCIAL: 205/876-1141

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

AS OF DATE: SEPTEMBER 30, 1984

A. REFERENCES (Continued)

10. (U) REFERENCE DOCUMENTS AND DATES FOR PLANNING ESTIMATE AND APPROVED PROGRAM.

SECTION C: PLANNING ESTIMATE - FY 1985 RDTE Congressional Descriptive Summary

SECTION D: PLANNING ESTIMATE - FY 1985 RDTE Congressional Descriptive Summary

SECTION E: PLANNING ESTIMATE - FYDP RDT&E Program, dated January 1984. (6.43.24A)
FY85 RDT&E Congressional Descriptive Summary

1/ Joint Services Operational Requirement is still in draft form.

NOTE: This BAR represents the Army only portion of a Joint Army/Air Force JTACMS program.

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

AS OF DATE: SEPTEMBER 30, 1984

B. SUMMARY

1. PROGRAM HIGHLIGHTS:

a. In 1981, the Army established a Special Task Force to initiate development of a Corps Support Weapon System (CSWS) to engage high priority targets at ranges beyond those of existing weapons. At approximately the same time, the Air Force initiated development of a Conventional Stand-off Weapon (CSW) to attack high value, heavily defended, land and sea targets for global force employment. In June, 1982, DOD directed the merger of the then Army CSWS and Air Force CSW programs into a single joint development. The program was designated the Joint Tactical Missile System (JTACMS). This is the initial JTACMS SAR. Due to the inability of the two services to agree on a common hardware solution the program is being restructured to reflect a low level analytical and test effort to determine the Army hardware requirement. The content and cost of this program now depends on the outcome and suitability of a current design procurement and the resolution on which technical approach to use. Until these matters are settled, there is no basis for a reasonable estimate of either costs or schedules.

b. Support documents for the FY85 President's Budget show a total program estimate of (b)(4) (b)(4) Procurement funding for JTACMS. These figures were an initial estimate which are no longer valid. Funding for the revised program mentioned above will be below SAR reporting thresholds.

2. CHANGES SINCE "AS OF" DATE:

3. DCP THRESHOLDS BREACHED: N/A

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS: DD - COMP (O&A) R23)
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

AS OF DATE: SEP 30, 1984

	(1)	(2)	(3)	(4)
C. <u>OPERATIONAL/TECHNICAL CHARACTERISTICS</u>	<u>Planning Estimate</u>	<u>Approved Program</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
1. <u>OPERATIONAL:</u> <u>1/</u>	TBD	TBD	TBD	TBD
2. <u>TECHNICAL:</u> <u>1/</u>	TBD	TBD	TBD	TBD
3. <u>VARIANCE ANALYSIS:</u> N/A				

1/ The Operational/Technical characteristics have not been definitized. There is currently a draft Joint Services Operational Requirement (JSOR) that has not been approved. When the JSOR is finalized we will be able to define operational technical characteristics.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

AS OF DATE: SEP 30, 1984

(1)	(2)	(3)
<u>Planning</u> <u>Estimate</u> <u>1/</u>	<u>Approved</u> <u>Program</u>	<u>Current</u> <u>Estimate</u> <u>1/</u>

D. SCHEDULE

1. Milestones 1/

Began Assault Breaker Technology Demonstration	Apr 78	Apr 78
Mission Element Need Statement (MENS) Approved	Apr 81	Apr 81
Began Special Task Force	Mar 81	Mar 81
Joint Program Directed	Jun 82	Jun 82
Completed Assault Breaker Technology Demonstration	Dec 82	Dec 82
Army Systems Acquisition Review Council (ASARCI)	Feb-Mar 84	TBD
Defense Systems Acquisition Review Council (DSARCI)	Mar-Apr 84	TBD
Joint Services Operational Requirement (JSOR) Completed	2Q/3Q FY 84	TBD
Request For Proposal Released	2Q/3Q FY 84	TBD
PS&D Contract Award	3Q/4Q FY 84	TBD
IOC <u>2/</u>	TBD	TBD

2. Deliveries (Plan/Actual):

	<u>To Date</u>
R&D	TBD
Procurement	TBD

3. VARIANCE ANALYSIS: N/A

1/ Milestone dates will be established when a final Army concept is approved. ASARC I is not currently scheduled. Until the requirements for this system are settled, there is no basis for a reasonable estimate of either cost or schedule. ~~Dates shown in the planning estimate are those selected in the 1985 RDTE Congressional Description Summary which are no longer valid.~~

2/ Initial Operational Capability (IOC) has not been defined.

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 COMPREHENSIVE ANNUAL BUDGET ACQUISITION REPORT
 SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

AS OF DATE: SEP 30, 1984
 BASE YEAR: FY84

(Dollars in Millions)

E. PROGRAM ACQUISITION COST 1/

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					<u>Balance to Complete</u>			
1. Cost	<u>Planning Estimate (FY82-)</u>	<u>Changes</u>	<u>Current Estimate (FY82-)</u>	<u>Funding</u>	<u>Current & Budget Prior Year</u>	<u>Budget Year</u>	<u>Beyond FY84 FY85</u>	<u>Total</u>
Development	707.1	-	707.1	Development				
Procurement 2/	2677.0	-	2677.0	Procurement				
Construction	-	-	-	Construction				
Total: Constant FY 84\$	3384.1	-	3384.1	Total				
Escalation	201.7	-	201.7	<u>Quantity</u>				
Development	80.9	-	80.9	Development	-	-	-	-
Procurement 2/	120.8	-	120.8	Procurement	-	-	-	-
Construction	-	-	-	Total 3/	-	-	-	-
Total Program Cost	3585.8	-	3585.8	1.4. Procurement Unit Cost Baseline for Current & Budget Years				
2. Quantities 3/								
Development	-	-	-					
Procurement	-	-	-					
Total	-	-	-					
3. Unit Cost								
Procurement:								
Constant FY 84\$	-	-	-					
Escalated	-	-	-					
Program:								
Constant FY 84\$	-	-	-					
Escalated	-	-	-					

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)

(Dollars in Millions)

AS OF DATE: SEP 30, 1984
 BASE YEAR: FY84

5. Approved Design to Cost Goal: TBD

AVERAGE FLYAWAY COST

QTY:	Peak Rate:	<u>Planning Estimate</u>	<u>Approved Program</u>	<u>Current Estimate</u>	<u>Latest Approved Threshold</u>
Constant FY84\$		-	-	-	-
Escalated		-	-	-	-
QTY:	Peak Rate:	-	-	-	-
Constant FY84\$		-	-	-	-
Escalated		-	-	-	-

6. Foreign Military Sales: N/A

7. Nuclear Costs: N/A

1/ The program outlined in the FY85 Presidential Budget is no longer valid because the program is being restructured. The program (both RDTE and Procurement) is being reduced to a low level study effort which is below the SAR cost thresholds.

2/ The annual funding beyond the FYDP has not been determined, therefore constant and escalated dollars can not be shown.

3/ The procurement dollar stream reflected in the FY85 President's Budget back-up was in effect a funding wedge in the last year of the FYDP and beyond. Quantities had not been determined.

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. SUMMARY 1/

	BASE YEAR/FY84 CONSTANT \$				ESCALATION	TOTAL 1/	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Planning Estimate as displayed in the FY85 President's Budget	(b)(4)						Esc: Dev. 80.9; PROC 120.8
Previous Changes							
Economic	-	-	-	-	-	-	
Quantity	-	-	-	-	-	-	
Schedule	-	-	-	-	-	-	
Engineering	-	-	-	-	-	-	
Estimating	-	-	-	-	-	-	
Other	-	-	-	-	-	-	
Support	-	-	-	-	-	-	
Subtotal	-	-	-	-	-	-	
Current Changes							
Economic	-	-	-	-	-	-	
Quantity	-	-	-	-	-	-	
Schedule	-	-	-	-	-	-	
Engineering	-	-	-	-	-	-	
Estimating	-	-	-	-	-	-	
Other	-	-	-	-	-	-	
Support	-	-	-	-	-	-	
Subtotal	-	-	-	-	-	-	
Total Changes	(b)(4)						
Current Estimate	(b)(4)						Esc: Dev. 80.9; PROC 120.8

2. Previous Changes: N/A Initial SAR.

3. Changes Since Previous Report: N/A Initial SAR.

1/ The program outlined in the FY 85 President's Budget is no longer valid because the program is being restructured. The Army JTACMS program has been reduced to an analytical study effort to determine which technical approach to use. Until this is accomplished, costs can not be determined.

**COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: JOINT TACTICAL MISSILE SYSTEM (JTACMS)**

AS OF DATE: SEP. 30, 1984

(Dollars in Millions)

E9. PROGRAM ACQUISITION UNIT COST (PAUC) HISTORY

PE TO CE: Not applicable at this time.

a. First year of authorization:

b.

PE	<u>CHANGES</u>								CE
	ECON	QTY	SCH	ENG	EST	RUP	OTHER	TOTAL	
TBD	-	-	-	-	-	-	-	-	TBD

(1)

(2)

(3)

F.	<u>CONTRACTOR COSTS</u> 1/	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>	
		<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs Estimate</u>
1.	<u>DEVELOPMENT:</u>	N/A							
2.	<u>PROCUREMENT:</u>	N/A							
3.	<u>CONSTRUCTION:</u>	N/A							
4.	<u>VARIANCE ANALYSIS:</u>	N/A							

1/ There are several small study contracts in being to support the analytical effort. There are no hardware development contracts.

G. PROGRAM FUNDING SUMMARY 1/

CURRENT ESTIMATE
 (\$ in Millions)

FISCAL YEAR	QTY 4/	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL 1/	TOTAL 1/	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION:						(b)(4)			
1982	-	-	-	-	13.3		11.8	11.5	7.6
1983	-	-	-	-	6.5		6.0	5.8	4.9
1984	-	-	-	-	51.1		-	-	4.3
1985	-	-	-	-	76.8		-	-	4.9
1986	-	-	-	-	111.1		-	-	4.6
1987	-	-	-	-	131.9		-	-	4.3
1988	-	-	-	-	166.1		-	-	4.0
1989	-	-	-	-	150.3		-	-	3.7
TOTAL	-	-	-	-	707.1		17.8	17.3	-
APPROPRIATION: PROCUREMENT 3/						(b)(4)			
1989	-	-	-	-	120.8		-	-	-
TO COMPLETE	-	-	-	-	2/		-	-	-
TOTAL	-	-	-	-	-		-	-	-
APPROPRIATION: CONSTRUCTION									
TOTAL	-	-	-	-	-		-	-	-

1/ This reflects the FY85 President's Budget. Current program has been reduced to a study effort which is below SAR thresholds.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

3/ Annual funding beyond the FYDP years has not been determined.

4/ Until concept formulation is approved, no quantities can be displayed.

N-8 15 TS

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

REPORT AS OF: Sept 30, 1984

INDEX

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DIRECTORATE FOR INTELLIGENCE, RESEARCH, AND SECURITY
AND SECURITY RESEARCH
DEPARTMENT OF DEFENSE

OASD(PA) DFOISR 84-T-1821

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QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

AS OF DATE: Sept 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. Significant Highlights Since Last Report:

None.

b. Program Status:

- (1) Percent program completed: 5 of 16 years or 31.2%
- (2) Percent program cost appropriated: 43.6 of 5462.0M = .008 or 0.8%

c. Total Program Costs:

Estimated total costs for the program are \$5,462.0 million (RDT&E,N, \$1,342.9M; AP,N, \$4,119.1M) of which \$34.0 million (RDT&E,N) are sunk costs (obligated through 30 Sept 1984) and costs to complete are \$5428.0 million.

2. CHANGES SINCE LAST REPORT

a. Operational and Technical Characteristics: None.

b. Schedule Milestones:

	<u>PREVIOUS EST</u>	<u>CHANGE*</u>	<u>CURRENT EST</u>
(1) FSD Contract Award	Sep 84	+ 1 mo.	Oct 84
(2) First Flight	Jul 88	- 7 mo.	Dec 87
(3) Complete Navy Technical Evaluation (NTE)	Jun 90	- 9 mo.	Sep 89
(4) Complete OPEVAL	Aug 90	- 5 mo.	Mar 90

* Reasons for Changes: Schedule adjustment and refinement of previous estimates to minimize concurrency and facilitate a smooth transition from development into full production.

c. Program Acquisition Cost: None.

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QUARTERLY SELECTED ACQUISITION REPORT
 SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

AS OF DATE: Sept 30, 1984
 BASE YEAR: FY 1984

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY 84 Constant \$				ESCALATION	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Planning Estimate	\$1,150.3	\$2,604.3	--	\$3,754.6	\$1,707.4	\$5,462.0	ESC: DEV 192.6; PROC 1,514.8
Previous Changes							
Economic	--	--	--	--	--	--	
Quantity	--	--	--	--	--	--	
Schedule	--	--	--	--	--	--	
Engineering	--	--	--	--	--	--	
Estimating	--	--	--	--	--	--	
Other	--	--	--	--	--	--	
Support	--	--	--	--	--	--	
Subtotal	--	--	--	--	--	--	
Current Changes							
Economic	--	--	--	--	--	--	
Quantity	--	--	--	--	--	--	
Schedule	--	--	--	--	--	--	
Engineering	--	--	--	--	--	--	
Estimating	--	--	--	--	--	--	
Other	--	--	--	--	--	--	
Support	--	--	--	--	--	--	
Subtotal	--	--	--	--	--	--	
Total Changes	--	--	--	--	--	--	
Current Estimate	\$1,150.3	\$2,604.3	--	\$3,754.6	\$1,707.4	\$5,462.0	ESC: DEV 192.6; PROC 1,514.8

2. Previous Changes: None.

3. Changes Since Previous Report: None.

UNCLASSIFIED

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT
 SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM
 (Dollars in Millions)

AS OF DATE: Sept 30, 1984

F.(U)		<u>(1)</u>			<u>(2)</u>			<u>(3)</u>	
		Initial Contract Price			Current Contract Price			Price at Completion	
	CONTRACTOR COSTS	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1.	<u>DEVELOPMENT</u>								
	Douglas Aircraft Co. N00019-81-C-0499 Definitized 24 Sept 1982 Cost Plus Incentive Fee	15.6	N/A	--	12.7	N/A	--	15.8	14.0
2.	<u>VARIANCE ANALYSIS:</u>								
	a. <u>Cost/Schedule Variances</u>								
	None.								
	b. <u>Changes Since Previous Report</u>								
	None.								

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QUARTERLY SELECTED ACQUISITION REPORT
 SYSTEM: T45TS (FORMERLY VTXTS) UNDERGRADUATE JET FLIGHT TRAINING SYSTEM

AS OF DATE: Sept. 30, 1984
 BASE YEAR: FY 1984

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 1/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD) NON-REC REC	TOTAL		TOTAL	OBLIGATED	EXPENDED	
1980	--	--	--	4.2	2/	4.2	4.2	4.2	9.70
1981	--	--	--	1.6	2/	1.6	1.6	1.6	11.90
1982	--	--	--	5.0	2/	5.0	5.0	5.0	7.60
1983	--	--	--	7.9	2/	7.9	7.9	7.9	4.90
1984	--	--	--	24.3		24.9	15.3	9.6	4.30
1985	--	--	--	105.6		113.4	0	0	4.90
1986	--	--	--	235.1		263.7	0	0	4.60
1987	--	--	--	329.7		385.2	0	0	4.30
1988	--	--	--	312.2		378.8	0	0	4.00
1989	--	--	--	101.2		127.4	0	0	3.70
1990	--	--	--	19.7		25.7	0	0	3.70
1991	--	--	--	3.8		5.1	0	0	3.70
TOTAL	4	--	--	1,150.3		1,342.9	34.0	28.3	

APPROPRIATION: RDT&E,N (T-45A AIRCRAFT)

APPROPRIATION: APN (T-45A AIRCRAFT)

1987	--	(+18.1)	--	--	18.1	24.2	0	0	5.59
1988	8	(+34.2)	(15.7)	(103.2)	215.1	290.1	0	0	5.20
1989	24	(+42.2)	(11.3)	(195.8)	374.4	528.1	0	0	4.81
1990	36	(+34.0)	(7.4)	(235.4)	380.0	561.1	0	0	4.81
1991	48	(+32.5)	(0.5)	(283.2)	416.8	644.8	0	0	4.81
1992	48	(+31.5)	(0.5)	(271.0)	371.2	602.1	0	0	4.81
1993	48	(+30.8)	--	(262.2)	313.2	532.6	0	0	4.81
1994	48	(+25.5)	--	(256.5)	291.2	518.9	0	0	4.81
1995	40	--	--	(212.6)	224.3	417.2	0	0	4.81
TOTAL	300	(248.8)	(35.4)	(1,819.9)	2,604.3	4,119.1	0	0	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index. Fiscal Years 1980-1983 reflect historical escalation rates; Fiscal Years 1984-1991 reflect projected escalation rates.

2/ The following amounts must be added to the reflected actuals to bring them to Base Year 1984 dollars: 1980:+1.0; 1981:+0.2; 1982:+0.3; 1983:+0.1.

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)

SYSTEM: ASAS/ENSC

A-1 ASAS

84-033

REPORT AS OF: SEP 30, 1984

INDEX

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DIRECTORATE FOR FREEDOM OF INFORMATION

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DEPARTMENT OF DEFENSE

~~CLASSIFIED BY All Source Analysts to Security Classification
Guidance, February 1, 1984~~

DECLAS ON OADR

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEMS SAS/ENSCE

AS OF DATE: SEP 30, 1984

A. (U) REFERENCES

1. (U) DATE: September 30, 1984
2. (U) DESIGNATION: Army "All Source Analysis System (ASAS)" and Air Force "Enemy Situation Correlation Element (ENSCE)".
3. (U) NOMENCLATURE: To be assigned.
4. (U) POPULAR NAME: ASAS/ENSCE.
5. (U) MISSION AND DESCRIPTION: A system of hardware and software that takes intelligence, surveillance, reconnaissance and electronic warfare information and provides timely and complete intelligence products. The ASAS/ENSCE will provide secure, automated assistance to intelligence, processing, analysis, dissemination and correlation functions, target development, electronic warfare/electronic combat (EW/EC), Operational Security (OPSEC) support, and collection management. An evolutionary acquisition plan has been implemented which complements existing capabilities and capitalizes on field experience from existing systems. Under this program, Baseline ASAS/ENSCE systems (modules) will be fielded (b)(1) to gain additional experience from the field before a production decision for the Objective System is made. The Objective System will be an evolutionary outgrowth of the Baseline System.
6. (U) RELATED PROGRAMS: Derived Systems (Limited Operational Capability Europe (LOCE), and Limited ENSCE (LENSCE)), Technical Control and Analysis Center (TCAC), Tactical Simulation (TACSIM) and Micro Processors (MICROFIX).
7. (U) PRIME/ASSOCIATED CONTRACTOR NAME AND MAJOR SYSTEM/SUBSYSTEM:

<u>Contractor</u>	<u>Location</u>	<u>System</u>
Jet Propulsion Laboratory	Pasadena, California	ASAS/ENSCE
8. (U) DOD COMPONENT: Department of the Army as Executive Agent for Joint Army/Air Force Program
9. (U) RESPONSIBLE OFFICE AND PHONE NUMBER: Program Manager, BG Alan B. Salisbury
Joint Tactical Fusion Program, 1500 Planning Research Drive,
McLean, Virginia 22102-5099
Date of Assignment: 6 January 1983
COMMERCIAL (703) 556-2930
10. (U) REFERENCE DOCUMENTS AND DATES FOR PE:

SECTION C, D, E: - FY1985 RDT&E Congressional Descriptive Summary.

 - Army Chief of Staff Letter, dated 10 Nov 82, Subj: All Source Analysis System (ASAS) Acquisition Strategy.
 - Functional Capabilities Document (FCD), 7 December 1983.

~~CONFIDENTIAL~~ 2

AS OF DATE: SEPTEMBER 30, 1984

B. (U) SUMMARY

1. (U) PROGRAM HIGHLIGHTS:

a. Significant Historical Developments: This is an initial SAR. The Army Chief of Staff Letter, dated 10 November 1982, directed establishment of a Special Task Force (STF) and organization of a Joint Program Office to develop and field the ASAS/ENSCE. It designated a Brigadier General (07) to be STF Director, who will also be the Joint Program Manager. The letter further designated Jet Propulsion Laboratory (JPL), a federally funded research and development contractor, to assume the role of systems contractor. JPL was tasked to perform a nine month definition phase to include a prioritized list of functions to be accomplished by the ASAS/ENSCE in response to service requirements documents. A Functional Capabilities Document (FCD), 7 December 1983, consolidates the Army and Air Force requirements into a joint requirement. DA guidance to develop and field a lighter easily deployable ASAS and affordability considerations have resulted in a restructuring (currently ongoing) of the program. JPL is currently evaluating alternative industry proposals for a Baseline System that will meet the redefined objectives.

b. Program as reflected in FY85 President's Budget is no longer valid. Program is being restructured to accommodate funding shortfalls in FY84/85 and Army direction to reduce system size for enhanced deployability.

c. Support documents for the FY85 President's Budget show a total program estimate of \$628.2 million for RDTE and \$572.8 million for Procurement. This estimate is no longer valid. The program is being restructured. Operational and technical requirements, schedules, and costs will be affected by the restructuring.

d. Significant Developments Since Last Report: N/A - Initial report.

2. (U) CHANGES SINCE "AS OF" DATE: None.

3. (U) DCP THRESHOLDS BREACHED: N/A

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: ASAS/ENSCE

AS OF DATE: SEP 30, 1984

	(1)	(2)	(3)	(4)
C. <u>OPERATIONAL/TECHNICAL CHARACTERISTICS</u> 1/	<u>Planning Estimate</u>	<u>Approved Program</u> 2/	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
1. (S) <u>OPERATIONAL/TECHNICAL</u>	<div>(b)(1)</div>			
(S) Intelligence Estimate Summary				
(S) Situation Assessment				
(S) Intelligence Report/Tactical Report (INTREP/TACREP)				
(S) Response to Request for Intel Info Target Recommendations				
2. <u>VARIANCE ANALYSIS</u> - N/A				

FOOTNOTES:

1/ (U) The characteristics shown are generic in nature. Because the system represents a first attempt at automating a highly complex set of processes within the area of intelligence/electronic warfare, there is currently no reliable baseline against which to measure quantitatively its technical characteristics, at the system level.

2/ (U) There is no automated system in the inventory today that performs the total functions of an ASAS/ENSCE. JTFP and JPL have worked with the Services to translate the service requirements documents into a functional capabilities description that defines what capabilities will be implemented in the Baseline System to be fielded in 1986-1988. Active dialogue continues between JTFP, JPL and the Services.

3/ (b)(1)

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: ASAS/ENSCE

AS OF DATE: SEP 30, 1984

	(1)	(2)	(3)
	<u>Planning</u> <u>Estimate</u>	<u>Approved</u> <u>Program 1/</u>	<u>Current</u> <u>Estimate</u>
D. <u>SCHEDULE 1/</u>			
1. <u>Milestones</u>			
a. ASAS Acquisition Strategy	Nov 82	TBD	Nov 82
b. OSD/Congressional Approval of Acq Strategy	Feb 83	TBD	Feb 83
c. Implementing Contractor Award	Mar 83	TBD	Mar 83
d. Functional Capabilities Document Complete	Dec 83	TBD	Dec 83
✓e. Preliminary Design Review (Architecture)	Feb 84	TBD	Feb 84
✓f. Joint Oversight Group (ASARC/AFSARC Authority)	Mar 84	TBD	Mar 84
✓g. Request for Proposals	May 84	TBD	May 84
✓h. JTFP Letter of Instruction	Jul 84	TBD	Jul 84
✓i. Award Baseline System Contracts (Development)	Oct 84	TBD	Oct 84
j. Critical Design Review	TBD	TBD	TBD
k. Serial Production Releases for Initial Modules	TBD	TBD	TBD
2. <u>Deliveries (Plan/Actual)</u>	<u>To Date</u>		
R&D	0		
Procurement	0		
3. <u>VARIANCE ANALYSIS</u> : N/A			

Footnote:

1/ Program is undergoing restructuring. Milestones will be revised as appropriate once restructuring has been completed.

(Dollars in Millions)

AS OF DATE: SEP 30, 1984
BASE YEAR: FY84

E. PROGRAM ACQUISITION COST

1. Cost 1/

Development 2/

Procurement

Construction

Total: Constant FY84\$

Escalation

Development

Procurement

Construction

Total Program Cost

2. Quantities

Development

Procurement

Total

3. Unit Cost

Procurement

Constant

Escalated

Program:

Constant

Escalated

FOOTNOTES

1/ SAR costs and funding shown are for Army portion only and are as shown in the FY85 President's Budget. The program outlined in the FY85 President's Budget is no longer valid because the program is being restructured.

2/ Includes funding for development of automated intelligence systems (BETA/TCAC) prior to the establishment of the Joint Tactical Fusion Program and the subsequent development of ASAS/ENSCE.

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COMPREHENSIVE AN ELECTED ACQUISITION REPORT
SYSTEM: -AS CE

AS OF DATE: SEP 30, 1984
BASE YEAR: FY84

88. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary

1. <u>Summary</u>	Base Year/FY84 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Planning Estimate as displayed in the FY85 President's Budge	(b)(1)						
Previous Changes							
Subtotal							
Current Changes							
Subtotal							
Total Changes							
Current Estimate							

2. <u>Previous Changes:</u>	N/A	(b)(1)
-----------------------------	-----	--------

2. Previous Changes: N/A

3. Changes Since Previous Report: N/A

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1/ Does not reflect program restructuring actions that are currently in progress..

COMPREHENSIVE ANNUAL ACQUISITION REPORT
SYSTEM: ASAS/ENSURE

AS OF DATE: SEP 30, 1984
BASE YEAR:

E9. PROGRAM ACQUISITION UNIT COST (PAUC) HISTORY

(Dollars in Millions)

1. PE to CE:

a. First year of authorization: 1978

b. Planning Estimate (PE) to Current Estimate (CE)

PE	CHANGES								CE
	ECON	QTY	SCH	ENG	EST	SUP	OTHER	TOTAL	
TBD	0	0	0	0	0	0	0	0	TBD

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: ASAS/ENSCE

(Dollars in Millions)

F. (U) <u>CONTRACTOR COSTS</u> 1/	(1)			(2)			(3)	
	<u>Initial Contract</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1. <u>DEVELOPMENT</u>								
2. <u>PROCUREMENT</u>								
3. <u>CONSTRUCTION</u>								
4. <u>VARIANCE ANALYSIS</u>								

NOTE:

1/ Jet Propulsion Laboratory (JPL), a Federally Funded Research and Development Contractor, sponsored by the National Aeronautics Space Administration (NASA) has been designated the system design developer and implementor of the All Source Analysis System (ASAS)/Enemy Situation Correlation Element (ENSCE). Although JPL is the contractor, JTFPO does not have a separate contract for the ASAS/ENSCE effort, so the contract price data requested is not available. Several other small concept studies/contracts have been accomplished as in house efforts by other government organizations. No hardware development has been done by outside contractors.

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: ASAS/ENSCE

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AS OF DATE: SEPT 1984
 BASE YEAR: FY 1984

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (In Millions)

FY	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS		ESCALATION <u>2/</u> RATE (%)		
		ADV PROC NON-ADD	FLYAWAY (NON-ADD)		TOTAL <u>1/</u>	TOTAL <u>1/</u>	OBLIGATED		EXPENDED	
			NON-REC	REC						
(b)(1)										
83 & 84										
85										
86										
87										
88										
89										
90										
To Comp										
TOTAL								\$ -	\$ -	
87										
88										
89										
90										
To Comp										
TOTAL										
87										
TOTAL										

1/ Reflects FY85 President's Budget submission, which is no longer valid due to program restructuring which is now in progress

(b)(1)

A-4 MLRS/TGW

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS: DD - COMP (O&A) 823)
SYSTEM: MULTIPLE LAUNCH ROCKET SYSTEM - TERMINAL GUIDANCE WARHEAD

AS OF DATE: ~~SEP~~ 30, 1984

84-052

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~~CLASSIFIED BY: MRS. [REDACTED] 808, Dated 10 June 82~~
~~W/ADDENDUM 11, DATED: 11 Apr 83~~

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

OASD(PA) DFOISR 84-T-1824

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Declassified/Unclassified when separated from
classified information (a)

AS OF DATE: Sep 30, 1984

A. REFERENCES

1. (U) DATE: September 30, 1984
2. (U) DESIGNATION: MLRS-TGW
3. (U) NOMENCLATURE: Multiple Launch Rocket System - Terminal Guidance Warhead
4. (U) POPULAR NAME: MLRS-TGW
5. (U) MISSION AND DESCRIPTION:

(b)(1)

b. (U) This system is intended to supplement cannon and rocket artillery rather than replace equipment and/or munitions in the current inventory. The TGW will be fully integrated into the existing MLRS and be compatible with the components of the system as required in the specification for the rocket, launch pod/container, AT2 fuze and fire control. The self-propelled launcher loader (SPLL) being produced for the basic MLRS program will be able to fire the MLRS-TGW rounds.

6. (U) RELATED PROGRAMS: Basic MLRS, XM-447 fuze, Scatterable Mine Warhead, Battery Computer System, TACFIRE, Field Artillery Meteorological Data System, Infantry Fighting Vehicles, test set AN/MSM-105.

7. (U) PRIME/ASSOCIATED CONTRACTOR NAME AND MAJOR SYSTEM/SUBSYSTEM: A development contractor has not been selected. Contract award is planned for November 1984. The LTV Aerospace & Defense Company of Dallas, Texas, prime contractor for the MLRS, will integrate the TGW with the basic MLRS system.

<u>Contractor</u>	<u>Location</u>	<u>System/Subsystem</u>
TBD	TBD	TBD

8. (U) DOD COMPONENT: Department of the Army

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COMPREHENSIVE ANNUAL ~~SECRET~~ ACQUISITION REPORT
SYSTEM: MLRS-TGW

AS OF DATE: Sep 30, 1984

A. REFERENCES (continued)

9. (U) RESPONSIBLE OFFICE AND PHONE NUMBER: Project Manager, Multiple Launch Rocket System
Malcolm R. O'Neill COL, OD
Date of Assignment: 5 December 1983
Autovon: 746-1195
Commercial: (205) 876-1195

10. (U) REFERENCE DOCUMENTS AND DATES FOR PLANNING ESTIMATE AND APPROVED PROGRAM:

SECTION C: Planning Estimate - FY 1985 RDTE Congressional Descriptive Summary
Approved Program - TBB

SECTION D: Planning Estimate - FY1985 RDTE Congressiona. Descriptive Summary.
Approved Program - TBD

SECTION E: Planning Estimate -
FYDP Procurement Annex, Jan 1984.

Current Estimate - The Current Estimate, Section E, includes the following program elements:
RDTE: 6,33.03A
Procurement: C65100
Construction:

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: MLRS-TGW

AS OF DATE: SEPTEMBER 30, 1984

B. SUMMARY

1. PROGRAM HIGHLIGHTS:

a. This is the initial Selected Acquisition Report for MLRS-TGW. In a memorandum for the Secretary of the Army, dated 14 February 1977, the Secretary of Defense directed the Army to prepare a plan for compliance with Congressional guidance on terminal homing options in the MLRS program. A "MLRS Terminal Homing Plan", was structured to complement the basic MLRS development schedule. It was approved by DA and forwarded to OSD. Congress appropriated FY80 RDTE funding under a separate program element to support concept definition studies for a MLRS Terminally Guided Warhead.

b. In July 1979, the United States, the United Kingdom, the Republic of France, and the Federal Republic of Germany concluded a Memorandum of Understanding (MOU) for the cooperative development of the MLRS. In the MOU, the four nations have acknowledged an operational requirement for weapon systems with the general characteristics compatible with the basic MLRS system. Those general characteristics are described as the Best Technical Approach (BTA) for development. That BTA is a horizontally gliding terminally guided submunition with a millimeter wave seeker and a shaped charge lethal mechanism. A RFP to provide development programs that will satisfy these characteristics in greater specificity was released to industry in July 1983. Based upon the responses and the decisions by the Army leadership, a development program will be selected. At that time, detailed operational and technical characteristics, costs and schedules will be available.

c. Support documents for the FY85 President's Budget show a total program estimate of \$ 211.2 million for RDTE and \$414.4 million for Procurement. This estimate is no longer valid.

d. ASARC/DSARC I for TGW was conducted in August and September 1984, respectively. The DSARC recommended the development of program goals and thresholds within 180 days of initial contract award.

2. CHANGES SINCE "AS OF" DATE: None

3. DCP THRESHOLDS BREACHED: N/A

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COMPREHENSIVE ANNUAL SCHEDULED ACQUISITION REPORT
SYSTEM: MARS-11

AS OF DATE: Sep 30, 1984

	(1)	(2)	(3)	(4)
C. OPERATIONAL/TECHNICAL CHARACTERISTICS 1/	<u>Planning Estimate</u>	<u>Approved Program</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
1. <u>OPERATIONAL</u>				
a. Reliability	TBD	TBD	TBD	TBD
Rocket	TBD	TBD	TBD	TBD
TBM				
b. Availability	TBD	TBD	TBD	TBD
2. <u>TECHNICAL</u>				
a. Effectiveness	TBD	TBD	TBD	TBD
b. Range (km)				
Minimum	TBD	TBD	TBD	TBD
Maximum	TBD	TBD	TBD	TBD
3. <u>VARIANCE ANALYSIS</u>				
a. Previous changes: None				
b. Changes since previous report: None				

1/ (U) Operational/Technical Characteristics have not been approved. IAW DSARC I recommendation, the characteristics will be established within 180 days of the source selection process.

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COMPREHENSIVE ANNUAL ~~41~~ ~~DATE~~ ACQUISITION REPORT
SYSTEM: ~~ALUS-7.3W~~

AS OF DATE: Sep 30, 1984

	(1)	(2)	(3)
D. <u>SCHEDULE 1/</u>	<u>Planning Estimate</u>	<u>Approved Program</u>	<u>Current Estimate</u>
1. <u>Milestones</u>			
a. ASARC I	Aug 84		Aug 84
b. DSARC I	Sep 84		Sep 84
c. Award Validation Phase Contracts	Nov 84	TBD	Nov 84
d. Captive Flight Tests	TBD	TBD	TBD
e. Advance Development Flights	TBD	TBD	TBD
f. ASARC II	TBD	TBD	TBD
g. DSARC II	TBD	TBD	TBD
h. Maturation Contract Award	TBD	TBD	TBD
i. MOT Flight Test	TBD	TBD	TBD
j. Low Rate Production (LRP) Contract Award	TBD	TBD	TBD
k. Initial Delivery (Rocket)	TBD	TBD	TBD
l. Production Qualification Testing (PQT)	TBD	TBD	TBD
a. Start			
b. Complete			
m. ASARC III	TBD	TBD	TBD
n. DSARC III	TBD	TBD	TBD

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: MLRS-TGW

AS OF DATE: Sep 30, 1984

	(1)	(2)	(3)
D. <u>SCHEDULE</u> (continued)	<u>Planning Estimate</u>	<u>Approved Program</u>	<u>Current Estimate</u>
o. Full-Scale Production Contract Award	TBD	TBD	TBD
p. Initial Operational Capability <u>2/</u>	TBD	TBD	TBD

2. Deliveries (Plan/Actual) RDTE and Procurement contracts have not been awarded.

To Date

R&D
Procurement

N/A

3. VARIANCE ANALYSIS N/A

PLANS TO BE SUBMITTED

1/ The milestones shown are changed from the FY85 Congressional Descriptive Summary due to DSARC I recommendation. IAW DSARC I recommendation, the major milestones will be established within 180 days of the source selection process.

2/ IOC has not been defined.

7.
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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: MLRS-TGW

AS OF DATE: Sep 30, 1984
 BASE YEAR: FY 85

(Dollars in Millions)

B. PROGRAM ACQUISITION COST ^{5/}

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						<u>Balance to Complete</u>		
<u>1. Cost</u>	<u>Planning Estimate</u> ^{1/} (FY80-89)	<u>Changes</u>	<u>Current Estimate</u> (FY80-89)	<u>Funding</u>	<u>Current & Prior Yrs</u> (FY80-84)	<u>Budget Year</u> (FY85)	<u>Beyond FYDP</u> (FY86-89)	<u>Total</u>
Development	190.7	0	190.7	Development ^{3/}	15.6	35.4	160.2	211.2
Procurement ^{3/}	320.0	0	320.0	Procurement	0	0	414.4	414.4
Flyaway	TBD	0	TBD	Construction	0	0	11.5	11.5
Peculiar support equip. ^{2/}	0	0	0	Total	15.6	35.4	586.1	637.1 ^{5/}
Other weap. sys. cost	TBD	0	TBD					
Initial spares ^{2/}	0	0	0					
Construction	7.7	0	7.7					
Total: Constant FY84\$	518.4	0	518.4	<u>Quantity</u> ^{4/}				
				Development			TBD	TBD
Escalation				Procurement				
Development	20.5	0	20.5					
Procurement	94.4	0	94.4					
Construction	3.8	0	3.8					
Total Program Cost	<u>637.1</u>	0	<u>637.1</u> ^{5/}					
<u>2. Quantities</u> ^{4/}								
Development		0						
Procurement	<u>TBD</u>	0	<u>TBD</u>					
		0						

^{1/} The planning and current estimates reflect only the US \$ values for development and procurement documented in the FY85 Presidents' Budget. The US \$ share is approximately 40% of the total program; European partners will fund the balance.

^{2/} There are no peculiar support equipment or initial spares being postulated for the TGW system.

^{3/} The procurement dollars shown in the FY85 President's Budget are merely a planing wedge until actual funding requirement is approved by DSARC.

^{4/} Exact quantities have not been determined.

^{5/} The program outlined in the FY 85 President's Budget is no longer valid because the program is being restructured.

UNCLASSIFIED

COMPREHENSIVE ANNUAL SELECT D ACQUISITION REPORT SYSTEM: MLR-TGW

(Dollars in Millions)

AS OF DATE: Sep 30, 1984
BASE YEAR: FY 85

E. PROGRAM ACQUISITION COST (Continued)

	(1)	(2)	(3)
	<u>Planning Estimate (FY80-89)</u>	<u>Changes</u>	<u>Current Estimate (FY80-89)</u>
3. <u>Unit Cost</u> 5/			
Procurement:			
Constant FY85\$	TBD	-	TBD
Escalated	TBD	-	TBD
Program:			
Constant FY85\$	TBD	-	TBD
Escalated	TBD	-	TBD

4. <u>Procurement Unit Cost Baseline</u> N/A 6/			
<u>For Current & Budget Years</u>			
	<u>FY84</u>	<u>FY85</u>	<u>Current Estimate FY84</u>
Total Procurement Cost	-	-	-
Less CY Adv Proc	-	-	-
Plus PY Adv Proc	-	-	-
Net total	-	-	-
Quantity	-	-	-
Procurement Unit Cost	-	-	-

5. Approved Design to Cost Goal: TBD 5/

AVERAGE FLYAWAY COST

	<u>PR</u>	<u>Approved Program</u>	<u>CUR EST</u>	<u>Latest Approved Threshold</u>
QTY:				
Constant FY84\$	TBD	TBD	TBD	TBD
Escalated	TBD	TBD	TBD	TBD

6. Foreign Military Sales: None

7. Nuclear Costs: None

6/ First year of procurement is FY87.

UNCLASSIFIED

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: MLRS-TGW

AS OF DATE: Sep 30, 1984
 BASE YEAR: FY 85

E8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary 1/	BASE YEAR/84		Constant \$		ESC	TOTAL 1/	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Planning Estimate as displayed in the President's Budget.	190.7	320.0	7.7	518.4	118.7	637.1	ESC: DEV. 20.5; PROC. 94.4; CONST. 3.8
Previous Changes	-	-	-	-	-	-	-
Current Changes	-	-	-	-	-	-	-
Total Changes	-	-	-	-	-	-	-
Current Estimate	190.7	320.9	7.7	518.4	118.7	637.1 1/	ESC: DEV. 20.5; PROC. 94.4; CONST. 3.8

2. Previous Changes: N/A - Initial SAR

3. Change Since Previous Report: N/A - Initial SAR

1/ The program outlined in the FY 85 President's Budget is no longer valid because the program is being restructured.

UNCLASSIFIED

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: MLRS-TGW

E9. PROGRAM ACQUISITION UNIT COST (PAUC) HISTORY 1/

AS OF DATE: Sep 30, 1984

(Dollars in Millions)

1. PE to

(a) First Year of Authorization: FY 1980

(b)

PE	CHANGES								CE
	ECON	QTY	SCH	ENG	EST	SUP	OTHER	TOTAL	
TBD ^{1/}	-	-	-	-	-	-	-	-	TBD ^{1/}

Reasons for change since the PE are described in the preceding Program Acquisition Cost Variance display.

1/ Quantity and procurement funding reflect only a planning wedge until DSARC recommendations are approved.

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: MLRS-TGW

AS OF DATE: Sep. 30, 1984

	(1)	(2)	(3)	
	<u>Initial Contract Price</u> <u>Target Ceiling Qty</u>	<u>Current Contract Price</u> <u>Target Ceiling Qty</u>	<u>Price At Completion</u> <u>Contractor</u> <u>Estimate</u>	<u>Program Mgrs.</u> <u>Estimate</u>
P. <u>CONTRACTOR COST</u> 1/				
1. <u>DEVELOPMENT</u>				
2. <u>PROCUREMENT</u>				
3. <u>CONSTRUCTION</u>				
4. <u>VARIANCE ANALYSIS</u>				

1/ Contracts for the development of TGW are planned for award in November 1984.

UNCLASSIFIED

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COMPREHENSIVE ANNUAL BUDGETED ACQUISITION REPORT
SYSTEM: MLRS-TGW

AS OF DATE: Sep 30, 1984
 BASE YEAR: FY84

G. PROGRAM FUNDING SUMMARY 1/

CURRENT ESTIMATE
 (\$ in Millions)

FISCAL YEAR	QTY	ADV PROC (NON-ADD)	BASE-YEAR DOLLARS			THEN-YEAR DOLLARS			ESCALATION <u>2</u> / RATE (%)
			FLYAWAY (NON-ADD)		TOTAL	TOTAL 1/	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E

Prior Yrs	--	--	--	--	4.1	4.1	4.1	3.9	
1984	--	--	--	--	11.5	11.5	6.4	3.2	4.3
1985	--	--	--	--	34.3	35.4	--	--	4.9
1986	--	--	--	--	39.5	42.5	--	--	4.6
1987	--	--	--	--	35.0	39.2	--	--	4.3
1988	--	--	--	--	30.9	35.9	--	--	4.0
1989	--	--	--	--	35.4	42.6	--	--	3.7
TOTAL	--	--	--	--	190.7	211.2	10.5	7.1	

APPROPRIATION: PROCUREMENT 1/

1987	--	--	--	--	3.6	4.5	--	--	5.6
1988	--	--	--	--	106.3	133.4	--	--	5.2
1989	--	--	--	--	210.1	276.5	--	--	4.8
TOTAL	--	--	TBD	TBD	320.0	414.4	--	--	

APPROPRIATION: CONSTRUCTION

1989	--	--	--	--	7.7	11.5	--	--	3.7
TOTAL	--	--	--	--	7.7	11.5	--	--	

1/ The program outlined in the FY 85 President's Budget is no longer valid because the program is being restructured.

2/ Since spend-out rates are not shown, the escalation rates can not be used to verify the composite index.

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~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

A-6 155mm HIP

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS: DD - COMP (Q&A) 823)

SYSTEM: 155MM SELF-PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

REPORT AS OF: SEP 30, 1984

<u>FORMAT</u>	<u>SUBJECT</u>	<u>PAGE</u>
A	REFERENCES	2
B	SUMMARY	4
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E	PROGRAM ACQUISITION COST	7
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DEPARTMENT OF DEFENSE

OASD(PA) DFOISR

84-T-1825

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: 155MM SELF-PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

AS OF DATE: SEP 30, 1984

A. References:

1. DATE: 30 Sep 84
2. DESIGNATION: None
3. NOMENCLATURE: 155mm Self-Propelled Howitzer Improvement Program
(Formerly Division Support Weapon System)
4. POPULAR NAME: 155mm Self-Propelled Howitzer Improvement Program (HIP)
5. MISSION AND DESCRIPTION: The M109 155mm Self-Propelled Artillery Weapon System provides indirect fire support to the maneuver forces of the armored and mechanized divisions/brigades. Indirect fire support provided by this system includes the destruction, neutralization, and suppression of targets within the maneuver commander's areas of responsibility. The purpose of the 155mm Self-Propelled Howitzer System Improvement Program is to ensure that the Army maintains a responsive, survivable, reliable, and lethal 155mm Self-Propelled Howitzer System that will provide close indirect fire support to maneuver elements of heavy divisions/brigades through the 1990s and beyond. A Mission Element Need Statement (MENS), identifying deficiencies in the areas of reliability-availability-maintainability, survivability, terminal effects, and responsiveness, was approved by the Secretary of Defense in December 1980.
6. RELATED PROGRAMS:
 - a. M109 Self-Propelled Howitzer Extended Life Product Improvement Program (HELP).
 - b. Field Army Ammunition Resupply Vehicle (FAASV).
 - c. Advanced Field Artillery Tactical Data System (AFATDS).
 - d. Single Channel Ground and Airborne Radio System (SINCGARS).
7. PRIME/ASSOCIATED CONTRACTOR NAME AND MAJOR SYSTEM/SUBSYSTEM: To be selected.
8. DOD COMPONENT: Department of the Army.

COMPREHENSIVE ANNUAL S E D ACQUISITION REPORT
SYSTEM: 155MM SELF-PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

References: (Continued)

AS OF DATE: SEP 30, 1984

9. RESPONSIBLE OFFICE AND PHONE NUMBER: Project Manager, Cannon Artillery Weapon Systems
COL John Kronkaitis, OD, AUTOVON 880-2572
Date of Assignment: August 1981.

10. REFERENCE DOCUMENTS:

Section C: Planning Estimate - FY 1985 RDTE Congressional Descriptive Summary
Approved Program - TBD

Section D: Planning Estimate - FY 1985 RDTE Congressional Descriptive Summary,
Program Element #23743A
Approved Program - TBD

Section E: Planning Estimate - FY 1985 President's Budget
Approved Program - TBD

The Current Estimate, Section E, includes the following Program Elements:
RDT&E: 23743A
Procurement: TBD

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: 155mm SELF-PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

AS OF DATE: SEPTEMBER 30, 1984

B. SUMMARY

1. PROGRAM HIGHLIGHTS:

a. Significant Historical Developments: The Division Support Weapon System Program was initiated based on a major technology thrust for "Advanced 155mm Howitzer Technology Demonstration" then known as Enhanced Self Propelled Weapon System (ESPAWS). On 19 August 1981, a DA decision briefing was held which directed the initiation of a Special Study Group (SSG) to prepare for an ASARC in FY83. The Division Support Weapon System "PRE ASARC" was held July 1983. The PRE ASARC recommended that the DSWS program be reoriented as a major product improvement for the M109SPH designated as the 155mm SP HIP. Therefore, the DSWS as originally known, no longer exists.

b. Support documents for the FY85 President's Budget on which this SAR is based, show a total program estimate of \$549.3 million for RDTE and \$3394.5 million for procurement. The RDTE estimate was for the 155mm SP Howitzer Improvement Program (HIP) which is being substantially reduced in scope. The Procurement estimate contains both the 155mm SP HIP and and 155mm SP Howitzer Extended Life Program (HELP). The last version of this program submitted to DA was expensive and appeared unreasonable to accept in lieu of a program to develop a new howitzer. Accordingly, it was rejected and instructions issued to either find ways to make major reductions in the unit costs or to propose a program for a new howitzer that was worth (in increased performance) the proposed expenditure. The current program is being restructured and may fall below SAR reporting thresholds.

2. CHANGES SINCE "AS OF" DATE: None

3. DCP THRESHOLDS BREACHED: None

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: 155MM SELF-PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

AS OF DATE: SEP 30, 1984

	(1)	(2)	(3)	(4)
C. <u>OPERATIONAL/TECHNICAL CHARACTERISTICS</u> 1/	<u>Planning Estimate</u>	<u>Approved Program</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
1. <u>OPERATIONAL</u>				
Operational Availability	.75	TBD	TBD	.75
2. <u>TECHNICAL</u>				
Stop & Fire (seconds)	TBD	TBD	TBD	TBD
Range (Weapon) (KM)	TBD	TBD	TBD	TBD
Rate of Fire (rd/min):	6	TBD	TBD	6
3. <u>VARIANCE ANALYSIS</u> N/A				

1/ Operational/technical characteristics as shown in the RDT&E Congressional Descriptive Summaries that accompanied the FY85 President's Budget are not approved and may no longer be valid. Determination of new/modified characteristics will depend on the concept decided upon.

COMPREHENSIVE ANNUAL BUDGETED ACQUISITION REPORT
SYSTEM: 155MM SELF-PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

AS OF DATE: SEP 30, 1984

	(1)	(2)	(3)
D. <u>SCHEDULE</u> 3/	<u>Planning</u> <u>Estimate</u>	<u>Approved</u> <u>Program</u>	<u>Current</u> <u>Estimate</u>
1. <u>Milestones</u> 3/			
ASARC I	Apr 84 1/		Apr 84 1/
Contract Award	2QFY85		2QFY85
ASARC III (Production Decision)	3QFY88		3QFY88
First Unit Equipped (FUE)	3QFY90		3QFY90
IOC	4QFY90 2/		4QFY90 2/
2. <u>Deliveries (Plan/Actual)</u>			
	<u>To Date</u>		
R&D	0/0		
Procurement	0/0		
3. <u>Variance Analysis:</u> N/A			

1/ No decisions were reached in the review. The review is ongoing.

2/ IOC to be defined.

3/ The milestones shown are consistent with those displayed in the RDT&E Congressional Descriptive Summaries that accompanied the FY85 President's Budget. Since the program is being rescoped these milestones may no longer be valid.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: 155MM SELF-PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION PORT WEAPON SYSTEM)

AS OF DATE: SEP 30, 1984
 BASE YEAR: FY 84

(Dollars in Millions)

B. PROGRAM ACQUISITION COST 1/

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						Balance to Complete		
1. Cost	Planning Estimate (FY80-93)	Changes	Current Estimate (FY80-93)	Funding	Current & Prior Yr (FY80-84)	Budget Year (FY85)	Beyond FYDP (FY86-90)	Total
Development	485.6	-	485.6	Development	38.9	27.8	490.6	557.3
Procurement	2,499.7	-	2,499.7	Procurement	105.7	84.8	316.4	3,394.5
Total Flyaway		-		Construction	-	-		
Initial Spares		-		Total	144.6	62.6	807.0	3,951.8 1/
Other weapon System Cost		-						
Construction	-	-	-	Quantity 2/ Development	-	-		
Total: Constant FY 84\$	2985.3	-	2985.3	Procurement	-	-		
				Total	-	-		
Escalation	966.5		966.5					
Development	71.7	-	71.7	4. Procurement Unit Cost for Current & Budget Years:	N/A			
Procurement	894.8	-	894.8	5. Approved Design to Cost Goal:	N/A			
Construction	-	-	-	6. Foreign Military Sales:	None.			
Total Program Cost	3951.8	-	3951.8 1/	7. Nuclear Costs:	None.			
2. Quantities 2/								
Development	TBD	-	TBD					
Procurement	TBD	-	TBD					
Total		-						
3. Unit Cost								
Procurement:								
Constant FY 84 \$	TBD		TBD					
Escalated	TBD		TBD					
Program:								
Constant FY 84 \$	TBD		TBD					
Escalated	TBD		TBD					

1/ Data is based on FY85 President's Budget which is no longer valid. Program restructure is in process. Current indications are the program may be reduced below SAR reporting thresholds.

2/ Quantities have not yet been determined.

COMPREHENSIVE ANNUAL BUDGETED ACQUISITION REPORT
 SYSTEM: 155MM SELF PROPELLED HOWITZER IMPROVEMENT PROGRAM
 (FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

AS OF DATE: SEP 30, 1984
 BASE YEAR: FY84

B8. COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary 1/

	BASE YEAR/FY84 CONSTANT \$				ESCALATION	TOTAL 1/	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Planning Estimates as displayed in the FY 85 President's Budget	485.6	2499.7	---	2985.3	966.5	3951.8	Esc: Dev. 71.7; Proc. 894.8
Previous Changes							
Economic							
Quantity							
Schedule							
Engineering							
Estimating							
Other							
Support							
Subtotal							
Current Changes							
Economic							
Quantity							
Schedule							
Engineering							
Estimating							
Support							
Subtotal							
Total Changes							
Current Estimate	485.6	2499.7	---	2985.3	966.5	3951.8 1/	Esc: Dev. 71.7; Proc 894.8

1/ Data is based on FY85 President's Budget which is no longer valid. Current indications are the program may be reduced below SAR reporting thresholds.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: 155MM SELF PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

AS OF DATE: SEP 30, 1984

E9. PROGRAM ACQUISITION UNIT COST (PAUC) HISTORY 1/
(Dollars in Millions)

PE to CE:

a. First year of authorization: 1981

b.

PE	<u>CHANGES</u>								CE
	ECON	QTY	SCH	ENG	EST	SUP	OTHER	TOTAL	
TBD 1/	—	—	—	—	—	—	—	—	TBD

1/ Quantities have not been determined. Changes to the program may reduce this program below SAR thresholds.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: 155MM SELF PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION SUPPORT WEAPON SYSTEM)

AS OF DATE: SEP 30, 1984

	(1)	(2)	(3)	
			<u>Price At Completion</u>	
	<u>Initial Contract Price</u>	<u>Current Contract Price</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
F. <u>CONTRACTOR COSTS</u> 1/	<u>Target Ceiling Qty</u>	<u>Target Ceiling Qty</u>		
1. <u>DEVELOPMENT</u>				
2. <u>PROCUREMENT</u>				
3. <u>CONSTRUCTION</u>				
4. <u>VARIANCE ANALYSIS</u>				

1/ Numerous small study efforts and concept proposals were conducted by FMC Corp., Pacific Car and Foundry Corp., Norden Systems, and several in-house organizations. No hardware development contracts have been let.

COMPREHENSIVE ANNUAL AND QUARTERLY SELECTED ACQUISITION REPORT

SYSTEM: 155MM SELF PROPELLED HOWITZER IMPROVEMENT PROGRAM
(FORMERLY DIVISION OF ART WEAPON SYSTEM)

AS OF DATE: SEP 84
BASE YEAR: FY84

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE 2/
(\$ in Millions)

FISCAL YEAR	QTY 3/	BASE-YEAR DOLLARS			THEN-YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	
			NON-REC	REC				

APPROPRIATION: RDT&E

1981	---	---	---	---	6.5	6.5	6.5	6.5	6.5
1982	---	---	---	---	2.0	2.0	2.0	2.0	7.6
1983	---	---	---	---	6.7	6.7	6.6	6.6	4.9
1984	---	---	---	---	24.1	23.7	7.5	3.2	4.3
1985	---	---	---	---	26.9	27.8	---	---	4.9
1986	---	---	---	---	26.3	28.3	---	---	4.6
1987	---	---	---	---	69.3	77.5	---	---	4.3
1988	---	---	---	---	124.8	145.0	---	---	4.0
TOTAL	---	---	---	---	485.6	557.3	22.6	18.3	

APPROPRIATION: PROCUREMENT

1982 & prior	---	---	---	---	97.7	97.7	---	---	
1983	---	---	---	---	2.1	2.1	---	---	9.0
1984	---	---	---	---	5.9	5.9	---	---	5.6
1985	---	---	---	---	31.8	34.8	---	---	6.4
1986	---	---	---	---	42.8	49.3	---	---	6.0
1987	---	---	---	---	69.2	83.8	---	---	6.0
1988	---	---	---	---	20.5	89.5	---	---	5.2
1989 to comp	---	---	---	---	70.5	93.8	---	---	4.8
TOTAL	---	---	---	---	2099.2	2937.6	---	---	4.8
					2499.7	3394.5			

APPROPRIATION: CONSTRUCTION - N/A

1/ Since spend-out rates are not shown, the escalation rates can not be used to verify the composite index.

2/ Data is based on FY85 President's Budget which is no longer valid. Current indications on program restructure may reduce this program below SAR thresholds.

3/ Program quantities have not yet been determined.

AF-9 WIS

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(0&A)823)
SYSTEM: WPMCS INFORMATION SYSTEM (WIS)

REPORT AS OF: September 30, 1984

INDEX

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F	CONTRACTOR COST	4
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AS OF DATE: September 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS:

a. Significant Highlights Since Last Report

The Development Evaluation Facility (DEF) was activated on 21 September 1984 with the installation of the Honeywell 6000 Computer. The Local Area Network (LAN) Functional Description draft was completed and will be finalized in November for coordination with users. A draft version of the (WIS) System Definition has also been completed. Source Selection has been completed and a contract award is being finalized for the Common User Contract. The refinement and translation of the Joint Chiefs of Staff's Required Operational Capabilities (ROCs) into Automated Data Processing (ADP) requirements were continued. These requirements will form the basis of the WIS baseline and baseline cost estimates.

b. Program Status

- (1) Percent program completed: No of Yrs funds have been appropriated $\frac{3}{8}$ = 38%
No of Yrs funds are expected to be appropriated $\frac{8}{8}$
- (2) Percent program cost appropriated: Total funds appropriated \$ 89.4M = 5%
Total funds planned to be appropriated \$1,724.0M

2. CHANGES SINCE LAST REPORT:

a. Operational and Technical Characteristics: None.

b. Schedule Milestones:

Adjustment in the Common User Contract Award Date (from Jun 84 to Oct 84) is due to: (1) late receipt of user requirements/comments into the final Request for Proposal (RFP) and a corresponding extension of the RFP period to allow vendors to prepare their proposals; and (2) complexity of the Source Selection process (i.e., pre-award demonstrations/qualifications, etc.).

Adjustment in the System Support Contract* Award Date (from Jul 84 to Jan 85) is attributed to change in procurement strategy brought about as a result of a determination by the Small Business Advisor, that the procurement of this effort should be accomplished as a Small Business Program set-aside (8-A).

Adjustment in the start of Operational Test and Evaluation (from Sep 86 to Jan 87) is due to slip in award of the Common User Contract.

* Name changed to System Support Contract in Jan 84; this effort was initially reported under the 31 Dec 83 Comprehensive SAR as the Independent Verification and Validation Contract.

BQ. SUMMARY (Continued)

c. Program Acquisition Cost:	<u>PREVIOUS EST</u>	<u>CHANGE</u>	<u>CURRENT EST</u>
(1) Total			
(a) Quantity*	N/A	N/A	N/A
(b) Cost (then-year dollars)	1,724.0	-	1,724.0
(c) Program Unit Cost (then-year dollars)*	N/A	N/A	N/A
(2) FY 84 Procurement Costs:			
(a) Quantity*	N/A	N/A	N/A
(b) Cost (then-year dollars)			
Procurement Cost	5.5	-	5.5
Less CY Advance Proc.	-	-	-
Plus PY Advance Proc.	-	-	-
Total	5.5	-	5.5
(c) Procurement Unit Cost (then-year dollars)*	N/A	N/A	N/A

* The appropriateness of defining a WIS unit is undetermined at this time. However, determination of a WIS unit will be addressed at DSARC II in May 1985.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: NMICCS INFORMATION SYSTEM (WIS)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1982

E8. COST VARIANCE ANALYSIS - WIS

(Dollars in Millions)

1. Summary

	Base Year/FY 82 Constant \$					ESC	TOTAL	REMARKS
	DEV	PROC	CONST	O&M	SUBTOTAL			
Planning Estimate	529.4	553.6	1.9	237.5	1,322.4	397.7	1,720.1	Esc: Dev. 134.5; Proc. 189.3; Const. 0.5; O&M. 73.4
Previous Changes								
Engineering	+3.5	-	-	-	+3.5	+0.4	+3.9	Esc: Dev. +0.4
Estimating	-0.1	-0.2	-	-	-0.3	+0.3	-	Esc: Dev. +0.1; Proc. +0.2
Subtotal	+3.4	-0.2	-	-	+3.2	+0.7	+3.9	Esc: Dev. +0.5; Proc. +0.2
Current Changes	-	-	-	-	-	-	-	
Total Changes	+3.4	-0.2	-	-	+3.2	+0.7	+3.9	Esc: Dev. +0.5; Proc. +0.2
Current Estimate	532.8	553.4	1.9	237.5	1,325.6	398.4	1,724.0	Esc: Dev. 135.0; Proc. 189.5; Const. 0.5; O&M. 73.4

2. Changes Since Previous Report: None.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WWMCCS Information System (WIS)
(\$ In Millions)

AS OF DATE: September 30, 1984

F. <u>CONTRACTOR COSTS</u>	(1)			(2)			(3)	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor</u>	<u>Program Mgrs</u>
							<u>Estimate</u>	<u>Estimates</u>
1. <u>Development</u>								
General Telephone and Electronics Corp (GTE)	36.6	N/A	N/A	36.6	N/A	N/A	36.6	36.6

CONTRACT IDENTIFICATION

General Telephone and Electronics Corp (GTE), Contract F19628-84-C-0032, 25 October 1983, Cost Plus/Award Fee, Definitized (Development).

2. VARIANCE ANALYSIS

<u>Development</u>	<u>Variance</u>	<u>CUM THRU</u>	<u>CUM THRU</u>	<u>Change</u>
		<u>27 Apr 1984</u>	<u>31 Aug 1984</u>	
General Telephone and	<u>Cost</u>	\$-0.6	\$-3.1	\$-2.5
Electronics Corp. (GTE)	<u>Schedule</u>	\$-1.4	\$-2.2	\$-0.8
F19628-84-C-0032				

Change in cost variance is attributable to underestimation of the effort required to prepare Functional Descriptions and the use of extensive high-level engineering expertise required in formulating program scope and direction to manage the contract.

Change in schedule variance is attributable to construction delay at the Development Evaluation Facility (DEF) and computer related facilities tasks, deferred computerized modeling activity for Reliability/Availability Standards, and rework of original Engineering Analysis Tasks.

The cost variance has been considered in the estimate at completion. The schedule variance will result in a slip in the contract estimated completion date of approximately one month.

+ = Favorable, - = Unfavorable

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WNMCCS INFORMATION SYSTEM (WIS)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1982

WIS PROGRAM FUNDING SUMMARY - WIS

(Dollars in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADY PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	13.6	14.0	14.0	14.0	9.2
1983	-	-	-	-	16.6	17.8	17.8	15.2	5.0
1984	-	-	-	-	41.5	46.5	30.7	21.2	4.3
1985	-	-	-	-	64.3	75.4	-	-	4.9
1986	-	-	-	-	98.6	120.8	-	-	4.6
1987	-	-	-	-	123.6	157.7	-	-	4.3
1988	-	-	-	-	88.6	117.5	-	-	4.0
1989	-	-	-	-	86.0	118.1	-	-	3.7
TOTAL	0	0	0	0	532.8	667.8	62.5	50.4	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	5.0	5.6	5.6	5.6	5.0
1984	-	-	-	-	4.7	5.5	5.1	5.1	4.3
1985	-	-	-	-	22.6	27.7	-	-	4.9
1986	-	-	-	-	103.1	131.4	-	-	4.6
1987	-	-	-	-	154.6	205.0	-	-	4.3
1988	-	-	-	-	152.0	208.9	-	-	4.0
1989	-	-	-	-	111.4	158.8	-	-	3.7
TOTAL	0	0	0	0	553.4	742.9	10.7	10.7	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	1.9	2.4	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	1.9	2.4	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	.3	.4	-	-	4.9
1986	-	-	-	-	35.1	42.7	-	-	4.6
1987	-	-	-	-	53.2	67.6	-	-	4.3
1988	-	-	-	-	69.1	91.1	-	-	4.0
1989	-	-	-	-	79.8	109.1	-	-	3.7
TOTAL	0	0	0	0	237.5	310.9	0	0	-

*Does not reflect program cost related to JOPES, WIS, and AMH ROCs. The WIS Program Development Estimate will be approved in 3rd Qtr FY 85 and include these costs. Program cost for years beyond the FYDP have not been determined.

QUARTERLY ~~SYSTEM~~ ACQUISITION REPORT
SYSTEM: ~~MMMC~~ INFORMATION SYSTEM (MIS)

G. PROGRAM FUNDING SUMMARY - ARMY

(Dollars in Millions)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1982

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					2/

APPROPRIATION: RDT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	11.8	13.2	7.1	2.8	4.3
1985	-	-	-	-	23.2	27.2	-	-	4.9
1986	-	-	-	-	26.5	32.5	-	-	4.6
1987	-	-	-	-	33.0	42.1	-	-	4.3
1988	-	-	-	-	30.0	39.8	-	-	4.0
1989	-	-	-	-	32.2	44.2	-	-	3.7
TOTAL	0	0	0	0	156.7	199.0	7.1	2.8	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	5.0	5.6	5.6	5.6	5.0
1984	-	-	-	-	4.7	5.5	5.1	5.1	4.3
1985	-	-	-	-	14.4	17.6	-	-	4.9
1986	-	-	-	-	24.0	30.6	-	-	4.6
1987	-	-	-	-	37.9	50.3	-	-	4.3
1988	-	-	-	-	57.9	79.6	-	-	4.0
1989	-	-	-	-	32.1	45.8	-	-	3.7
TOTAL	0	0	0	0	176.0	235.0	10.7	10.7	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: D&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

QUARTERLY SELECTION ACQUISITION REPORT
SYSTEM: MMCCS ION SYSTEM (WIS)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1982

G. *PROGRAM FUNDING SUMMARY - NAVY

(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: ROT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	7.4	8.3	8.3	6.9	4.3
1985	-	-	-	-	12.7	14.9	-	-	4.9
1986	-	-	-	-	26.5	32.5	-	-	4.6
1987	-	-	-	-	15.7	20.0	-	-	4.3
1988	-	-	-	-	2.5	3.3	-	-	4.0
1989	-	-	-	-	2.7	3.7	-	-	3.7
TOTAL	0	0	0	0	67.5	82.7	8.3	6.9	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	31.6	40.3	-	-	4.6
1987	-	-	-	-	14.3	19.0	-	-	4.3
1988	-	-	-	-	5.7	7.8	-	-	4.0
1989	-	-	-	-	5.5	7.8	-	-	3.7
TOTAL	0	0	0	0	57.1	74.9	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	1.5	1.9	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	1.5	1.9	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

*The Navy has other programs to complete the cost of modernizing the functions currently on MMCCS ADP; these costs are excluded.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WMCCS INFORMATION SYSTEM (WIS)

AS OF DATE: September 30, 1984
 BASE YEAR: FY 1982

U. PROGRAM FUNDING SUMMARY - AIR FORCE

(Dollars in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	4.7	5.0	5.0	2.4	5.0
1984	-	-	-	-	22.3	25.0	15.3	11.5	4.3
1985	-	-	-	-	28.4	33.3	-	-	4.9
1986	-	-	-	-	45.6	55.8	-	-	4.6
1987	-	-	-	-	74.9	95.6	-	-	4.3
1988	-	-	-	-	56.1	74.4	-	-	4.0
1989	-	-	-	-	51.1	70.2	-	-	3.7
TOTAL	0	0	0	0	283.1	359.3	20.3	13.9	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	5.5	6.7	-	-	4.9
1986	-	-	-	-	29.9	38.1	-	-	4.6
1987	-	-	-	-	102.1	135.3	-	-	4.3
1988	-	-	-	-	72.9	100.2	-	-	4.0
1989	-	-	-	-	62.3	88.8	-	-	3.7
TOTAL	0	0	0	0	272.7	369.1	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	.4	.5	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	.4	.5	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	.3	.4	-	-	4.9
1986	-	-	-	-	35.1	42.7	-	-	4.6
1987	-	-	-	-	53.2	67.6	-	-	4.3
1988	-	-	-	-	69.1	91.1	-	-	4.0
1989	-	-	-	-	79.8	109.1	-	-	3.7
TOTAL	0	0	0	0	237.5	310.9	0	0	-

*The Air Force has other programs to complete the cost of modernizing the functions currently on WMCCS ADP; these costs are excluded. Some programmed dollars included in this SAR may not remain a part of future WIS SARs.

QUARTERLY SELECTED TION REPORT
SYSTEM: MMCCS INFOR SYSTEM (WIS)

G. PROGRAM FUNDING SUMMARY - MARINE CORPS

(Dollars in Millions)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1982

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: ROT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	.3	.4	-	-	4.9
1986	-	-	-	-	3.3	4.2	-	-	4.6
1987	-	-	-	-	.3	.4	-	-	4.3
1988	-	-	-	-	.3	.4	-	-	4.0
1989	-	-	-	-	.1	.2	-	-	3.7
TOTAL	0	0	0	0	4.3	5.6	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

QUARTERLY SELECT ACQUISITION REPORT
SYSTEM: WWMCCS ACQUISITION SYSTEM (WIS)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1982

6. PROGRAM FUNDING SUMMARY - DCA

(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: ROT&E

1982	-	-	-	-	13.6	14.0	14.0	14.0	9.2
1983	-	-	-	-	11.9	12.8	12.8	12.8	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	25.5	26.8	26.8	26.8	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	2.4	3.0	-	-	4.9
1986	-	-	-	-	14.3	18.2	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	12.9	17.7	-	-	4.0
1989	-	-	-	-	11.4	16.2	-	-	3.7
TOTAL	0	0	0	0	41.0	55.1	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: O&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

QUARTERLY SELECTED ACCOUNTING REPORT
SYSTEM: WNMCCS INFORMAT -- ITEM (WIS)

AS OF DATE: September 30, 1984
BASE YEAR: FY 1982

G. PROGRAM FUNDING SUMMARY - DNA

(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: RDT&E

1982	-	-	-	-	-	-	-	-	9.2
1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: OTHER PROCUREMENT

1983	-	-	-	-	-	-	-	-	5.0
1984	-	-	-	-	-	-	-	-	4.3
1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	2.3	3.2	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	2.3	3.2	0	0	-

APPROPRIATION: CONSTRUCTION

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

APPROPRIATION: D&M

1985	-	-	-	-	-	-	-	-	4.9
1986	-	-	-	-	-	-	-	-	4.6
1987	-	-	-	-	-	-	-	-	4.3
1988	-	-	-	-	-	-	-	-	4.0
1989	-	-	-	-	-	-	-	-	3.7
TOTAL	0	0	0	0	0	0	0	0	-

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: WWMCCS INFORMATION SYSTEM (WIS)

AS OF DATE: September 30, 1984

G. PROGRAM FUNDING SUMMARY

- 1/ Reflects Service/Agency records as of 30 September 1984.
- 2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

AF-7 PLSS

QUARTERLY SELECTED ACQUISITION REPORT
(RCS: DD-COMP (Q&A) 823)
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

REPORT AS OF: 30 SEPTEMBER 1984

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QUARTERLY ALLOCATED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

REPORT AS OF: 30 SEPTEMBER 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

a. SIGNIFICANT HIGHLIGHTS SINCE LAST REPORT

The FSD rephase proposal was negotiated in May 1984. The Production RFP was released on 20 June 1984, and the Production Advance Buy Contract was awarded on 2 July 1984.

b. PROGRAM STATUS

(1) PERCENT PROGRAM COMPLETED: 13./ 18. = 72.222%

(2) PERCENT PROGRAM COST APPROPRIATED: 476.20/ 1095.40 = 43.473%

2. CHANGES SINCE LAST REPORT

a. OPERATIONAL AND TECHNICAL CHARACTERISTICS:
None.

b. SCHEDULE MILESTONES:

Start Combined DT&E and IOT&E, Jan 85

Complete Combined DT&E and IOT&E, Jan 86

Start FOT&E, Feb 86

Early Release of Production Funds, Jan 85

Production Contract Award, Mar 85

Production Decision (AFSARC IIIB), Aug 85

Initial Operational Capability (IOC), TBD

Schedule milestone changes are due to a delay in contractor flight testing. Flight hardware was diverted to perform ground system software integration.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

REPORT AS OF: 30 SEPTEMBER 1984

BQ. SUMMARY (CONTINUED)

2. CHANGES SINCE LAST REPORT

c. PROGRAM ACQUISITION COST:	PREVIOUS EST	CHANGE	CURRENT EST
(1) TOTAL			
(a) QUANTITY	2.	0.	2.
(b) COST (THEN-YEAR DOLLARS)	1091.50	3.90	1095.40
(c) PROGRAM UNIT COST (THEN-YEAR DOLLARS)	545.7500	1.9500	547.7000
(2) FY 1984 PROCUREMENT COSTS:			
(a) QUANTITY	0.	0.	0.
(b) COST (THEN-YEAR DOLLARS)			
PROCUREMENT COST	27.10	0.00	27.10
LESS CY ADVANCE PROC.	0.00	0.00	0.00
PLUS PY ADVANCE PROC.	0.00	0.00	0.00
TOTAL	27.10	0.00	27.10
(c) PROCUREMENT UNIT COST (THEN-YEAR DOLLARS)	N/A	N/A	N/A

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

REPORT AS OF: 30 SEPTEMBER 1984

BASE YEAR: FY 1977

(Dollars in Millions)

E8. COST VARIANCE ANALYSIS

1. SUMMARY

	Base Year Constant \$				ESC	TOTAL	REMARKS		
	DEV	PROC	CONST	SUBTOTAL			DEV	PROC	CONST
DEVELOPMENT ESTIMATE	416.6	208.6	10.3	635.5	456.0	1091.5	Esc:	228.1	218.0 9.9
PREVIOUS CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc:	--	-- --
QUANTITY	--	--	--	--	--	--	Esc:	--	-- --
SCHEDULE	--	--	--	--	--	--	Esc:	--	-- --
ENGINEERING	--	--	--	--	--	--	Esc:	--	-- --
ESTIMATING	--	--	--	--	--	--	Esc:	--	-- --
OTHER	--	--	--	--	--	--	Esc:	--	-- --
SUPPORT	--	--	--	--	--	--	Esc:	--	-- --
SUBTOTAL	--	--	--	--	--	--	Esc:	--	-- --
CURRENT CHANGES									
ECONOMIC	--	--	--	--	--	--	Esc:	--	-- --
QUANTITY	--	--	--	--	--	--	Esc:	--	-- --
SCHEDULE	--	--	--	--	--	--	Esc:	--	-- --
ENGINEERING	--	--	--	--	--	--	Esc:	--	-- --
ESTIMATING	2.2	--	--	2.2	1.7	3.9	Esc:	1.7	-- --
OTHER	--	--	--	--	--	--	Esc:	--	-- --
SUPPORT	--	--	--	--	--	--	Esc:	--	-- --
SUBTOTAL	2.2	--	--	2.2	1.7	3.9	Esc:	1.7	-- --
TOTAL CHANGES	2.2	--	--	2.2	1.7	3.9	Esc:	1.7	-- --
CURRENT ESTIMATE	418.8	208.6	10.3	637.7	457.7	1095.4	Esc:	229.8	218.0 9.9

416.6 208.6 10.3
228.1 218.0 9.9
644.7 426.6 20.2

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977

E8. COST VARIANCE ANALYSIS (Continued)

(Dollars in Millions)

3. Changes Since Previous Report:

The current estimate for total program acquisition cost changed as follows:

	Base Year \$	Current \$
DEVELOPMENT		
ESTIMATING:		
Provides FY84 funding for increased costs in software development.	2.2	3.9
TOTAL DEVELOPMENT	2.2	3.9
TOTAL PROGRAM COST CHANGE	2.2	3.9

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

REPORT AS OF: 30 SEPTEMBER 1984

F. CONTRACTOR COSTS	(Dollars in Millions)						(3)	
	(1)			(2)			Price At Completion	
	<u>Initial Contract Price</u>	<u>Target Ceiling</u>	<u>Qty</u>	<u>Current Contract Price</u>	<u>Target Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgrs. Estimate</u>
1. DEVELOPMENT								
Lockheed Missiles & Space Company, Inc.	120.1	N/A	1	310.4 1/ (Ch-F1)	N/A	1	428.4 1/ (Ch-F1)	453.5 (Ch-F1)
Softech, Inc.	3.6	N/A	N/A	11.7 (Ch-F2)	N/A	N/A	11.7 2/ (Ch-F2)	11.7 (Ch-F2)

1/ Current Target and contractor estimates were reported in 24 Jun 84 CPR.

2/ Contractor estimate from C/SSR dated 31 Jul 84.

CONTRACT IDENTIFICATION

1. Lockheed Missiles & Space Company, Inc. - Contract F33657-77-C-0330, September 1977, Cost Plus Incentive Fee, Definitized (Development).
2. Softech, Inc. - Contract F33657-78-C-0037, November 1977, Cost Plus Fixed Fee, Definitized (Development).

VARIANCE ANALYSIS

1. Changes Since Previous Report:

Ch-F1 LMSC target price and both prices at completion updated to incorporate negotiated rephase proposal. Overtarget baseline approval in process.

Ch-F2 Softech target price and both prices at completion updated to incorporate LMSC's negotiated rephase proposal.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

REPORT AS OF: 30 SEPTEMBER 1984
(Dollars in Millions)

F. CONTRACTOR COSTS (Continued)

DEVELOPMENT

	CUM THRU 27 Nov 83	CUM THRU 24 Jun 84	CHANGE
Lockheed Missiles & Space Division			\$
Cost Variance	-35.3	--	35.3
Schedule Variance	-15.1	--	15.1

Cost and schedule variance change due to incorporating overtarget baseline in Jun CPR.
Schedule impact identified in schedule milestone section. No cost impact due to implementing zero cost growth alternatives.

+ = Favorable
- = Unfavorable

QUARTERLY BUDGETED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1972	--	--	--	--	0.4	0.4	0.4	0.4	--
1973	--	--	--	--	0.8	0.8	0.8	0.8	--
1974	--	--	--	--	3.7	3.7	3.7	3.7	--
1975	--	--	--	--	3.0	3.0	3.0	3.0	--
1976	--	--	--	--	6.3	6.3	6.3	6.3	--
1977	--	--	--	--	0.9	0.9	0.9	0.9	--
1977	--	--	--	--	12.8	13.6	13.6	13.6	--
1978	--	--	--	--	27.7	30.5	30.5	30.5	7.3
1979	--	--	--	--	65.5	79.1	79.1	79.1	8.4
1980	--	--	--	--	9.3	12.3	12.3	12.3	9.4
1981	--	--	--	--	42.2	62.7	62.7	62.7	11.9
1982	--	--	--	--	50.6	80.9	80.9	79.5	9.2
1983	--	--	--	--	47.1	78.5	78.5	77.6	5.0
1984	--	--	--	--	41.9	72.9	71.2	47.2	4.3
1985	--	--	--	--	45.5	83.0	--	--	4.9
1986	--	--	--	--	33.2	63.3	--	--	4.6
1987	--	--	--	--	14.0	27.8	--	--	4.3
1988	--	--	--	--	6.0	12.1	--	--	4.0
1989	--	--	--	--	7.9	16.8	--	--	3.7
TOTAL	1.0	--	--	--	418.8	648.6	443.9	417.6	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	3/ QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
1982	--	--	--	--	1.0	1.7	1.7	1.6	9.6
1983	--	--	--	--	1.0	1.8	1.8	1.0	9.0
1984	--	--	--	4.5	4.5	8.8	8.8	--	5.6
1985	--	--	2.8	33.0	62.8	129.3	--	--	6.4
1986	1.0	--	--	36.1	51.4	111.6	--	--	6.0
1987	--	--	--	--	4.8	11.0	--	--	5.6
1988	--	--	--	--	1.0	2.5	--	--	5.2
1989	--	--	--	--	0.7	1.7	--	--	4.8
TOTAL	1.0	--	2.8	73.6	127.2	268.4	12.3	2.6	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

3/ Procurement quantities equate to two production systems which includes one RDT&E system updated and refurbished to production configuration. Ground and aircraft subsystems comprise each complete PLSS configuration.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT - OTHER

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1984	--	--	--	10.0	10.0	18.3	18.3	0.3	4.3
1985	--	--	2.1	31.6	40.4	77.4	--	--	4.9
1986	--	--	--	16.8	24.7	49.3	--	--	4.6
1987	--	--	--	--	4.2	8.6	--	--	4.3
1988	--	--	--	--	1.3	2.8	--	--	4.0
1989	--	--	--	--	0.8	1.8	--	--	3.7
TOTAL	--	--	2.1	58.4	81.4	158.2	18.3	0.3	

1/ Reflects program office records as of 30 September 1984.

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: PRECISION LOCATION STRIKE SYSTEM (PLSS)

G. PROGRAM FUNDING SUMMARY

REPORT AS OF: 30 SEPTEMBER 1984
BASE YEAR: FY 1977
CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE % <u>2/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED <u>1/</u>	EXPENDED <u>1/</u>	
			NON-REC	REC					
1985	--	--	--	--	8.0	15.6	--	--	4.9
1986	--	--	--	--	2.3	4.6	--	--	4.6
TOTAL	--	--	--	--	10.3	20.2	--	--	

1/ Reflects program office records as of 30 SEPTEMBER 1984

2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

UNCLASSIFIED

N-2 Battleship REACT.

QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
SYSTEM: BATTLESHIP REACTIVATION

REPORT AS OF: SEPTEMBER 30, 1984

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD - PA)
DEPARTMENT OF DEFENSE

OASD(PA) DFOISR 84-T-1815

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SHR-84-136

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: BATTLESHIP REACTIVATION

REPORT AS OF: SEPTEMBER 30, 1984

BQ. (U) SUMMARY1. PROGRAM HIGHLIGHTS:

a. Significant Highlights Since Last Report:

The MISSOURI (BB-63) received full funding by the FY84 Supplemental Appropriation.
 The pre-production effort on the MISSOURI began at Long Beach Naval Shipyard.

b. Program Status:

- (1) Percent program completed: 40% or four of ten years.
- (2) Percent program cost appropriated: 69.4%
- (3) Sunk cost: Total program cost is \$1,822.2 of which \$984.1 are sunk costs (total obligations as of September 30, 1984) and \$838.1 is the cost to complete.

2. CHANGES SINCE LAST REPORT:

a. Operational and Technical Characteristics: None

b. Schedule Milestones: None

c. Program Acquisition Costs (\$ in millions):

	PREVIOUS EST	CHANGE	CURRENT EST
(1) Total	4	-	4
(a) Quantity			
(b) Cost (then-year dollars)	\$1,899.5	-77.3	\$1,822.2
(c) Program Unit Cost (then-year dollars)	474.9	-19.3	455.6
(2) FY84 Procurement Costs			
(a) Quantity	0	+1	1
(b) Procurement Cost (then-year dollars)	137.1	+336.2	473.3
Less CY Advanced Proc.	-131.1	-	-131.1
Plus PY Advanced Proc.	-	-	-
Less CG/ESC/OF/PD	-6.0	-	-6.0
Total	0.0	+336.2	336.2
(c) Procurement Unit Cost (then-year dollars)	N/A		473.3

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: SEPTEMBER 30, 1984
 BASE YEAR: FY 1982

E.8 (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary

	Base Year/FY82 Constant \$					<u>Total</u>	<u>Remarks</u>
	<u>Devel</u>	<u>Proc</u>	<u>Const</u>	<u>Subtotal</u>	<u>Escal</u>		
Production Estimate	\$19.4	\$1,457.3	--	\$1,476.7	\$399.9	\$1,876.6	ESC: Dev \$1.9 Proc \$398.0
Previous Changes							
Economic	--	--	--	--	-89.3	-89.3	ESC: Dev -0.3 Proc -89.0
Quantity	--	--	--	--	--	--	
Schedule	+1.5	+84.2	--	+85.7	+44.2	+129.9	ESC: Dev +0.5 Proc +43.7
Engineering	--	--	--	--	--	--	
Estimating	+0.8	-13.7	--	-12.9	-4.8	-17.7	ESC: Dev +0.1 Proc -4.9
Other	--	--	--	--	--	--	
Support	--	--	--	--	--	--	
Subtotal	+2.3	+70.5	--	+72.8	-49.9	+22.9	ESC: Dev +0.3 Proc -50.2
Current Changes							
Estimating	-1.5	-39.6	--	-41.1	-36.2	-77.3	ESC: Dev -0.5 Proc -35.7
Total Changes	+0.8	+30.9	--	+31.7	-86.1	-54.4	ESC: Dev -0.2 Proc -85.9
Current Estimate	\$20.2	\$1,488.2	--	\$1,508.4	\$313.8	\$1,822.2	ESC: Dev \$1.7 Proc \$312.1

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q) 823)
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: SEPTEMBER 30, 1984
 BASE YEAR: FY 1982

E.8 (U) COST VARIANCE ANALYSIS (continued)

(Dollars in Millions)

2. Previous Changes:

DEVELOPMENT

Economic: Revised escalation indices (OSD Jan 1984) reduce then year dollar estimates
 Schedule: Accelerate IOWA delivery, Shift WISCONSIN from FY86 to FY87
 Estimating: Update of program funding profile reflecting IOWA actuals and MISSOURI acceleration

PROCUREMENT

Economic: Revised escalation indices (OSD Jan 1984) reduce then year dollar estimates
 Schedule: Accelerate IOWA delivery, Shift WISCONSIN from FY86 to FY87
 Transfer \$73.4 million FY85 FF to FY84 AP to facilitate advanced MISSOURI delivery date
 Estimating: Update of program funding profile reflecting IOWA actuals and MISSOURI acceleration

3. Changes Since Previous Report:

DEVELOPMENT

Estimating: The change in WISCONSIN end cost estimate includes the unspecified DRB reduction in funding.

Base Year \$

Current \$

-1.5

-2.0

PROCUREMENT

Estimating: MISSOURI received full funding by FY84 Supplemental Appropriation. The change in WISCONSIN end cost estimate includes the unspecified DRB reduction in funding.

-39.6

-75.3

TOTAL PROGRAM COST CHANGE

-41.1

-77.3

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q) 823)
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: SEPTEMBER 30, 1984

		(1)		(2)			(3)	
		INITIAL CONTRACT		CURRENT CONTRACT	PRICE		PRICE AT COMPLETION	
F. (U)	<u>CONTRACTOR COSTS</u>	<u>PRICE</u>	<u>QTY</u>	<u>TARGET</u>	<u>CEILING</u>	<u>QTY</u>	<u>CONTRACTOR ESTIMATE</u>	<u>PROG MGR ESTIMATE</u>
1.	<u>PROCUREMENT</u>							
Ch-F1	John J. McMullen Assoc., Inc. New York, New York N00024-84-C-2226, CPFF awarded Sep 1984	9.6	-	9.6	9.6	-	9.6	9.6
Ch-F2	Ingalls Shipbuilding Division Pascagoula, Mississippi N00024-84-C-2015, CPAF awarded Sep 1984	2.6	-	2.6	2.6	-	2.6	2.6
Ch-F3	Systems Engineering Assoc. Corp. (SEACOR) Philadelphia, Pennsylvania N00024-84-C-2153, CPFF awarded Jul 1984	2.2	-	2.2	2.2	-	2.2	2.2

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QUARTERLY SELECTED ACQUISITION REPORT (RCS DD-COMP(Q) 823)
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: SEPTEMBER 30, 1984

F. (U) CONTRACTOR COSTS (continued)

2. Cost/Schedule Variances:

CPR data not available for above contracts

3. Changes Since The Previous Report:

The pre-production effort on the MISSOURI began at Long Beach Naval Shipyard.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: BATTLESHIP REACTIVATION

AS OF DATE: SEPTEMBER 30, 1984
 BASE YEAR: FY 1982

G. (U) PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR			ESCALATED \$	OBLIGATED \$	EXPENDED \$	ESCALATION RATE % 1/
		ADV PROC (NON-ADD) \$	SAIL-AWAY (NON-ADD) \$	TOTAL \$				
APPROPRIATION: RDT&E								
1981				3.2	3.1	3.2	3.0	11.90
1982	-			3.8	3.9	3.5	3.0	7.60
1983	-			5.3	5.7	5.3	3.8	4.90
1984	-			2.9	3.2	1.3	-	4.30
1985	-			3.4	4.0	-	-	4.90
1986	-			1.6	2.0	-	-	4.60
1987	-			-	-	-	-	4.30
TOTAL	-			20.2	21.9	13.3	9.8	
APPROPRIATION: PROCUREMENT								
1981	-	86.1	86.1	86.1	89.0	88.1	82.1	11.90
1982	1	81.4	300.4	308.1	333.3	319.3	285.5	4.40
1983	1	-	276.0	309.5	352.9	295.8	245.4	3.40
1984	1	108.6	387.0	392.0	473.3	267.6	33.4	5.59
1985	-	-	-	9.9	12.6	-	-	6.37
1986	-	39.8	39.8	56.2	75.6	-	-	5.98
1987	1	-	298.8	308.1	435.6	-	-	5.59
1988	-	-	-	4.8	7.1	-	-	5.20
1989	-	-	-	12.8	19.9	-	-	4.81
1990	-	-	-	.6	1.0	-	-	4.81
TOTAL	4	315.9	1,388.2	1,488.2	1,800.3	970.8	646.4	
APPROPRIATION: CONSTRUCTION								
TOTAL	-	-	-	-	-	-	-	-

1/ Since the outlay rates are not included, the escalation rates alone cannot be used to verify the composite indices.

UNCLASSIFIED

N-4 F-14

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: F-14A/D

REPORT AS OF: September 30, 1984

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54R-84-140

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

UNCLASSIFIED

AS OF DATE: September 30, 1984

BQ. SUMMARY

1. PROGRAM HIGHLIGHTS

- a. Significant Highlights Since Last Report: None.
- b. Program Status:
 - (1) Percent program completed: 53.3% or 16 of 30 years
 - (2) Percent program cost appropriated: 34.2%
 - (3) Sunk Costs: Total program cost is \$38,218.7 of which \$12,881.1 are sunk costs (obligations as of September 30, 1984) and \$25,337.6 is the cost to complete.

2. CHANGES SINCE LAST REPORT

- a. Operational and Technical Characteristics: None.
- b. Schedule Milestones: None.

c. Program Acquisition Costs:	PREVIOUS EST.	CHANGE	CURRENT EST.
(1) Total			
(a) Quantity	899	-	899
(b) Cost (then-year dollars)	\$38,231.8	-13.1	\$38,218.7
(c) Program Unit Cost (then-year dollars)	42.527	-0.015	42.512
 (2) FY84 Procurement Costs			
(a) Quantity	24	-	24
(b) Cost (then-year dollars)			
Procurement Cost	(\$986.3)	-12.3	(974.0)
Less CY Advanced Proc.	(-178.8)	-	(-178.8)
Plus PY Advanced Proc.	(+202.3)	-	(+202.3)
Total	1009.8	-12.3	997.5
(c) Procurement Unit Cost (then year dollars)	42.075	-0.512	41.563

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: September 30, 1984
BASE YEAR: FY 1969

E.8 (U) COST VARIANCE ANALYSIS

(Dollars in Millions)

1. Summary	Base Year/FY69 Constant \$				ESC	TOTAL	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Development Estimate	\$899.5	\$4491.9	--	\$5391.4	\$774.6	\$6166.0	Esc: Dev +74.5 Proc +700.1 Const --
F-14A	(678.0)						Esc: Dev (+51.2) Proc (+700.1) Const --
F-14B	(221.5)						Esc: Dev (+23.3) Proc -- Const --
Previous Changes							
Economic	--	--	--	--	-119.7	-119.7	Esc: Dev +147.1 Proc -269.6 Const +2.8
Quantity	+287.5	+5204.8	--	+5492.3	+16245.7	+21738.0	Esc: Dev +9.4 Proc +16236.3 Const --
Schedule	+97.2	+180.6	--	+277.8	+1909.9	+2187.7	Esc: Dev +12.2 Proc +1897.7 Const --
Engineering	+537.1	+761.8	--	+1298.9	+3511.6	+4810.5	Esc: Dev +948.0 Proc +2563.6 Const --
Estimating	+27.4	-598.6	-1.1	-572.3	-1911.7	-2484.0	Esc: Dev +23.5 Proc -1934.5 Const -0.7
Support	--	+1589.2	+7.0	+1596.2	+4257.4	+5853.6	Esc: Dev -- Proc +4255.3 Const +2.1
Other	+73.8	--	--	+73.8	+5.9	+79.7	Esc: Dev +5.9 Proc -- Const --
Subtotal	+1023.0	+7137.8	+5.9	+8166.7	+23899.1	+32065.8	Esc: Dev +1146.1 Proc +22748.8 Const +4.2
Current Changes							
Estimating	-0.2	-118.4	--	-118.6	+118.2	-0.4	Esc: Dev -0.3 Proc +118.5 Const --
Support	--	-4.3	--	-4.3	-8.4	-12.7	Esc: Dev -- Proc -8.4 Const --
Subtotal	-0.2	-122.7	--	-122.9	+109.8	-13.1	Esc: Dev -0.3 Proc +110.1 Const --
Total Changes	+1022.8	+7015.1	+5.9	+8043.8	+24008.9	+32052.7	Esc: Dev +1145.8 Proc +22858.9 Const +4.2
Current Estimate	\$1922.3	\$11507.0	\$5.9	\$13435.2	\$24783.5	\$38218.7	Esc: Dev +1220.3 Proc +23559.0 Const +4.2

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: September 30, 1984

E.8 COST VARIANCE ANALYSIS2. Previous Changes:DEVELOPMENT

Economic: Revised escalation rates.

Quantity: Change by Congress from PAMN to R&D funding for Lot II A/C; additional F-401 engines.

Schedule: Delays in F-14A and F-14B R&D schedules.

Engineering: Advance Engine development; engine component improvement, PSP/TIS program, Radar /Avionics Upgrade with new F110 engine (F-14D).

Estimating: Revisions due to better definition of the development program changes and recoupments, reprogrammings, roundings and refinement in pricing.

Other: Funding Grumman to ceiling; cost overrun on F-401/F-14B program.

PROCUREMENT

Economic: Revised escalation rates.

Quantity: Increase from 307 to 899 aircraft.

Schedule: Fluxuations in production rates and extension of program.

Engineering: (Various program and configuration changes including production incorporation of various DOD directed programs.

Estimating: Various repricings due to more current information.

Support: Repricing, realignments. and spare adjustments; additional squadron and carrier outfitting and additional sites due to extension of program.

CONSTRUCTION

Economic: Revised Escalation Indices

Estimating: Rounding adjustment. Adjustment to actual obligation.

UNCLASSIFIED

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

E.8 COST VARIANCE ANALYSIS (Cont.)

AS OF DATE: September 30, 1984

3. Changes Since Previous Report:

	<u>BASE YEAR \$</u>	<u>CURRENT \$</u>
<u>DEVELOPMENT</u>		
Estimating: Reduction in FY 84 TIS funding (0.5) due to reprogramming.	-0.2	-0.5
<u>PROCUREMENT</u>		
Estimating: Revised method of reflecting Advance Procurement in Base-Year dollars.	-118.4	+0.1
Support: Reduction in FY 84 (-12.3) due to unanticipated savings (8.6) achieved during engine negotiations and (3.7) reprogramming (2.5) to E-2C and (1.2) to ASO replenishment. FY 76-81 (-0.4) due to posting.	<u>-4.3</u>	<u>-12.7</u>
TOTAL Procurement Cost Changes	<u>-122.7</u>	<u>-12.6</u>
TOTAL PROGRAM COST CHANGES	<u>-122.9</u>	<u>-13.1</u>

UNCLASSIFIED

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A

AS OF DATE: September 30, 1984

F. <u>CONTRACTOR COSTS</u>	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>	<u>Program Mgr's. Estimate</u>
 2. <u>PROCUREMENT</u>								
Grumman Aero. Corp. N00019-81-C-0003 (FFP)* (FY 1982) dtd 3 Dec 80	\$555.7		30	N/A	555.7	30	555.7	555.7
Grumman Aero. Corp. N00019-82-C-0001 (FFP)* (FY 1983) dtd 23 Oct 81	\$522.9		24	N/A	522.9	24	522.9	522.9
Grumman Aero. Corp. N00019-83-C-0008 (FFP)* (FY 1984) dtd 29 Dec 82	\$521.2		24	N/A	521.2	24	521.2	521.2
Hughes Aircraft Co. N00019-82-C-0006 (FFP)* (FY 1983 AWG-9) dtd 27 Nov 81	\$ 97.1		30	N/A	97.1	30	97.1	97.1
Hughes Aircraft Co. N00019-83-C-0002 (FFP)* (FY 1984) dtd 29 Dec 82	\$ 95.0		24	N/A	95.0	24	95.0	95.0
Grumman Aero. Corp. N00019-84-C-0001 (AAC)# (FY 1985) dtd 26 Nov 83	\$543.0		24	N/A	543.0	24	543.0	543.0
 2. <u>VARIANCE ANALYSIS</u>								
a. <u>Cost/Schedule Variance</u>	None							
b. <u>Changes Since Previous Report</u>	None							

* Firm Fixed Price contracts do not have Targets or Ceilings.

Advance Acquisition Contracts. (A fully structured contract initially containing advance procurement funds which is converted to an FFP contract in the full funding year.)

UNCLASSIFIED

QUARTERLY ~~S~~ ED ACQUISITION REPORT
ITEM: F-14A/D

UNCLASSIFIED

AS OF DATE: September 30, 1984
Base Year: FY 1969

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS			THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%)	
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED		EXPENDED
			NON-REC	REC					
APPROPRIATION: RDT&E									
1969	12	-	-	-	168.7	172.5	172.5	172.4	1.0
1970	-	-	-	-	479.7	512.2	511.9	511.7	3.0
1971	-	-	-	-	308.1	342.1	342.1	341.0	3.0
1972	-	-	-	-	195.9	226.0	225.9	225.3	3.3
1973	-	-	-	-	132.5	160.4	159.9	159.2	4.5
1974	-	-	-	-	42.0	54.2	53.5	53.2	4.8
1975	-	-	-	-	10.0	13.9	13.9	13.5	5.0
1976	-	-	-	-	0.7	1.0	1.0	1.0	9.0
1977	-	-	-	-	1.0	1.6	1.6	1.6	2.0
1977	-	-	-	-	1.5	2.4	2.4	2.3	7.0
1978	-	-	-	-	21.2	36.6	36.6	36.4	6.8
1979	-	-	-	-	10.7	20.4	20.4	20.2	6.8
1980	-	-	-	-	12.4	26.1	26.1	26.0	9.4
1981	-	-	-	-	15.5	35.9	35.9	35.5	11.9
1982	-	-	-	-	8.0	19.5	19.5	18.4	7.6
1983	-	-	-	-	8.5	21.6	21.6	12.1	4.9
1984	-	-	-	-	16.7	44.5	39.7	18.6	4.3
1985	-	-	-	-	108.1	301.9	-	-	4.9
1986	-	-	-	-	188.8	550.5	-	-	4.6
1987	-	-	-	-	103.5	314.2	-	-	4.3
1988	-	-	-	-	51.5	162.3	-	-	4.0
1989	-	-	-	-	32.0	104.8	-	-	3.7
1990	-	-	-	-	5.3	18.0	-	-	3.7
TOTAL	12	-	-	-	1,922.3	3,142.6	1,684.5	1,648.4	

QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

UNCLASSIFIED

AS OF DATE: September 30, 1984
Base Year: FY 1969

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%)
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: APN									
1970	-	7.7	-	-	7.7	9.1	9.1	9.1	3.0
1971	26	47.8	-	364.9	583.3	691.7	691.7	689.1	3.0
1972	48	63.7	7.4	405.0	632.0	787.5	787.5	785.8	3.3
1973	48	53.8	6.0	311.5	424.5	565.3	565.2	564.4	4.5
1974	50	38.7	-	390.7	492.9	686.5	685.0	684.9	4.8
1975	50	47.7	7.2	372.0	486.4	716.2	716.2	711.1	5.0
1976	36	57.3	8.4	279.9	392.8	617.9	617.9	612.8	9.0
1977	9	28.8	0.2	74.6	79.5	133.2	133.2	130.8	2.5
1977	36	64.0	7.2	306.6	396.5	694.2	693.9	684.1	11.0
1978	44	63.8	0.8	364.0	428.0	817.0	816.7	816.6	7.0
1979	36	65.8	5.3	330.1	403.2	850.0	846.6	836.5	6.8
1980	30	53.8	0.5	284.6	332.5	765.5	763.8	730.2	9.7
1981	30	55.4	6.3	313.6	363.5	902.7	901.2	891.7	11.9
1982	30	64.2	3.1	337.6	440.6	1,170.6	1,164.2	1,116.9	7.3
1983	24	68.2	10.7	264.4	344.7	976.5	952.8	706.3	9.0
1984	24	56.9	18.7	236.1	324.7	974.0	841.7	219.6	5.5
1985	24	57.4	9.9	250.4	311.0	985.8	-	-	6.3
1986	24	28.7	35.4	242.0	298.7	994.3	-	-	5.9
1987	12	72.6	24.7	145.2	253.1	893.2	-	-	5.5
1988	12	101.4	29.7	189.5	367.2	1,358.4	-	-	5.2
1989	24	99.7	39.8	324.4	503.6	1,946.3	-	-	4.8
1990	30	99.7	10.6	361.1	505.2	2,045.9	-	-	4.8
1991	30	99.7	10.6	347.1	469.4	1,993.8	-	-	4.8
1992	30	99.7	10.5	336.8	459.4	2,045.6	-	-	4.8
1993	30	99.7	10.5	329.5	452.3	2,111.7	-	-	4.8
1994	30	99.7	10.5	324.0	406.9	1,992.8	-	-	4.8
1995	30	99.7	10.6	319.4	401.3	2,059.7	-	-	4.8
1996	30	100.2	10.5	315.5	353.3	1,919.8	-	-	4.8
1997	30	100.1	10.6	313.8	349.6	1,975.6	-	-	4.8
1998	30	-	9.7	308.3	243.2	1,385.2	-	-	4.8
TOTAL	887	1,995.9	315.4	8,742.6	11,507.0	35,066.0	11,186.7	10,189.9	

1984 and subsequent Ancillary Equipment & Safety is included in nonrecurring flyaway vs. recurring flyaway as identified in the FY 85 Congressional Budget.

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QUARTERLY SELECTED ACQUISITION REPORT
SYSTEM: F-14A/D

AS OF DATE: September 30, 1984
 Base Year: FY 1969

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
 (Dollars in Millions)

FISCAL YEAR	QTY	BASE - YEAR DOLLARS				THEN - YEAR DOLLARS			ESCALATION 1/ RATE (%) -
		ADV PROC (NON-ADD)	NET FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: CONSTRUCTION									
1971	-	-	-	-	2.4	3.2	3.1	3.1	4.0
1972	-	-	-	-	-	-	-	-	4.0
1973	-	-	-	-	0.5	0.8	0.8	0.8	3.3
1974	-	-	-	-	1.6	3.0	3.0	3.0	7.3
1975	-	-	-	-	-	-	-	-	6.4
1976	-	-	-	-	0.5	1.0	1.0	1.0	9.0
1977	-	-	-	-	-	-	-	-	2.5
1977	-	-	-	-	-	-	-	-	11.0
1978	-	-	-	-	-	-	-	-	7.0
1979	-	-	-	-	0.9	2.1	2.0	2.0	9.8
TOTAL	-	-	-	-	5.9	10.1	9.9	9.9	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

N-8 F-14A/D

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QUARTERLY SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: F-14A/D

REPORT AS OF: June 30, 1984

INDEX

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW BOARD (PA)
DEPARTMENT OF DEFENSE

OASD(PA) DFOISR 84-T-1546

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5A R-84-141

A-5 SHORAD C2

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
SYSTEM: SHORT RANGE AIR DEFENSE COMMAND AND CONTROL SYSTEM (SHORAD C²)

REPORT AS OF: September 30, 1984

84-043

INDEX

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OASD(PA) DFOISR

84-1828

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OCT 23 1984

5

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

COMPREHENSIVE ANNUAL ~~SECRETED~~ ACQUISITION REPORT
SYSTEM: SHORAD C²

AS OF DATE: September 30, 1984

A. REFERENCES

1. DATE: September 30, 1984
2. DESIGNATION: Not Assigned
3. NOMENCLATURE: Short Range Air Defense Command and Control System
4. POPULAR NAME: SHORAD C²

5. MISSION AND DESCRIPTION: The SHORAD C² is an automated command and control system designed to maximize effective use of the new family of short range air defense weapons and to overcome present shortfalls by integrating weapons, sensors data and identification data into a functional system through the use of the Army approved communications equipment. The system will be used by all SHORAD battalions (divisional and non-divisional) and separate batteries for active components. The mission will be accomplished through digital processing of target information, improved dissemination of air threat warning and weapon control orders, and the introduction of essential equipment at all echelons to provide data processing and display capabilities with emphasis on the needs of the fire units.

SHORAD C² is an evolutionary development program consisting of two phases. The test bed (first phase) provides an interim solution to the requirement for the earliest field demonstration of a viable command and control system. Previously developed hardware will be utilized to the maximum. The test bed will provide automatic track extraction from the High-to-Medium Air Defense (HIMAD) source and transmission through the HIMAD Liaison Officer (LNO) to the Air Battle Management Operations Center (ABMOC) and between the HIMAD LNO and the Battery Command Post C² subsystems. Three fire unit sub-systems will be equipped with AN/VRC-12 radios and Government furnished equipment interactive display terminals to receive C² data automatically forwarded from the Battery Command Post. Full scale development (second phase) consists of the equipment necessary to provide an automated capability for Army divisional and non-divisional Air Defense Artillery in autonomous or joint/combined deployment. Command and control will be provided for all echelons of a SHORAD battalion. Automated data links, processor, and displays will be provided to fire unit level.

COMPREHENSIVE ANNUAL ~~SECRETED~~ ACQUISITION REPORT
SYSTEM: SHORAD C

AS OF DATE: SEPTEMBER 30, 1984

A. REFERENCES (Cont'd)

6. RELATED PROGRAMS: Army Data Distribution System (ADDS) and AN/TSQ-73.
7. PRIME/ASSOCIATED CONTRACTOR NAME AND MAJOR SYSTEM/SUBSYSTEM: TBD
8. DOD COMPONENT: Department of the Army.
9. RESPONSIBLE OFFICE AND PHONE NUMBER: Project Manager
Air Defense Command and Control System
John S. Ott, COL
Date of Assignment: 28 Nov 83
AUTOVON: 742-3440
Commercial: (205) 895-3440

10. REFERENCE DOCUMENTS AND DATES FOR PE AND APPROVED PROGRAM

SECTION C: Planning Estimate - Proposed Required Operational Capability (ROC)
Approved Program - TBD 1/

SECTION D: Planning Estimate - FY 85 RDTE Congressional Descriptive Summary
Approved Program - TBD 1/

SECTION E: Planning Estimate - FY85 President's Budget
Current Estimate - The current estimate, Section E, includes the following Program Elements:

RDTE: 63740AD593
64741AD126
Procurement: AD 5050
Construction: N/A

1/ Program restructure directed at HQDA Program Review, July 1984

AS OF DATE: September 30, 1984

B. SUMMARY

1. PROGRAM HIGHLIGHTS:

a. In the late 1970's, an Army study, "Division Air Defense Command and Control Analysis," resulted in efforts to define command and control (C²) systems, exploiting off-the-shelf hardware. Concept development was initiated in 1979 and the SHORAD C² program was placed under management of the Air Defense Command and Control System. In 1980, a Concept Feasibility Demonstration demonstrated various architectures for cueing and alerting. At a General Officer Review on 11 Jun 81 the requirement was revalidated and an acquisition strategy approved which included using the competitive process for contractor selection. Concept Definition conducted throughout FY82 resulted in restructuring the acquisition strategy for the SHORAD C² program and tentatively defining resources. On 22 Apr 82, a Department of the Army (DA) level In-Process Review (IPR) resulted in approval of the proposed system development concept. Approval was contingent upon recommendation of a sensor, or a recommended approach to meet the sensor requirement to include further evaluation of the Forward Area Alerting Radar (FAAR) to determine its potential as the principal sensor. Under this approach, two contractors would be chosen; one would be responsible for software development and system integration and the other would modify an existing sensor. At a September 1982 DA level IPR, the plan was accepted; however resources to support the plan were never provided. In March 1983, the PM was directed to design a modular program which deferred the sensor development. Representatives of the Secretary of Defense were briefed in October 1982 and reviews were conducted at the DA/OSD level throughout early 1983 with OSD approval of the modular development and deployment concept in April 1983.

b. At a program review held July 1984, HQ DA directed a restructure of the program to address affordability and structure issues. The revised program is expected to be presented to a DA program review in Dec. 1984. If approved, the program will be presented to the ASARC/DSARC II in the spring of 1985.

c. Significant developments since last report: N/A - This is the initial SAR for the program. The SHORAD C² system is expected to satisfy current mission requirements as defined in the proposed IOC.

2. CHANGES SINCE "AS OF DATE": This program is presently being restructured.

3. DCP THRESHOLDS BREACHED: N/A. DCP has been submitted for approval.

COMPREHENSIVE ANNUAL, S ED ACQUISITION REPORT
SYSTEM: SHORAD C

AS OF DATE: SEPTEMBER 30, 1984

C. <u>OPERATIONAL/TECHNICAL</u> <u>1/</u> <u>CHARACTERISTICS</u>	(1) <u>Planning Estimate</u>	(2) <u>Approved Program</u>	(3) <u>Demonstrated Performance</u>	(4) <u>Current Estimate</u>
1. <u>OPERATIONAL</u>	TBD	TBD	TBD	TBD
2. <u>TECHNICAL</u>	TBD	TBD	TBD	TBD
3. <u>VARIANCE ANALYSIS</u> - N/A	TBD	TBD	TBD	TBD

1/ Preliminary ROC provides draft operational and technical characteristics. When revised and approved, characteristics will be provided.

**COMPREHENSIVE ANNUAL
SYSTEM: SHORAD C**

TESTED ACQUISITION REPORT

AS OF DATE: SEPTEMBER 30, 1984

D. SCHEDULE

(1)
Planning
Estimate

(2)
Approved
Program

(3)
Current
Estimate

1. Milestones

a. Test Bed

(1) Contract Award	2QFY84	2QFY84 2/	2QFY84
(2) Contractor Test Complete	4QFY85	4QFY85 2/	4QFY85
(3) Begin Field Test	1QFY86	1QFY86 2/	1QFY86

b. Full Scale Development 4/

(1) ASARC II/DSARC II 1/	3QFY84	TBD	TBD
(2) Full Scale Engineering Development Contract Award	3QFY84	TBD	TBD
(3) Milestone III	TBD	TBD	TBD
(4) Full Scale Production Contract Award	4QFY84 3/	TBD	TBD
(5) Start DT/OT II	TBD	TBD	TBD
(6) Complete DT/OT II	TBD	TBD	TBD
(7) Initial Operational Capability	4QFY89 3/	TBD	TBD

2. Deliveries (Plan/Actual)

	<u>To Date</u>
R&D	0/0
Procurement	0/0

3. VARIANCE ANALYSIS: N/A

FOOTNOTES:

1/ IPR now scheduled for Dec 1984; results will determine ASARC/DSARC II dates and remainder of program schedule.

2/ Test Bed approved September 1983 at DA IPR.

3/ Program under revision. Dates are expected to change.

4/ Dates shown in the planning estimate are those reflected in the 1985 RDTE Congressional Descriptive Summary (CDS) that are no longer valid.

COMPREHENSIVE ANNUAL, SELECTED ACQUISITION REPORT

SYSTEM: SHORAD C

(Dollars in millions)

AS OF DATE: SEPTEMBER 1, 1984
BASE YEAR: FY84

E. PROGRAM ACQUISITION COST 1/

	(1) Planning Estimate (FY80-89)	(2) Changes	(3) Current Estimate (FY80-89)	(4) Current & Prior Yrs (FY80-84)	(5) Budget Year (FY85)	(6) Balance to Complete FYDP (FY86-89)	(7) Beyond FYDP	(8) Total
1. Cost								
Development	\$ 360.3	-	\$360.3	Development 68.3	129.4	177.2	-	374.9
Procurement	423.7	-	423.7	Procurement -	-	500.6	-	500.6
Construction	-	-	-	Construction -	-	-	-	-
Total: constant FY84\$	784.0	-	784.0	Total 68.3	129.4	671.8	-	875.5
Quantity								
Escalation	91.5	-	91.5	Development				3
Development	14.6	-	14.6	Procurement				30
Procurement	76.9	-	76.9	Total				33
Construction	-	-	-					
Total Program Cost	\$ 875.5	-	\$ 875.5 ^{3/}					
2. Quantities 2/								
Development	3		TBD	4. Procurement Unit Cost Baseline For Current & Budget Years				
Procurement	30		TBD	TBD				
Total	33			5. Approved Design to Cost Goal: N/A				
3. Unit Cost				6. Foreign Military Sales: None.				
Procurement				7. Nuclear Costs: None.				
Const FY84\$	TBD		TBD					
Escalated	TBD		TBD					
Program								
Constant FY84 \$	TBD		TBD					
Escalated	TBD		TBD					

FOOTNOTES: (See next page)

COMPREHENSIVE ANNUAL SELECT ACQUISITION REPORT

SYSTEM: SHORAD C²

(Dollars in Millions)

FOOTNOTES:

- 1/ These estimates reflect funding documented in the FY85 President's Budget. This program is no longer valid and is being restructured. Upon approval the restructured program will be reflected in a subsequent SAR.
- 2/ The Army is currently redefining a force structure. Until that force structure has been defined, the mix and unit of measure for SHORAD C² cannot be determined to establish quantities.
- 3/ Dollars reflect FY85 President's Budget. Future SAR submission will reflect program revision and FY86 Budget Changes.

COMPREHENSIVE ANNUAL, SE— D ACQUISITION REPORT
SYSTEM: SHORAD C
(Dollars in Millions)

AS OF DATE: SEPTEMBER 30, 1984
BASE YEAR: FY84

ES. Cost Variance Analysis

1. Summary

	BASE YEAR/FY84 CONST \$				ESC	TOTAL 1/	REMARKS
	DEV	PROC	CONST	SUBTOTAL			
Planning Estimate as Displayed in the FY85 President's Budget	360.3	423.7	-	784.0	91.5	875.5	Esc: Dev. 14.6 Proc: 76.9
Previous Changes	-	-	-	-	-	-	-
Current Changes	-	-	-	-	-	-	-
Total Changes	-	-	-	-	-	-	-
Current Estimate	360.3	423.7	-	784.0	91.5	875.5	Esc: Dev. 14.6 Proc: 76.9

2. Previous Changes: N/A

3. Changes Since Previous Report: N/A - Initial Report.

1/ Dollars reflect FY85 President's Budget. Future SAR submission will reflect program revision and FY86 Budget Changes.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT

SYSTEM: SHORAD C²

(Dollars in Millions)

AS OF DATE: SEPTEMBER 30, 1984

E9. PROGRAM ACQUISITION UNIT COST (PAUC) HISTORY

1. PE to DE

(a) First year of authorization: FY 1980

(b)

PE	CHANGES								CE
	ECON	QTY	SCH	ENG	EST	SUP	OTHER	TOTAL	
TBD <u>1/</u>	--	--	--	--	--	--	--	--	TBD

1/ Cannot be determined until appropriate unit of measure is defined.

COMPREHENSIVE ANNUAL CTED ACQUISITION REPORT
SYSTEM: SHORAD C

AS OF DATE: SEPTEMBER 30, 1984

F. CONTRACTOR COSTS

	(1)			(2)			(3)	
	<u>Initial Contract Price</u>		<u>Qty</u>	<u>Current Contract Price</u>		<u>Qty</u>	<u>Price at Completion</u>	
	<u>Target</u>	<u>Ceiling</u>		<u>Target</u>	<u>Ceiling</u>		<u>Contractor Estimate</u>	<u>Program Mgrs Estimate</u>
1. <u>DEVELOPMENT</u>								
SINGER KEARFOTT <u>1/</u>	18.4	18.4	None	18.4	18.4	None	18.4	18.4
DAAH01-84-C-A935								
CPFF Awarded 14 Mar 84								
Definitized								
2. <u>PROCUREMENT</u>								
None								
3. <u>CONSTRUCTION</u>								
4. <u>VARIANCE ANALYSIS</u> - N/A								

1/ Contractor for SHORAD C² Test Bed.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: SHORAD C

AS OF DATE: SEPTEMBER 30, 1984
 BASE YEAR: FY 1984

G. PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(In Millions)

(in millions)								
FY	QTY <u>1/</u>	BASE YEAR DOLLARS		THEN YEAR DOLLARS		ESCALATION <u>4/</u> RATE (%)		
		ADV PROC NON-ADD	FLYAWAY (NON-ADD)	TOTAL <u>3/</u>	TOTAL <u>3/</u>		OBLIGATED	EXPENDED
			NON-REC					

APPROPRIATION (RDT&E)

1980-84	-	-	-	-	\$ 71.9	\$68.3	\$46.7	\$26.8	N/A
1985	-	-	-	-	125.8	129.4	-	-	4.9
1986	-	-	-	-	82.5	88.6	-	-	4.6
1987	-	-	-	-	59.8	66.9	-	-	4.3
1988	-	-	-	-	17.6	20.5	-	-	4.0
1989	-	-	-	-	1.0	1.2	-	-	3.7
TOTAL	3	-	-	-	\$358.6	\$374.9	\$46.7	\$26.8	

APPROPRIATION (PROCUREMENT)

1986	7	2/	2/	2/	\$105.0	\$117.9	-	-	4.6
1987 <u>5/</u>	-	2/	2/	2/	120.8	140.8	-	-	4.3
1988 <u>5/</u>	-	2/	2/	2/	136.8	165.4	-	-	4.0
1989 <u>5/</u>	-	2/	2/	2/	61.1	76.5	-	-	3.7
TOTAL	30	-	-	-	\$423.7	\$500.6	-	-	

APPROPRIATION (CONSTRUCTION) - N/A

1/ Quantities shown are those reflected in the 1985 RDT&E Congressional Descriptive Summary (CDS) and are no longer valid. The actual quantities cannot be determined until an appropriate unit of measure is defined.

2/ Will be provided upon program definition.

3/ Dollars reflect FY85 President's Budget which is being restructured. Future SAR submission will reflect program revision and FY86 Budget Changes.

4/ Since spendout rates are not shown the escalation rates cannot be used to verify the composite index.

5/ CDS total for these years is 33

A-15 PATRIOT

3C7U

Program Acquisition Costs
System: PATRIOT

84-055

As of Date: 31 Dec 84
Base Year: FY72

(Dollars in Millions)

a. Program Acquisition Cost	(1) Development Estimate FY72-87	(2) Changes	(3) Current Estimate FY72-80
1. Cost			
Development	\$1106.2 *	+528.1	\$1634.3
Procurement	3121.2	-104.7	3016.5
Guided Missile	(964.7)	(+168.0)	(1132.7)
HE Warhead	(121.9)	(+23.7)	(145.6)
Adaption Kit	(271.7)	(-271.7)	-
Fire Control Section (FCS)	(1141.8)	(-344.8)	(797.0)
Launcher	(254.0)	(+53.5)	(307.5)
Other (GSE)	(212.7)	(+19.0)	(231.7)
Training Devices	-	(+17.9)	(17.9)
Initial Spares	(97.5)	(+138.2)	(235.7)
Advanced Prod Engr	(56.9)	(-56.9)	-
IPF	-	(+131.1)	(131.1)
Software Support	-	(+17.3)	(17.3)
Construction	40.0	+19.0	59.0
Total: Constant FY72	\$4267.4	\$442.4	\$4709.8
Escalation	973.1	7021.4	7994.5
Development	(93.8)	(+643.0)	(738.8)
Procurement	(848.6)	(+6306.6)	(7155.2)
Construction	(30.7)	(+69.8)	(100.5)
Total Program Cost	5240.3	+7463.8	12704.3

* Adjusted by +\$27.8M to reflect true FY 72 constant (Base Year) dollars.

b. Foreign Military Sales: Sales to date total 4 fire units for The Netherlands totaling \$292,485,852.

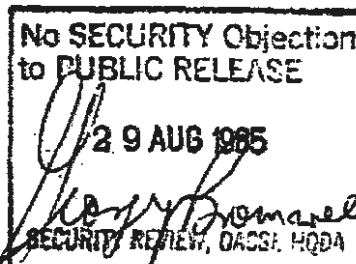
c. Nuclear Cost: None

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AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

OASD (PA) 85-1688



SYSTEM: CAL

CURRENT ESTIMATE
(\$ In Millions)

AS OF DATE: 31 DEC 84
BASE YEAR: FY72

FISCAL YEAR	QTY FU/MSL	ADV PROC (NON-ADD)	BASE YEAR DOLLARS		TOTAL	THIRN-YEAR DOLLARS			ESCALATION RATE 1/
			FLYAWAY (NONADD)	NONREC		TOTAL	OBLIGATED	EXPENDED	

APPROPRIATION: RDTK

FY65					17.8	13.6	13.6	13.6	1.8
FY66					18.8	15.0	15.0	15.0	2.7
FY67					14.7	12.0	12.0	12.0	3.2
FY68					33.0	28.0	28.0	28.0	3.6
FY69					67.1	59.9	59.0	59.0	4.7
FY70					63.2	59.4	59.4	59.4	5.5
FY71					84.2	83.1	83.1	83.1	5.1
FY72					111.0	115.3	115.3	115.3	4.6
FY73					154.0	170.8	170.8	170.8	4.3
FY74					164.6	193.8	193.8	193.7	8.0
FY75					81.5	104.2	104.2	104.1	10.9
FY76					95.9	129.9	129.9	129.8	6.6
FY77					28.5	40.0	40.0	40.0	2.9
FY78					126.1	181.9	181.9	181.7	2.6
FY79					136.7	214.3	214.3	214.0	6.8
FY80					132.3	228.2	228.2	227.4	8.4
FY81					67.7	128.5	128.5	128.2	10.6
FY82					36.3	75.1	74.6	73.0	10.6
FY83					23.4	51.5	51.5	49.5	7.6
FY84					19.5	44.9	44.9	39.8	4.9
FY85					32.8	78.3	74.9	52.3	3.8
FY86					24.5	61.1	19.7	.2	3.7
FY87					20.5	53.1			4.4
FY88					14.4	38.8			4.2
FY89					14.1	39.6			4.0
FY90					24.8	72.0			3.7
					26.9	80.8			3.4
TOTAL	5/126				1634.3	2373.1			

1/ Since spend-out Rates are not shown, the escalation rates cannot be used to verify the composite indices.

PROGRAM FUND ~~PRIMARY~~
SYSTEM: PATRIOT

CURRENT ESTIMATE
(\$ In Millions)

AS OF DATE: 31 DEC 84
BASE YEAR: FY72

FISCAL YEAR	QTY FU/MSL	BASE YEAR DOLLARS				THIR-YEAR DOLLARS			ESCALATION RATE
		ADV PROC (NON-ADD)	FLYAWAY (NONADD)		TOTAL	TOTAL	OBLIGATED ^{2/}	EXPENDED ^{2/}	
			NONREC	REC					
APPROPRIATION: PROCUREMENT									
FY79	0/0		31.8	0.0	32.8	67.1	67.1	67.0	8.9
FY80	5/117		40.3	127.3	180.3	413.8	396.3	391.8	11.8
FY81	5/130		5.4	155.9	180.4	462.2	438.7	427.8	11.6
FY82	9/176		14.0	212.5	268.6	757.2	675.6	626.0	14.3
FY83	12/287		10.8	235.5	283.4	852.8	755.3	426.5	9.0
FY84	12/440		13.6	235.3	303.6	963.5 3/	825.3	146.6	8.0
FY85	12/440		7.1	253.4	313.2	1045.8	63.4	2.3	4.8
FY86	12/585			258.7	309.7	1088.4			5.7
FY87	12/700			263.9	314.7	1160.8			5.5
FY88	12/815			260.1	302.0	1165.1			5.2
FY89	12/815			243.9	281.1	1132.8			4.8
FY90	0/815			134.8	135.5	570.1			4.4
FY91	0/657			110.8	111.2	492.1			4.4
TOTAL	103/5977		123.0	2492.1	3016.5	10171.7			

^{1/} Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite indices.

^{2/} Does not include Initial Spares. Spares are procured by the U.S. Army Missile Command.

^{3/} Does not include \$185.0M of FY84 NATO Air Base Defense Funds.

PROGRAM FUNDING—~~ARY~~
SYSTEM: PATNE!

CURRENT ESTIMATE
(\$ in Millions)

AS OF DATE: 31 DEC 84
BASE YEAR: FY72

FISCAL YEAR	QTY FU/M SL	BASE YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE 1/
		ADV PROC (NON-ADD)	FLYAWAY (NONADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NONREC	REC					
APPROPRIATION: CONSTRUCTION									
FY72					1.4	1.4			6.5
FY73									5.6
FY74									11.8
FY75									16.1
FY76									3.0
FY77									1.6
FY77									2.8
FY78									7.7
FY79					1.1	2.4			9.3
FY80							3.8	3.8	10.6
FY81									10.6
FY82					4.7	11.7	9.5	3.7	7.6
FY83					18.7	48.1	23.4	.8	4.9
FY84					5.8	15.4	14.0		3.8
FY85					3.8	10.5			3.7
FY86					6.9	19.9			4.4
FY87					14.4	43.2			4.2
FY88					2.2	6.9			4.0
TOTAL					59.0	159.5	50.7	8.3	

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite indices.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: PATRIOT

AS OF DATE: December 31, 1984

F.	CONTRACTOR COSTS (\$ Millions)	(1)			(2)			(3)
		Initial Contract Price			Current Contract Price			Price at Completion
		Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate
1.	<u>DEVELOPMENT</u>							
	Engineering Development Contract Raytheon Company DAAH01-82-C-A181 CPIF, 27 Apr 82 Definitized	\$11.3	N/A	N/A	\$103.8	N/A	N/A	\$100.7
2.	<u>PROCUREMENT</u>							
	Initial Production Facilities (IPF) Raytheon Company DAAK40-79-C-0082 CPFF/AF/IF, 15 Mar 79 Definitized	\$234.8	N/A	<u>1/</u>	\$232.2	N/A	<u>1/</u>	\$232.8
	Production Contract (FY82) Raytheon Company DAAH01-82-C-A191 CPIF, 28 May 82 Definitized	\$379.3	N/A	9 <u>2/</u>	\$386.3	N/A	9 <u>2/</u>	\$375.2
	Production Contract (FY83) Raytheon Company DAAH01-83-C-A004 FPI, 30 Sep 83 Definitized	\$480.0	\$531.4	12 <u>2/</u>	\$492.0	\$544.7	12 <u>2/</u>	\$486.5

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
SYSTEM: PATRIOT

AS OF DATE: December 31, 1984

	(1)	(2)	(3)				
	<u>Initial Contract Price</u> <u>Target Ceiling Qty</u>			<u>Current Contract Price</u> <u>Target Ceiling Qty</u>			<u>Price at Completion</u> <u>Contractor Estimate</u>
P. <u>CONTRACTOR COSTS (\$ Millions)</u> (Cont'd)							
Production Contract (FY84) Raytheon Company DAAH01-84-C-A041 FPI, 24 Aug 84 Definitized	\$640.7	\$722.8	13 <u>2/</u>	\$640.7			
Initial Production Facilities (IPF) Raytheon Company DAAH01-84-C-A147 CPIF, 20 Sep 84 Definitized	\$ 43.0	N/A	<u>3/</u>	\$ 43.0			

3. CONSTRUCTION: Contract information not available.

4. FOOTNOTES:

- 1/ The quantities of Special Tools (ST) and Special Test Equipment (STE) are too numerous to list; however, ST and STE quantities have been procured to support production rates as discussed in prior SAR reports.
- 2/ Quantity - Fire Unit
- 3/ Quantities of Special Tools and Special Test Equipment procured to enhance in-line production screening at the low level assembly, subassembly, and final assembly levels.

2. Deliveries (planned/actual) and associated variance analysis:

Deliveries (As of 31 Dec 84)

	To Date <u>Planned/Actual</u>
RDT & E	
Missiles	126/126
Fire Control Section	5/5
Launchers	5/5
 PROCUREMENT	
Missiles	410/313
Fire Control Section	14/13
Launchers	68/67

Variance Analysis: Deliveries behind schedule (as of 31 Dec 84) for the following reasons:

MSL - Radome problem

RS/ECS - One (1) unit behind contract delivery schedule a/o 31 Dec 84. The delay was due to thermal chamber unavailability for system thermal screening, late test start due to late availability of key subassemblies and rework of Buy 3 pedestal assemblies.

~~SECRET~~

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823) (U)(~~S~~)
PROGRAM: PATRIOT

A-16 PATRIOT

AS OF DATE: December 31, 1984

INDEX

<u>SUBJECT</u>	<u>PAGE</u>
Cover Sheet Information	1
Program Highlights	2
Schedule	2
Technical/Operational Characteristics	4
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Unit Cost Summary	6
Cost Variance Analysis	6
Program Acquisition Unit Cost History	8
Contract Information	8

1. (U) Designation and Nomenclature (Popular Name): Guided Missile System, Air Defense (PATRIOT)

2. (U) DoD Component: Department of the Army

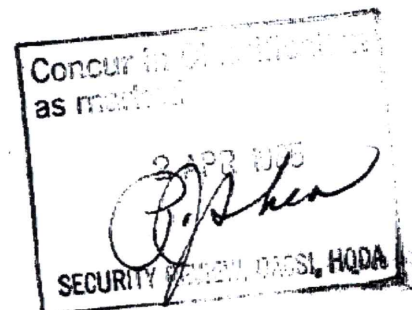
3. (U) Responsible Office and Telephone Number:

Project Manager, PATRIOT
US Army Missile Command
ATTN: AMCPM-MD
Redstone Arsenal, AL 35898-5620

PM: BG Donald R. Infante
Assigned: October 11, 1983
AUTOVON 742-3240

4. (U) Program Elements:

RDTE: 64307A
PROCUREMENT: 2200



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~~CONFIDENTIAL~~

PATRIOT, December 31, 1984

5. (U) Program Highlights:

(b)(1)

(U) The Netherlands has signed Letters of Offer for four PATRIOT fire units, initial spares, a cooperative logistics supply support arrangement, and training requirements.

(U) The US and Germany signed an agreement for acquiring PATRIOT with the following provisions:

(1) (U) US will provide 14 PATRIOT fire units to Germany.

(2) (U) In return for the 14 PATRIOT fire units, Germany will provide 27 Roland units plus operate and maintain these 27 Roland units for 10 years. Additionally, Germany will operate and maintain 12 of the US PATRIOT fire units for 10 years.

(3) (U) Germany will procure 14 additional PATRIOT fire units from the US.

The Foreign Military Sales case for the 14 PATRIOT fire units is estimated at \$1.1 billion and is expected to be signed in February 1985.

(U) Japan is planning to co-produce PATRIOT. A draft of the Japanese co-production Memorandum of Understanding is scheduled to be provided to Japan in January 1985.

(U) The first European Battalion of equipment was shipped to Europe in November 1984. The equipment is currently undergoing system integration and checkout. Hand-off to USAREUR is scheduled for March 1985.

(U) The system is expected to meet its mission requirements. Completion of the program on schedule is dependent upon full funding support.

6. (U) Schedule:

	<u>Development Estimate</u>	<u>Current Estimate</u>
a. (U) <u>Milestones</u>		
<u>Initiation of ADDEV</u>	May 67	May 67
<u>DCP Thresholds:</u>		
<u>Contract for ED</u>	Mar 72	Mar 72

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PATRIOT, December 31, 1984

(U) Schedule: (Continued)

	<u>Development Estimate</u>	<u>Current Estimate</u>
<u>PATRIOT DCP Milestones (Oct 76/Jan 78):</u>		
First Electronic Countermeasures (ECM) Flight	Aug 76	Dec 76
Delivery of FU-2 to White Sands Missile Range	Jan 77	Jul 77
Completion of Phase II ECM Search/Track Tests	Jun 77	Dec 77
Start of Producibility Engineering and Planning (PEP)	Oct 77	Oct 77
Delivery of FU-3 to White Sands Missile Range	Sep 78	Dec 78
First Modular Digital Airborne Guidance System (MDAGS) Flight	Oct 78	Sep 78
Delivery of FU-5 to White Sands Missile Range	Jan 79	Feb 79
Contractor Flight Tests completed and start of DT/OT II testing	Jul 79	Jan 80
<u>Secretary of Defense Decision Memorandum (SDDM) (10 Sep 80) Tests:</u>		
Completion of DT/OT II testing	May 80	Dec 80
Completion of SDDM Test Unit 1	Jan 81	Jan 81
Completion of SDDM Test Unit 2	Jun 81	Jul 81
Completion of SDDM Test Unit 3	Oct 81	Oct 81
Completion of Component/System Design Confirmation	Sep 82	Feb 83
Completion of SDDM Test Unit 4	May 83	Sep 84(Ch-1)
<u>Contract for Initial Production Facilities (IPF)</u>	Apr 79	Mar 79
<u>Limited Production Decision (DSARC-III (LP))</u>	N/A	Sep 80
<u>Full Production Decision</u>	Apr 80	Apr 82
<u>Initial Operational Capability (IOC)</u>	Apr 82	Feb 83

b. (U) Explanation of Changes -- Ch-1 (from Jun 84 to Sep 84) reflects schedule adjustments which incorporated additional stress and reliability verification testing prior to the beginning of SDDM Test Unit 4 (Follow-On Evaluation).

c. (U) References

(1) (U) DCP #50, dated Mar 72, revised and approved October 14, 1976, with Cover Sheet No. 1, approved January 20, 1978, and Cover Sheet No. 2, approved November 24, 1978.

(2) (U) SDDM, dated September 10, 1980.

UNCLASSIFIED

(U) Technical/Operational Characteristics:

	Development Estimate (JAN 76)	1/ Demonstrated Performance	1/ Current Estimate
a. (U) Characteristics			
(1) (U) Firing Unit Static Inherent Availability	0.97	.97	0.97
(2) (U) Missile Reliability (Launch & Flight)	(b)(1)		
(3) (U) Single Shot Kill Probability, P _{ssk} (Reliable Missile, MFG-21)			
(4) (b)(1)			

(5)

(6)

(7)

(8)

(9)

(10)

(11)

b. (U) Explanation of Changes- Ch-Test Unit 4 (Follow-On Evaluation) data. (b)(1) reflects inclusion of SDDM

c. (U) References -- DCP #50, dated Mar 72, revised and approved October 14, 1976.

(U) FOOTNOTES:

1/ The values shown for Stub-Items (4)(a), (4)(b), (4)(c), and (4)(d) reflect range to intercept for a target not in line from jammer to radar; the numbers shown in parentheses reflect range to intercept for a target in line from jammer to radar.

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PATRIOT, December 31, 1984

3. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity (Fire Unit/ Missile)	FY 1972 Constant (Base-Year)\$	Current (Then-Year)\$	Escalation Rate (%)
-----------------------	-------------------------------------	--------------------------------------	--------------------------	------------------------

Appropriation: ROTE

Current & Prior Years	5 / 126	1533.6	2088.8	N/A
Budget Year (1986)		20.5	53.1	4.4
Balance of FYDP		80.2	231.2	N/A
(1987)		(14.4)	(38.8)	4.2
(1988)		(14.1)	(39.6)	4.0
(1989)		(24.8)	(72.0)	3.7
(1990)		(26.9)	(80.8)	3.4
Balance to Complete		-	-	N/A
Subtotal	5 / 126	1634.3	2373.1	N/A

Appropriation: Procurement

Current & Prior Years	55 / 1590	1562.3	4562.4	N/A
Budget Year (1986)	12 / 585	309.7	1088.4	5.7
Balance of FYDP	36 / 3145	1033.3	4028.8	N/A
(1987)	(12) / (700)	(314.7)	(1160.8)	5.5
(1988)	(12) / (815)	(302.0)	(1165.1)	5.2
(1989)	(12) / (815)	(281.1)	(1132.8)	4.8
(1990)	(0) / (815)	(135.5)	(570.1)	4.4
Balance to Complete	0 / 657	111.2	492.1	N/A
Subtotal	103 / 5977	3016.5	10171.7	N/A

Appropriation: MILCON

Current & Prior Years	-	35.5	89.5	N/A
Budget Year (1986)	-	6.9	19.9	4.4
Balance of FYDP	-	16.6	50.1	N/A
(1987)	-	(14.4)	(43.2)	4.2
(1988)	-	(2.2)	(6.9)	4.0
(1989)	-	-	-	3.7
(1990)	-	-	-	3.4
Balance to Complete	-	-	-	N/A
Subtotal	-	59.0	159.5	N/A
Total	108 / 6103	4709.8	12704.3	N/A

Program Status:

- (1) Percent Program Completed: 80.8% (21 yrs/26 yrs)
- (2) Percent Program Cost Appropriated: 53.1% (\$6740.7/\$12704.3)

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PATRIOT, December 31, 1984

(U) Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then-Year)
Dollars in Millions)

		<u>Current Year</u>		<u>Budget Year</u>
		<u>SAR Current</u>	<u>UCR Baseline</u>	<u>UCR Baseline</u>
		<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>
a.	(U) Program Acquisition			
(1)	(U) Cost	12704.3	11861.8	12704.3
(2)	(U) Quantity	108	108	108
(3)	(U) Unit Cost	117.6	109.8	117.6
b.	(U) Current Procurement	(FY 1985)	(FY 1985)	(FY 1986)
(1)	(U) Cost	1045.8	1202.4	1088.4
	Less CY Adv Proc	0	0	0
	Plus PY Adv Proc	0	0	0
	Net Total	1045.8	1202.4	1088.4
(2)	(U) Quantity	12	15	12
(3)	(U) Unit Cost	87.150	80.160	90.700

10. (U) Cost Variance Analysis:

a. (U) Summary: (Current (Then-Year) Dollars in Millions)

	RDTE	PROC	MILCON	TOTAL
Development Estimate	1200.0	3969.8	70.7	5240.5
Previous Changes				
Economic	+97.2	+2392.5	-32.7	+2457.0
Quantity	-87.8	-911.8	-30.1	-1029.7
Schedule	+322.4	+1363.5	+2.7	+1688.6
Engineering	+331.0	-573.1	-	-242.1
Estimating	+364.5	+1777.8	+195.5	+2337.8
Other	+27.6	-	-	+27.6
Support	+130.6	+1251.5	-	+1382.1
Subtotal	+1185.5	+5300.4	+135.4	+6621.3
Current Changes				
Economic	-7.9	+110.5	-3.2	+99.4
Quantity	-	-	-43.4	-43.4
Schedule	-	+656.4	-	+656.4
Engineering	-	-	-	-
Estimating	-4.5	-28.8	-	-33.3
Other	-	-	-	-
Support	-	+163.4	-	+163.4
Subtotal	-12.4	+901.5	-46.6	+842.5
Total Changes	+1173.1	+6201.9	+88.8	+7463.8
Current Estimate	2373.1	10171.7 1/	159.5	12704.3

1/ Does not include \$185.0M of FY84 NATO Air Base Defense funds. (3 Fire Units and 40 Missiles)

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PATRIOT, December 31, 1984

10. (U) Cost Variance Analysis: (Continued)

(FY 1972 Constant Dollars (Base Year) in Millions)

	RDTE	PROC	MILCON	TOTAL
Development Estimate	1106.2 1/	3121.2	40.0	4267.4
Previous Changes				
Quantity	-65.1	-1058.1	-30.1	-1153.3
Schedule	+231.4	+311.1	-	+542.5
Engineering	+129.4	-455.4	-	-326.0
Estimating	+156.0	+493.8	+61.9	+711.7
Other	+24.5	-	-	+24.5
Support	+63.6	+441.6	-	+505.2
Subtotal	+539.8	-267.0	+31.8	+304.6
Current Changes				
Quantity	-	-	-12.8	-12.8
Schedule	-	+131.0	-	+131.0
Engineering	-	-	-	-
Estimating	-11.7	-8.0	-	-19.7
Other	-	-	-	-
Support	-	+39.3	-	+39.3
Subtotal	-11.7	+162.3	-12.8	+137.8
Total Changes	+528.1	-104.7	+19.0	+442.4
Current Estimate	1634.3	3016.5	59.0	4709.8

1/. Adjusted by +\$27.8M to reflect true FY72 constant (base year) dollars.

b. (U) Current Change Explanations:

	(Dollars in Millions)	
	Base-Year \$	Then-Year \$
(1) (U) <u>RDTE</u>		
Revised Jan 85 economic escalation rates. (Economic)	N/A	-7.9
Changes for all economic adjustments in FY72 and later and changes in the estimated development cost (Estimating)	-11.7	-4.5
(2) (U) <u>Procurement</u>		
Revised Jan 85 economic escalation rates. (Economic)	N/A	+110.5
Reduced production rate from 18/920 fire units/missiles per year to 12/815 (Schedule)	+131.0	+656.4
Cost estimating increases and offsetting savings due to FMS (Estimating)	-8.0	-48.8
o Increased Reliability Testing and addition of warranty risk requirements	(+89.4)	(+324.9)
o Estimating	(+22.3)	(+90.9)
o Savings due to the impact of FMS	(-101.8)	(-398.0)
o Reduction to offset escalation	(-17.9)	(-46.6)
changes in fixed cost years		
Changes in Scope (Support)	+39.3	+163.4
o Addition of DMPE	(+8.4)	(+29.9)
o Increase in Initial Spares	(+53.9)	(+222.5)
o Reduction in estimate for Missile Recertification/Depot Tooling and Test Equipment	(-23.0)	(-89.0)

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PATRIOT, December 31, 1984

(U) Cost Variance Analysis: (Continued)

b. (U) Current Change Explanations: (Continued)

	(Dollars in Millions)	
	<u>Base-Year \$</u>	<u>Then-Year \$</u>
(3) (U) <u>MILCON</u>		
Revised Jan 85 economic escalation rates. (Economic)	N/A	-3.2
Reduced two sites based on US/German agreement (Quantity)	-12.8	-43.4

c. (U) References

(1) (U) Revised DCP #50, dated March 1972

(2) (U) SDDM, dated September 10, 1980

11. (U) Program Acquisition Unit Cost (PAUC) History:

a. (U) Initial SAR Estimate to Current Baseline Estimate

PAUC (Initial SAR Est)	Changes (Then-Year Dollars in Millions)								PAUC (Dev Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
6.881	+6.580	+3.888	+0.897	+1.346	+2.243	-	-	+14.954	21.835

b. (U) Current Baseline Estimate to Current Estimate

PAUC (Dev Estimate)	Changes (Then-Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
21.835	+23.670	+16.752	+21.713	-2.242	+22.338	+14.310	+.256	+95.797	117.632

12. (U) Contract Information: (Dollars in Millions)

a. (U) RDTE

Engineering Development

Raytheon Company
Boston, MA
DAAH01-82-C-A181, CPlF
April 27, 1982

Current Contract	
<u>Target Price</u>	<u>Qty</u>

\$103.8

N/A

PM's Est Price
<u>At Completion</u>

(b)(4)

PATRIOT, December 31, 1984

(U) Contract Information: (Dollars in Millions) (Continued)

a. (U) RDTE (Continued)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$1.8	\$ -2.9
Cum Variances to Date (10/28/84)	\$4.6	\$ -7.0
Net Change	\$2.8	\$ -4.1

(U) Explanation of Change: The cost variance is primarily due to less than planned activity associated with intermediate maintenance logistics support analysis and FU software. The schedule variance is primarily due to schedule slips associated with several software, hardware, and system engineering tasks, and delays in fabrication/assembly releases and system requirements associated with the standoff jammer counter. The cost and schedule variances to date have resulted in the PM's estimate reflecting an underrun at completion. The total program estimate and schedule are not affected by these variances.

b. (U) Procurement

<u>IPF (Buy 1-5)</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price at Completion</u>
Raytheon Company Boston, MA DAAK40-79-C-0082, CPFF/AF/IF March 15, 1979	\$232.2	N/A	(b)(4)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$-0.3	\$ -12.6
Cum Variances to Date (10/28/84)	\$ 1.3	\$ -11.4
Net Change	\$ 1.6	\$ -1.2

(U) Explanation of Change: The net cost variance is due to underruns on Tooling, Test Equipment, Program Management, and overruns on Production Line Setup. The net schedule variance is due to schedule recovery on Test Equipment and Program Management and schedule slips on Tooling. The cost and schedule variances to date and the estimate for the remaining effort have resulted in the PM's estimate reflecting an overrun at completion. The total program estimate and schedule is not affected by these variances.

<u>IPF (Buy 6)</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price at Completion</u>
Raytheon Company Boston, MA DAAH01-84-C-A147, CPIF June 29, 1984	\$ 43.0	N/A	(b)(4)

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10. (U) Contract Information: (Dollars in Millions) (Continued)b. (U) Procurement (Continued)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	---	---
Cum Variances to Date (10/28/84)	<u>\$-1.1</u>	<u>\$-0.0</u>
Net Change	---	---

(U) Explanation of Change: This is the first SAR submission; thus, there are no variances from a prior report to address. The present variances are primarily due to the incorporation of interim budgets, the full-up performance measurement baseline will be established with the Dec 84 ending CPR report.

<u>Production Contract (FY 82)</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price at Completion</u>
Raytheon Company Boston, MA DAAH01-82-C-A191, CPIF Definitized May 28, 1982	\$386.3	9 FUs	(b)(4)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 4.3	\$ -3.7
Cum Variances to Date (10/28/84)	<u>\$-15.0</u>	<u>\$ -8.6</u>
Net Change (12 Months)	<u>\$-19.3</u>	<u>\$ -4.9</u>

(U) Explanation of Change: The cost variance is primarily associated with FAIT inefficiencies and the associated increase in apportioned support labor and applied rates/factors, and GSE upgrade activity. The net schedule variance is primarily unfavorable schedule variances associated with the Buy #2 schedule slips impacting Buy #3 and the FAIT inefficiencies mentioned above, additional testing of GSE, and a radome problem which is temporarily delaying missile delivery, offset by favorable variances resulting from schedule rebudgeting due to incorporation of contract modification reflecting change in deliveries. The PATRIOT Program Manager's assessment is within approved funding.

<u>Production Contract (FY 83)</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price at Completion</u>
Raytheon Company Boston, MA DAAH01-83-C-A004, FPI Definitized Sep 30, 1983	\$492.0	12 FUs	(b)(4)

PATRIOT, December 31, 1984

2. (U) Contract Information: (Dollars in Millions) (Continued)b. (U) Procurement (Continued)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$ -2.3	\$ 3.0
Cum Variances to Date (10/28/84)	\$ -5.2	\$ -9.8
Net Change (12 Months)	\$ -2.9	\$ -12.8

(U) Explanation of Change: The cost variance is primarily associated with FAIT inefficiencies and the associated increase in apportioned support labor and applied rates/factors, and Traveling Wave Tube (TWT) cost growth. The net schedule variance is primarily unfavorable schedule variances associated with the FAIT inefficiencies mentioned above, additional testing of GSE, and the schedule slips of Buy #3 impacting Buy #4, offset by favorable variances resulting from schedule rebudgeting due to incorporation of contract modification reflecting change in deliveries. The PATRIOT Program Manager's assessment is presently equal to the target price of \$492.0M; however, a preliminary PPO ECAC indicates an overrun to the contract target price. Based on the PPO assessment, the contractor was directed to reassess the Prod #4 ECAC and their preliminary indications reflect an ECAC approaching that of the Project Manager. Discussions are continuing between PPO/Contractor counterparts to finalize differences in the quantification of the overrun, and alternative management actions are being developed to assure that contract costs can be accommodated within available program funding. Current indications are that additional costs can be funded within available program funding.

<u>Production Contract (FY 84)</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price at Completion</u>
Raytheon Company Boston, MA DAAH01-84-C-A041, FPI Definitized Aug 24, 1984	\$640.7 <u>1/</u>	13 <u>1/</u>	(b)(4)

1/

(b)(4)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	---	---
Cum Variances to Date (10/28/84)	\$ -6.7	\$ -6.4
Net Change (12 Months)	---	---

(U) Explanation of Change: This is the first SAR submission with variances as this contract was initially an FFP letter contract (there is no CPR/variance reporting with FFP contracts). The letter contract was definitized as an FPI contract on 24 Aug 84 for \$640.7M, which includes \$24.7M FMS funds. The present variances are primarily due to the incorporation of interim budgets. The full-up budgets will be established with the Dec 84 ending CPR report.

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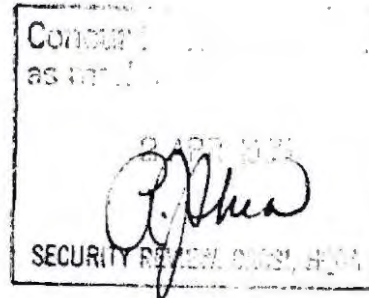
SAR-84-130

SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)
PROGRAM: PERSHING II

A-17 PERSHING II

AS OF DATE: December 31, 1984

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1. (U) Designation/Nomenclature (Popular Name): Not assigned/Field Artillery Missile System (PERSHING II).

2. (U) DOD Component: Department of the Army

3. (U) Responsible Office and Telephone Number:

PERSHING Project Manager's Office
Program Management Office
Redstone Arsenal, AL 35898-5690

PM: COL Robert A. Brown
Assigned April 30, 1984
AUTOVON: 746-1165

4. (U) Program Elements:

RDTE: 6.43.11.A
Procurement: C00006

(b)(1)



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5. Program Highlights (Since Last Report) (cont'd):

b. (U) Preliminary estimates of the automatic fault isolation during the 1984 SCTS demonstration indicate 20.9 percent (significantly higher than previously) to a single module. Results also show successful fault detection of nearly 100 percent. Software problems that surfaced during demonstration have been corrected and will be fielded in the FY85 Block Mod.

c. (U) Four environmentally-conditioned missile flights were made, two conditioned to -50°F and two at +90°F. All missiles had been subjected to a series of environmental tests and troop handling including remote operations prior to being fired. The tests were designed to simulate at least five years of tactical operations. Three flight tests were scored as fully successful and the fourth as a partial success. The first missile, fired on May 16, 1984, was conditioned to -50°F. There was an anomaly during the last 10 seconds of flight. The problem was corrected and successfully demonstrated during the second cold missile firing on August 7, 1984. The two hot flight tests were conducted on September 20, 1984 and October 3, 1984.

d. (U) During the period February through April 1984, a series of captive flights to demonstrate system performance in snow and rain were successfully completed.

(b)(1)

f. (U) The PERSHING II System is expected to meet mission requirements.

6. (U) Schedule

a. Milestones:

	<u>Development Estimate</u>	<u>Current Estimate</u>
DSARC I	NA	Jan 74
DT/OT I		
a. Start	NA	Nov 77
b. Complete	NA	May 78
DSARC II	Dec 78	Dec 78
Award ED Contract	Feb 79	Feb 79
DT/OT II		
a. Start	Dec 81	Jul 82
b. Complete	Apr 83	Sep 83
Production Readiness Review	Feb 83	Nov 81
Long Lead Procurement	Mar 83	Dec 81
DSARC III	Jul 83	NA
Award Production Contract	Oct 83	Jun 82
First Production Delivery	Jul 84	Apr 83
IOC	Dec 84	Dec 83

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PERSHING II, December 31, 1984

- b. Explanation of Changes - None.
- c. References - Secretary of Defense Memo, November 26, 1980, subject: PERSHING II Initial Operational Capability.

7. ~~U~~ ~~CONFIDENTIAL~~ Technical/Operational Characteristics:

	Development Estimate	Demonstrated Performance	Current Estimate
a. U CONFIDENTIAL Technical			
(1) (U) Range			
(a) Minimum (KM)	100	121	100
(b) Maximum (KM)	1800	1620	1800
(2) U CONFIDENTIAL Accuracy (M, CEP)	(b)(1), (b)(3): 42 USC §2168(a) (1)(C)--(FRD)		
(3) (U) Erector Launcher	M790 (Modified)	Demonstrated in System Tests, Flight Tests, and OT III	M790 (Modified)
b. U CONFIDENTIAL Operational			
(1) U CONFIDENTIAL Reliability	(b)(1)		
(a) QRA Role (%)			
(b) Gen Spt Role (%)			
(c) Storage, Msl (%)			
(2) (U) Reaction Time (Minimum) - (3 missiles in QRA Role)	Not shown due to classification - demonstrated performance is within system requirement. (See March 31, 79 SAR for data.)		
(3) (U) Mean Time to Repair			
(a) Organizational (hrs)	.8	1.15	1.19
(b) DS/GS (hrs)	2.0	2.94	2.80
(4) (U) Fault Isolation to Single Module-Organizational (%)	100	88	92
(5) (U) Fault Isolation to Single Card-Intermediate (%)	100	20.9	90 (Ch-1)

(b)(1), (b)(3): 42 USC §2168(a) (1)(C)--(FRD)

2. (U) MICON's assessment based on warhead scoring committee results, flight reliability computed using AMSAA Discrete Model (Grouped), and pre-remote and remote phase reliability based on DT/OT III and A/O data. Current estimate is based upon expected capability at maturity with identified reliability improvements being incorporated.

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PERSHING II, December 31, 1984

c. Explanation of Changes - (Ch-1) The preliminary estimate of the automatic fault isolation to a single module during the 1984 SCTS demonstration was 20.9 percent. Some systematic problems with the software have since been corrected, which will improve this figure. By testing all suspected defective modules as individual tests, the SCTS should have the capability to determine the defective modules 90 percent of the time.

d. References: Approved Program - DCP Number 132A, April 21, 1980.

8. ~~(b)~~ Program Acquisition Cost: (Current Estimate in Millions)

Fiscal Yr Period	Quantity	FY 1979 Constant (Base Yr)\$	Current (Then Yr)\$	Escalation Rate (%)
APPROPRIATION: RDTE				
Current & Prior Yrs	28	582.2	693.3	NA
Budget Yr (1986)	--	--	--	4.4
Balance of FYDP	--	--	--	NA
(1987)	--	--	--	4.2
(1988)	--	--	--	4.0
(1989)	--	--	--	4.0
(1990)	--	--	--	3.7
Balance to Complete	--	--	--	NA
SUBTOTAL	28	582.2	693.3 ^{1/}	NA
APPROPRIATION: PROCUREMENT (MIPA)				

(b)(1)

^{1/} This includes \$18.0M US Air Force customer funds.

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PERSHING II, December 31, 1984

3. ~~(C)~~ Program Acquisition Cost (cont'd): (Current Estimate in Millions)

Fiscal Yr Period	Quantity	FY 1979 Constant (Base Yr)\$	Current (Then Year)\$	Escalation Rate (%)
APPROPRIATION: MILCON				
Current & Prior Yrs	--	3.4	4.7	NA
Budget Yr (1986)	--	--	--	4.4
Balance of FYDP	--	--	--	NA
(1987)	--	--	--	4.2
(1988)	--	--	--	4.0
(1989)	--	--	--	3.7
(1990)	--	--	--	3.4
Balance to Complete	--	--	--	NA
SUBTOTAL	--	3.4	4.7	NA

(b)(1)

Program Status

- (1) Percent Program Completed: 55.65% (10/18).
- (2) Percent Program Cost Appropriated: 83.24% (\$2219.0/\$2665.7).

9. (U) Program Acquisition/Current Procurement Unit Cost Summary:
(Current (Then Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a. Program Acquisition -			
(1) Cost	(b)(1)		
(2) Quantity			
(3) Unit Cost			
b. Current Procurement	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	382.2	472.2	334.7
Less CY Adv Proc	--	--	--
Plus PY Adv Proc	--	--	--
Net Total	(b)(1)		
(2) Quantity			
(3) Unit Cost			

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PERSHING II, December 31, 1984

10. (U) Cost Variance Analysis:

a. Summary (Current (Then Year) Dollars in Millions)

	RDTE	PROC	MILCON	TOTAL
		(b)(1)		(b)(1)
Development Est	643.7		0	
Previous Changes:				
Economic	+51.4		--	
Quantity	-20.0		--	
Schedule	--		--	
Engineering	-2.8		--	
Estimating	+20.4		+4.7	
Support	+0.7		--	
Other	--		--	
SUBTOTAL	+49.7		+4.7	
Current Changes:				
Economic	--		--	
Quantity	--		--	
Schedule	--		--	
Engineering	--		--	
Estimating	-0.1		--	
Support	--		--	
Other	--		--	
SUBTOTAL	-0.1		--	
TOTAL CHGS	+49.6		4.7	
CURRENT EST	693.3		4.7	

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PERSHING II, December 31, 1984

10. (U) Cost Variance Analysis (cont'd):

(FY79 Constant (Base Year) Dollars in Millions)

	RDTE	PROC	MILCON	TOTAL
		(b)(1)		(b)(1)
Development Est	582.6 ^{1/}		--	
Previous Changes:				
Economic	--		--	
Quantity	-14.2		--	
Schedule	--		--	
Engineering	-1.8		--	
Estimating	+15.1		+3.4	
Support	+0.5		--	
Other	--		--	
SUBTOTAL	-0.4		+3.4	
Current Changes:				
Economic	--		--	
Quantity	--		--	
Schedule	--		--	
Engineering	--		--	
Estimating	--		--	
Support	--		--	
Other	--		--	
SUBTOTAL	0.0		0.0	
TOTAL CHGS	-0.4		+3.4	
CURRENT EST	582.2		3.4	

^{1/}Adjusted by +12.2 to reflect true FY 79 baseyear dollars.

b. Current Change Explanations

	DOLLARS IN MILLIONS	
	Base Year \$	Then Year \$
(1) RDTE		
Deobligation of FY81 dollars (Estimating)	0.0	-0.1
(2) Procurement		
Revised Jan 85 Economic Escalation (Economic)	NA	+30.0
Directed decrease in total missiles. Reduction in FY84, 85 & 86 of 86 missiles. (Quantity)	-94.6	-184.9

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PERSHING II, December 31, 1984

10. (U) Cost Variance Analysis (cont'd):

	DOLLARS IN MILLIONS	
	Base Year \$	Then Year \$
Reduced quantity resulted in decrease in production period required. (Schedule)	-3.9	-7.7
Refinement of prior year (FY81-84) estimates including net adjustments for spares and reprogramming costs for FY82-83 AVCO overrun. (Estimating)	+9.6	+15.2
Refinement of projected FY87-93 program requirements. (Estimating)	+4.7	+12.3
Adjustments resulting from FY84/85 contract negotiations. (Estimating)	-53.3	-102.0

(3) MILCON

NA

NA

c. References - The RDTE Current Estimate, Section E, includes PE 6.43.11.

11. (U) Program Acquisition Unit Cost (PAUC) History:

Initial SAR Estimate to Current Baseline Estimate

PAUC (Initial SAR Est)	Changes (Then Year Dollars in Millions)								PAUC (Current Estimate)
	ECON	QTY	SCH	ENG	EST	SPT	OTHER	TOTAL	
94.2	+18.5	-12.2	+14.3	+4.2	+38.6	+4.1	-1.8	+65.7	159.9

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PERSHING II, December 31, 1984

12. (U) Contract Information: (Dollars in Millions) (October 1984 CPR data)

	<u>Current Contract</u>		<u>PMs Est Price</u>
	<u>Target Price</u>	<u>Qty</u>	<u>At Completion</u>
a. RDTE			
<u>Engineering Development</u>			
Martin Marietta Aerospace,	\$ 421.9	28	\$ 464.5
Orlando, FL, DAAK40-79-C-0064,			
CPIF, February 23, 1979			
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ -55.1		\$ -0.3
Cumulative Variance to Date (10-21-84)	-57.0		-1.3
Net Change	\$ -1.9		\$ -1.0

Explanation of Change: This contract is more than 99 percent complete. Little can be done to offset the overrun. Although there is a contract overrun, there will not be a program cost overrun. It should be understood that \$10.7M of management reserve is available to help offset this overrun.

	<u>Current Contract</u>		<u>PMs Est Price</u>
	<u>Target Price</u>	<u>Qty</u>	<u>At Completion</u>
b. Procurement			
<u>Procurement Buy I and II</u>			
Martin Marietta Aerospace,	\$ 192.0	21	\$ 187.2
Orlando, FL, DAAH01-82-C-A132,	412.3	91	412.3
CPIF, June 29, 1982 (FY82)	\$ 604.3	112	\$ 599.5
and October 1982 (Option FY83)			
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 9.3		\$ -20.9
Cumulative Variances to Date (10-21-84)	23.7		-13.7
Net Change	\$ 14.4		\$ 7.2

Explanation of Change: Both the cost and schedule variances improved. For the cost variance, this is the result of subcontractor effort. For the schedule variance, primary contributors are subcontractor (Hercules) effort and materiel.

	<u>Current Contract</u>		<u>PMs Est Price</u>
	<u>Target Price</u>	<u>Qty</u>	<u>At Completion</u>
<u>Production Buy III^{1/}</u>			
Martin Marietta Aerospace,	\$304.6(330.1) ^{1/72}		\$ 330.1
Orlando, FL, DAAH01-84-C-0039,			
Letter Contract (FY84)			
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 0.0		\$ 0.0
Cumulative Variances to Date (10-21-84)	2.7		1.1
Net Change	\$ 2.7		\$ 1.1

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PERSHING II, December 31, 1984

Explanation of Change: Both cost and schedule variances improve. For the cost variance, this is due to small improvements in both subcontractor and Martin in-house functions. For schedule, the change is minimal.

	<u>Current Contract</u> <u>Target Price</u>	<u>Qty</u>	<u>PMs Est Price</u> <u>At Completion</u>
<u>Engineering Services</u> Martin Marietta Aerospace, Orlando, FL, DAAH01-84-C-A001, CPFF, December 16, 1983	\$29.8	NA	\$29.8
<u>PII SWAP</u> Martin Marietta Aerospace, Orlando, FL, DAAH01-83-C-A043, CPFF, December 10, 1982 (FY83 and Option FY84)	\$35.2	NA	\$35.2
<u>Warhead Adaption Kits</u> AVCO, Wilmington, MA, DAAK10-82-C-0019, FFP, August 31, 1984	NA	117	\$40.6

FOOTNOTES:

1/ This contract was awarded to Martin Marietta Aerospace on December 29, 1983. The limitation of the Government's liability for the letter contract has been increased to the amount shown, which is approximately 92 percent of the anticipated contract value (shown in parenthesis) including concurrent spares. It will be definitized as FPI when overhead rates are resolved at the DA level.

2/ This is a level of effort contract; no cost and schedule variances are computed. The total includes \$2.4M OMA and RDT&E funds as well as \$27.4M MIPA funds.

3/ This is a level of effort contract; no cost and schedule variances are computed. The total includes \$9.1M OMA (FY83) funds that were provided to meet scheduled IOC as well as \$26.1M MIPA funds.

4/ PM for this is Nuclear Munitions, Dover, NJ. The overrun (\$21.456M) was negotiated and contract converted to FFP at amount above.

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Program Funding Summary
SYSTEM: PERSHING II

AS OF DATE: 31 December 1984
Base Year: FY 1979

CURRENT ESTIMATE (\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) <u>1/</u>
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E

1975	--	--	--	--	2.7	2.0	2.0	2.0	10.9
1976	--	--	--	--	23.2	19.0	19.0	19.0	6.6
1977	--	--	--	--	7.1	6.0	6.0	6.0	2.9
1977	--	--	--	--	40.0	36.3	36.3	36.3	2.6
1978	--	--	--	--	32.1	29.6	29.6	29.6	6.8
1979	--	--	--	--	17.5	18.0	18.0	18.0	8.4
1980	--	--	--	--	137.2	145.4	145.4	145.4	9.3
1981	--	--	--	--	116.9	149.1	149.1	148.9	11.9
1982	(b)(1)	--	--	--	112.1	154.6	154.6	154.4	7.6
1983	--	--	--	--	78.8	111.6	111.6	108.3	4.9
1984	--	--	--	--	14.6	21.7	21.7	14.7	3.8
TOTAL	--	--	--	--	582.2	693.3 2/	693.3	682.6	

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APPROPRIATION: PROCUREMENT

1981	NA	NA	1.3	1.3	1.9	1.9	1.9	11.9
1982	NA	NA	128.4	153.4	237.6	237.6	229.0	14.3
1983	NA	NA	234.5	273.8	466.9	464.3	337.2	9.0
1984	NA	NA	225.8	240.2	432.4	401.3	111.4	8.0
1985	NA	NA	197.4	203.4	382.2	195.3	9.0	4.8
1986	NA	NA	169.2	169.2	334.7	0	0	5.7
1987	NA	NA	3.6	3.6	7.3	0	0	5.5
1988	NA	NA	6.8	6.8	14.8	0	0	5.2
1989	NA	NA	6.6	6.6	14.8	0	0	4.8
1990	NA	NA	5.4	5.4	12.8	0	0	4.4
1991 to complete	NA	NA	23.9	23.9	62.3	0	0	4.4
TOTAL	--	--	1002.9	1087.6	1967.7	1300.4	688.5	

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SECURITY REVIEW, OASD, HQDA

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Program Funding Summary
SYSTEM: PERSHING II

AS OF DATE: 31 December 1984
Base Year: FY 1979

CURRENT ESTIMATE (\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 1/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: CONSTRUCTION									
1981	--	--	--	--	2.9	3.9	3.9	3.9	11.9
1982	--	--	--	--	--	--	--	--	7.6
1983	--	--	--	--	0.5	0.8	0.8	0.8	4.9
TOTAL	--	--	--	--	3.4	4.7	4.7	4.7	

~~Classified by: P11 SCG
Declassify On: 1 Mar 89
Declassify On: OADIS~~

FOOTNOTES:

- 1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite indices.
- 2/ This includes \$18.0M U.S. Air Force customer funds made available through a reprogramming action.

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Comprehensive Annual Selected Acquisition Report
PERSHING II, December 31, 1984
Base Year: FY 1979

(U) Deliveries (Planned/Actual)

	<u>TO DATE</u>
Development	
Propulsion Section	28/28
Re-entry Vehicle	28/28
Production	
Propulsion Section	85/85
Re-entry Vehicle	85/85

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Comprehensive Annual Selected Acquisition Report PERSHING II, December 31, 1984 Base Year: FY 1979

Program Acquisition Cost (Dollars in Millions)

a. Program Acquisition Cost

	Development ^{1/} Estimate (FY74 - 93)	Changes	Current ^{2/} Estimate (FY74 - 93)
1. (U) <u>Cost</u>			
(U) Development ^{3/}	582.6*	-0.4	582.2
(U) Procurement	615.6	+472.0	1,087.6
Weapon System	(582.9)	(446.9)	(1,029.8)
Flyaway	(549.0)	(420.9)	(969.9)
Prop Section	(194.6)	(149.2)	(343.8)
Re-entry Vehicle	(266.0)	(203.9)	(469.9)
GSE	(88.4)	(67.8)	(156.2)
Other Weapon System	(33.9)	(26.0)	(59.9)
Initial Spares	(32.7)	(25.1)	(57.8)
(U) Construction ^{4/}	--	+3.4	3.4
	<hr/>	<hr/>	<hr/>
TOTAL: Constant FY79 \$	1,198.2	+475.0	1,673.2
Escalation	372.8	619.7	992.5
Development	(61.1)	(+50.0)	(111.1)
Procurement	(311.7)	(+568.4)	(880.1)
Construction	--	(+1.3)	(1.3)
	<hr/>	<hr/>	<hr/>
TOTAL Program Cost	1,571.0	1,080.9	2,665.7

DOE (Non-Add - See 31 Dec 80 SAR)

b. Foreign Military Sales: None

c. Nuclear Cost: This cost borne by the Department of Energy; omitted due to classification.

* Adjusted by +\$12.2M to reflect true FY 79 base year dollars.

FOOTNOTES:

^{1/} (U) The values shown for the development estimate are based on a heel-to-toe type procurement strategy rather than the development/production overlap strategy currently being pursued. The current estimate reflects the development/production overlap strategy that results from accelerating the production program.

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Comprehensive Annual Selected Acquisition Report PERSHING II, December 31, 1984 Base Year: FY 1979

Program Acquisition Cost (Dollars in Millions) (cont'd)

FOOTNOTES: (cont'd)

2/ (U) Funding for the 10-ton vehicle for PERSHING II is not included in the PII program acquisition costs. Funds for the 10-ton vehicle are included in the Army's 10-ton vehicle line.

3/ (U) The DE includes \$92.9M in development cost, prior to the base year, which has not been escalated to FY79 constant dollars. The \$92.9M equates to \$105.1M in FY79 constant dollars.

4/ (U) Military construction of \$4.7M escalated dollars has been added per instruction: Headquarters DA Memo (DACA-CAW) 28 Dec 82, subject: Allocation of MCA Projects CDS and SAR, +\$3.9M for Construction of Test Site, Shoofly, ID and +\$0.82M for Maintenance Project, Frankfurt, Germany.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT
PERSHING II, December 31, 1984

CONTRACT INFORMATION (DOLLARS IN MILLIONS)

<u>Contractor Costs</u> ^{1/}	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u> <u>Contract Estimate</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	
1. (U) Development							
Martin Marietta Aerospace, Orlando, FL, DAAK40-79-C-0064, CPIF, February 23, 1979	360.0	NA	NA	421.9	NA	28	436.3
2. (U) Procurement							
a. Martin Marietta Aerospace, Orlando, FL, DAAH01-82-C-A132, CPIF, June 29, 1982 (FY82) and October 1982 (Option FY83)	605.9	NA	112	604.3	NA	112	556.3
b. Martin Marietta Aerospace, Orlando, FL, DAAH01-84-C-0039, Letter Contract (FY84) ^{2/}	315.0	NA	70	304.6	NA	72	293.6
c. Martin Marietta Aerospace, Orlando, FL, DAAH01-84-C-A001, CPFF, December 16, 1983 ^{3/}	24.0	NA	NA	29.8	NA	NA	29.8
d. Martin Marietta Aerospace, Orlando, FL, DAAH01-83-C-A043 CPFF, December 10, 1982 (FY83 and Option FY84)	35.2	NA	NA	35.2	NA	NA	35.2
e. AVCO, Wilmington, MA, DAAK10-82-C-0019, FFP, August 31, 1984 ^{4/}	19.4	NA	117	40.6	NA	117	40.6
3. (U) Construction	NA			NA			NA

FOOTNOTES:

1/ Development and production cost estimates based upon October 21, 1984 CPR and Cost and Performance data.

2/ This contract has not been definitized yet due to nonresolution of overhead rates at the DA level. It is expected to definitize at approximately \$330.1M; the current contract price shown is the limitation of the Government's liability (92.9%).

3/ The contract for Engineering Services was extended by one month to October 31, 1984.

4/ An overrun of \$21.456M was negotiated on this contract and converted to FFP at Current Contract Price shown above.

A-9 HELLFIRE

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SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823) (U)
PROGRAM: HELLFIRE Modular Missile System (HMMS)

84-044

AS OF DATE: December 31, 1984

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SUBJECT

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Program Highlights
Schedule
Technical/Operational Characteristics
Program Acquisition Cost
Unit Cost Summary
Cost Variance Analysis
Program Acquisition Unit Cost History
Contract Information

Concur in Classification
as marked

2 APR 1985

SECURITY REVIEW, OACSI, HQDA

1
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1. (U) Designation: Not applicable - subsystem of the AH-64 Apache Weapon System.

Nomenclature: Armament System Helicopter: HELLFIRE

2. (U) DOD Component: Department of the Army

3. (U) Responsible Office and Telephone Number:

HELLFIRE/GLD Project Management Office
Redstone Arsenal, AL 35898-5610

PM: COL William J. Schumacher
Assigned: 5 Jul 84
AUTOVON: 746-1365, 8408

4. (U) Program Elements:

RDTE: 64310
MIPA: C70000

5. (U) Program Highlights (Since Last Report):

a. (U) Missile level first article tests (FAT) (production validation tests) on the first production buy were completed 26 Oct 84. Of the 24 missiles fired, 23 were successful. Completion of the tests was delayed because of earlier problems in humidity testing and by guidance noise problems with the seeker. Weight reduction from the current 99.8 pounds to the required 95 pounds is not considered feasible without degrading system performance. A deicing kit consisting of a frangible glass dome is in production. The kit can be installed in the field and will give limited operational capability under icing conditions.

~~CLASSIFIED BY: HELLFIRE Security
Classification Guide~~

~~DECLASSIFY ON:~~

~~Dated: 1 Oct 82
31 Dec 87~~

~~Classification of this Document Downgraded
to Unclassified when Separated from Classified
Inclosure(s)~~

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HELLFIRE, December 31, 1984

b. (U) The HELLFIRE Missile System meets its current mission requirements in all areas except missile weight and seeker performance under icing conditions.

6. (U) Schedule:

a. (U) Milestones.

	<u>Development Estimate</u>	<u>Current Estimate</u>
Advanced Development		
Start	Dec 72	Dec 72
Complete	Oct 75	Oct 75
Competitive AD Contracts		
Start	Jun 74	Jun 74
Complete	Oct 75	Oct 75
ASARC/DSARC II	Feb 76	Feb 76
Engineering Development (ED) Contract Award	Oct 76	Oct 76
Prototype System Qualification Test (Contractor)		
Start	Mar 79	Mar 80
Complete	Aug 79	Mar 82
Operational Test (OT)(Cobra)		
Start	Aug 79	Apr 80
Complete	Dec 79	Jul 80
ASARC/DSARC III	Feb 80	Mar 82
Production Contract Award	Apr 80	Mar 82
Production Validation Tests Complete	Oct 81	Oct 84
ASARC/DSARC IIIA	Nov 81	N/A
Full-Scale Production	Jan 82	Mar 82
Initial Operational Capability (IOC)	May 83	Apr 86
(on AH-64)		(Ch - 1)

b. (U) Explanation of Changes: (Ch - 1) The IOC for HELLFIRE on Apache is changed from FY 85 to Apr 86 for synchronization with the Apache program.

c. (U) Reference: Development Estimate - DCP #118, dated 12 Nov 76;
Production Estimate - DCP #118, dated 7 Jan 82.

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HELLFIRE, 31 December 1984

7. (U) Technical/Operational Characteristics:

	Development Estimate	Demonstrated Performance	Current Estimate
a. (U) Technical			
Missile Weight, Maximum (lbs)	95	99.8	99.8
b. (U) Operational			
(U) Missile Range (Km)	(b)(1)		
Minimum (Km) <u>1/</u>			
Maximum (Km)			
Footprint (degrees)			
(U) Time of Flight (Sec) <u>2/</u>	(b)(1)		
3 Km			
5 Km	(b)(1)		
(U) Reliability			
(U) Missile (in flight)	.92-.95	.94	.92-.95
(U) Launcher	.95-.99	1.0	.95-.99
(U) Probability of Hit	(b)(1)		
(Given Reliability) PH/R			
(U) Stationary Targets (Direct Fire Mode)			
(U) Moving Targets (Direct Fire Mode)	(b)(1)		
c. (U) <u>Explanation of Changes:</u>	None.		
d. (U) References:	Same as 6c.		

(U) FOOTNOTES:

(b)(1)

2/ (U) Direct fire flight time when fired from helicopter at zero forward velocity.

3/ (U) Reliability includes missile, helicopter controls and displays, and designation system.

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HELLFIRE, December 31, 1984

8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1975 Constant (Base-Year)\$	Current (Then-Year)\$	Escalation Rate (%)
Appropriation: RDTE				
Current & Prior Years	229	229.2	314.6	N/A
Budget Year (1986)		3.0	6.2	4.4
Balance of FYDP		11.1	25.5	N/A
(1987)		(2.9)	(6.3)	4.2
(1988)		(2.9)	(6.6)	4.0
(1989)		(2.6)	(6.4)	3.7
(1990)		(2.7)	(6.5)	3.4
Balance to Complete		1.5	3.5	N/A
Subtotal	229	244.8	349.8	N/A

Appropriation: Procurement				
Current & Prior Years	14,644	335.9	820.2 1/	N/A
Budget Year (1986)	6,576	91.2	253.0	5.7
Balance of FYDP	24,910	320.8	995.7	N/A
(1987)	(6,576)	(85.7)	(249.7)	5.5
(1988)	(6,576)	(83.4)	(254.0)	5.2
(1989)	(6,758)	(84.4)	(268.5)	4.8
(1990)	(5,000)	(67.3)	(223.5)	4.4
Balance to Complete 1/	2,566	39.0	135.1	N/A
Subtotal	48,696	786.9	2,204.0 1/	N/A

1/ Does not track to the Procurement Annex because \$15.2 million in MIPA funds previously included in the HELLFIRE program was transferred to the Apache program in Jun 84.

Appropriation: MILCON				
Current & Prior Years	N/A	-0-	-0-	N/A
Budget Year (1986)	N/A	-0-	-0-	4.4
Balance of FYDP	N/A	.9	2.0	N/A
(1987)	N/A	(0)	(0)	4.2
(1988)	N/A	(.9)	(2.0)	4.0
(1989)	N/A	(0)	(0)	
(1990)	N/A	(0)	(0)	
Balance to Complete	N/A	(0)	(0)	N/A
Subtotal	N/A	.9	2.0	N/A
TOTAL	48,925	1,032.6	2,555.8	N/A

(U) Program Status:

- (1) (U) Percent program completed: 70% (14/20)
- (2) (U) Percent program cost appropriated: 44.4% (\$1134/\$2555.8)

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HELLFIRE, December 31, 1984

9. (U) Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then-Year) Dollars in Thousands)

		<u>Current Year</u>	<u>Budget Year</u>
	<u>SAR Current</u>	<u>UCR Baseline</u>	<u>UCR Baseline</u>
	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>
		<u>(FY 1985)</u>	<u>(FY 1986)</u>
a. (U) Program Acquisition			
(1) (U) Cost	\$ 2,555.8M	\$ 2,457.0M	\$ 2,555.8M
(2) (U) Quantity	48,925	48,925	48,925
(3) (U) Unit Cost	\$52,240	\$50,221	\$52,240
b. (U) Current Procurement	(FY 85)	(FY 85)	(FY 86)
(1) (U) Cost	\$ 227.5M	\$ 237.5M	\$ 253.0M
Less CY Adv Proc	-0-	0	-0-
Plus FY Adv Proc	-0-	0	-0-
Net Total	\$ 227.5M	\$ 237.5M	\$ 253.0M
(2) (U) Quantity	5,342	6,026	6,576
(3) (U) Unit Cost	\$42,587	\$39,413	\$38,473

10. (U) Cost Variance Analysis:

a. Summary--(Current (Then-Year) Dollars in Millions)

	DEV	PROC	CONSTR	TOTAL
Development Estimate	\$266.2	\$437.2	-0-	\$703.4
Previous Changes:				
Economic	+9.3	+248.6	- .3	+257.6
Quantity	-3.5	+465.8	-	+462.3
Schedule	+14.6	+350.5	+ .4	+365.5
Engineering	+18.8	+152.9	-	+171.7
Estimating	+16.9	+441.0	+4.2	+462.1
Other	-	-	-	-
Support	+13.5	-11.5	-	+2.0
Subtotal	+69.6	+1,647.3	+4.3	+1,721.2
Current Changes:				
Economic	- .5	+24.1	-	+23.6
Quantity	-	-	-	-
Schedule	-	+9.0	-	+9.0
Engineering	+9.5	+27.3	-	+36.8
Estimating	+ .1	+58.2	-2.3	+56.0
Other	-	-	-	-
Support	+4.9	+ .9	-	+5.8
Subtotal	+14.0	+119.5	-2.3	+131.2
Total Changes	+83.6	+1,766.8	+2.0	+1,852.4
Current Estimate	349.8	2,204.0	2.0	2,555.8

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HELLFIRE, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd):

FY 1975 Constant Dollars (Base Year) in Millions				
	DEV	PROC	CONSTR	TOTAL
Development Estimate	\$211.9 1/	\$276.7	-0-	\$488.6
Previous Changes:				
Quantity	-2.7	+153.6	-	+150.9
Schedule	+9.1	+42.1	-	+51.2
Engineering	+10.7	+69.5	-	+80.2
Estimating	+6.4	+225.2	+2.0	+233.6
Other	-	-	-	-
Support	+6.3	-6.0	-	+ .3
Subtotal	+29.8	+484.4	+2.0	+516.2
Current Changes:				
Quantity	-	-	-	-
Schedule	-	-	-	-
Engineering	+4.4	+9.3	-	+13.7
Estimating	-3.2	+16.6	-1.1	+12.3
Other	-	-	-	-
Support	+1.9	-.1	-	+1.8
Subtotal	+3.1	+25.8	-1.1	+27.8
Total Changes	+32.9	+510.2	+.9	+544.0
Current Estimate	244.8	786.9	.9	1,032.6

1/ Revised from \$210.3 due to conversion of Pre-Base Year Actuals to Base Year 75.

b. (U) Current Change Explanations: (Dollars in Millions)

(1) (U) Development	FY 75 (Base Year) - Constant \$	Current - (Then Year) \$
Revised Jan 85 Economic Escalation Rates (ECONOMIC)	NA	-.5
- Revised Deflator (ESTIMATING)	+.1	+.3
- Revised Deflator (SUPPORT)	+.1	+.2
Deobligation of Prior Year Funds and Application of OSD Historical Deflator (ESTIMATING)	-3.3	-.2
Addition of Digital Autopilot and Seeker Hardening to Meet an Evolving Threat (ENGINEERING)	+4.4	+9.5
Revised Estimate of Missile Test Program Sets and Deferral of Same to FY 90 - 91 Timeframe to Synchronize Program with Establishment of Organic Depot (SUPPORT)	+1.8	+4.7

276.7
- 15.2
271.5
6

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HELLFIRE, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd):(2) (U) Procurement

Revised Jan 85 Economic Escalation Rates (ECONOMIC)	NA	+24.1
- Revised Deflator (ESTIMATING)	-5.5	-14.3
- Revised Deflator (SUPPORT)	-.1	-.3
 Congressional Funding Decrement of \$10M in FY 85 Resulting in Deferral of 684 Missiles from FY 85 to FY 91 (SCHEDULE)	 0	 +9.0
 Incorporation of Minimum Smoke Motor in Missiles Beginning with FY 84 Procurement of 800 Rounds (ENGINEERING)	 +9.3	 +27.3
 Correction of Error in Application of Jan 84 Inflation Indices (ESTIMATING)	 +13.4	 +36.0
 Revised Estimating Methodology from Baseline Cost Estimate Update Reflecting Actual Procurement History in FY 82 - 84 Production Contracts and Other Minor Changes (ESTIMATING)	 +8.7	 +36.5
 Revised Support Cost Estimate Including 123 Additional Training Missiles and 408 Additional Dummy Missiles Required to Support the APACHE Program and Cost. Decreases Resulting from Baseline Cost Estimate Update (SUPPORT)	 0	 +1.2

(3) (U) Construction.

Revised Jan 85 Economic Escalation Rates (ECONOMIC)	NA	-0-
Revised Estimate of System Unique Storage Facility Requirement (ESTIMATING)	-1.1	-2.3

c. (U) References...

- (1) (U) Development Estimate - DCP #118, dated 12 Nov 76;
Production Estimate - DCP #118, dated 7 Jan 82.
- (2) (U) Current Estimate - FY 86 President's Budget.
The RDTE Current Estimate, Section B.

HELLFIRE, December 31, 1984

11. (U) Program Acquisition Unit Cost (PAUC) History:

a. (U) Initial SAR Estimate to Current Baseline Estimate:

PAUC (Initial SAR Est) *	Changes (Current (Then Year) Dollars)								PAUC (REVISED DEV ESTIMATE) **
	ECON	QTY	SCH	ENGR	EST	SPT	OTHER	TOTAL	
\$29,592	-	-	-	-	-	-	-1276	-1276	\$28,316

b. (U) Current Baseline Estimate to Current Estimate:

PAUC (REVISED DE) **	Changes (Current (Then Year) Dollars)								PAUC (CURRENT ESTIMATE)
	ECON	QTY	SCH	ENGR	EST	SPT	OTHER	TOTAL	
\$28,316	+5748	-4490	+7655	+4262	+10590	+159	-	+23924	\$52,240

* (U) Initial SAR date: 30 Jun 76.

** (U) Revision of HELLFIRE development estimate in the Jun 84 SAR transferring \$31.7M previously in the HELLFIRE DE for the HELLFIRE launcher to the APACHE program.

12. (U) Contract Information: 1/

(U) Procurement.

System/Subsystem

Current Contract
Target Price Qty

First Production Buy (Laser Seeker) \$27.8M 762
Martin Marietta Corp., Orlando, FL
DAAH01-82-C-A170, FPI
25 Feb 82

(b)(4)

Cost Variance

Schedule Variance

Previous Cumulative Variances	+ .027	- .559
Cumulative Variances to Date	- .435	- .749
Net Change	- .462	- .190

Explanation of Change: The negative cost variance is due to additional effort and material cost required to correct the guidance noise problem. The negative schedule variance is currently being impacted by a seeker guidance noise problem that caused a delay in completion of first article tests and a delay in production until the problem could be corrected.

HELLFIRE, December 31, 1984

12. (U) Contract Information (Cont'd):

<u>System/Subsystem</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	
First Production Buy	\$40.5M		
(Missiles)		680	
(Launchers)		135	
Rockwell International Corp.			
Duluth, GA			
DAAHO1-82-C-A169, FPI			
31 Mar 82			
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	+1.205		-4.476
Cumulative Variances to Date	+ .477		-2.041
Net Change	- .728		+2.435

Explanation of Change: The decrease in positive cost variance is caused by the additional effort required to resolve a circuit card assembly problem and a seeker guidance noise problem. Schedule variance improvement is due to an improved delivery status by vendors and to accomplishment of rework of circuit card assemblies. The schedule variance trend will become less favorable when the contract is modified to reflect the impact of the seeker guidance noise problem.

<u>System/Subsystem</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
Second Production Buy	\$97.8M		
(Missiles - All-up-round (AUR))		947	
(Seekers)		2,077	
Martin Marietta Corp., Orlando, FL			
DAAHO1-83-C-A040, FPI			
14 Jan 83			
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	+4.620		-5.673
Cumulative Variances to Date	+5.239		-8.148
Net Change	+ .709		-2.475

Explanation of Change: The positive cost variance is caused by a lower level of effort due to the impact of a delay in the first production contract necessary to resolve the seeker guidance noise problem. The negative schedule variance is due to delays caused by the seeker guidance noise problem in the first production buy.

HELLFIRE, December 31, 1984

12. (U) Contract Information (Cont'd):

<u>System/Subsystem</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	
Second Production Buy	\$98.0M		
(Missiles - AUR)		947	
(Missile Bus/TM Missiles)		2,077	
(launcher)		338	
Rockwell International Corp.			
Duluth, GA			
DAAH01-83-C-A039, FPI			
4 Feb 84			
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	+ .541		- 5.827
Cumulative Variances to Date	+1.987		-11.122
Net Change	+1.446		- 5.295

Explanation of Change: The increase in positive cost variance is due to less effort in support of production which resulted from delays in the first production buy. The negative schedule variance is the result of delays caused by problems in the first buy.

<u>System/Subsystem</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
Third Production Buy - Missiles	\$113.2M	2,651	
Rockwell International Corp.			
Duluth, GA			
DAAH01-84-C-A162, FFP			
29 Jun 84			

Cost/Schedule Variances - N/A.

<u>System/Subsystem</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
Third Production Buy - Missiles	\$98.9M	2,000	
Martin Marietta Corp., Orlando, FL			
DAAH01-84-C-A163, FFP			
29 Jun 84			

Cost/Schedule Variances - N/A.

FOOTNOTE 1/ Rockwell International Corporation data as of 2 Nov 84;
Martin Marietta Corporation data as of 21 Oct 84.

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AND SECURITY REVIEW (DASD--PA)
DEPARTMENT OF DEFENSE

PROGRAM FUNDING SUMMARY
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: 31 Dec 84
BASE YEAR: FY 75

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION 1 RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT E									
(b)(4)									
1972	-	-	-	-	-	4.9	4.9	5.6	
1973	14	-	-	-	-	5.0	5.0	4.6	
1974	-	-	-	-	-	6.1	6.1	3.7	
1975	-	-	-	-	-	13.9	13.9	6.8	
1976	-	-	-	-	-	3.9	3.9	7.0	
1977	215	-	-	-	-	.7	.7	1.8	
1977	-	-	-	-	-	19.2	19.1	6.0	
1978	-	-	-	-	-	52.1	51.4	6.9	
1979	-	-	-	-	-	66.2	65.7	8.4	
1980	-	-	-	-	-	57.8	57.5	6.5	
1981	-	-	-	-	-	43.9	43.5	9.4	
1982	-	-	-	-	-	22.2	20.9	7.6	
1983	-	-	-	-	-	15.6	13.1	4.9	
1984	-	-	-	-	-	1.6	.6	3.8	
1985	-	-	-	-	-	.1	-	3.7	
1986	-	-	-	-	-	-	-	4.4	
1987	-	-	-	-	-	-	-	4.2	
1988	-	-	-	-	-	-	-	4.0	
1989	-	-	-	-	-	-	-	3.7	
1990	-	-	-	-	-	-	-	3.4	
1991	-	-	-	-	-	-	-	3.4	
TOTAL	229	-	-	-	244.8	349.8	313.2	306.3	

85 1680

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DATE: 29 Aug 85
CLASS in protective marking
George J. Cromwell
SAVING RESEARCH AND DEVELOPMENT

A-8 HELLFIRE

84-045

Em 12

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PROGRAM FUNDING SUMMARY (Continued)
SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMS)

AS OF DATE: 31 Dec 84
BASE YEAR: FY 75

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS			THEN YEAR DOLLARS			ESCALATION 1/ RATE (%)	
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED		EXPENDED
			NON-REC	REC					
APPROPRIATION: MISSILE PROCUREMENT									
1981	LLI	1.2	9.9	1.6	(b)(4)	23.1	22.3	11.9	
1982	680	-	9.4	36.1		107.5	88.2	14.3	
1983	3,971	-	3.3	94.8		221.3	80.7	9.0	
1984	4,651	-	-	84.3		210.8	14.3	8.0	
1985	5,342	-	-	82.5		.6	-	4.8	
1986	6,576	-	-	88.9		-	-	5.7	
1987	6,576	-	-	85.6		-	-	5.5	
1988	6,576	-	-	83.2		-	-	5.2	
1989	6,758	-	-	84.2		-	-	4.8	
1990	5,000	-	-	67.1		-	-	4.4	
1991	2,566	-	-	37.9		-	-	4.4	
TOTAL	48,696	1.2	22.6	746.2	563.3	205.5			
APPROPRIATION: CONSTRUCTION									
1988	-	-	-	-	.9	2.0	-	4.0	
TOTAL	-	-	-	-	.9	2.0	-		

1/ Since spend-out rates are not included, the escalation rates cannot be used to verify the composite index.

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SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM

As of Date: (December 31, 1984)

Deliveries (Planned/Actual)

Advanced Development

To Date

Missile
Laser Seeker

14/14
14/14

Engineering Development

Missile
Laser Seeker
Launcher

215/215
367/367
74/74

Production

Missile
Laser Seeker 1/
Launcher 2/

1180/207
658/656
219/110

Variance Analysis: Missile and launcher deliveries are behind schedule due to delays in completion of first article tests and materials shortages.

Footnotes:

- 1/ Seekers procured in the first buy (FY 82) and a portion of the second buy are deliverable items. The remaining second buy seekers and all subsequent buys will be delivered as all-up round missiles.
- 2/ Launcher procurement costs are included in the APACHE program costs.

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Program Acquisition Costs
System: HELLFIREAs of Date: (December 31, 1984)
Base Year: (FY 75)

(Dollars in Millions)

a. Program Acquisition
Cost

	(1) Development Estimate (FY72-86)	(2) Changes	(3) Current Estimate (FY72-91)
1. <u>Cost</u>			
Development <u>1/</u>	211.9	32.9	244.8
Procurement <u>2/</u>	276.7	510.2	786.9
Missile Bus	(143.1)	(262.5)	(405.6)
Laser Seeker	(109.4)	(253.8)	(363.2)
Total Flyaway	(252.5)	(516.3)	(768.8)
Other Wea Sys cost <u>3/</u>	(4.0)	(10.3)	(14.3)
Initial Spares	(20.2)	(-16.4)	(3.8)
Construction	0	0.9	0.9
Total: Constant FY75\$	<u>488.6</u>	<u>544.0</u>	<u>1032.6</u>
Escalation	214.8	1308.4	1523.2
Development	(54.3)	(50.7)	(105.0)
Procurement	(160.5)	(1256.6)	(1417.1)
Construction	0	(1.1)	(1.1)
Total Program Cost	<u>703.4</u>	<u>1852.4</u>	<u>2555.8</u>

Footnotes:

- 1/ Development estimate revised from \$210.3 due to conversion of Pre-Base Year Actuals to Base Year 75.
- 2/ Revision of HELLFIRE DE in Jun 84 SAR transferring \$21.2M (\$31.7M escl) previously in the HELLFIRE DE for the launcher to the APACHE program.
- 3/ Other includes data, training, support and test equipment.

b. Foreign Military Sales: Nonec. Nuclear Costs: None

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SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: (December 31, 1984)

CONTRACTOR COSTS

	(1)			(2)			(3)
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price At Completion</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>
1. <u>DEVELOPMENT</u> None							
2. <u>PROCUREMENT</u> 1/							
First Production Buy (Laser Seeker) Martin Marietta Corp., Orlando, FL DAAH01-82-C-A170, FPI 25 Feb 82	\$ 27.7	\$33.5	762	\$ 27.8	\$33.7	762	\$ 27.9
First Production Buy (Missiles) (Launchers) Rockwell International Corp., Duluth, GA DAAH01-82-C-A169, FPI 31 Mar 82	\$ 40.2	\$45.5	680 135	\$ 40.5	\$45.6	680 135	\$ 41.3
Second Production Buy (Missiles - AUR) (Seekers) Martin Marietta Corp., Orlando, FL DAAH01-83-C-A040, FPI 14 Jan 83	\$96.6	\$107.4	947 2077	\$97.8	\$107.3	947 2077	\$97.8
Second Production Buy (Missiles - AUR) (Missile Bus/TM Msl) (Launcher) Rockwell International Corp., Duluth, GA DAAH01-83-C-A039, FPI 4 Feb 83	\$96.4	\$110.1	947 2077 338	\$98.0	\$110.5	947 2077 338	\$97.6

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SYSTEM: HELLFIRE MODULAR MISSILE SYSTEM (HMMS)

AS OF DATE: (December 31, 1984)

CONTRACTOR COSTS (Continued)

	(1)			(2)			(3)
	Initial Contract Price			Current Contract Price			Price At Completion
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate
Third Production Buy (Missiles) Rockwell International Corp., Duluth, GA DAAH01-84-C-A162, FFP 29 Jun 84	\$113.2	NA	2651	\$113.2	NA	2651	NA
Third Production Buy (Missiles) Martin Marietta Corp., Orlando, FL DAAH01-84-C-A163, FFP 29 Jun 84	\$98.9	NA	2000	\$98.9	NA	2000	NA

3. CONSTRUCTION: None

FOOTNOTE 1/ Rockwell International Corporation data as of 2 Nov 84; Martin Marietta Corporation data as of 21 Oct 84.

(2)

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SAR-84-146

AF-1 ALCM

SUPPLEMENTAL INFORMATION
SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: AIR LAUNCHED CRUISE MISSILE (ALCM)

REPORT AS OF: December 31, 1984
DoD COMPONENT: USAF

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Deliveries	5
Program Acquisition Costs	6
Contract Information	7

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DEPARTMENT OF DEFENSE~~

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and ALCM Classification Guide of 5 May 1981~~

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REVIEW ON: Jan 2003

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85-1627

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SELECTED ACQUISITION REPORT
PROGRAM FUNDING SUMMARY
SYSTEM: ALCM

REPORT AS OF: 31 DECEMBER 1984
BASE YEAR: FY 1977

CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: RDT&E

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
1975	--	--	--	--	67.4	58.6	58.6	58.6	9.4
1976	--	--	--	--	52.3	49.1	49.1	49.1	8.0
1977	--	--	--	--	14.9	15.0	15.0	15.0	4.9
1978	--	--	--	--	76.6	78.4	78.4	78.4	4.2
1979	--	--	--	--	252.5	278.5	278.5	278.5	7.6
1980	--	--	--	--	281.1	340.4	340.4	340.4	8.4
1981	--	--	--	--	67.3	90.6	90.6	90.6	9.4
1982	--	--	--	--	72.8	108.5	108.5	108.5	11.9
1983	--	--	--	--	43.0	68.7	67.0	63.6	9.2
1984	--	--	--	--	11.1	18.6	18.0	13.2	4.9
1985	--	--	--	--	20.8	35.9	20.0	9.5	3.8
1986	--	--	--	--	13.9	25.0	3.0	0.1	3.7
1987	--	--	--	--	7.6	14.2	--	--	4.4
1988	--	--	--	--	7.7	15.1	--	--	4.2
					1.9	3.8	--	--	4.0
TOTAL	24.0	--	--	--	990.9	1200.4	1127.1	1105.5	

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PROGRAM FUNDING SUMMARY
SYSTEM: ALCM

REPORT AS OF: 31 DECEMBER 1984
BASE YEAR: FY 1977

CURRENT ESTIMATE
(\$ in Millions)

APPROPRIATION: PROCUREMENT--MISSILE

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
1978	24.0	--	13.7	67.7	88.1	104.6	104.6	104.6	7.5
1979	24.0	--	4.4	54.0	68.5	90.8	90.8	90.8	8.7
1980	225.0	0.3	31.8	183.4	248.5	375.7	375.7	375.7	9.7
1981	480.0	0.6	21.6	246.9	339.3	563.9	547.1	488.7	11.9
1982	440.0	0.7	11.7	271.9	321.2	577.2	550.1	527.3	9.6
1983	330.0	2.6	11.9	197.4	254.9	482.5	398.0	232.8	9.0
1984	240.0	--	6.9	150.7	207.2	412.3	259.1	34.4	8.0
1985	--	--	--	--	37.9	79.4	1.0	0.0	4.8
1986	--	--	--	--	15.6	34.4	--	--	5.7
1987	--	--	--	--	9.4	21.9	--	--	5.5
1988	--	--	--	--	2.9	7.1	--	--	5.2
1989	--	--	--	--	0.9	2.4	--	--	4.8
TOTAL	1763.0	4.2	102.0	1172.0	1594.4	2752.2	2326.4	1854.3	

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SELECTED ACQUISITION REPORT
 PROGRAM FUNDING SUMMARY
 SYSTEM: ALCM

REPORT AS OF: 31 DECEMBER 1984
 BASE YEAR: FY 1977

CURRENT ESTIMATE
 (\$ in Millions)

APPROPRIATION: CONSTRUCTION

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
1980	--	--	--	--	9.2	14.2	10.5	10.5	10.4
1981	--	--	--	--	40.1	66.3	54.3	54.2	11.9
1982	--	--	--	--	59.2	102.3	61.2	60.7	9.2
1983	--	--	--	--	--	--	--	--	4.9
1984	--	--	--	--	10.9	20.0	18.9	15.5	3.8
1985	--	--	--	--	24.7	47.5	--	--	3.7
1986	--	--	--	--	10.2	20.3	--	--	4.4
1987	--	--	--	--	20.7	43.0	--	--	4.2
1988	--	--	--	--	--	--	--	--	4.0
1989	--	--	--	--	6.4	14.3	--	--	3.7
1990	--	--	--	--	6.4	14.8	--	--	3.4
TOTAL	--	--	--	--	\$187.8	\$342.7	\$144.9	140.9	

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**SELECTED ACQUISITION REPORT
SYSTEM: ALCM**

**REPORT AS OF: 31 DECEMBER 1984
BASE YEAR: FY 1977**

DELIVERIES (PLAN/ACTUAL)

DEVELOPMENT

TO DATE

**AGM-86A
AGM-86B
AGM-109**

**7/7
10/10
7/7**

PROCUREMENT

AGM-86B

1200/1207

**VARIANCE ANALYSIS: Contractor increased deliveries to provide a
buffer against contract requirements.**

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SELECTED ACQUISITION REPORT
PROGRAM COST SECTION
SYSTEM: ALCM

AS OF DATE: 31 DECEMBER 1984
BASE YEAR: FY 1977
(Dollars in Millions)

a. (U) Program Acquisition Cost

COST	(1) DEVELOPMENT ESTIMATE	(2) CHANGES	(3) CURRENT ESTIMATE
	(FY75-85)		(FY75-90)
DEVELOPMENT	\$ 708.0 <u>1/</u>	+\$282.9	\$990.9
PROCUREMENT	2311.6	- 717.2	1594.4
Air Vehicle	(2094.4)	(- 819.6)	(1274.8)
Total Flyaway	(2094.4)	(- 819.6)	(1274.8)
Peculiar Support	(188.6)	(+ 82.2)	(270.8)
Initial Spares	(28.6)	(+ 20.2)	(48.8)
CONSTRUCTION	121.4	+ 66.4	187.8
Total: Constant (FY77\$)	<u>\$3141.0</u>	<u>-\$367.9</u>	<u>\$2773.1</u>
ESCALATION	1043.0	+ 479.2	1522.2
DEVELOPMENT	(43.6) <u>1/</u>	(+ 165.9)	(209.5)
PROCUREMENT	(970.2)	(+ 187.6)	(1157.8)
MILCON	(29.2)	(+ 125.7)	(154.9)
TOTAL PROG COST	<u>\$4184.0</u>	<u>+\$111.3</u>	<u>\$4295.3</u>

b. (U) Foreign Military Sales: None.

c. (S) Nuclear Costs: Total DOE Warhead costs not included in Total Program Cost for ALCM [REDACTED] (b)(1),(b)(3):42 USC §2162(a)-- (RD)

1/ Base-year dollars adjusted by +\$11.9M to reflect RDT&E costs incurred prior to the base year in true FY 1977 constant dollars. Escalation was reduced by the same amount.

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SELECTED ACQUISITION REPORT
PROGRAM COST SECTION
SYSTEM: ALCM
(\$ IN MILLIONS)

AS OF DATE: 31 December 1984
BASE YEAR: FY 1977

	(1)		(2)		(3)			
<u>CONTRACTOR COSTS</u>	<u>Initial Contract Price</u>		<u>Current Contract Price</u>		<u>Price at Completion</u>			
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor</u>	<u>Estimate</u>
1. <u>DEVELOPMENT</u>	Not applicable							
2. <u>PROCUREMENT</u> (Williams)	95.8	101.2	443	94.4	99.3	443		91.4
3. <u>CONSTRUCTION</u>	Not applicable							

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SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

F-1 ALCM

PROGRAM: ALCM

AS OF DATE: December 31, 1984

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Program Acquisition Unit Cost History	9
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1. Designation and Nomenclature (Popular Name):
AGM-86B/Air Launched Cruise Missile (ALCM)

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2. DOD Component: U.S. Air Force

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AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

3. Responsible Office and Telephone Number:

Air Launched Cruise Missile Program
Office
Aeronautical Systems Division
ASD/YVA
Wright-Patterson AFB, OH 45433-6503

PM: Col H. Bevelhymmer
Assigned: August 10, 1984
AUTOVON 785-5080
COMMERCIAL (513) 255-5080

4. Program Elements:
RDT&E: 64361F
Procurement: 11122F
Construction: 11122F

~~CLASSIFIED BY: Joint ERDA/DOD Nuclear Weapon Classification Guide CG W 4
and ALCM Classification Guide of 5 May 1981~~

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ALCM, December 31, 1984

5. Program Highlights (Since Last Report): Four Global Cruise missions were flown by SAC. Three missiles were successfully recovered in mid-air. One missile carried a Department of Energy payload and successfully impacted the target as planned.

ALCM is meeting current mission requirements.

6. Schedule:

a. Milestones	Development Estimate	Current Estimate
a. DSARC I (AGM-86A)	Feb 74	Feb 74
b. First Flight (AGM-86A)	Mar 76	Mar 76
c. First Guided Flight (AGM-86A)	Sep 76	Sep 76
d. DSARC II AGM-86	Jan 77	Jan 77
e. AGM-86B/AGM-109 Competition directed	Jul 77	Jul 77
f. First FSD Test Flight		
(1) AGM-86B	May 79	Aug 79
(2) AGM-109	May 79	Jul 79
g. IOT&E Start		
(1) AGM-86B	Jul 79	Oct 79
(2) AGM-109	Jul 79	Oct 79
h. First Operational Platform Launch		
(1) AGM-86B	May 79	Aug 79
(2) AGM-109	May 79	Jul 79
i. IOT&E Complete	Apr 80	Feb 80
j. DSARC III	Feb 80	Apr 80
k. IOC (First Squadron of fully modified B-52G's equipped with externally carried ALCMs)	Jun 81	Dec 82

b. Explanation of Changes: None

c. References: FY79 RDT&E - Descriptive Summary (PE 64361F), January 1978

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ALCM, December 31, 1984

7.(U) Technical/Operational Characteristics:

		Development Estimate	Demonstrated Performance	Current Estimate
a.	(U) Technical			
(1)	(S) Warhead Selectable	(b)(1);(b)(3):4	(b)(1);(b)(3):42 USC	[REDACTED] 1 AG ATTENDED
	Yield (KT)	2	§2168(a) (1)(C)--(FRD)	
(2)	(S) Radar Cross Section	USC §2168(a)		
	(Square Meters) 1/	(1)(C)--(FRD)		
(3)	(S) Air Vehicle:			
	a. Weight (lbs)	N/A		
	b. Length (In)	N/A		
	c. Diameter (In)	N/A	N/A	N/A
b.	(U) Operational:			
(1)	(U) Range: System Operational (KM) 2/ 2,500		2,500	2,500
(2)	(S) Speed (Mach): a. Maximum	(b)(1);(b)(3):42 USC		[REDACTED] (b)(1);(b)(3): 42 USC §2168(a) (1)(C)--(FRD)
	Penetration	§2168(a) (1)(C)--(FRD)		
	b. Cruise			
(3)	(S) Penetration Altitude (ft AGL)			
(4)	(S) Terminal Accuracy (CEP, ft) 3/		Ch-2	
(5)	(S) Mission Reliability (%)		Ch-3	
(1)	(S) Geometric Coverage from medianized data in	(b)(1)		
(2)	(S) System Operational Range takes into account	(b)(1)		
(3)	(S) Last fix	(b)(1)		
c.	(U) Explanation of changes--(Ch-1) (U) Last SAR contained typographical error			
	(Ch-2) (U) Median value recalculated based on seventeen Operational Test Launches.			
	(Ch-3) (U) Mission Reliability was evaluated two years after IOC based on 17 successes of 20 attempts.			
d.	(U) References--FY79 RDT&E Descriptive Summary (PE 64361F). ALCM System Specification, 1 Oct 77.			

~~CLASSIFIED BY: Joint ERDA/DOE NMCC CC W 4 and ALCM Classification Guide 5 May 81~~
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ALCM, December 31, 1984

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1977 Constant (Base-Year)\$	Current (Then-Year)\$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	--------------------------	------------------------

Appropriation: RDT&E

Current&Prior Years	24	973.7	1167.3	N/A
Budget Year (1986)	-	7.6	14.2	4.4
Balance of FYDP	-	9.6	18.9	N/A
(1987)	-	(7.7)	(15.1)	4.2
(1988)	-	(1.9)	(3.8)	4.0
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	24	990.9	1200.4	N/A

Appropriation: Procurement

Current&Prior Years	1763	1565.6	2686.4	N/A
Budget Year (1986)	-	15.6	34.4	5.7
Balance Of FYDP	-	13.2	31.4	N/A
(1987)	-	(9.4)	(21.9)	5.5
(1988)	-	(2.9)	(7.1)	5.2
(1989)	-	(0.9)	(2.4)	4.8
(1990)	-	(0.0)	(0.0)	4.4
Balance to Complete	-	-	-	N/A
Subtotal	1763	1594.4	2752.2	N/A

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ALCM, December 31, 1984

8. Program Acquisition Cost (Cont'd): (Current Estimate in Millions).

Fiscal Year Period	Quantity	FY 1977 Constant (Base-Year)\$	Current (Then-Year)\$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	--------------------------	------------------------

Appropriation: MILCON

Current&Prior Years	-	144.1	250.3	N/A
Budget Year (1986)	-	10.2	20.3	4.4
Balance of FYDP	-	33.5	72.1	N/A
(1987)	-	(20.7)	(43.0)	4.2
(1988)	-	-	-	-
(1989)	-	(6.4)	(14.3)	3.7
(1990)	-	(6.4)	(14.8)	3.4
Balance to Complete	-	-	-	N/A
Subtotal	-	187.8	342.7	N/A
Total	1787	2773.1	4295.3	N/A

Program Status--

- (1) Percent Program Completed: 70.6% (12/17)
- (2) Percent Program Cost Appropriated: 95.5% (4104.0/4295.3)

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then-Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current	UCR Baseline	UCR Baseline
	Estimate	Estimate	Estimate
a. Program Acquisition--			
(1) Cost	4295.3	4576.8	4295.3
(2) Quantity	1787	1787	1787
(3) Unit Cost	2.404	2.561	2.404

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ALCM, December 31, 1984

9. Program Acquisition/Current Procurement Unit Cost Summary (Cont'd).

(Current (Then-Year) Dollars in Millions)

b. Current Procurement-- (FY 1985) (FY 1985) (FY 1986)

No procurement quantities or costs in the Current Year or Budget Year.
Program terminated with an FY84 Buy.

10. Cost Variance Analysis:

a. Summary--(Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	751.6	3281.8	150.6	4184.0
Previous Changes				
Economic	+29.2	+675.9	+41.2	+746.3
Quantity	-7.5	-1653.4	-	-1660.9
Schedule	+109.2	+143.7	+100.5	+353.4
Engineering	+279.5	-12.9	+10.4	+277.0
Estimating	-16.2	-253.4	-7.7	-277.3
Other	-0.2	-	-	-0.2
Support	+67.4	+710.3	+110.0	+887.7
Subtotal	+461.4	-389.8	+254.4	+326.0
Current Changes				
Economic	-1.5	+34.4	-5.0	+27.9
Quantity	+0.2	-	-	+0.2
Schedule	-	-	-	-
Engineering	-11.3	-13.5	-57.3	-82.1
Estimating	-	-160.7	-	-160.7
Other	-	-	-	-
Support	-	-	-	-
Subtotal	-12.6	-139.8	-62.3	-214.7
Total Changes	+448.8	-529.6	+192.1	+111.3
Current Estimate	1200.4	2752.2	342.7	4295.3

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ALCM, December 31, 1984

10. Cost Variance Analysis (Cont'd):
(FY 1977 Constant Dollars (Base Year) in Millions)

	RDT&E 1/	PROC	MILCON	TOTAL
Development Estimate	708.0	2311.6	121.4	3141.0
Previous Changes				
Quantity	-6.4	-786.7	-	-793.1
Schedule	+83.3	-29.5	+37.3	+91.1
Engineering	+195.1	-3.1	+5.9	+197.9
Estimating	-19.9	-135.3	-4.9	-160.1
Other	-0.2	-	-	-0.2
Support	+36.7	+315.5	+57.0	+409.2
Subtotal	+288.6	-639.1	+95.3	-255.2
Current Changes				
Quantity	-	-	-	-
Schedule	-	-	-	-
Engineering	-	-	-	-
Estimating	-5.7	-7.3	-28.9	-41.9
Other	-	-	-	-
Support	-	-70.8	-	-70.8
Subtotal	-5.7	-78.1	-28.9	-112.7
Total Changes	+282.9	-717.2	+66.4	-367.9
Current Estimate	990.9	1594.4	187.8	2773.1

1/ Adjusted by \$11.9 to reflect true FY77 constant dollars.

b. Current Change Explanations--

(1) <u>RDT&E</u>	(Dollars in Millions)	
	<u>Base-Year \$</u>	<u>Then-Year \$</u>
Revised Jan 85 economic escalation rates. (Economic)	N/A	-1.5
Adjustment for Prior Year escalation. (Estimating)	+0.9	+1.2
Deletion of Combined Environmental Reliability Testing (CERT). (Estimating)	-6.3	-12.0
Slip of uprated engine effort from FY86 to FY87. (Estimating)	-0.3	-0.5
Slip of uprated engine effort from FY86 to FY87. (Schedule)	-0.0	+0.2

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ALCM, December 31, 1984

10. Cost Variance Analysis (Cont'd):

(Dollars in Millions)
Base-Year \$ Then-Year \$

(2) Procurement

Revised Jan 85 economic escalation rates. (Economic)	N/A	+34.4
Reinstatement of previously withdrawn funds for potential weapon system requirement. (Estimating)	+3.6	+6.6
Refinement of support equipment estimate due to receipt of firm contractor proposals. (Support)	-64.0	-147.5
Refinement of spares estimate. (Support)	-5.0	-10.0
Deletion of support equipment. (Support)	-1.8	-3.2
Adjustment for prior year escalation. (Estimating)	-10.9	-20.1

(3) MILCON

Revised Jan 85 economic escalation rates. (Economic)	N/A	-5.0
Planning wedge for additional facilities to house ALCM and ACM storage and maintenance facilities at B1-B bases. (Estimating)	+6.4	+14.8
Refinement of military construction estimate due to actual requirements less than originally planned. (Estimating)	-35.6	-73.1
Adjustment for prior year escalation. (Estimating)	+0.3	+1.0

c. References-- FY79 President's Budget and FY78 DoD Supplemental Appropriation.

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ALCM, December 31, 1984

11. Program Acquisition Unit Cost (PAUC) History:

PAUC Development Estimate	Changes (Then-Year Dollars in Millions)								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
1.210	+.433	+.202	+.198	+.155	-.201	+.407	.000	+1.194	2.404

12. Contract Information: (Dollars in Millions)

a. RDT&E

Not Applicable.

b. Procurement

Engine:
Williams International
2280 W. Maple Road
Walled Lake, MI 48088
N00019-83-C-3332, FPIF
January 27, 1984

<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
94.4	443	92.7

Previous UCR Cumulative Variances (9/30/84)
Cumulative Variances To Date (11/30/84)
Net Change

<u>Cost Variance</u>	<u>Schedule Variance</u>
\$+2.8	\$-1.4
\$+4.1	\$-2.4
\$+1.3	\$-1.0

Explanation of Change: The schedule variance is strictly a budgetary variance, the contractor is ahead of schedule on engine deliveries and the variance will have no program impact.

c. MILCON

Not Applicable.

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A-4 AN/TTC-39

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
PROGRAM: AN/TTC-39

AS OF DATE: December 31, 1984

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1. Designation/Nomenclature (Popular Name): AN/TTC-39 and AN/TYC-39, Central Office Telephone Automatic and Central Message Switching Automatic

2. DoD Component: U.S. Army

3. Responsible Office and Telephone Number:
Project Manager
Multi-Service Communications Systems
Fort Monmouth, NJ

PM: COL Joseph Fitzgerald
Assigned: January, 1984
AUTOVON 992-4740
CMCL (201) 532-4740

4. Program Elements:

RDT&E: P2.80.10A
AMS 248010.222.00.12.00

PROCUREMENT: BA1060

DATE: 2 Apr 85
CONCUR in project location
[Signature]
SECURITY REF ID: A66400DA

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AN/TTC-39, December 31, 1984

5. Program Highlights

AN/TTC-39 and AN/TYC-39 participated in Gallant Knight 84 exercise in Apr/May 84 and in Gallant Eagle 84 exercise in Aug/Sep 84.

Single Shelter AN/TYC-39 Production Acceptance Test and Evaluation (PATE) was completed in Feb 84.

Fielding of 8 ea AN/TYC-39(V), and 14 ea AN/TTC-39(V) was completed during the period Jan - Dec 84.

The contract delivery schedule for some of the AN/TTC-39 and AN/TYC-39 switches was extended by two months to accommodate late contractor receipt of GFE.

A quantity of 31 ea AN/TTC-39(V) and 3 ea AN/TYC-39(V) was delivered in the period Jan - Dec 84.

General support Test Program Sets (TPS) for the AN/TTC-39 and AN/TYC-39 was fielded in USAREUR in Mar 84.

This is the final SAR submission for this program. Program funding ceased with the FY84 appropriation. The program is 100% complete. The AN/TTC-39 is expected to satisfy the mission equipment requirement.

6. Schedule**a. Milestones**

	<u>Development Estimate</u>	<u>Current Estimate</u>
ED Contract Award	Apr 74	Apr 74
Preliminary Design Review	Sep 74	Sep 74
Integrated Test Plan	Feb 75	Feb 75
Final Design Review	Oct 75	Dec 75
Research Development and Acceptance Test (PQT)		
(1) Begin Message/Circuit Switch	May 77/Mar 78	May 77/Mar 78
(2) Complete Message/Circuit Switch	Apr 78/Nov 78	Jun 78/Nov 78
Development Test/Operational Test (DTE/IOTE)		
(1) Start Message/Circuit Switch	Jul 78/Feb 79	Jun 78/Feb 78
(2) Complete Message Circuit Switch	May 79/Nov 79	Jun 79/May 80
Special DT/OT II In-Process Review	N/A	N/A
LRIP Long Lead Item Release	N/A	N/A
AN/TYC-39 DSARC III (Incl Limited AN/TTC-39)	Oct 79	Mar 80
Initial Production Award	Sep 80	Sep 80
DT/OT III		
(1) Begin	N/A	N/A
(2) Complete	N/A	N/A
AN/TTC-39 DSARC IIIa	Jul 80	Jul 80
AN/TTC-39 Production Release	Oct 81	Jul 80
Initial Operational Capability (TTC-39 Prog.)	Mar 83	Mar 83
Full Scale Production Award	N/A	N/A
Follow-on Testing	Dec 82	Apr 83

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AN/TTC-39, December 31, 1984

b. Explanation of Changes. None.

c. References -- DCP No 135, 30 Jul 74, w/cover sheet dated 14 Apr 78.
 Revised DCP No 135 dated 14 Jan 77. DCP cover sheet update dated
 14 Apr 78 and approved by OSD 21 Aug 79, SDDM dated 15 Apr 80
 (AN/TYC-39) and 28 Jul 80 (AN/TTC-39).

7. <u>Technical/Operational Characteristics</u>	<u>Development Estimate</u>	<u>Demonstrated Performance</u>		<u>Current Estimate</u>
a. Characteristics		DTE	OTE	
Circuit Switch (CS) (600 Line)				
Inherent Availability	0.999	0.9979	0.9966	0.999
Mean Time Between Failure (Hrs)	20	18	47.2	20
Mean Time to Repair (Min)	30	39	46.3	30
Simultaneous Conference	6	6	4	6
Maximum Conference	20	20	6	20
Alternate Routing	5	5	5	5
Message Switch (MS) (50 Line)				
Inherent Availability	0.9999	0.99927	0.994	0.999
Mean Time Between Failure (Hrs)	20	30.2	64.4 CH-1	20
Mean Time to Repair (Min)	30	121	58	30
Reference Storage (Days)	10	10	10	10
Journal Storage (Days)	10	10	10	30
Message Processing Time (Sec)	2	1.732	Not Meas	2
a. Emergency Command Flash	6	N/A	N/A	6
b. Other type messages	8	N/A	N/A	8
Single Shelter 300 Line Circuit Switch				
Inherent Availability	0.999	0.9971	.972 CH-1	0.999
Mean Time Between Failure (Hrs)	20	24	12.56 CH-1	30
Mean Time to Repair (Min)	30	51	35.7	30
Simultaneous Conference	4	4	4	4
Maximum conferees per conference	20	20	6	20
Alternate Routing	5	5	5	5

b. Explanation of Changes.

CH-1 March 1984 Test Results. Field Test Report 149.

c. References -- (Same as 6c.)

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AN/TTC-39, December 31, 1984

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1974 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate (%)
--------------------	----------	--------------------------------	------------------------	---------------------

Appropriation: RDT&E

Current&Prior Years	16	198.8	259.8	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	-	-	-	N/A
Balance to Complete	-	-	-	N/A
Subtotal	16	198.8	259.8	N/A

Appropriation: Procurement

Current&Prior Years	84	193.2	384.4	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	-	-	-	N/A
Balance to Complete	-	-	-	N/A
Subtotal	84	193.2	384.4	N/A
Total	100	392.0	644.2	N/A

Program Status --

(1) Percent Program Completed: 100% (13/13)

(2) Percent Program Cost Appropriated: 100% (644.2/644.2)

9. Program Acquisition/Current Procurement Unit Cost Summary:
(Current (Then Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a. Program Acquisition --			
(1) Cost	644.2	964.2	N/A
(2) Quantity	100	183	N/A
(3) Unit Cost	6.442	5.269	N/A
b. Current Procurement	(FY1985)	(FY1985)	(FY1986)
(1) Cost	N/A	N/A	N/A
Less CY Adv Proc	N/A	N/A	N/A
Plus PY Adv Proc	N/A	N/A	N/A
Net Total	N/A	N/A	N/A
(2) Quantity	N/A	N/A	N/A
(3) Unit Cost	N/A	N/A	N/A

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AN/TTC-39, December 31, 1984

10. Cost Variance Analysis:

a. Summary — (Current (Then Years) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	139.7	661.4	N/A	801.1
Previous Changes:				
Economic	+17.2	+264.1	-	+281.3
Quantity	-	-243.4	-	-243.4
Schedule	+7.2	-104.4	-	-97.2
Engineering	+29.8	+8.8	-	+38.6
Estimating	-10.4	+12.9	-	+2.5
Other	+55.0	-	-	+55.0
Support	+21.7	+104.6	-	+126.3
Subtotal	+120.5	+42.6	-	+163.1
Current Changes:			N/A	
Economic	-	-7.7	-	-7.7
Quantity	-	-137.9	-	-137.9
Schedule	-	-137.9	-	-137.9
Engineering	-	-	-	-
Estimating	-0.4	+1.8	-	+1.4
Other	-	-	-	-
Support	-	-37.9	-	-37.9
Subtotal	-0.4	-319.6	-	-320.0
Total Changes	+120.1	-277.0	-	-156.9
Current Estimate	259.8	384.4	-	644.2

(FY1974 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	129.0	487.4	N/A	616.4
Previous Changes:				
Quantity	-	-82.0	-	-82.0
Schedule	+5.1	-28.0	-	-22.9
Engineering	+18.0	+4.1	-	+22.1
Estimating	-9.7	-111.1	-	-120.8
Other	+40.6	-	-	+40.6
Support	+16.0	+47.8	-	+63.8
Subtotal	+70.0	-169.2	-	-99.2
Current Changes:				
Quantity	-	-54.9	-	-54.9
Schedule	-	-54.8	-	-54.8
Engineering	-	-	-	-
Estimating	-0.2	-0.2	-	-0.4
Other	-	-	-	-
Support	-	-15.1	-	-15.1
Subtotal	-0.2	-125.0	-	-125.2
Total Changes	+69.8	-294.2	-	-224.4
Current Estimate	198.8	193.2	-	392.0

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b. Current Change Explanations

	(Dollars in Millions)	
	Base Year \$	Then Year \$
(1) <u>RDT&E</u>		
Adjustment due to actual contract costs (Est)	-0.2	-0.4
(2) <u>Procurement</u>		
Revised Jan 85 economic escalation rates. (Economic)	N/A	-7.7
Reduction of switch quantities from 183 to 100 (Quantity)	-54.9	-137.9
Adjustment due to actual contract costs (Est)	-0.2	-0.4
Changes in delivery schedules due to reduction in quantities (Schedule)	-54.8	-137.9
Reduced spares requirement related to reduction in total program (Support)	-15.1	-37.9
Adjustment due to changes in inflation methodology (Est)	0.0	+2.2

c. References -- (same as 6c).

11. Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Baseline Estimate

PAUC (DEV EST)	Changes(Then Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
2.601	+2.736	+1.597	-2.351	+386	+039	+884	+550	+3.841	6.442

12. Contract Information: (Dollars in Millions)

a. RDT&E - N/A.

b. Procurement --

Circuit/Message SwitchCurrent Contract
Target Qty

GTE Products Corp
Needham Heights, MA
DAAK80-80-C-0280, FP W/EPA
September 29, 1980

\$427.1 99 (incl 15
AF swit

(b)(4)

Note: Cost and schedule variances not reported on FP w/EPA contracts.

c. MILCON - N/A.

SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)

PROGRAM: CH-47D

A-7 CH-47D

84-040

AS OF DATE: December 31, 1984

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1. Designation and Nomenclature (Popular Name): CH-47D/Medium Lift Helicopter (CHINOOK)

2. DoD Component: Department of the Army

3. Responsible Office and Telephone Number:

Project Manager's Office
CH-47 Modernization Program
St. Louis, MO 63120-1798

PM: Colonel Norbert I. Patla
Assigned: July 1, 1983.
AUTOVON: 693-1411

4. Program Elements:

RDT&E: 6.42.13.A
PROCUREMENT: SSN AA0250

5. Program Highlights (Since Last Report):

a. The Initial Operational Capability (IOC) for the CH-47D was achieved in February 1984 with the delivery of the 24th helicopter to the 159th Assault Support Helicopter Battalion, 101st Airborne (Air Assault) Division, Fort Campbell, Kentucky.

DATE: 2 Apr 85

CONCUR In the active marking

SECURITY REVIEW, ACSI, HQDA

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b. A Fixed Price Incentive (FPI) contract was awarded on 14 March 1984 to Boeing Vertol for 36 remanufactured aircraft, various support items, and long lead time items required to support the FY 85-89 multiyear procurement.

c. A CH-47D Helicopter was leased to Boeing Vertol by AVSCOM on 23 March 1984 for a Flight Evaluation/Demonstration by the Israeli Air Force (IAF). The IAF had a team of flight test pilots, engineers, and logisticians at the Boeing Vertol facility 2-13 April 1984 for an in-depth review of the CH-47D program which included the flight evaluation/demonstration. The flight configuration included the commercial (8/Rev and 6/Rev) vibration absorbers, a cockpit acoustics treatment, and the latest NVG cockpit compatibility improvements. The flight evaluation consisted of 45 flight hours and occurred both near the Boeing Vertol facilities and at Fort Campbell, Kentucky. The IAF was favorably impressed with the capabilities of the CH-47D helicopter.

d. The second CH-47D Company was completed at Fort Campbell, Kentucky, on 2 November 1984. The third CH-47D Company fielding at Fort Campbell began with the arrival of the first aircraft on 27 November 1984. The third Company is scheduled to be completed in June 1985.

e. As of 31 December 1984, 52 production helicopters have been delivered to the Army.

f. Negotiations are continuing toward a second quarter FY 85 award of a 5-year 85-89) multiyear contract for the remanufacture of 240 CH-47 aircraft, acquisition Bill of Materials, multiyear procurement of spares, and Bill of Materials/long lead time items for the succeeding year (FY 90) of the 5-year multiyear procurement (MYP).

g. The PM expects the CH-47 Modernization System to meet all its current mission requirements.

6. Schedule:

a. Milestones	Development Estimate	Current Estimate
DSARC III	Sep 80	Oct 80
Initial Production Contract Award	Sep 80	Oct 80
Production Validation Testing		
(1) Start	Oct 81	May 82
(2) Complete	Mar 83	Aug 83
Initial Production Delivery	May 82	May 82
IOC (24th Aircraft 1st Unit)	Aug 83	Feb 84

b. Explanation of Changes - - None.

c. References - - Decision Coordinating Paper (DCP) #139, as revised January 5, 1977. Decision Coordinating Paper (DCP), Unnumbered, August 15, 1980. Secretary of Defense Decision Memorandum (SDDM), dated October 20, 1980, subject: CH-47 Modernization Program Milestone III Approval.

7. Technical/Operational Characteristics:

a. Technical	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
System Operational Reliability (SOR) (MTBF)			
(1) DSARC III Objective	.96	1.11 <u>1/</u>	1.17
(2) Maturity Objective (100K hrs)	1.4		1.33
Hardware System Reliability (MTBF)			
(1) DSARC III Objective	2.06	3.14 <u>1/</u>	3.41
(2) Maturity Objective (100K hrs)	3.0		3.58
Maintenance Man-Hour/Flight Hour	17.66	15.10 <u>1/</u>	15.10
b. Operational			
Vertical Rate of Climb (fpm)	200	200 <u>2/</u>	200
Mission Radius (NM)	30	30 <u>2/</u>	30
Mission Payload (lb)	15,775	15,560 <u>2/</u> (Ch-1)	15,560 (Ch-1)
Maximum Cruise Speed at Design Gross			
Weight (kt)	155	163 <u>2/</u> (Ch-1)-	163 (Ch-1)
Service Ceiling at Design Gross Weight			
(ft) (1 engine inoperative)	10,000	12,800 <u>2/</u> (Ch-1)	12,800

c. Explanation of Changes - - (Ch-1) Reflects results of production testing vice prototype testing.

d. References - - Same as 6c.

Footnotes:

1/ Demonstrated performance reflects prototype testing.

2/ Demonstrated performance reflects production testing.

CH-47D, December 31, 1984

Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1975 Constant (Base-Year) \$	Current (Then-Year) \$	Escalation Rate (%)
-----------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: RDT&E

Current & Prior Years	3	86.3	113.5	N/A
Budget Year (1986)				
Balance of FYDP				
(1987)				
(1988)				
(1989)				
(1990)				
Balance to Complete				
Subtotal	3	86.3	113.5	N/A

Appropriation: Procurement (Aircraft)

Current & Prior Years	136	614.4	1379.6	N/A
Budget Year (1986)	48	148.6	371.5	5.7
Balance of FYDP	192	390.3	1090.0	N/A
(1987)	(48)	(116.4)	(305.5)	5.5
(1988)	(48)	(97.4)	(267.4)	5.2
(1989)	(48)	(90.5)	(259.6)	4.8
(1990)	(48)	(86.0)	(257.5)	4.4
Balance to Complete	60	85.5	269.8	N/A
Subtotal	436	1238.8	3110.9	N/A
Total	439	1325.1	3224.4	N/A

CH-47D, December 31, 1984

Program Acquisition Cost (Cont'd): (Current Estimate in Millions)

Program Status - -

- (1) Percent Program Completed: 61.1% (11/18)
- (2) Percent Program Cost Appropriated: 46.3% (\$1493.1/\$3224.4)

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year)
Dollars in Millions)

	<u>Current Year</u>		<u>Budget Year</u>
	<u>SAR Current</u>	<u>UCR Baseline</u>	<u>UCR Baseline</u>
	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>
a. Program Acquisition			
(1) Cost	3224.4	3402.5	3224.4
(2) Quantity	439	439	439
(3) Unit Cost	7.35	7.75	7.35
b. Current Procurement - -	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	411.0	425.5	371.5
Less CY Adv Proc	76.5	76.6	- 70.8
Plus FY Adv Proc	67.3	62.2	36.3
Net Total	401.8	411.1	337.0
(2) Quantity	48	48	48
(3) Unit Cost	8.37	8.57	7.02

10. Cost Variance Analysis:

a. Summary - - (Current (Then-Year) Dollars in Millions)

	<u>RDT&E</u>	<u>PROC</u>	<u>MILCON</u>	<u>TOTAL</u>
Development Estimate	98.6	1464.2	-	1562.8
Previous Changes:				
Economic	-	+ 414.1	-	+ 414.1
Quantity	-	+ 545.5	-	+ 545.5
Schedule	-	- 7.6	-	- 7.6
Estimating	+ 14.9	+ 849.0	-	+ 863.9
Support	-	+ 23.8	-	+ 23.8
Subtotal	+ 14.9	+ 1824.8	-	+ 1839.7
Current Changes:				
Economic	-	- 79.8	-	- 79.8
Quantity	-	-	-	-
Schedule	-	-	-	-
Estimating	-	- 93.4	-	- 93.4
Support	-	- 4.9	-	- 4.9
Subtotal	0	- 178.1	-	- 178.1
Total Changes	+ 14.9	+ 1646.7	-	+ 1661.6
Current Estimate	113.5	3110.9	-	3224.4

10. Cost Variance Analysis (Cont'd):

(FY 1975 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	76.1	806.4	-	882.5
Previous Changes				
Quantity	-	+154.7	-	+154.7
Schedule	-	+ 41.4	-	+ 41.4
Estimating	+ 10.2	+256.3	-	+266.5
Support	-	+ 18.5	-	+ 18.5
Subtotal	+ 10.2	+470.9	-	+481.1
Current Changes:				
Quantity	-	-	-	-
Schedule	-	-	-	-
Estimating	-	-36.4	-	-36.4
Support	-	- 2.1	-	- 2.1
Subtotal	0	- 38.5	-	- 38.5
Total Changes	+ 10.2	+432.4	-	+442.6
Current Estimate	86.3	1238.8	-	1325.1

b. Current Change Explanations - -

(Dollars in Millions)

Base-Year \$ Then-Year \$Procurement

Revised January 1985 economic escalation rates (Economic)

0 - 79.8

Boeing proposal was lower than expected by the Government and further reduced in negotiations. Funds made available to other high priority requirements without impacting the Modernization Program (Estimating)

-30.8 - 68.7

Reprogramming/program withdrawal (Estimating)

- 5.6 - 24.7

DA/AMC decrements to program (Support)

- 2.1 - 4.9

c. References - - Same as 6c.

Program Acquisition Unit Cost (PAUC) History:

Development Estimate to Current Estimate

PAUC (Dev Estimate)	Changes (Then-Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
4.29	+ .76	+ .51	- .02	-	+ 1.76	+ .05	-	3.06	7.35

12. Contract Information: (Dollars in Millions)

a. Procurement

Airframe:
Boeing Vertol Co., Ridley Park,
PA, DAAK50-83-C-0003, FPIF,
September 30, 1983

Current Contract
Target Price Qty
\$141.4 24.0

(b)(4)

Previous Cumulative Variance
Cumulative Variance as of 31 Oct 84
Net Change

Cost Variance

\$2.3
\$1.6
-0.7

Schedule Variance

\$-2.9
\$-1.9
\$ 1.0

Explanation of Change: Favorable cost variance is due to better labor efficiency and lower vendor material cost than originally planned. The unfavorable schedule variance is due to late delivery of vendor material. The variance is to Boeing Vertol's internal schedule, which is 30 to 60 days tighter than the contractual schedule, and will not affect aircraft deliveries. Seventeen aircraft have been delivered on or ahead of schedule. The program manager's assessment is based on cost trends derived from cost performance to date and available contractor management reserve.

Airframe
Boeing Vertol Co., Ridley Park,
PA, DAAK50-84-C-0004, FPIF
March 14, 1984

Current Contract
Target Price Qty
\$376.6 36.0

(b)(4)

Previous Cumulative Variance
Cumulative Variance as of 31 Oct 84
Net Change

Cost Variance

\$1.6
\$2.1
\$0.5

Schedule Variance

\$1.1
\$-3.6
\$-4.7

Explanation of Change: Same as for Contract DAAK50-83-C-0003.

CH-47D, December 31, 1984

<u>Engine</u>	<u>Current Contract</u> <u>Target Price</u>	<u>Qty</u>
AVCO Lycoming Div., Stratford, CT, DAAJ09-82-C-B070, FFP April 30, 1982	\$52.3	100.0

AVCO Lycoming Div., Stratford, CT DAAJ09-83-C-B791, FFP September 23, 1983	\$65.2	140.0
--	--------	-------

AVCO Lycoming Div., Stratford, CT DAAJ09-84-C-A291, FFP March 14, 1984	\$56.1	136.0
--	--------	-------

Auxiliary Power Unit:

Turbomach Div. of Solar Turbines, Inc., San Diego, CA, DAAJ09-84-C-A939, FFP, August 3, 1984	\$ 3.2	64.0
--	--------	------

A-6 CH-47D

Sc 1 v

Program Acquisition Costs
System: CH-47D

As of Date: December 31, 1984
Base Year: FY 75

(Dollars in Millions)

a. Program Acquisition
Cost

	(1) Development Estimate (FY76-92)	(2) Changes	(3) Current Estimate (FY76-92)
1. <u>Cost</u>			
Development	76.1	+ 10.2	86.3
Procurement	806.4	+432.4	1238.8
(Initial Spares)	(26.0)	0	(26.0)
Construction	-	-	-
Total: Constant FY75\$	882.5	+442.6	1325.1
Escalation	680.3	+1219.0	1899.3
Development	22.5	+ 4.7	27.2
Procurement	657.8	+1214.3	1872.1
Construction	-	-	-
Total Program Cost	1562.8	1661.6	3224.4

b. Foreign Military Sales: NONE.

c. Nuclear Costs: NONE.

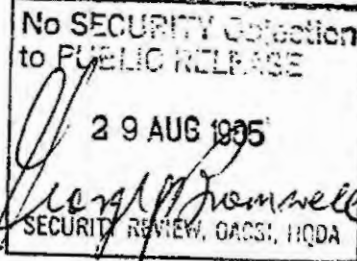
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AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

OASD(PA) DFOIS

85-T-1675



SYSTEM: CH-47D

AS OF DATE: December 31, 1984
BASE YEAR: PY 1975

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED ^{2/}	
			NON-REC	REC					
APPROPRIATION: RDT&E									
1976	-	-	-	-	10.1	11.3	11.3	11.3	8.7
1977	-	-	-	-	2.1	2.4	2.4	2.4	2.2
1977	-	-	-	-	19.9	25.8	25.8	25.8	8.1
1978	-	-	-	-	24.2	32.0	32.0	32.0	8.5
1979	-	-	-	-	13.9	19.1	19.1	19.1	7.7
1980	3	-	-	-	15.7	22.4	22.4	22.4	7.7
1981	-	-	-	-	.4	.5	.5	.5	7.7
TOTAL	3 ^{1/}	-	-	-	86.3	113.5	113.5	113.5	-
APPROPRIATION: PROCUREMENT									
1980	-	2.9	6.3	7.6	15.5	28.6	28.6	28.6	13.4
1981	9	4.2	8.1	55.9	79.0	159.3	159.3	159.3	10.8
1982	19	10.1	1.3	92.1	104.2	219.0	219.0	219.0	7.9
1983	24	25.6	1.4	98.1	106.5	245.3	236.0	108.0	3.1
1984	36	11.4	1.0	123.5	136.0	316.4	288.4	94.2	4.0
1985	48	32.2	2.7	157.8	173.2	411.0	97.8	0	4.8
1986	48	28.3	-	142.8	148.6	371.5	-	-	5.7
1987	48	23.1	-	114.6	116.4	305.5	-	-	5.5
1988	48	15.3	-	96.6	97.4	267.4	-	-	5.2
1989	48	15.9	-	88.5	90.5	259.6	-	-	4.8
1990	48	23.5	-	83.8	86.0	257.5	-	-	4.4
1991	48	2.8	-	66.7	67.0	209.4	-	-	4.4
1992	12	-	-	18.2	18.5	60.4	-	-	4.4
TOTAL	436	195.3	20.8	1146.2	1238.8	3110.9	1029.1	609.1	
NOTE: Multiyear Contracts FY 85-89 & 90-92									

1/ Cannot be identified to a specific fiscal year as these prototypes were worked simultaneously.

2/ Represent disbursements.

Deliveries (Planned and Actual) and Associated Variance Analysis:

Deliveries (Planned/Actual)

	To Date
R&D	3/3
Procurement	42/42

Variance Analysis: N/A.

System: CH-47D

As of Date: December 31, 1.

	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>
Boeing Vertol Co., Ridley Park, PA, DAAK50-83-C-0003, FPIF, September 30, 1983	257.3	270.1	24	141.4	142.9	24	141.4
Boeing Vertol Co., Ridley Park, PA, DAAK50-84-C-0004, FPIF March 14, 1984	362.4	379.5	36	376.6	388.1	36	376.6
AVCO Lycoming Div., Stratford, CT, DAAJ09-82-C-8070, FFP April 30, 1982	49.2	49.2	94	52.3	52.3	100	52.3
AVCO Lycoming Div., Stratford, CT DAAJ09-83-C-8791, FFP September 23, 1983	65.2	65.2	140	65.2	65.2	140	65.2
AVCO Lycoming Div., Stratford, CT DAAJ09-84-C-A291, FFP March 14, 1984	56.1	56.1	136	56.1	56.1	136	56.1
Turbomach Div. of Solar Turbines, Inc., San Diego, CA, DAAJ09-84-C-A939, FFP, August 3, 1984	3.2	3.2	64	3.2	3.2	64	3.2

②
N.33 CH-53E

SAR-84-015

UNCLASSIFIED

SELECTED ACQUISITION REPORT (RCS:DD-COMP(Q&A)823)
PROGRAM: C/MH-53E

AS OF DATE: December 31, 1984

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1. <u>Designation/Nomenclature:</u>	CH-53E Heavy Transport/Assault Helicopter (Super Stallion) MH-53E Airborne Mine Countermeasures/Vertical Onboard Delivery (Sea Dragon)
2. <u>DoD Component:</u>	U.S. Navy
<u>Responsible Office and Telephone Number:</u>	
H-53E Program Office Naval Air Systems Command Washington, DC 20361	
4. <u>Program Elements:</u>	
RDT&E, N: 64260N (W0506-AW only) 64714N (W1110 - PN only) APN: 24262N, 24453N, 26122M MELCON: 26496M	
5. <u>Program Highlights (Since Last Report):</u>	
Final phase of POT&E commenced on September 4, 1984 for completion of the hot weather and 2-point external cargo lift demonstrations. A second CH-53E was lost at Camp Lejeune, North Carolina on 19 November 1984 due to mechanical failure of tail rotor drive systems. Corrective action has been identified.	
The MH-53E completed DT-IIB testing June 30, 1984 and OT-IIA testing July 31, 1984. The MH-53E ILS program was fully certified on December 4, 1984. The testing fulfilled the requirement for the OT-IIIA (ALP) milestone for limited production. The C/MH-53E is expected to meet all mission requirements approved in Decision Coordinating Paper #94.	

PM: Col J. R. Gentry
Assigned: February 1, 1981
AUTOVON 222-3151

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AND SECURITY REVIEW (OASD-FIN)
DEPARTMENT OF DEFENSE

WASP(PA) DFOISR 85-1 886

C/MH-53E, December 31, 1984

Schedule:

a. Milestones

(a) CH-53E

	<u>Development Estimate</u>	<u>Current Estimate</u>
(1) Program Initiation	N/A	Jun 69
(2) First Navy Flight Development Prototype #1	Mar 74	Mar 74
(3) DSARC II	Oct 74	Apr 75
(4) IOT&E Complete	Feb 76	May 79
(5) BIS Initial Report	Mar 76	Jul 77
(6) DNSARC	N/A	Jan 78
(7) DSARC III	Mar 76	Jan 78
(8) Navy Technical Evaluation	N/A	Jan 78
(9) Approval for Service Use (ASU)	N/A	Apr 80
(10) Acceptance First Production Aircraft	Jun 77	Dec 80
(11) Fleet Introduction	Jul 77	Jun 81
(12) FOT&E	N/A	Apr 83
(13) BIS-FTP	N/A	Dec 82
(14) IOC	N/A	FY 82
(15) Navy Support Date	N/A	FY 83

(b) MH-53E

(1) First Flt Development Prototype	N/A	Sep 83
(2) OPEVAL	N/A	Oct 85
(3) AFP	N/A	Feb 86 CH-1
(4) Acceptance First Production Aircraft	N/A	Nov 86

b. Explanation of Changes

(CH-1) Date adjusted to reflect current planning for test and evaluation completion and report by OPTEVFOR. (+2 months)

c. References - Decision Coordinating Paper (DCP) 94, dated February 14, 1978, subject "CH-53E Production Approval."

7. Technical/Operational Characteristics:

a. Technical

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Weight (lbs)			
Maximum Gross Weight (lbs)			
Weight Empty (lbs)	34,000	33,226	33,226
w/Kxt Payload, HIGE SL/90°F	73,500	75,100	72,500
Dimensions (Spread/Folded configuration)			
Length	99.0/60.3	99.5/60.5	99.5/60.5
Width	79.0/29.4	79.0/28.5	79.0/28.5
Height	28.4/18.6	28.4/18.7	28.4/18.7

C/MH-53E, December 31, 1984

Technical/Operational Characteristics: (Cont'd)

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Engine Maximum SHP, Sea Level Static (10 min)	4380	4380	4380

b. Operational**Speed (KTS)**Vmax (KTS Level FLT, MAX
continuous power S.L.)

1. 46.5K lbs GW (Internal Load)	170	176	170
2. 56K lbs GW (Internal Load)	140	170	140
3. 70K lbs GW (External Load)	100	125	100
Rate of Climb (ft/min) One Engine Inop @ 69,750 lbs GW	150	400	200

Radius/Range (NM)

Range (NM)

Internal payload (1000 cu. ft. cargo,
not to exceed gross weight limits)
with full internal and full external
aux fuel tanks (10% reserve)

550	560	500
-----	-----	-----

Payload (lbs)

Payload (lbs)

External, 50 NM radius.

S/L90° F, HIGE (20 min. fuel reserve)

3000' MSL 91.5° F, HIGE

Internal Payload (10% reserve)

500 NM Range

32,000	32,000	32,000
20,000	16,000	16,000

Reliability (%)Mission reliability 1 hr mission
@ 90% confidence

Aircraft MFHBA (1 hour mission)

Aircraft MFHBF

.93	.94	.93
13.70	16.8	13.8
.77	.97	.70

Maintainability

Aircraft MMH/FH (org. corrective)

Availability

AMCM (MH-53E)

Tow Tension (x 1,000 lbs.)

Time on Station (hrs.)

8.00	7.72	9.50
.85	.93	.93
N/A	--	30.0
N/A	--	3.3

c. Explanation of Changes - None

d. References - Decision Coordinating Paper (DCP) 94, dated April 25, 1973, subject "CH-53E Prototype Development Approval": as amended by Decision Coordinating Paper (DCP) 94, dated February 14, 1978, subject "CH-53E Production Approval".

Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1973 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: RDT&E

Current & Prior Years	4	170.4	251.9	N/A
Budget Year (1986)	--	0.9	2.3	4.4
Balance of FYDP	--	14.9	41.7	N/A
(1987)	--	0.6	1.6	4.2
(1988)	--	1.8	4.9	4.0
(1989)	--	5.7	15.7	3.7
(1990)	--	6.8	19.5	3.4
Balance to Complete	--	---	--	--
Subtotal	4	186.2	295.9	N/A

Appropriation: Procurement

Current & Prior Years	93	713.4	1663.9	N/A
Budget Year (1986)	14	99.2	318.1	5.7
Balance of FYDP	53	329.4	1084.3	N/A
(1987)	14	78.7	253.8	5.5
(1988)	14	82.5	262.7	5.2
(1989)	14	84.1	284.6	4.8
(1990)	11	84.1	283.2	4.4
Balance to Complete	-	-	-	-
Subtotal	160	1142.0	3066.3	N/A

4. Program Acquisition Cost (Cont'd) (Current Estimate in Millions)

Fiscal Year Period	Quantity	FY 1973 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: MILCON

Current & Prior Years	-	0.3	0.8	N/A
Budget Year (1986)	-	1.3	3.4	4.4
Balance of FYDP	-	-	-	N/A
(1987)	-	-	-	-
(1988)	-	-	-	-
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to complete	-	-	-	-
Subtotal	-	1.6	4.2	N/A
Total	164	1329.8	3366.4	N/A

Program Status --

(1) Percent Program Completed: 72.2% (13/18)

(2) Percent Program Cost Appropriated: 56.9% (\$1916.6/\$3366.4)

9. Program Acquisition/Current Procurement Unit Cost Summary (Current (Then Year)
Dollars in Millions)

	Current Year SAR Current Estimate	UCR Baseline Estimate	Budget Year UCR Baseline Estimate
a. Program Acquisition --			
(1) Cost	3366.4	3539.5	3366.4
(2) Quantity	164	164	164
(3) Unit Cost	20.5	21.6	20.5
b. Current Procurement --	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	260.8	320.5	318.1
Less CY Adv Proc*	-38.8	-69.6	-33.3
Plus FY Adv Proc*	+9.8	+6.6	+19.0
Net Total	231.8	257.5	303.8
(2) Quantity	10	10	14
(3) Unit Cost	23.2	25.8	21.7

*Advance procurement in FY 85-FY 88 reflects multiyear procurement FY 86-FY89.

10. Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	EDT&E	PROC	MILCON	TOTAL
Development Estimate	100.3	478.1	0.0	578.4
Previous Changes:				
Economic	+2.8	-26.5	-	-23.7
Quantity	-	+2545.2	-	+2545.2
Schedule	+1.5	+63.9	-	+65.4
Engineering	+122.6	+294.6	-	+417.2
Estimating	+10.0	-756.6	-	-746.6
Other	+3.0	-	-	+3.0
Support	+18.6	+673.6	+1.8	+694.0
Subtotal	+158.5	+2794.2	+1.8	+2954.5
Current Changes:				
Economic	+4.2	-15.4	-	-11.2
Engineering	+40.1	-	-	+40.1
Estimating	-7.2	-148.3	-	-155.5
Support	-	-42.3	+2.4	-39.9
Subtotal	+37.1	-206.0	+2.4	-166.5
Total Changes	+195.6	+2588.2	+4.2	+2788.0
Current Estimate	295.9	736.3	4.2	1036.4

(FY 1973 Constant Dollars (Base Year) in Millions)

	EDT&E	PROC	MILCON	TOTAL
Development Estimate	93.3	371.1	-	464.4
Previous Changes:				
Quantity	-	+694.9	-	+694.9
Schedule	+1.6	+33.2	-	+34.8
Engineering	+62.8	+96.1	-	+158.9
Estimating	+6.8	-202.6	-	-195.8
Other	+2.4	-	-	+2.4
Support	+10.5	+205.4	+0.7	+216.6
Subtotal	+84.1	+827.0	+0.7	+911.8
Current Changes:				
Engineering	+14.3	-	-	+14.3
Estimating	-5.5	-43.9	-	-49.4
Support	-	-12.2	+0.9	-11.3
Subtotal	+8.8	-56.1	+0.9	-46.4
Total Changes	+92.9	+770.9	+1.6	+865.4
Current Estimate	186.2	1142.0	1.6	1329.8

0. Cost Variance Analysis (Cont'd):

b. Current Change Explanations --

(Dollars in Millions)
Base Year \$ Then Year \$(1) BDTAERevised Jan 85 economic
escalation rates. (Economic)

N/A +4.2

Development of all composite main
rotor blades to replace present
titanium spar blades. (Engineering)

+14.3 +40.1

Revised estimates in development and
adjustment for changes in escalation
rates. (Estimating)

-5.5 -7.2

(2) ProcurementRevised Jan 85 economic escalation
rates. (Economic)

N/A -15.4

Revised estimates in flyaway to reflect
multi year procurement, new vendor airframe
estimates and adjustments for changes in
prior year escalation rates. (Estimating)

-43.9 -148.3

Revised estimates in support and reduced
requirement in spares for Helicopter Night
Vision Systems. (Support)

-12.2 -42.3

(3) MILCON

Addition of training facilities (Support)

+0.9 +2.4

- c. References - Decision Coordinating Report (DCR) 94, dated April 25, 1973, subject
-
- "CH-53E Prototype Development Approval"; (Development Estimate; President's FY-86
-
- Budget (current estimate)).

C/MH-53E, December 31, 1984

Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Baseline Estimate

(1) Same as Current Baseline Estimate.

b. Current Baseline Estimate to Current Estimate

PAUC (Development Estimate)	<u>Changes (Then Year Dollars in Millions)</u>								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
7.816	-0.212	+11.230	+0.398	+2.789	-5.501	+3.988	+0.019	+12.711	20.527

12. Contract Information: (Dollars in Millions)

a. RDT&E

MH-53E Airframe:

Current Contract Target	Qty	PM's Est Price At Completion
----------------------------	-----	---------------------------------

Sikorsky Aircraft
Stratford, Connecticut
N00019-82-C-0127, CPA/IF
26 Feb 82

\$51.5	-	\$56.0
--------	---	--------

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	-3.1	-1.3
Cumulative Variance to Date (30 Nov 84)	-3.0	-1.4
Net Change	+1	-.1

Current cost and schedule variances are not significant.

b. Procurement --

<u>Airframe:</u>	<u>Current Contract Target</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
Sikorsky Aircraft (Lot V) Stratford, Connecticut N00019-81-C-0481/FFP *	146.0	14	146.0
27 Apr 83 FFP contract - no variance analysis required			
Sikorsky Aircraft (Lot VI) Stratford, Connecticut N00019-82-C-0230/FFP	118.0	11	118.0
27 Apr 83 FFP contract - no variance analysis required			
Sikorsky Aircraft (Lot VII) Stratford, Connecticut N00019-83-C-0074/FFP	115.0	11	115.0
16 May 84 FFP contract - no variance analysis required			
Sikorsky Aircraft (Lot VIII) Stratford, Connecticut N00019-83-C-0308/FFP	**	10	**
24 May 84 FFP contract - no variance analysis required			
<u>Engine:</u>			
General Electric Co. (Lot VII/VIII) West Lynn, Mass F33657-82-C-0017/FFP	66.5	101	66.5
19 June 84 FFP contract - no variance analysis required			

* Shown for the last time

** Not yet definitized

N-33 CH-53E

FOUO/NO PUBLICATION

SEP 06 1985

2

PROGRAM FUNDING SUMMARY

SYSTEM: C/MH-53E

INJECTOR: FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (ASD-PA)
DEPARTMENT OF DEFENSE

AS OF DATE: DECEMBER 31, 1984

BASE YEAR: FY 73

CURRENT ESTIMATE

(\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE(%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E

1973	---	---	---	---	14.0	14.6	14.6	14.6	4.4
1974	2	---	---	---	26.8	30.3	30.3	30.1	8.0
1975	2	---	---	---	38.2	47.0	47.0	47.0	10.9
1976	---	---	---	---	9.6	12.5	12.5	12.5	6.6
1977	---	---	---	---	16.0	21.7	21.7	21.7	2.9
1977	---	---	---	---	8.6	11.9	11.9	11.5	2.6
1978	---	---	---	---	13.6	20.4	20.4	20.1	6.8
1979	---	---	---	---	0.2	0.4	0.4	0.4	8.4
1980	---	---	---	---	7.9	14.5	14.5	13.6	10.6
1981	---	---	---	---	4.7	9.4	9.4	8.8	10.6
1982	---	---	---	---	5.8	12.1	12.1	11.6	7.6
1983	---	---	---	---	6.9	15.2	15.2	14.4	4.9
1984	---	---	---	---	12.6	28.8	28.7	23.8	3.8
1985	---	---	---	---	5.5	13.1	5.0	0	3.7
1986	---	---	---	---	0.9	2.3	---	---	4.4
1987	---	---	---	---	0.6	1.6	---	---	4.2
1988	---	---	---	---	1.8	4.9	---	---	4.0
1989	---	---	---	---	5.7	15.7	---	---	3.7
1990	---	---	---	---	6.8	19.5	---	---	3.4
TOTAL	4	---	---	---	186.2	295.9	243.7	230.1	

CLASSIFIED INFORMATION

85-1639

PROGRAM FUNDING SUMMARY

SYSTEM: C/MH-53E

AS OF DATE: DECEMBER 31, 1984

BASE YEAR: FY 73

CURRENT ESTIMATE

(\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE(%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: PROCUREMENT

1977	6	--	23.6	47.8	74.7	120.8	120.8	119.1	3.8
1978	0	--	--	0	0	--	--	--	6.8
1979	14	--	1.9	75.8	104.0	190.3	190.3	189.6	8.7
1980	13	1.1	--	82.6	105.3	211.9	211.7	210.4	11.8
1981	14	0.8	--	80.7	99.2	222.5	222.5	222.1	11.6
1982	14	0.7	--	71.9	91.8	229.7	228.4	214.6	14.3
1983	11	2.7	5.4	55.7	88.5	231.9	226.8	175.2	9.0
1984	11	2.8	3.0	50.5	70.2	196.0	181.2	130.5	8.0
1985	10	3.4	9.8	49.3	79.7	260.8	102.1	--	4.8
1986	14	6.2	3.2	66.4	99.2	318.1	--	--	5.7
1987	14	9.5	.7	61.1	78.7	253.8	--	--	5.5
1988	14	11.2	1.4	62.9	82.5	262.7	--	--	5.2
1989	14	10.8	1.9	60.7	84.1	284.6	--	--	4.8
1990	11	7.1	3.9	62.0	84.1	283.2	--	--	4.4
TOTAL	160	56.3	54.8	827.4	1142.0	3066.3	1483.8	1261.5	

APPROPRIATION: CONSTRUCTION

1983	--	--	--	--	0.3	0.8	0.5	0.5	4.9
1984	--	--	--	--	--	--	--	--	3.8
1985	--	--	--	--	--	--	--	--	3.7
1986	--	--	--	--	1.3	3.4	--	--	4.4
TOTAL	--	--	--	--	1.6	4.2	0.5	0.5	

C/MH-53E, DECEMBER 31, 1984

Deliveries (Planned/Actual)

	<u>To Date</u>
R&D	4/3
Procurement (Production)	79/79

Variance Analysis: R&D prototype #1 lost in accident prior to delivery.

Program Acquisition Costs
System: C/MH-53E

As of Date: December 31, 1984
Base Year: FY 73

(Dollars in Millions)

a. Program Acquisition
Cost

	(1) Development Estimate (FY 73-80)	(2) Changes	(3) Current Estimate (FY 73-90)
1. Cost			
Development	93.3	+ 92.9	186.2
Procurement	371.1	+ 770.9	1,142.0
Airframe	(250.2)	(+476.9)	(727.1)
Engines	(46.9)	(+77.3)	(124.2)
Avionics	(5.4)	(+15.3)	(20.7)
Other GFE	(1.9)	(+8.3)	(10.2)
Total Flyaway	(304.4)	(+577.8)	(882.2)
Ground Support Equipment	(17.9)	(+32.3)	(50.2)
Training Equip & Other Support	(11.5)	(+76.9)	(88.4)
Initial Spares	(37.3)	(+83.9)	(121.2)
Construction	0.0	+1.6	1.6
Total: Constant FY 73\$	<u>464.4</u>	<u>+865.4</u>	<u>1,329.8</u>
Escalation	114.0	+1,922.6	2,036.6
Development	(7.0)	(+102.7)	(109.7)
Procurement	(107.0)	(+1,817.3)	(1,924.3)
Construction	(0.0)	(+2.6)	(2.6)
Total Program Cost	<u>578.4</u>	<u>+2,788.0</u>	<u>3,366.4</u>

b. Foreign Military Sales: None.

c. Nuclear Costs: None.

C/MH-53E, DECEMBER 31, 1985

<u>CONTRACTOR COSTS</u>		<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>
		<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>
1. <u>DEVELOPMENT:</u>								
Sikorsky Aircraft Division of United Technologies Corporation								
a.	CPA/IF N00019-82-C-0127 Award Date: 26 Feb 1982 Definitized	37.38	N/A	--	51.5	N/A	--	53.2
2. <u>PROCUREMENT:</u>								
Sikorsky Aircraft Division of United Technologies Corporation								
a.	FFP N00019-81-C-0481 Award Date: 30 Sep 1981 Definitized (Lot V)	146.0	N/A	14	146.0	N/A	14	146.0
b.	FFP N00019-82-C-0230 Award Date: 30 Jun 1982 Definitized (Lot VI)	118.0	N/A	11	118.0	N/A	11	118.0
c.	FFP N00019-83-C-0074 Award Date: 30 Apr 1983 Definitized (Lot VII)	115.0	N/A	11	115.0	N/A	11	115.0

C/MH-53E, DECEMBER 31, 1985

CONTRACTOR COSTS

	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion Contractor Estimate</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	
d. FFP N00019-83-C-0308 Award Date: 24 May 1984 Not definitized	--	--	10	--	--	10	--
General Electric Co. West Lynn, Massachusetts							
a. FFP F33657-82-C-0017 Award Date: 23 Jul 1982 Definitized (Lot V/VI)	48.8	N/A	69	66.5	N/A	101	66.5

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SAR-84-127

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: COPPERHEAD CANNON LAUNCHED GUIDED PROJECTILE

AS OF DATE: December 31, 1984

COPPERHEAD

INDEX

SUBJECT

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Technical/Operational Characteristics	2
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Unit Cost Summary	4
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Program Acquisition Unit Cost History	6
Contract Information	6

1. Designation/Nomenclature (Popular Name): M712/155MM Cannon Launched Guided Projectile (Copperhead)

2. DOD Component: Department of the Army:

3. Responsible Office and Telephone Number:

Cannon Artillery Weapons System/
Joint Project Manger, Guided
Projectiles
Armament Research Center
Dover, New Jersey

PM: COL John Kronkaitis

Assigned: August 1981

Autovon: 880-2572

4. Program Elements:

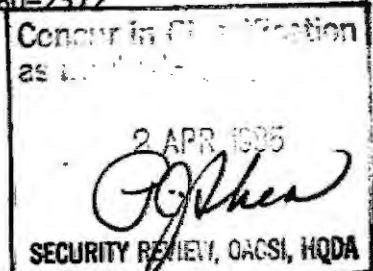
RDTE: 6.46.21.8 D073
Procurement: E67600

5. Program Highlights (Since Last Report):

2692 Copperhead Projectiles were delivered by the contractor in the year ending 1 Dec 84. Total delivery to date is 7265.

System Reliability is 91.3% based on Lot Acceptance Testing. The projectile reliability is defined as the probability that the projectile will function properly from the time of launch until it intercepts and impacts the target with the required accuracy.

Mission Assessment Statement: The Copperhead projectile type classified -in November 1979 meets the user's approved requirements documents. The reliability growth program initiated in June 1982 has achieved the 0.8 requirement as stated in the Secretary of Defense Decision Memorandum (SSDM), dated 14 Apr 83.



~~CLASSIFIED BY: [redacted] 22 Aug 80~~
~~DECLASSIFY ON: 31 Dec 88~~

~~REGRATED UNCLASSIFIED WHEN SEPARATED
FROM CLASSIFIED ENCLOSURES~~

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COPPERHEAD, December 31, 1984

	Development Estimate	Current Estimate
6.a. (U) <u>Schedule:</u>		
(U) Milestones		
(U) Award ED Contract	Jul 75	Jul 75
(U) Engineering Design Tests		
(1) Baseline Flight Test		
(A) Start	Apr 76	Mar 77
(B) Complete	Sep 76	Jul 78
(2) Safety/Warhead Fuze Qualifications		
(A) Start	Nov 76	Nov 76
(B) Complete	Mar 77	Jan 79
(3) System Qualification		
(A) Start	Oct 76	Apr 78
(B) Complete	Mar 77	Jan 79
(U) DT II/OT II		
(1) Start	Jul 77/Sep 77	Mar 78/Feb 79
(2) Complete	Jun 78/Nov 77	Dec 79/Jun 79
(U) ASARC/DSARC (Milestone III)	Feb 78	Sep 79/Nov 79
(U) Initial Production Deliveries	Mar 79	Oct 81
(U) Prod Validation Test		
(1) Start	Mar 79	Nov 81
(2) Complete	Aug 79	Aug 82
(U) Second Source Procurement	Nov 79	N/A
(U) ASARC/DSARC (Milestone IIIa)	Nov 79	N/A
(U) Initial Operation Capability (IOC)	Nov 79	Dec 82
b. (U) Explanation of Changes - - None		
c. (U) References - - DCP #119 dated Sep 75		

7. (U) Technical/Operational Characteristics:

	Development Estimate	Demonstrated Performance	Current Estimate
a. (U) Technical			
(U) Projectile Weight (lbs.)	96-150	137.7	138
(U) (kg)	43.5-68.0	62.4	62.6
(U) Projectile Length (in)	28-54	54.2	54.2
(U) (cm)	71.1-137.2	137.7	137.7
(U) Warhead Weight (lbs.)	49.6	48.8	48.8
(U) (kg)	22.5	22.1	22.1
(U) Explosive Weight (lbs.)	14.0	14.0	14.0
(U) (kg)	6.4	6.4	6.4
b. (U) Operational	(b)(1)		
(U) Projectile Effectiveness (E)			
(U) Maximum Range (km)	16-24	16.0	16.0
(U) Maximum Range (km)			
(1) (U) High Angle	3.5	5.0	5.0
(2) (U) Low Angle	1.5-3.0	3.0	3.0
(U) Accuracy (CEP in feet/meters)	(b)(1)		
(U) Single Shot Kill Probability (SSKP)			
(U) Oper Prob of Proper Launch (P(L))			
(U) Oper Prob of Proper Des (P(D))	-	.98	.98
c. (U) Explanation of Changes - - CH-1 Change from 17 to 16: Original estimate of 16 was changed to 17 based on expected results of reliability demonstration tests. The test was subsequently not required, therefore, the change from 16 to 17 was not adopted.			
d. (U) References - - DCP #119, dated Sep 75			

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COPPERHEAD, December 31, 1984

Program Acquisition Cost:

Fiscal Year Period	Quantity	FY 1975 Constant (Base Year)\$	Current (Then Year)\$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	--------------------------	------------------------

Appropriation: RDT&E

Current & Prior Years	320	134.6	150.5	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	-	-	-	-
(1987)	-	-	-	-
(1988)	-	-	-	-
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	-
Subtotal	320	134.6	150.5	N/A

Appropriation: Procurement

Current & Prior Years	15745	412.4	741.3	N/A
Budget Year (1986)	6900	103.4	235.0	4.4
Balance of FYDP	8287	134.3	321.2	-
(1987)	(5900)	(88.3)	(208.6)	4.2
(1988)	(2387)	(46.0)	(112.6)	4.0
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	-
Subtotal	30932	650.1	1297.5	N/A
TOTAL	31252	784.7	1448	N/A

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COPPERHEAD, December 31, 1984

Program Status

- (1) Percent Program Completed: 71.4% (15/21)
 (2) Percent Program Cost Appropriated: 61.6% (891.8/1448)

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	Current Year SAR Current Estimate	Current Year UCR Baseline Estimate	Budget Year UCR Baseline Estimate
a. Program Acquisition			
(1) Cost	\$1,448.0	\$1,672.0	\$1,448.0
(2) Quantity	31252	31132	31252
(3) Unit Cost	\$0.046	\$0.054	\$0.046
b. Current Procurement	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	\$200.8	\$102.8	\$235.0
Less CY Adv Proc			
Plus PY Adv Proc			
Net Total	\$200.8	\$102.8	\$235.0
(2) Quantity	5250	2253	6900
(3) Unit Cost	\$0.038	\$0.046	\$0.034

Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	TOTAL
Development Estimate	\$118.2	\$1,122.5	\$1,240.7
Previous Changes			
Economic	-4.2	+105.8	+101.6
Quantity	-2.2	-698.9	-701.1
Schedule	-9.6	+358.8	+349.2
Engineering	+25.5	+ 1.3	+ 26.8
Estimating	+ 6.5	+627.3	+633.8
Other	+ 6.3	-	+ 6.3
Support	+10.0	+ 4.7	+ 14.7
Subtotal	+32.3	+399.0	+431.3
Current Changes			
Economic	-	-17.4	-17.4
Quantity	-	+ 0.5	+ 0.5
Schedule	-	-87.5	-87.5
Engineering	-	-	-
Estimating	-	-119.6	-119.6
Other	-	-	-
Support	-	-	-
Subtotal	0	-224.0	-224.0
Total Changes	+32.3	+175.0	+207.3
Current Estimate	\$150.5	\$1,297.5	\$1,448.0

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COPPERHEAD, December 31, 1984

Cost Variance Analysis: (cont)

(FY 1975 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	TOTAL
Development Estimate	\$109.3*	\$738.0	\$847.3
Previous Changes			
Quantity	-1.7	-459.3	-461.0
Schedule	-8.8	+137.7	+128.9
Engineering	+15.4	+0.8	+16.2
Estimating	+7.8	+291.0	+298.8
Other	+4.6	-	+4.6
Support	+8.0	+2.9	+10.9
Subtotal	+25.3	-26.9	-1.6
Current Changes			
Quantity	-	+0.8	+0.8
Schedule	-	-8.2	-8.2
Engineering	-	-	-
Estimating	-	-53.6	-53.6
Other	-	-	-
Support	-	-	-
Subtotal	0	-61.0	-61.0
Total Changes	+25.3	-87.9	-62.6
Current Estimate	\$134.6	\$650.1	\$784.7

* Adjusted by +\$4.4M to reflect true FY75 constant base year dollars.

b. Current Change Explanations:

(DOLLARS IN MILLIONS)
Base Year \$ Then Year \$

<u>Procurement</u>		
- Revised Jan 85 economic escalation rates (Economic)	-	-17.4
- Addition of 120 Projectiles (Quantity)	0.8	0.5
- Schedule changes applicable to increase of Projectiles, final procurement in FY88 rather than FY91 (Schedule)	-8.2	-87.5
Re-estimate of procurement costs due to production rate being increased to a more economic rate (Estimating)	-53.6	-119.6

c. References -- DCP #119, dated Sep 75

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COPPERHEAD, December 31, 1985

1. Program Acquisition Unit Cost (PAUC) History: A. INITIAL SAR estimate to Current Estimate

PAUC (Develop Estimate)	Changes (current (Then Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	QTY	Sch	Eng	Est	Supt	Other	Total	
0.009	+.003	+.008	+.008	+.001	+.016	+.001	.000	+.037	0.046

2. Contract Information: (Dollars in Millions)

Procurement	Current Contract Target Price	QTY	PM's Price At Completion
Martin Marietta Aerospace DAAK10-82-C-0103 (MOD 29) 15 APRIL 1982 FFP	\$145.1	3957	\$145.1
Lanson Industries Inc. DAAK10-81-0219 Mod 6) 25 September 1981 FFP	\$2.6	3196	\$2.6

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SEP 9 1985 23

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

PROGRAM FUNDING SUMMARY
SYSTEM: COPPERHEAD (CLGP)

AS OF DATE: DECEMBER 31, 1984
BASE YEAR: FY75

CURRENT ESTIMATE
(\$ IN MILLIONS)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE
		ADV PROC (NONADD)	FLYAWAY (NONADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NONREC	REC					
APPROPRIATION: RDT&E									
FY71	24				2.1	1.6	1.6	1.6	3.8
FY72					9.1	7.3	7.3	7.3	4.2
FY73					9.6	8	8	8	5.8
FY74					6.2	5.6	5.6	5.6	8.8
FY75	296				6.1	6.1	6.1	6.1	6.6
FY76					13.1	17	17	17	3.5
FY77					36.5	38	38	38	3.8
FY78					30	36	36	36	6.8
FY79					11.5	15	15	15	8.4
FY80					6.2	9	9	9	9.4
FY81					2.6	4.2	4.2	4.2	11.9
FY82					1.6	2.7	2.7	2.7	7.6
TOTAL	320		0	0	134.6	150.5	150.5	150.5	

1 Since spend out rates are not shown, the escalation rates cannot be used to verify the composite indices.

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29 AUG 1985

SECURITY REVIEW, TRANS. 10/85

A-7
COPPERHEAD

PROGRAM FUNDING SUMMARY
SYSTEM: COPPERHEAD (CLGP)

AS OF DATE: DECEMBER 31, 1984
BASE YEAR: FY75

CURRENT ESTIMATE
(\$ IN MILLIONS)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE
		ADV PROC (NONADD)	FLYAWAY (NONADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NONREC	REC					
APPROPRIATION: PROCUREMENT									
FY78			22.2		22.2	27.2	26.7	26.7	6.8
FY79			15.9	1.5	17.4	23.2	22.3	22.3	8.7
FY80	1114			52.4	52.4	76.5	75.9	75.9	9.7
FY81	2624			79.9	79.9	130.4	129.9	129.9	11.9
FY82	3957			86.7	86.7	154.5	154.5	153.7	7.6
FY83	1220			27.1	27.1	55.0	47.9	12.9	4.9
FY84	1580			34.7	34.7	73.7	61.4	14.4	3.8
FY85	5250			92.0	92.0	200.8	70.5		3.7
FY86	6900			103.4	103.4	235.0			4.4
FY87	5900			88.3	88.3	208.6			4.2
FY88	2387			46.0	46.0	112.6			4.0
TOTAL	30932		38.1	612	650.1	1297.5	589.1	435.8	

1 Since spend out rates are not shown, the escalation rates cannot be used to verify the composite indices

CONTRACT INFORMATION
SYSTEM: COPPERHEAD (CLGP)

AS OF DATE: DECEMBER 31, 1984
BASE YEAR: FY75

CURRENT ESTIMATE
(\$ IN MILLIONS)

CONTRACTOR COSTS	<u>INITIAL CONTRACT PRICE</u>			<u>CURRENT CONTRACT PRICE</u>			<u>PRICE AT COMPLETION</u>
	<u>TARGET</u>	<u>CEILING</u>	<u>QTY</u>	<u>TARGET</u>	<u>CEILING</u>	<u>QTY</u>	<u>CONTRACTOR ESTIMATE</u>
2. PROCUREMENT							
Martin Marietta Aerospace DAAK10-82-C0103 (MOD 29) 15 April 1982 FFP	131.8	N/A	3957	145.1	N/A	3957	145.1
Lanson Industries Inc. DAAK10-81-0219 (MOD 6) 25 SEPTEMBER 1981 FFP	0.7	N/A	1598	2.6	N/A	3196	2.6

DELIVERY SCHEDULE
SYSTEM: COPPERHEAD (CLGP)

AS OF DATE: DECEMBER 31, 1984
BASE YEAR: FY75

Deliveries (Planned/Actual)

To Date:

RD
AD
ED
IPF

24/24
296/296
20/20

Procurement

7695/7695

PROGRAM ACQUISITION COSTS
SYSTEM: COPPERHEAD (CLGP)

AS OF DATE: DECEMBER 31, 1984
 BASE YEAR: FY75

(\$ IN MILLIONS)

a. PROGRAM ACQUISITION
 COST

	(1) DEV ESTIMATE (FY71-84)	(2) <u>CHANGES</u>	(3) CURRENT ESTIMATE (FY71-88)
1. COST			
DEVELOPMENT	109.3 *	+25.3	134.6
PROCUREMENT	738.0	-87.9	650.1
TOTAL FLYAWAY	731.6	-95.5	636.1
Other Wpn Sys Cost	6.4	+7.6	14.0
TOTAL: CONST FY75\$	847.3	<u>-62.6</u>	<u>784.7</u>
ESCALATION	393.4	269.9	663.3
DEVELOPMENT	8.9	7.0	15.9
PROCUREMENT	384.5	262.9	647.4
TOTAL PROGRAM COST	<u>1240.7</u>	<u>+207.3</u>	<u>1448.0</u>

* Adjusted by +\$4.4M to reflect true FY 75 Constant base year dollars.

b. Foreign Military Sales: Sales to date total 25 projectiles to Japan.

(2)

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SAR-84-131

A-19 SGT YORK

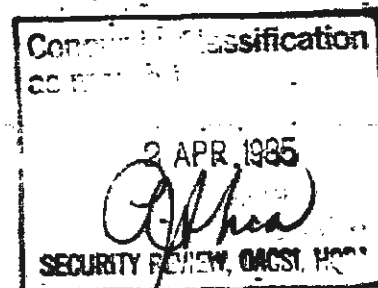
SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)

PROGRAM: SGT YORK GUN

AS OF DATE: December 31, 1984

INDEX

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Program Highlights	2
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Technical/Operational Characteristics	3
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Program Acquisition Unit Cost History	9
Contract Information	10



1. Designation/Nomenclature (Popular Name): M247 Gun, Air Defense, SP, 40mm/
SGT-YORK Air Defense Gun System
2. DoD Component: Department of the Army
3. Responsible Office and Telephone Number:
PM SGT YORK Air Defense Gun System
ATTN: AMCPM-ADG
Dover, NJ 07801-5001
PM: COL W. S. Chen
Assigned: 19 Nov 84
Autovon: 880-2270
Commercial: 201-724-2270
4. Program Elements:
RDTE: 664318
Procurement: G26401 - WTCV; E19601, E19603, E19604, E19605 - AMMO

~~Classified by: SGT YORK Gun System SCL 18 Nov 84~~
~~Declassify on: OADR~~

~~This marking is cancelled when separated from
the material bearing a protective marking.~~

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SGT YORK Gun, December 31, 1984

5. Program Highlights (Since Last Report):

Major milestones accomplished during 1984 include: the delivery of the first fire unit in March; the delivery of an additional 27 fire units; the delivery of numerous pieces of Peculiar Support Equipment (PSE) and Trainers; the successful completion of the Design Verification Test (DVT) and the Limited Operational Test (LT) and the start of the Initial Production Test (IPT).

Major program developments include: a major restructure (slowdown) of the production schedule to accommodate the conduct of SECDEF directed Operational Test (Follow-On Evaluation I. (FOE I)) during April-May 1985 prior to the award of the FY84 buy of 117 fire units; congressional action which deleted the buy of fire units in FY85, but authorized the expenditure of \$100M advanced procurement, subject to a successful FOE; the award to Ford Aerospace Communications Corporation (FACC) of an anticipatory cost contract which allows the expenditure of up to \$200M (FY84\$) in anticipation of the Option III award in July-September 1985; and the approval of a major Product Improvement to integrate the STINGER Missile into the SGT YORK fire control system beginning in FY86.

The mission for the SGT YORK system did not change during 1984. The Army's assessment that the SGT YORK will satisfactorily meet mission requirements remains firm.

6. Schedule:

	<u>Development Estimate</u>	<u>Current Estimate</u>
a. Milestones		
ASARC/DSARC I	Feb 77/Feb 77	Feb 77/Feb 77
ASARC/DSARC II	Oct 77/Nov 77	Oct 77/Nov 77
Engineering Development (Phase I)		
(1) (U) Contract Award	Jan 78	Jan 78
(2) (U) Prototype Delivery	Jun 80	Jun 80
(3) (U) DT/OT II		
Start	Jun 80	Jun 80
Complete	Sep 80	Nov 80
ASARC/DSARC III	Sep 80/Oct 80	Mar 82/May 82
Type Classification	Sep 80	May 82 (CH1)
Initial Production (Phase II)		
(1) (U) ILS Development & Test	Oct 80	May 81
(2) (U) Maturity & Check Test	Oct 80	May 81
(3) (U) IP Contract Award	Oct 80	May 81
Technical Data Package Delivered	Oct 84	Sep 85 (CH2)
First Production Equipment Delivered	Sep 83	Mar 84
First Article Test (IP)		
(1) (U) Start	Apr 84	Oct 84 (CH3)
(2) (U) Complete	Sep 84	Mar 85
Follow-on Production (Contract Award)	Apr 85	Jan 86 (CH4)

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SGT YORK Gun, December 31, 1984

6. (U) Schedule: (cont'd)

	<u>Development Estimate</u>	<u>Current Estimate</u>
a. (U) Milestones (Cont'd)		
IOC (First FORSCOM Battery Deployed)	Mar 85	Mar 87 (CH5)
First Article Test (Follow-On Production)		
(1) (U) Start	Oct 86	Jun 87 (CH6)
(2) (U) Complete	Mar 87	Sep 87 (CH6)
Production Complete	Feb 89	Jun 90 (CH6)

b. (U) Explanation of changes:

- (CH1) - Change from Mar 82 to May 82 to correct previous error.
- (CH2) - Delayed from Oct 84 to Sep 85 for completion of Initial Production Test (IPT) and incorporation of any required changes as a result of IPT.
- (CH3) - Delayed from Sep 84 to Oct 84 due to availability of fire units.
- (CH4) - Now reflects FY86 program due to the delay from May 84 to Sep 85 of FY84 Option 3 and no FY85 production program.
- (CH5) - IOC redefined from Sep 85 to May 87 to reflect first FORSCOM battery deployed (Battery No. 3). The first two batteries deployed go to TRADOC.
- (CH6) - Reflects revised production schedule resulting from elimination of the FY85 procurement program and the addition of an FY88 program as follows:

	<u>FROM</u>	<u>TO</u>
First Article Test (Follow-On Production)		
(1) Start	Nov 86	Jun 87
(2) Complete	Jan 87	Sep 87
Production Complete	Sep 89	Jun 90

c. (U) Reference: Draft DCP #168, dated 3 November 1977.

7. ~~(U)~~ Technical/Operational Characteristics:

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
a. (U) Technical			

(b)(1)



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SGT YORK Gun, December 31, 1984

Technical/Operational Characteristics:(cont'd)

	Development Estimate	Demonstrated Performance	Current Estimate
(b)(1)			

(U) Reliability		6/	
Cannon MRBF (Per Cannon)	2,000-4,000	1206 (CH4)	2700
Fire Control MTBF	95-190 hr	63 (CH4)	104
(U) Maintainability			
ORGN MTTR	.5 hr	NA	.5 hr
DS MTTR	1.0 hr	NA	1.0 hr
(U) Availability	.90	NA	.90
(U) Air Transportable	C5A	C5A	C5A

c. (U) Explanation of Changes

- (CH1) - Updated to reflect data from the Mar-Jun and Oct-Dec 1984 Design Verification Test (DVT) assuming a 25 round burst of proximity fuze ammunition.
- (CH2) - Updated to reflect data from the DVT and the Early Production Unit Test (May-Aug 83).
- (CH3) - Updated to reflect DVT data. Reaction time is dependent on target type (rotary or fixed wing) and the unmask range.
- (CH4) - Updated to reflect DVT and Limited Test (Jul-Aug 84) results.

d. (U) Reference: Draft DCP #168, dated 3 November 1977.

e. (U) Footnotes:

(b)(1)

5/ (U) Rotary wing aircraft/fixed wing aircraft.

6/ (U) Demonstrated in the FY84 Design Verification Test and Limited Test.

These results indicate that contractual reliability growth curve projections are being met and mature values will be achieved.

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SGT YORK Gun, December 31, 1984

8. Program Acquisition Cost: (Current Estimate in Millions)

Fiscal Year Period	Quantity	FY 1978 (Base Year) Constant \$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: RDTE

Current & Prior Years	4	211.5	267.7	N/A
Budget Year (1986)	-	25.0	43.2	4.4
Balance of FYDP	-	24.5	45.9	N/A
(1987)	-	(11.5)	(20.6)	4.2
(1988)	-	(4.3)	(8.0)	4.0
(1989)	-	(0.1)	(0.1)	3.7
(1990)	-	(8.6)	(17.2)	3.4
Balance to Complete	-	-	-	N/A
Subtotal	4	261.0	356.8	N/A

Appropriation: Procurement (WTCV incl spares)

Current & Prior Years	263	1008.3	1905.5 ^{1/}	N/A
Budget Year (1986)	117	216.9	479.5	5.7
Balance of FYDP	234	471.1	1116.4	N/A
(1987)	(117)	(244.6)	(567.3)	5.5
(1988)	(117)	(226.5)	(549.1)	5.2
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	614	1696.3	3501.4	N/A

^{1/} Current and prior years reflect \$559.4M for FY84 procurement of 130 fire units. Only 117 fire units were authorized for procurement leaving \$33.0M in that fiscal year which has not been released.

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SGT YORK Gun, December 31, 1984

8. Program Acquisition Cost (cont'd): (Current Estimate in Millions)

Fiscal Period	Quantity	FY 1978 (Base Year) Constant \$	Current (Then Year) \$	Annual Escalation Rate
---------------	----------	---------------------------------------	---------------------------	------------------------------

Appropriation: Procurement (Ammo)

Current & Prior Years	-	171.5	276.7	N/A
Budget Year (1986)	-	23.8	42.3	4.4
Balance of FYDP	-	116.4	223.7	N/A
(1987)	-	(42.3)	(78.2)	4.2
(1988)	-	(40.8)	(78.3)	4.0
(1989)	-	(16.9)	(33.6)	3.7
(1990)	-	(16.4)	(33.6)	3.4
Balance to Complete	-	-	-	N/A
Subtotal	-	311.7	542.7	N/A

Appropriation: MILCON

Current & Prior Years	-	28.2	47.8	N/A
Budget Year (1986)	-	4.9	8.9	4.4
Balance of FYDP	-	6.1	12.7	N/A
(1987)	-	-	-	4.2
(1988)	-	-	-	4.0
(1989)	-	-	-	3.7
(1990)	-	(6.1)	(12.7)	3.4
Balance to Complete	-	-	-	N/A
Subtotal	-	39.2	69.4	N/A
Total	618	2308.2	4470.3	N/A

Program Status -- (1) Percent Program Completed: 64% (9/14)
(2) Percent Program Cost Appropriated: 56% 2497.7/4470.3

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SGT YORK Gun, December 31, 1984

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	<u>Current Year</u>		<u>Budget Year</u>
	<u>SAR Current</u> <u>Estimate</u>	<u>UCR Baseline</u> <u>Estimate</u>	<u>UCR Baseline</u> <u>Estimate</u>
a. Program Acquisition - -			
(1) Cost	4470.3	4192.6	4470.3
(2) Quantity	618	622	618
(3) Unit Cost	7.23	6.74	7.23
b. Current Procurement - -	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	182.3	713.6	521.8
Less CY Adv Proc	100.0	12.9	11.0
Plus PY Adv Proc	NA	22.8	121.5 (FY84/85)
Net Total	82.3	723.5	632.3
(2) Quantity	0	132	117
(3) Unit Cost	N/A	5.48	5.40

10. Cost Variance Analysis:

a. Summary - - (Current (Then Year) Dollars in Millions)

	<u>RDT&E</u>	<u>PROC</u>	<u>MILCON</u>	<u>TOTAL</u>
Development Estimate	\$184.7	\$3001.1	\$0	\$3185.8
Previous Changes:				
Economic	+3.3	+321.2	+2.7	+327.2
Quantity	-	+64.1	-	+64.1
Schedule	-	+606.1	-	+606.1
Engineering	-	-	-	-
Estimating	+54.8	-83.5	+94.4	+65.7
Other	-	-	-	-
Support	+24.3	-80.6	-	-56.3
Subtotal	+82.4	+827.3	+97.1	+1006.8
Current Changes:				
Economic	-0.1	+13.7	-1.8	+11.8
Quantity	-	-13.7	-	-13.7
Schedule	-	+67.7	+0.5	+68.2
Engineering	+89.8	-	-	+89.8
Estimating	-	+126.2	-26.4	+99.8
Other	-	-	-	-
Support	-	+21.8	-	+21.8
Subtotal	+89.7	+215.7	-27.7	+277.7
Total Changes	+172.1	+1043.0	+69.4	+1284.5
Current Estimate	\$356.8	\$4044.1	\$69.4	\$4470.3

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SGT YORK Gun, December 31, 1984

10. Cost Variance Analysis (cont'd):

(FY 1978 Constant Dollars (Base Year) in Millions)

	RDTE 1/	PROC	MILCON	TOTAL
Development Estimate	\$163.2	\$2043.4	\$0	\$2206.6
Previous Changes:				
Quantity	-	+59.5	-	+59.5
Schedule	-	-	-	-
Engineering	-	-	-	-
Estimating	+29.4	-68.4	+54.4	+15.4
Other	-	-	-	-
Support	+18.5	-75.4	-	-56.9
Subtotal	+47.9	-84.3	+54.4	+18.0
Current Changes:				
Quantity	-	-5.9	-	-5.9
Schedule	-	-	-	-
Engineering	+49.9	-	-	+49.9
Estimating	-	+54.8	-15.2	+39.6
Other	-	-	-	-
Support	-	-	-	-
Subtotal	+49.9	+48.9	-15.2	+83.6
Total Changes	+97.8	-35.4	+39.2	+101.6
Current Estimate	\$261.0	\$2008.0	\$39.2	\$2308.2

1/ Adjusted by +\$0.3M to reflect true FY78 constant (Base Year) dollars

b. Current Change Explanations:

(1) RDTE

	(Dollars in Millions)	
	Base Year \$	Then Year \$
Revised Jan 85 Inflation Indices (Economic)	-	-0.1
Addition of development programs to integrate STINGER missile, study maneuvering munitions, ECCM enhancement, missile target engagement, and passive engagement sensor. (Engineering)	+49.9	+89.8

(2) Procurement

Revised Jan 85 Inflation Indices (Economic)	-	+13.7
Reduction from 618 to 614 production fire units (Quantity)	-5.9	-13.7
Schedule impact resulting from elimination of FY85 procurement and incorporation of FY88 program. (Schedule)	-	+67.7
Revised cost estimate of fire units, ammunition, and other management costs based on current contract experience. Addition of FY90 increment of training ammunition. (Estimating)	+54.8	+126.2

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SGT YORK Gun, December 31, 1984

10. Cost Variance Analysis (cont'd):

	(Dollars in Millions)	
	<u>Base Year \$</u>	<u>Then Year \$</u>
Revised peculiar support equipment requirements (+17.1), stretch out of spares resulting from FY85 program reduction (+4.7) (Support)	-	+21.8
(3) <u>MILCON</u>		
Revised Jan 85 Inflation Indices (Economic)	-	-1.8
Shift of requirements to later years (Schedule)	-	+0.5
Deletion of projects considered non system - specific (Estimating)	-15.2	-26.4

c. Reference: Draft DCP #168, dated 3 Nov 77.

11. Program Acquisition Unit Cost (PAUC) History:

Initial SAR Estimate to Current Estimate.

PAUC (Initial SAR Estimate, DE)	Changes (Then Year Dollars in Millions)								PAUC (Current Estimate)
	ECON	QTY	SCH	ENG	EST	SPT	OTHER	TOTAL	
5.12	+0.55	+0.12	+1.09	+0.14	+0.27	-0.06	0	+2.11	7.23

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SGT YORK Gun, December 31, 1984

12. Contract Information: (Dollars in Millions) (CPR data October 1984)

Ford Aerospace & Communications Corp, DIVAD Division, Newport Beach, CA
DAAK10-81-C-0093, FPIF, 7 May 81

a. Engineering Development*,
Base Program, Definitized
7 May 81

	<u>Current Contract Target Price</u>	<u>QTY</u>	<u>PM's Est Price At Completion</u>
RDTE	\$89.9	0	(b)(4)
PROC	96.7	0	
TOTAL	<u>\$186.6</u>	<u>0</u>	

*Excludes OMA dollars.

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$ -53.1	\$ -4.9
Cumulative Variances to Date, 10/26/84	<u>-51.8</u>	<u>-2.2</u>
Net Change	\$ +1.3	+2.7

Explanation of Change: Although net changes indicate improvement in cum un-favorable variances, little or no recovery is possible with respect to cost due to unexpected design complexity and program stretch out. Schedule variance will continue to improve as this phase of the program draws closer to completion.

b. Production, Option
Exercised 28 Mar 82*

	<u>Current Contract Target Price</u>	<u>QTY</u>	<u>PM's Est Price At Completion</u>
PROC	\$350.1	50	(b)(4)

*Excludes OMA dollars

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$ -40.6	\$ -35.6
Cumulative Variance to Date, 10/26/84	<u>-57.2</u>	<u>-22.9</u>
Net Change	\$ -16.6	\$ +12.7

Explanation of Change: Unfavorable cost variance is due to unanticipated difficulties in transition from prototype to full scale production consisting of test failures, design changes, rework, final assembly interface problems, and overtime expended to make up schedule. Unfavorable schedule variance is directly related to production problems previously cited. However, as deliverables under this option continue and replan of cost accounts are completed in accordance with a revised contractual delivery schedule, the schedule variance should improve significantly. The program manager's assessment is at ceiling price and is within approved funding.

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SGT YORK Gun, December 31, 1984

12. Contract Information: (Dollars in Millions) (cont'd)

<u>c. Production, Option 2</u> <u>Exercised 5 May 83</u>	<u>Current Contract</u> <u>Target Price</u>	<u>QTY</u>	<u>PM's Est Price</u> <u>at Completion</u>
PROC	\$438.5	96	(b)(4)
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ -38.1		\$ -25.5
Cumulative Variances to Date, 10/26/84	<u>-61.4</u>		<u>-53.0</u>
Net Change	\$ -23.3		\$ -27.5

Explanation of Change: Unfavorable cost variance is primarily due to higher than planned material costs, considerably more electrical and mechanical engineering and associated production floor and program office support effort. Balance is related to Westinghouse, the radar subsystem supplier, due to poor original estimate to support the cost of a highly compressed (internal) production schedule. Unfavorable schedule is being driven by above cited production problems and delay of task completion scheduled while efforts to meet Option 1 delivery schedule are worked. Replan of cost accounts in accordance with contractually revised delivery schedule is underway. Schedule variance should improve. The program manager's assessment is at ceiling price and is within approved funding.

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85 1692

PROGRAM FUNDING SUMMARY

SYSTEM: (SGT YORK Gun, M247)

As of Date: Dec. 31, 1984
Base Year: FY1978

CURRENT ESTIMATE
(\$ in millions)

A-18
SGT YORK

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) ₁
		ADV PROC (NON-ADD)	FLYAWAY (NONADD)		TOTAL	TOTAL	OBLIGATED 2/	EXPENDED 2/	
			NON-REC	REC					
FY77					2.3	2.2	2.2	2.2	5.5
78					16.6	17.0	17.0	17.0	6.8
79					68.1	75.7	74.3	74.3	8.4
80					20.8	25.7	25.1	25.0	10.6
81					54.4	74.2	69.1	69.1	10.6
82					42.5	62.4	60.3	47.0	7.6
83					6.4	9.9	9.9	1.2	4.9
84					0	0			3.8
85					0.4	0.6			3.7
86					25.0	43.2			4.4
87					11.5	20.6			4.2
88					4.3	8.0			4.0
89					0.1	0.1			3.7
90					8.6	17.2			3.4
TOTAL	4			\$44.2	\$261.0	\$356.8	CLEARED FOR OPEN PUBLICATION SEP 9 1985 23 DISCLOSED FOR FREEDOM OF INFORMATION AND SECURITY REVIEW (OASD -PA) U.S. DEPARTMENT OF DEFENSE		
APPROPRIATION: PROCUREMENT									
WTCV (Incl Spares)									
FY81	0	22.7	40.2	41.2	86.3	138.0	136.8	126.7	11.6
82	50	8.6	9.5	160.5	215.9	380.9	342.0	325.9	14.3
83	96	15.0	2.5	214.3	321.7	608.1	525.1	256.9	9.0
84	117	9.7		222.5	319.8	637.9	183.4	15.4	8.0
85	0	45.3		47.2	64.6	140.6			4.8
86	117	4.7		167.2	216.9	479.5			5.7
87	117	4.8		203.4	244.6	567.3			5.5
88	117	0		190.7	226.5	549.1			5.2
TOTAL	614	110.8	52.2	\$1247.0	\$1696.3	\$3501.4	No SECURITY Objection to PUBLIC RELEASE AUG 29 1985		

CLEARED
FOR OPEN PUBLICATION

SEP 9 1985 23

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD - PA)
U.S. DEPARTMENT OF DEFENSE

No SECURITY Objection
to PUBLIC RELEASE

29 AUG 1985

George Brownell

PROGRAM FUNDING SUMMARY (cont'd)

SYSTEM: (SGT YORK Gun, M247)

As of Date: Dec. 31, 1984

Base Year: FY1978

CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS				ESCALATION RATE (%) ^{1/}
		c ADV PROC (NON-ADD)	FLYAWAY (NONADD)		TOTAL	TOTAL	OBLIGATED 2/	EXPENDED 2/		
			NON-REC	REC						
FY82					45.1	68.8	20.2	16.9	7.6	
83					30.7	48.9	48.9	32.9	4.9	
84					71.3	117.3	116.3	0.3	3.8	
85					24.4	41.7			3.7	
86					23.8	42.3			4.4	
87					42.3	78.2			4.2	
88					40.8	78.3			4.0	
89					16.9	33.6			3.7	
90					16.4	33.6			3.4	
TOTAL					\$311.7	\$542.7				
APPROPRIATION: CONSTRUCTION										
FY83					8.0	13.1			4.9	
84					16.9	28.9			3.8	
85					3.3	5.8			3.7	
86					4.9	8.9			4.4	
87					0	0			4.2	
88					0	0			4.0	
89					0	0			3.7	
90					6.1	12.7			3.4	
TOTAL					\$39.2	\$69.4				

1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.

2/ Excludes spares and ammunition facilities. Funds for these items are not controlled or reported by the PM.

SYSTEM: SGT YORK Gun, M247

2. Deliveries (planned and actual) and associated variance analysis:

Deliveries (Planned/Actual)

	<u>TO DATE</u>
R&D	4/4
Procurement	28/28
Variance Analysis:	None

PROGRAM ACQUISITION COST

SYSTEM: SGT YORK Gun, M247

As of Date: December 31, 1984
Base Year: FY1978

3. Program Acquisition Cost

(Dollars in millions)

	DEVELOPMENT ESTIMATE (FY78-87)	CHANGES	CURRENT ESTIMATE (FY77-90)
a. Cost			
Development	163.2*	+97.8	261.0
Procurement	2043.4	-35.4	2008.0
Fire Unit	(1248.4)	(+50.8)	(1299.2)
Ammo	(394.2)	(-82.5)	(311.7)
Spares	(155.2)	(+47.4)	(202.6)
Other	(245.6)	(-51.1)	(194.5)
Constr.	0	+39.2	39.2
TOTAL: FY78S	\$2206.6	+101.6	\$2308.2
Escalation	979.2	1182.9	2162.1
Development	(21.5)	(+74.3)	(95.8)
Procurement	(957.7)	(+1078.4)	(2036.1)
Construction	(0)	(+30.2)	(30.2)
TOTAL PROGRAM COST	\$3185.8	\$1284.5	\$4470.3

b. Foreign Military Sales: None

c. Nuclear Costs: None

* Adjusted by +\$0.3M to reflect true FY 78 constant (Base Year) dollars.

COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT

SYSTEM: SGT YORK GUN
(Dollars in Millions)

As of DATE: 31 Dec 84

<u>CONTRACTOR COSTS</u> ^{1/}	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty.</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty.</u>	<u>Contractor Estimate</u>
 1. Procurement							
Ford Aerospace and Communications Corp							
DAAK10-81-C-0093 RDTE:	\$80.3	\$98.6 ^{2/}		\$ 89.9	\$110.6 ^{2/}		\$110.6
FPIF-Definitized Proc:	104.0	127.6 ^{2/}		96.7	119.0 ^{2/}		119.0
Awarded 7 May 81							
(Basic-FY81) Total:	3/\$184.3	\$226.2 ^{2/}	0	\$ 186.6	\$229.6 ^{2/}	0	\$229.6
 Contract Option 1 (FY82)							
Definitized Proc:	3/\$325.0	\$398.9 ^{2/}	50	\$ 350.1	\$430.2 ^{2/}	50	\$422.6
 Contract Option 2 (FY83)							
Definitized Proc:	\$377.4	\$450.4	96	\$ 438.5	\$521.3	96	\$521.3
Awarded 5 May 83							

FOOTNOTES:

- 1/ Contract price and contractor estimates obtained from Oct 84 CPR and contract documents.
- 2/ Ceiling prices are extrapolations to exclude OMA funded items. Contract ceiling and/or incentive features are based on total contract amounts not by type of appropriations.
- 3/ Exclude OMA dollars.

7

AF-12 DSCS III

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SAR-84-109

SELECTED ACQUISITION REPORT (RCS: DD-COMP(04A)823) (U)
PROGRAM: DSCS III (SPACE SEGMENT) (U)

AS OF DATE: 31 December 1984

(U) <u>SUBJECT</u>	<u>INDEX (U)</u>	<u>PAGE</u>
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Technical/Operational Characteristics		2
Program Acquisition Cost		4
Unit Cost Summary		5
Cost Variance Analysis		5
Program Acquisition Unit Cost History		7
Contract Information		8

1.(U) Designation and Nomenclature (Popular Name): Defense Satellite Communications System Phase III/Super High Frequency Space Segment (DSCS III)

2.(U) DoD Component: U.S. Air Force

3.(U) Responsible Office and Telephone Number:

DSCS Program Office
Space Division
Los Angeles AFS, CA 90009-2949

PM: Colonel Joseph Rutter
Assigned: 4 September 1984
AUTOVON: 833-0296
Commercial: (213) 643-0296

4.(U) Program Elements:

RDT&E: 33110F
PROCUREMENT: 33110F

5.(U) Program Highlights (Since Last Report): A Multiyear Procurement contract for seven DSCS III Satellites (B8-14) was awarded 16 Nov 84.

(b)(1)
The DSCS Space Segment is expected to meet its current mission requirements.

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DSCS III, 31 December 1984

6.(U) Schedule:

	<u>Development Estimate</u>	<u>Current Estimate</u>
a. Milestones		
(U) DSARC II (Full Scale Dev)	Dec 76	Dec 76
(U) Full-Scale Development (Phase 2)		
Contract Award	Feb 77	Feb 77
(U) Critical Design Review	Apr 78	May 78
(U) First Development Flight		
Satellite (III-A1) Launch	Jul 79	Oct 82
(U) DSARC III (Production Decision)	Jan 80	Dec 81
(U) Second Development Flight		
Satellite (III-A2) Launch	Jun 80	(b)(1) (Ch-1)
(U) First Production Satellite		
Delivery (III-B4)	Mar 82	Apr 85

b.(U) Explanation of Changes

(Ch-1) By JCS direction, launch delay was extended due to reassignment of the booster to a higher priority program.

c.(U) References:

Decision Coordinating Paper (DCP) #144, Revision 2, 17 November 1976
Program Management Directive (PMD) R-S 2146-(6)/PE 33110F, 24 May 1977

7. Technical/Operational Characteristics:

a.(U) Technical	<u>Development Estimate</u>	<u>Demonstrated Performance A/</u>	<u>Current Estimate</u>
(U) Frequency (GHz)	7.25 - 8.4	7.25 - 8.4*	7.25 - 8.4
(U) Bandwidth (MHz) per channel	50 - 85	50 - 85*	50 - 85
(U) Effective Isotropic Radiated Power			
Channels 1 & 2			
(EC/Spot/AC(Dish))B/	29/39/43	29*/40*/44*	29/40/44
Channel 3			
(EC/EC/Spot)	24/23/33	25*/25*/34*	25/25/34
Channel 4			
(EC/EC/Spot/AC(Dish))	24/23/33/37	25*/24*/35*/38*	25/24/35/38
Channels 5 & 6 (EC)	24	25*	25
Beacons (EC)	11	12*	12
(U) Signal Gain to System Noise Temperature			
Ratio (G/T) (dB/degrees K)			
Earth Coverage Horn	-15	-13*	-13
Earth Coverage MBA C/	-16	-15*	-15
Spot MBA	-1	-0.5*	-0.5

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DSCS III, 31 December 1984

7.(U) Technical/Operational Characteristics (Cont'd):

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Nulling (dB below EC reference) Receive MBA D/	(b)(1)		

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* Meets or exceeds contractual guarantees.

A/(U) Maximum measured during qualification testing.

B/(U) EC - Earth Coverage; Spot - 1.0 degree minimum diameter;
AC - Area Coverage; Dish - 3.0 degree beam diameter switchable
on orbit to desired channel

C/(U) MBA - Multiple Beam Antenna

D/(U) Based on single null anywhere in the satellite field of view created
within an MBA earth coverage pattern

b.(U) Operational	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Quantities (per satellite)			
40 Watt TWTAs A/ (Channels 1 and 2)	2	2*	2
10 Watt TWTAs (Channels 3 thru 6)	4	4*	4
SHF Command Links	2	2*	2
Protected Beacons	2	2*	2
Satellite Reliability B/	.7		.7
Launch Vehicle (types) C/	Titan IIIC		TIII34D/Trnstg
	Titan IIID/IUS		TIII34D/IUS
	STS/IUS		STS/IUS
Weight (lbs) D/	1650		1866

* Meets or exceeds contractual guarantees.

A/ TWTAs - Traveling Wave Tube Amplifier

B/ Probability of survival at 7 years

C/ IUS - Inertial Upper Stage: STS - Space Transportation System (Space
Shuttle)

D/ On-Orbit development satellite weight less expendables (dry weight)

c.(U) Explanation of Changes: None. No change in the current estimate.

d.(U) References:

Decision Coordinating Paper (DCP) #144, Revision 2, 17 November 1976
DSCS III Space Segment Specification 07868-DSCS III-1, 1 August 1975

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DSCS III, 31 December 1984

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1977 Constant (Base Year) \$	Current (Then-Year) \$	Escalation Rate (%)
-----------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: RDT&E

Current&Prior Years	-	247.7	333.8	N/A
Budget Year (1986)	-	3.7	6.9	4.4
Balance of FYDP	-	11.5	23.0	N/A
(1987)	-	(7.8)	(15.2)	4.2
(1988)	-	(1.4)	(2.8)	4.0
(1989)	-	(1.2)	(2.6)	3.7
(1990)	-	(1.1)	(2.4)	3.4
Balance to Complete	-	6.1	14.6	N/A
Subtotal	2	269.0	378.3	N/A

Appropriation: Procurement-Missile

Current&Prior Years	7	419.0	772.1	N/A
Budget Year (1986)	2	67.8	149.2	5.7
Balance of FYDP	6	295.0	725.0	N/A
(1987)	(2)	(79.9)	(184.5)	5.5
(1988)	(2)	(88.9)	(214.9)	5.2
(1989)	(1)	(65.7)	(166.0)	4.8
(1990)	(1)	(60.5)	(159.6)	4.4
Balance to Complete	-	2.9	8.0	N/A
Subtotal	15	784.7	1654.3	N/A
Total	17	1053.7	2032.6	N/A

Program Status - -

(1) Percent Program Completed: 47.6% (10/21)

(2) Percent Program Cost Appropriated: 54.4% (\$1105.9/\$2032.6)

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DSCS III, 31 December 1984

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	<u>Current Year</u> SAR Current <u>Estimate</u>	<u>UCR Baseline</u> <u>Estimate</u>	<u>Budget Year</u> UCR Baseline <u>Estimate</u>
a. Program Acquisition --			
(1) Cost	2032.6	1600.8	2032.6
(2) Quantity	17	14	17
(3) Unit Cost	119.565	114.343	119.565
b. Current Procurement --	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	250.4	291.2	149.2
Less CY Adv Proc	52.4	90.2	13.7
Plus FY Adv Proc	<u>23.2</u>	<u>23.2</u>	<u>52.2</u>
Net Total	221.2	224.2	187.7
(2) Quantity	2	2	2
(3) Unit Cost	110.600	112.100	93.850

10. Cost Variance Analysis:

a. Summary -- (Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	151.8	741.8	-	893.6
Previous Changes:				
Economic	+3.5	+126.3	-	+129.8
Quantity	-	-	-	-
Schedule	+29.8	+79.4	-	+109.2
Engineering	+67.2	+31.6	-	+98.8
Estimating	+101.1	+89.6	-	+190.7
Other	-	+77.4	-	+77.4
Support	-	-	-	-
Subtotal	+201.6	+404.3	-	+605.9
Current Changes:				
Economic	-1.0	+15.5	-	+14.5
Quantity	-	+412.4	-	+412.4
Schedule	-	-	-	-
Engineering	+16.2	+83.0	-	+99.2
Estimating	+9.7	-2.7	-	+7.0
Other	-	-	-	-
Support	-	-	-	-
Subtotal	+24.9	+508.2	-	+533.1
Total Changes	+226.5	+912.5	-	+1139.0
Current Estimate	378.3	1654.3	-	2032.6

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DSCS III, 31 December 1984

10. Cost Variance Analysis (Cont'd):

(FY 1977 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	134.3	496.8	-	631.1
Previous Changes:				
Quantity	-	-	-	-
Schedule	+16.3	+31.3	-	+47.6
Engineering	+45.2	+15.9	-	+61.1
Estimating	+61.2	+7.2	-	+68.4
Other	-	+38.4	-	+38.4
Support	-	-	-	-
Subtotal	+122.7	+92.8	-	+215.5
Current Changes:				
Quantity	-	+163.2	-	+163.2
Schedule	-	-	-	-
Engineering	+8.4	+35.1	-	+43.5
Estimating	+3.6	-3.2	-	+.4
Other	-	-	-	-
Support	-	-	-	-
Subtotal	+12.0	+195.1	-	+207.1
Total Changes	+134.7	+287.9	-	+422.6
Current Estimate	269.0	784.7	-	1053.7

b. Current Changes Explanations --

(Dollars in Millions)
Base-Year \$ Then-Years \$

(1) RDT&E

Revised economic escalation rates
(Economic)

N/A -1.0

Redesign for different Upper Stage for
added satellites (Engineering)

+8.4 +16.2

Mission support for added satellites
(FY91-96) (Estimating)

+5.0 +12.1

Adjustment for prior year escalation
(Estimating)

+0.5 +0.8

Adjustment for prior year actuals
(Estimating)

-0.3 -0.5

Lower first time integration costs for
DSCS III/III STS/IUS Mission (Estimating)

-1.6 -2.7

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DSCS III, 31 December 1984

10. Cost Variance Analysis (Cont'd):

(2) <u>Procurement</u>	(Dollars in Millions)	
	<u>Base-Year \$</u>	<u>Then-Years \$</u>
Revised economic escalation rates (Economic)	N/A	+15.5
Adjustment for prior year escalation (Estimating)	-5.8	-11.5
Revised DSCS III production satellite cost estimate based on current contract negotiations (Estimating)	-3.6	-7.5
Addition of three DSCS III satellites	+204.5	+511.7
Addition of satellites (Quantity)	(+163.2)	(+412.4)
Engineering changes applicable to three satellites since baseline (Engineering)	(+35.1)	(+83.0)
FCRC support applicable to three satellites (Estimating)	(+6.2)	(+16.3)

c. Reference:

Decision Coordinating Paper (DCP) #144, Revision 2, 17 November 1976, as amended to fully fund orbital performance incentives in the year of procurement.

11. Program Acquisition Unit Cost (PAUC) History:

Initial SAR/Development Estimate to Current Estimate

PAUC (Initial SAR/ Development Estimate)	Changes (Then-Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
63.828	+8.488	+12.996	+6.424	+11.647	+11.629	-	+4.553	+55.737	119.565

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DSCS III, 31 December 1984

12. Contract Information: (Dollars in Millions)

a. RDT&E

<u>Launch Vehicle First Time Integration</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
General Electric Co., King of Prussia, PA FO4701-81-C-0004, CPFF 15 March 1982	\$24.6	N/A	\$24.6
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$+2.2		\$-0.1
Cumulative Variances to Date (12/02/84)	\$+2.4		\$-0.4
Net Change	\$+0.2		\$-0.3

Explanation of Change: Increase in the favorable cost variance is due to favorable labor rates. The change in schedule variance is due to delays in finalizing launch operations test procedures on the shuttle mission. This variance is not impacting the program.

b. Procurement

<u>Refurbishment of Qualification Satellite</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
General Electric Co., King of Prussia, PA FO4701-80-C-0058, PPIF 31 October 1980	\$64.9	1	\$64.9
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$+4.2		\$-0.8
Cumulative Variances to Date (12/02/84)	\$+4.5		\$-1.5
Net Change	\$+0.3		\$-0.7

Explanation of Change: Increase in the favorable cost variance is due to favorable labor rates. Change in schedule variance is due to the late delivery of solar cells. Late delivery is not causing program impact due to schedule contingency between need and delivery dates of the parts. The spacecraft is currently undergoing component refurbishment and assembly. Until panel level assembly and test are complete, it is too early to project that the current variance will remain at completion.

<u>DSCS III Production B4-7</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
General Electric Co., King of Prussia, PA FO4701-81-C-0004, PPIF 26 November 1980	\$330.8(Ch-1)	4	\$330.8(Ch-2)

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DSCS III, 31 December 1984

12. Contract Information (Cont'd):

Changes Since Previous Report:

(Ch-1) Increase of \$0.1M in Current Target Price is due to the addition of dual anti-reflective solar array coating to increase the power output of the solar arrays.

(Ch-2) Increase of \$0.1M in Program Manager's Estimate is due to the addition of the solar array coating.

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$+0.6	\$-8.0
Cumulative Variances to Date (12/02/84)	\$+2.0	\$-5.9
Net Change	\$+1.4	\$+2.1

Explanation of Change: Increase in the favorable cost variance is due to favorable labor rates and less than anticipated material attrition. Improvement in schedule variance is due to delivery of subcontracted components that were late, and schedule recovery caused by III-B4 nearing completion of systems test. Schedule contingency and residual components are mitigating the impact of late component deliveries. Late completion of III-B4 systems test does not impact the scheduled satellite delivery date.

	<u>Current Contract</u>		<u>PM's Est Price</u>
	<u>Target Price</u>	<u>Qty</u>	<u>At Completion</u>
<u>Advance Buy BB-14</u>			
General Electric Co.,			
King of Prussia, PA	\$80.9 (Ch-3)	N/A	\$80.9 (Ch-4)
F04701-84-C-0009, FFP			
23 January 1984			

Changes Since Previous Report:

(Ch-3) Increase of \$9.5M in Current Target Price is due to the procurement of long-lead parts for Traveling Wave Tube Amplifier (TWT) fabrication.

(Ch-4) Increase of \$9.5M in Program Manager's Estimate is due to the TWT long-lead parts procurement.

This is an FFP contract. No CPR or C/SSR required.

	<u>Current Contract</u>		<u>PM's Est Price</u>
	<u>Target Price</u>	<u>Qty</u>	<u>At Completion</u>
<u>DSCS III Production BB-14</u>			
General Electric Co.,			
King of Prussia, PA	\$423.0	7	\$423.0
F04701-84-C-0072, FFP			
16 November 1984			

This is an FFP contract. No CPR or C/SSR required.

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AF-12 DSCS III

SUPPLEMENTAL INFORMATION
SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: DSCS III (SPACE SEGMENT)

REPORT AS OF: December 31, 1984
DoD COMPONENT: USAF

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SYSTEM: DSCS III (SPACE SHUTTLE)

AS OF DATE: December 31, 1984

BASE YEAR: FY 1977

1. Program Funding Summary:

CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&E									
1976	-	-	-	-	11.3	10.5	10.5	10.5	7.0
1977	-	-	-	-	2.8	2.8	2.8	2.8	3.6
1977	-	-	-	-	28.1	28.7	28.7	28.7	4.7
1978	-	-	-	-	54.5	59.5	59.5	59.5	7.0
1979	-	-	-	-	24.3	29.3	29.3	29.3	8.4
1980	-	-	-	-	14.8	19.8	19.8	19.8	9.4
1981	-	-	-	-	19.6	29.0	29.0	29.0	11.9
1982	-	-	-	-	32.7	52.0	52.0	47.9	9.2
1983	-	-	-	-	23.9	39.7	39.7	36.4	4.9
1984	-	-	-	-	18.0	30.9	24.2	14.9	3.8
1985	-	-	-	-	17.7	31.6	0.1	0.1	3.7
1986	-	-	-	-	3.7	6.9	-	-	4.4
1987	-	-	-	-	7.8	15.2	-	-	4.2
1988	-	-	-	-	1.4	2.8	-	-	4.0
1989	-	-	-	-	1.2	2.6	-	-	3.7
1990	-	-	-	-	1.1	2.4	-	-	3.4
1991	-	-	-	-	1.6	3.5	-	-	3.4
1992	-	-	-	-	1.5	3.4	-	-	3.4
1993	-	-	-	-	1.0	2.4	-	-	3.4
1994	-	-	-	-	0.9	2.3	-	-	3.4
1995	-	-	-	-	0.6	1.6	-	-	3.4
1996	-	-	-	-	0.5	1.4	-	-	3.4
TOTAL	2				269.0	378.3	295.6	278.9	

SYSTEM: DSCS III (SPACE SEGMENT)

AS OF DATE: December 31, 1984
BASE YEAR: FY 1977

1. Program Funding Summary:

FISCAL YEAR	QTY	CURRENT ESTIMATE (\$ in millions)							
		BASE-YEAR DOLLARS		THEN-YEAR DOLLARS					
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD) NON-REC REC	TOTAL	TOTAL	OBLIGATED	EXPENDED	ESCALATION RATE (%)	
APPROPRIATION: PROCUREMENT									
1978	-	-	-	35.7	35.7	43.0	43.0	7.0	
1979	-	4.4	-	4.7	4.7	6.2	6.2	8.7	
1980	-	7.0	-	7.4	7.4	11.1	11.1	9.7	
1981	1	29.5	-	47.0	47.0	77.7	66.9	11.9	
1982	2	-	-	65.7	65.7	117.5	84.7	9.6	
1983	2	-	-	84.1	84.1	136.8	69.2	9.0	
1984	-	41.2	-	54.4	54.4	98.8	18.5	8.0	
1985	2	25.1	-	120.0	120.0	180.5	1.3	4.8	
1986	2	6.2	-	67.8	67.8	-	-	5.7	
1987	2	26.2	-	79.9	79.9	-	-	5.5	
1988	2	-	-	88.9	88.9	-	-	5.2	
1989	1	-	-	65.7	65.7	-	-	4.8	
1990	1	-	-	60.5	60.5	-	-	4.4	
1991	-	-	-	1.4	1.4	-	-	4.4	
1992	-	-	-	0.7	0.7	-	-	4.4	
1993	-	-	-	0.5	0.5	-	-	4.4	
1994	-	-	-	0.3	0.3	-	-	4.4	
TOTAL	15	139.6		784.7	784.7	660.7	300.9		

SYSTEM: DSCS III (SPACE SEGMENT)

AS OF DATE: December 31, 1984

BASE YEAR: FY 1977

2. Deliveries (Planned/Actual)

	<u>To Date</u>
R&D	2/2
Procurement	0/0

Variance Analysis: None.

3. Program Acquisition Costs:

(Dollars in Millions)

a. Program Acquisition Cost	(1) <u>Development Estimate</u> (FY76-94)	(2) <u>Changes</u>	(3) <u>Current Estimate</u> (FY76-96)
1. <u>Cost</u>			
Development	134.3	+134.7	269.0
Procurement	496.8	+287.9	784.7
Satellites	(313.1)	(+435.2)	(748.3)
Launch Vehicles	(183.7)	(-147.3)	(36.4)
Construction	-	-	-
Total: Constant FY77\$	<u>631.1</u>	<u>+422.6</u>	<u>1053.7</u>
Escalation	262.5	+716.4	978.9
Development	(17.5)	+(91.8)	(109.3)
Procurement	(245.0)	+(624.6)	(869.6)
Construction	-	-	-
Total Program Cost	<u>893.6</u>	<u>+1139.0</u>	<u>2032.6</u>

b. Foreign Military Sales: None.

c. Nuclear Costs: None.

SYSTEM: DSCS III (SPACE SEGMENT)

AS OF DATE: December 31, 1984
BASE YEAR: FY 1977

CONTRACTOR COSTS	(1)			(2)			(3)
	Initial Contract Price			Current Contract Price			Price at Completion
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate
1. DEVELOPMENT							
a. General Electric Co. FO4701-81-C-0004	25.3	N/A	0	24.6	N/A	0	23.0
2. PROCUREMENT							
a. General Electric Co. FO4701-80-C-0058	13.2	14.5	1	64.9	69.9	1	61.7
b. General Electric Co. FO4701-81-C-0004	46.0	50.5	4	330.8	357.8	4	326.9
c. General Electric Co. FO4701-84-C-0009	70.1	N/A	0	80.9	N/A	0	80.9
d. General Electric Co. FO4701-84-C-0072	423.0	N/A	7	423.0	N/A	7	423.0
3. CONSTRUCTION							
None.							

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SAR-84-093

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: F-15

F-15 F-15

AS OF DATE: December 31, 1984

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

1. (U) Designation/Nomenclature (Popular Name): F-15/Tactical Fighter (Eagle)

2. (U) DoD Component: U.S. Air Force

3. (U) Responsible Office and Telephone Number:

F-15 Program Office
Aeronautical Systems Division
Wright-Patterson AFB, OH

PM: Col M. Butchko
Assigned: 4 Sep 84
AUTOVON 785-3111
COMMERCIAL (513)255-3111

4. (U) Program Elements:

RDT&E/PROCUREMENT: 27130F, 64227F

5. (U) Program Highlights (Since Last Report):

The F-15E was selected as the new Dual Role Fighter for the Air Force during CY84. The Pratt & Whitney F100-PW-220 engine will be incorporated into the F-15 C/D fleet beginning with the FY85 buy.

The F-15 currently satisfies its mission requirements.

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85-0164-T

~~Classified By: F-15-800, dtd 1 Jan 83
Declassify on: OADR~~

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85-T-615

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(F-15, December 31, 1984)

6. (U) Schedule:

a. (U) Milestones

	<u>Development</u> <u>Estimate</u>	<u>Current</u> <u>Estimate</u>
--	---------------------------------------	-----------------------------------

F-15A/B/C/D

Award Total System Development Contract	Jan 70	Jan 70
Preliminary Design Review (PDR)	Sep 70	Sep 70
Critical Design Review (CDR)	Apr 71	Apr 71
Engine Preliminary Flight Rating Test (PFRT)	Feb 72	Feb 72
First Flight	Jul 72	Jul 72
Long Lead Release (Production Approval)	Oct 72	Oct 72
Engine Qualification Test (MQT)	Feb 73	Oct 73
First Wing Full Release	Feb 73	Feb 73
Fatigue Test - Three Life Times	Nov 73	Oct 73
Increase Production Rate	Jan 74	Jan 74
Begin AFDT&E Tests	Mar 74	Feb 74
Fatigue Test - Four Life Times	Jul 74	Feb 74
First Aircraft to TAC	Nov 74	Nov 74
Exercise Option for 2nd Wing	Dec 74	Oct 74
Initial Operational Capability (IOC) <u>A/</u>	Jul 75	Sep 75

F-15E (Ch-1)

Contract Award (Letter Contract)	Apr 84	Apr 84
System Integration PDR	Mar 85	Mar 85
System Integration CDR	Nov 85	Nov 85
Begin Flight Test (F-15E)	Jan 87	Jan 87
IOC (F-15E) <u>B/</u>	Jun 89	Jun 89

A/ (U) IOC is the point at which the first squadron received over 50% of its primary aircraft authorization (PAA)

B/ (U) IOC occurs when the First Operational Squadron achieves mission readiness status (with 50% PAA).

b. (U) Explanation of Changes --

(Ch-1) Addition of F-15E milestones.

c. (U) References --

DCP #19, 15 September 1968; modified by Program Schedule briefed to Secretary of Defense in 1969 and DCP #19B, 24 January 1973.

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(F-15, December 31, 1984)

7. ~~(U)~~ Technical/Operational Characteristics:

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
--	---------------------------------	-------------------------------------	-----------------------------

a. ~~(U)~~ Technical

~~(U)~~ F-15 A/B/C/D

(U) Thrust to Weight Ratio			
Take-Off	1.17	1.15	1.15
(U) Take-Off Thrust Engine (lbs)			
(U) a. Max Rated	23470	23759	23759
(U) b. Mil Rated	14120	14626	14626
(U) Take-Off Gross Weight (Lbs)	40000	40000	40000
(U) Design Mission Radius (NM) <u>1/</u>	(b)(1)		
(U) a. Cruise			
(U) b. Dash			

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~~(U)~~ F-15E AIR-TO-GROUND CONFIGURATION b/ e/ (Ch-1)

(U) Take-Off Gross Weight (Lbs)	81000	N/A	81000
---------------------------------	-------	-----	-------

~~(U)~~ F-15E AIR-TO-AIR CONFIGURATION: e/ f/ (Ch-1)

(U) Cruise Thrust per Engine 0.8M/SL (Lbs)			
(U) a. Mil Rated	12100	N/A	12100
(U) b. Max Rated	25950	N/A	25950
(U) Design Mission Radius (NM) <u>1/</u>	(b)(1)		
(U) a. Cruise		N/A	
(U) b. Dash		N/A	

(b)(1)

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(U) F-15 A/B/C/D

(U) Max Speed/Sea Level, Sustained (Mach)	1.2	1.16	1.2
(U) Max Speed/At Altitude, Sustained (Mach)	2.3	2.3	2.3
(U) Max Speed/Burst (Mach)	2.5	2.5	2.5
(U) Take-Off Distance: 50 ft Obstacle (Ft)	2500	2313	2313
(U) Landing Distance: 50 ft Obstacle (Ft)	3840	3773	3773
(U) System Serial Mean Time Between Failure (Hr)	3.5	3.8	3.8

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(F-15, December 31, 1984)

7. ~~(S)~~ Technical/Operational Characteristics:

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
--	---------------------------------	-------------------------------------	-----------------------------

b. ~~(S)~~ Operational

~~(S)~~ F-15 A/B/C/D

(U) System Operationally Ready Rate (%)	70	80	80
(U) Direct Maintenance Man-Hours Per Flight Hour	20.8	12.04	12.04
(S) Specific Excess Power (Ft/Sec)	(b)(1)		
() a. Mach 0.6/5G/10000 FT (A/B)			
() b. Mach 0.9/1G/10000 FT (A/B)			
() c. Mach 0.9/5G/10000 FT (A/B)			
() d. Mach 0.9/5G/30000 FT (A/B)			
() e. Mach 1.6/5G/35000 FT (A/B)			
() f. Mach 0.9/5G/35000 FT (A/B)			

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~~(S)~~ F-15E AIR-TO-GROUND CONFIGURATION b/ e/ (Ch-1)

(U) Take-Off Roll (81000 Lbs Gross Weight (Ft))	3590	N/A	3590
(U) Max Speed/Sea Level, Sustained (Mach) <u>c/</u>	.97	N/A	.97
(U) Max Speed/Sea Level, Sustained (Mil Power) (Mach) <u>c/</u>	.84	N/A	.84
() Mission Radius (NM)	(b)(1)		(b)(1)
() a. Hi-Lo-Lo-Hi		N/A	
() b. Lo-Lo-Lo-Lo		N/A	
() Maximum Sustained Load Factor (G)			
() a. Mil Power/Sea Level <u>d/</u>		N/A	
() b. Max Power/Sea Level <u>d/</u>		N/A	
() c. Max Instantaneous/Sea Level with LANTIRN		N/A	

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(F-15, December 31, 1984)

7. ~~(U)~~ Technical/Operational Characteristics:

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
--	---------------------------------	-------------------------------------	-----------------------------

b. ~~(U)~~ Operational

~~(U)~~ F-15E AIR-TO-AIR CONFIGURATION: e/ f/ (Ch-1)

(U) Max Speed/Sea Level, Sustained (Mach)	1.04	N/A	1.04
(U) Max Speed at Altitude, Sustained (Mach)	1.76	N/A	1.76
(U) Max Speed, Burst (Mach)	1.76	N/A	1.76
(U) Thrust to Weight Ratio at Take-Off	.67	N/A	.67
(U) Take-Off Distance/50 Ft Obstacle (Ft)	3520	N/A	3520
(U) Landing Distance/50 Ft Obstacle (Ft)	5000	N/A	5000
(U) Take-Off Gross Weight (Lbs)	62500	N/A	62500
(U) Max Instantaneous Load Factor (G) (0.8M/30,000 Ft)	(b)(1)	N/A	(b)(1)
(U) Specific Excess Power (Ft/Sec)			
() a. 0.6M/5G/10000 Ft/Max		N/A	
() b. 0.9M/1G/10000 Ft/Max		N/A	
() c. 0.9M/5G/10000 Ft/Max		N/A	
() d. 0.9M/5G/30000 Ft/Max		N/A	
() e. 1.6M/5G/30000 Ft/Max		N/A	
() f. 1.6M/1G/35000 Ft/Max		N/A	
() g. 1.6M/5G/35000 Ft/Max		N/A	

a/ ~~(U)~~ Design Mission: (b)(1) NM cruise with dash as far as fuel permits.

b/ (U) F-15E Air-To-Ground Configuration: CFTs (Conformal Fuel Tanks), (6) CBU-87, (2) AIM-9, (2) AIM-120, (3) 610 Gal External Fuel Tanks, LANTIRN, Internal ECM

c/ (U) Mid combat weight, stores on, tanks on

d/ (U) Mid combat weight, stores dropped, tanks dropped

e/ (U) Additional F-15E Operational/Technical Characteristics will be provided as they become available.

f/ (U) F-15E Air-To-Air Configuration: CFTs, (4) AIM-9L, (4) AIM-120, Full Ammo, 50% Internal Fuel, F100-PW-220 at Spec Levels

c. (U) Explanation of Changes --

(Ch-1) Addition of F-15E Operational/Technical Characteristics.

d. (U) References --

Air Force Estimates as a result of comparative evaluation and contract Definition.

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(F-15, December 31, 1984)

8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

FISCAL YEAR PERIOD	QUANTITY	FY70 CONSTANT (BASE-YEAR) \$	CURRENT (THEN-YEAR) \$	ESCALATION RATE (%)
-----------------------	----------	------------------------------------	---------------------------	------------------------

Appropriation: RDT&E

Current and Prior Years	--	2110.3	2573.1	N/A
Budget Year (1986)	--	100.0	252.1	4.4
Balance of FYDP	--	63.6	170.3	N/A
(1987)	--	(42.0)	(110.3)	4.2
(1988)	--	(13.2)	(35.9)	4.0
(1989)	--	(4.5)	(12.8)	3.7
(1990)	--	(3.9)	(11.3)	3.4
Balance to complete	--	2.9	9.0	N/A
Subtotal	20	2276.8	3004.5	N/A

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(F-15, December 31, 1984)

8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

FISCAL YEAR PERIOD	QUANTITY	FY70 CONSTANT (BASE-YEAR) \$	CURRENT (THEN-YEAR) \$	ESCALATION RATE (%)
--------------------	----------	------------------------------------	---------------------------	------------------------

Appropriation: PROCUREMENT

Current and Prior Years	834	6802.5	16834.3	N/A
Budget Year (1986)	48	532.5	2224.4	5.7
Balance of FYDP	228	2211.3	10384.8	N/A
(1987)	(48)	(506.6)	(2221.8)	5.5
(1988)	(60)	(592.6)	(2720.6)	5.2
(1989)	(60)	(591.5)	(2836.2)	4.8
(1990)	(60)	(520.6)	(2606.2)	4.4
Balance to complete	156	1222.1	6614.4	N/A
Subtotal	1266	10768.4	36057.9	N/A
Total	1286	13045.2	39062.4	N/A

(U) Program Status--

(1) Percent Program Completed: 70.370% (19/27)
(Years Funds Appropriated/Total Program Years)

(2) Percent Program Cost Appropriated: 49.683% (\$19407.4M/\$39062.4M)
(Funds Appropriated To Date in Millions/Total Program Funding in Millions)

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(F-15, December 31, 1984)

9. (U) Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then-Year) Dollars in Millions)

	<u>Current Year</u>		<u>Budget Year</u>
	<u>SAR Current</u>	<u>UCR Baseline</u>	<u>UCR Baseline</u>
	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>
a. (U) Program Acquisition--			
(1) Cost	39062.4	38095.3	39062.4
(2) Quantity	1286	1376	1286
(3) Unit Cost	30.375	27.686	30.375
b. (U) Current Procurement--	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	2066.2	2213.5	2224.4
Less CY Adv Proc	- 176.4	- 209.5	- 236.0
Plus PY Adv Proc	+ 144.0 ^{a/}	+ 131.9	+ 176.4
Net Total	2033.8	2135.9	2164.8
(2) Quantity	42	48	48
(3) Unit Cost	48.424	44.498	45.100

^{a/} (U) Advance Procurement Debit for FY84 and Advance Procurement Credit for FY85 (144.0) differ from the FY86 President's Budget Documentation because of reprogramming actions.

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(F-15, December 31, 1984)

10. (U) Cost Variance Analysis:

a. (U) Summary--(Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	TOTAL
Development Estimates	1778.6	5576.6	7355.2
Previous Changes			
Economic	+ 3.7	+ 2446.8	+ 2450.5
Quantity	+ 0.0	+16495.9	+16495.9
Schedule	+ 0.0	+ 2507.3	+ 2507.3
Engineering	+ 569.9	+ 3862.3	+ 4432.2
Estimating	- 8.7	- 1458.8	- 1467.5
Other	+ 208.6	+ 559.1	+ 767.7
Support	- 29.5	+ 5579.1	+ 5549.6
Subtotal	+ 744.0	+29991.7	+30735.7
Current Changes			
Economic	- 3.9	+ 391.3	+ 387.4
Quantity	+ 0.0	- 1455.1	- 1455.1
Schedule	+ 0.0	+ 835.6	+ 835.6
Engineering	+ 419.8	+ 1930.9	+ 2350.7
Estimating	- .2	- 860.1	- 859.9
Other	+ 0.0	+ 0.0	+ 0.0
Support	+ 65.8	- 353.0	- 287.2
Subtotal	+ 481.9	+ 489.6	+ 971.5
Total Changes	+ 1225.9	+30481.3	+31707.2
Current Estimate	3004.5	36057.9	39062.4

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(F-15, December 31, 1984)

10. (U) Cost Variance Analysis:

a. (U) Summary--(FY 1970 Constant Dollars (Base-Year) in Millions)

	RD&E <u>1/</u>	PROC	TOTAL
Development Estimates	1659.2	4333.2	5992.4
Previous Changes			
Quantity	+ 0.0	+ 3612.5	+ 3612.5
Schedule	+ 0.0	+ 931.3	+ 931.3
Engineering	+ 291.7	+ 807.7	+ 1099.4
Estimating	+ 2.0	- 574.1	- 572.1
Other	+ 173.9	+ 445.2	+ 619.1
Support	- 42.0	+ 1295.1	+ 1253.1
Subtotal	+ 425.6	+ 6517.7	+ 6943.3
Current Changes			
Quantity	+ 0.0	- 246.8	- 246.8
Schedule	+ 0.0	+ 71.7	+ 71.7
Engineering	+ 167.2	+ 395.9	+ 563.1
Estimating	- .6	- 202.2	- 202.8
Other	+ 0.0	+ 0.0	+ 0.0
Support	+ 25.4	- 101.1	- 75.7
Subtotal	+ 192.0	- 82.5	+ 109.5
Total Changes	+ 617.6	+ 6435.2	+ 7052.8
Current Estimate	2276.8	10768.4	13045.2

1/Adjusted by \$+2.9M to reflect true FY70 constant (base year) dollars

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10. (U) Cost Variance Analysis:

b. (U) Current Change Explanations--

	(Dollars in Millions)	
	<u>Base-Year \$</u>	<u>Then-Year \$</u>
(1) <u>RD&E</u>		
Revised Jan 85 economic escalation rates. (Economic)	\$ + 0.0	\$ - 3.9
Adjustment for Change in Escalation (Estimating)	+ 1.6	+ 3.9
F-15E Development (Engineering)	+ 117.1	+ 293.9
Additional MSIP Development (Engineering)	+ 41.7	+ 103.9
Additional System Engineering/Management Requirements (Estimating)	+ 2.4	+ 6.3
Additional Flight Test Requirements (Estimating)	+ 3.5	+ 9.1
Reestimate of PSP (Programmable Signal Processor) Improvements (Estimating)	- 1.4	- 3.4
Additional Electronic Warfare Support Requirements (Support)	+ 16.0	+ 42.9
F-15 Tangential Carriage CFTs (Support)	+ 2.9	+ 7.0
Reestimate of F-15 Aircraft Structural Life Assessment Program (Estimating)	- 2.6	- 6.2
Reestimate of F-15 Empennage Improvement Program (Estimating)	- 0.6	- 1.0
ADE (Advance Derivative Engine) Integration Effort (Engineering)	+ 4.0	+ 10.0

(F-15, December 31, 1980)

10. (U) Cost Variance Analysis:

b. (U) Current Change Explanations--

	(Dollars in Millions)	
	<u>Base-Year \$</u>	<u>Then-Year \$</u>
(1) <u>RDT&E</u>		
Upgrade of Radar Capability to Counter Evolving ECM (Electronic Counter-Measures) Capabilities (Engineering)	\$ + 4.4	\$ + 12.0
Additional GFE to Support Test Efforts (Estimating)	+ 0.6	+ 1.4
Provides effort for the C/D MSIP simulator changes (Support)	+ 6.5	+ 15.9
Revised estimate of C/D MSIP efforts (Estimating)	- 4.0	- 9.5
Revised estimate due to funding constraints in prior Years (Estimating)	- 0.1	- 0.4
(2) <u>Procurement</u>		
Revised Jan 85 economic escalation rates. (Economic)	+ 0.0	+ 391.3
Reduction of 90 aircraft in planned Procurement	- 288.8	- 856.1
Quantity change associated with the reduction in planned procurement of 90 aircraft (Quantity)	(- 246.8)	(- 1455.1)
Schedule change associated with the reduction in planned procurement of 90 aircraft (Schedule)	(+ 74.8)	(+ 848.0)
Estimating change associated with the reduction in planned procurement of 90 aircraft (Estimating)	(- 46.1)	(- 161.6)

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(F-15, December 31, 1984)

10. (U) Cost Variance Analysis:

b. (U) Current Change Explanations--

(Dollars in Millions)
Base-Year \$ Then-Year \$

(2) Procurement

Engineering change associated with the reduction in planned procurement of 90 aircraft (Engineering)	(+ 64.8)	(+ 427.8)
Support reduction associated with quantity reduction (Support)	(- 80.0)	(- 302.6)
Initial Spares reduction associated with quantity reduction (Support)	(- 55.5)	(- 212.6)
Nonrecurring effort to incorporate F-15E model change, the Alternate Fighter Engine and the Advanced Derivative Engine (AFE/ADE) (Engineering)	+ 60.1	+ 251.2
Recurring effort for the F-15E (Engineering)	+ 166.9	+ 786.5
Recurring increase for Augmented MSIP (Engineering)	+ 19.0	+ 86.0
Recurring increase for Alternate Fighter Engine/Advance Derivative Engine (AFE/ADE) (Engineering)	+ 66.8	+ 306.0
Increase in Conformal Fuel Tank (CFT) quantity for the F-15E (Engineering)	+ 18.3	+ 73.4
Congressional ECO Reduction to fund M-X (Estimating)	- 1.6	- 6.2
OSD directed reduction to Engine ECO (Estimating)	- 26.5	- 127.8
Directed reduction in Engine Warranty (Estimating)	- 42.4	- 187.3

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(F-15, December 31, 1984)

10. (U) Cost Variance Analysis:

b. (U) Current Change Explanations--

(Dollars in Millions)
Base-Year \$ Then-Year \$

(2) Procurement

Reprogramming to fund Special Air Mission Fleet Mods Reduces Peculiar Support (Support)	- 1.3	- 4.9
Reestimate to reflect CFT competition savings (Estimating)	- 8.9	- 45.9
Recurring savings from incorporation of Configured Engine Bay (Estimating)	- 6.1	- 34.4
Rephasing of JTIDS (Joint Tactical Information Distribution System) Incorporation (Schedule)	- 3.1	- 12.4
Adjustment for change in escalation for Production (Estimating)	- 70.6	- 296.9
Adjustment for change in escalation for Support (Support)	- 22.9	- 94.4
F-15E Support Requirements	+ 58.6	+ 261.5
F-15E Training Equipment (Support)	(+ 24.8)	(+ 108.2)
F-15E Peculiar Ground Support Equipment (Support)	(+ 18.0)	(+ 79.4)
F-15E Data (Support)	(+ 5.1)	(+ 25.7)
F-15E Initial Spares (Support)	(+ 10.7)	(+ 48.2)

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(F-15, December 31, 1984)

11. (U) Program Acquisition Unit Cost (PAUC) History:

(U) Initial SAR Estimate to Current Estimate

PAUC (Initial SAR/Dev Est)	Changes(Then-Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
9.820	+ 2.207	+ 7.596	+ 2.599	+ 5.274	- 1.810	+ 4.092	+ 0.597	+20.555	30.375

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(F-15, December 31, 1984)

12. (U) Contract Information: (Dollars in Millions)

a. (U) RDT&E

	Current Contract Target Price	Qty	PM's Est Price At Completion
Multi-Staged Improvement Program (MSIP) Phase II McDonnell Douglas, St. Louis, MO. F33657-83-C-0043/PZ0003, CPIF February 2, 1983	\$ 358.4	N/A	\$380.6
	Cost Variance		Schedule Variance
Previous Cumulative Variances	\$ 0.0		\$ - 8.6
Cumulative Variances to Date (11/30/84)	+ 4.5		- 11.8
Net Change	+ 4.5		- 3.2

Explanation of Change:

(U) Major Subcontractor accounts for \$9.3M of the negative schedule variance due to redefinition and changes of design specifications; with a variance-at-completion estimate of \$-14.2M anticipated. Prime Contractor presently has sufficient management reserve to offset this variance-at-completion. The Program Manager's assessment remains the same and is within approved funding.

b. (U) Procurement

	Current Contract Target Price	Qty	PM's Est Price At Completion
Band III, Internal Countermeasures Set Northrop Corporation, Rolling Meadows, IL F33657-83-C-2149, FPIF September 13, 1983	\$ 202.9	N/A	\$220.6
	Cost Variance		Schedule Variance
Previous Cumulative Variances	N/A		N/A
Cumulative Variances to Date (11/30/84)	\$ -14.8		\$ - 10.4
Net Change	-14.8		- 10.4

Explanation of Change:

(U) Prior CPRs were not accepted due to authorized work not being baselined. The first acceptable CPR was October 1984. The cost variance is offset by management reserve. Contractor estimates no variance-at-completion, even though approximately two months behind schedule at present. Due to contract definitization on 27 December 1984, the Program Manager's Assessment remains the same and is within approved funding.

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(F-15, December 31, 1984)

12. (U) Contract Information: (Dollars in Millions)

b. (U) Procurement

	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
<u>Radar Warning Receiver</u>			
Loral Electronics Sys, NY, NY			
F33657-82-C-2123, FFP	\$ 68.7	36	\$ 68.7
August 9, 1982 (CPR or C/SSR not required)			

	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
<u>FY83 Aircraft Buy</u>			
McDonnell Douglas, St. Louis, MO			
F33657-83-C-2133, FFP	\$ 801.7	39	\$ 801.7
November 3, 1983 (CPR or C/SSR not required)			

	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
<u>Simulators</u>			
Goodyear Aerospace Corp. Akron, OH			
F33657-83-C-2187, FFP	\$ 65.2	3	\$ 65.2
September 21, 1983 (CPR or C/SSR not required)			

	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
<u>Lot 13 Engine Buy</u>			
Pratt & Whitney, West Palm Beach, FL			
F33657-83-C-2001, FFP	\$ 306.3	72	\$ 306.3
September 14, 1984 (CPR or C/SSR not required)			

Explanation of Change:

(U) A production evaluation (\$6.1M) and addition of spares (\$116.0M) has generated the increased target price. The \$116.0M (spares) was accounted for as future contract effort in the contract cost baseline. This is within approved funding.

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AF-15 F-15

SUPPLEMENTAL INFORMATION
SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: F-15

REPORT AS OF: December 31, 1984
DoD COMPONENT: USAF

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (DND-PA)
(DEPARTMENT OF DEFENSE)

27 AUG 1985 15
INCOMING
SAF/PAS
23

OASD(PA) DFOISE 85-1035

SAF/PAS

85-1035-T

PROGRAM: FUNDING SUMMARY
SYSTEM: F-15

AS OF DATE: DEC 84
BASE YEAR: (FY70)

FY	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%)*
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					
APPROPRIATION: RDT&E									
67	-	-	-	-	1.1	1.0	1.0	1.0	3.2
68	-	-	-	-	1.1	1.0	1.0	1.0	3.5
69	-	-	-	-	79.6**	75.5	75.5	75.5	4.3
70	-	-	-	-	175.1	175.1	175.1	175.1	5.4
71	-	-	-	-	338.4	349.5	349.5	349.5	3.3
72	-	-	-	-	397.1	422.9	422.9	422.9	3.1
73	-	-	-	-	408.6	454.4	454.4	454.4	4.4
74	-	-	-	-	223.8	258.0	258.0	258.0	3.7
75	-	-	-	-	154.2	184.2	184.2	184.2	3.6
76	-	-	-	-	28.2	34.9	34.9	34.9	3.6
77	-	-	-	-	3.9	5.3	5.3	5.3	4.4
77	-	-	-	-	43.3	59.6	59.6	59.6	4.6
78	-	-	-	-	41.7	61.1	61.1	61.1	7.0
79	-	-	-	-	7.2	11.7	11.7	11.7	8.4
80	-	-	-	-	1.4	2.5	2.5	2.5	9.4
81	-	-	-	-	5.8	11.6	11.6	11.6	11.9
82	-	-	-	-	15.6	33.3	33.3	32.5	9.2
83	-	-	-	-	51.0	114.5	113.5	108.3	4.9
84	-	-	-	-	54.8	127.4	125.3	86.8	3.8
85	-	-	-	-	78.4	189.6	6.2	.3	3.7
86	-	-	-	-	100.0	252.1	-	-	4.4
87	-	-	-	-	42.0	110.3	-	-	4.2
88	-	-	-	-	13.2	35.9	-	-	4.0
89	-	-	-	-	4.5	12.8	-	-	3.7
90	-	-	-	-	3.9	11.3	-	-	3.4
91	-	-	-	-	1.7	5.0	-	-	3.4
92	-	-	-	-	.6	2.0	-	-	3.4
93	-	-	-	-	.6	2.0	-	-	3.4
TOTAL	20	N/A	**	**	2276.8	3004.5	2386.6	2336.2	

* Indices and escalation rates for FY67-69 were developed from HQ AFSC/AC letter (Subject: OSD Escalation Factors to Date) dated January 23, 1976 (DCS Comptroller sig). Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

** Not available.

***\$1.4M error in FY 1969 base-year dollars will be corrected in the next SAR.

1/ Reflects program office records as of 31 December 1984.

PROGRAMMING SUMMARY
SYSTEM: F-15

AS OF DATE: 31 DEC 84
BASE YEAR: (FY70)

FY	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%)*
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	
			NON-REC	REC					

APPROPRIATION: PROCUREMENT									
73	30	0.0	3.3	269.6	344.5	478.1	478.1	478.1	7.9
74	62	0.0	15.4	425.7	575.2	903.1	903.1	903.1	10.7
75	72	18.1	1.6	434.4	542.1	927.0	927.0	927.0	13.8
76	108	20.2	11.4	649.4	828.2	1522.3	1522.3	1522.3	12.5
7T	24	0.0	4.8	135.1	163.1	322.2	322.2	322.2	5.3
77	108	25.8	6.1	617.0	712.1	1418.6	1418.6	1418.6	5.0
78	97	32.6	3.5	598.3	711.6	1517.2	1517.2	1517.2	7.4
79	78	31.5	.7	435.0	536.5	1386.8	1386.8	1386.8	8.7
80	60	26.9	0.0	330.5	365.0	1056.6	1056.6	1056.6	9.7
81	42	39.6	0.0	261.0	348.8	1101.8	1098.7	1098.1	11.9
82	36	32.1	0.0	253.2	336.9	1147.5	1144.9	1078.8	9.6
83	39	44.7	7.0	261.6	414.5	1471.4	1410.3	970.6	9.0
84	36	38.3	32.3	268.4	403.0	1515.5	935.0	84.1	8.0
85	42	44.5	29.5	312.1	521.0	2066.2	120.4	0.0	4.8
86	48	56.5	22.6	373.6	532.5	2224.4	-	-	5.7
87	48	58.7	8.7	383.9	506.6	2221.8	-	-	5.5
88	60	58.2	2.4	447.3	592.6	2720.6	-	-	5.2
89	60	57.5	6.8	445.7	591.5	2836.2	-	-	4.8
90	60	57.4	1.8	431.5	520.6	2606.2	-	-	4.4
91	60	57.8	.2	431.4	499.9	2612.4	-	-	4.4
92	60	39.5	.2	426.8	466.3	2544.5	-	-	4.4
93	36	0.0	.2	273.7	255.9	1457.5	-	-	4.4
TOT	1266	739.9	158.5	8465.2	10768.4	36057.9	14241.2	12763.5	

* Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.
1/Reflects program office records as of 31 December 1984.

APPROPRIATION: CONSTRUCTION
N/A

SYSTEM: F-15

DELIVERIES (PLANNED AND ACTUAL) AND
ASSOCIATED VARIANCE ANALYSIS

AS OF: 31 DEC 84

DELIVERIES	PLANNED/ACTUAL TO DATE
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R&D	20/20
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PROCUREMENT	740/740
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VARIANCE ANALYSIS: N/A

PROGRAM ACQUISITION COSTS
SYSTEM: F-15

AS OF DATE: 31 DEC 84
BASE YEAR (FY70)
(DOLLARS IN MILLIONS)

A. PROGRAM ACQUISITION COST

	(1) DEVELOPMENT ESTIMATE (FY67-79)	(2) CHANGES	(3) CURRENT ESTIMATE (FY67-93)
<u>COST</u>			
DEVELOPMENT	1659.2#	+ 617.6	2276.8
PROCUREMENT	4333.2	+ 6435.2	10768.4
AIRFRAME	(1679.1)	(+ 2890.2)	(4569.3)
ENGINES	(832.4)	(+ 1467.1)	(2299.5)
ELECTRONICS	(866.8)	(+ 722.8)	(1589.6)
ARMAMENT	(111.8)	(- 14.5)	(97.3)
OTHER HARDWARE	(18.2)	(+ 49.8)	(68.0)
TOTAL HARDWARE	(3508.3)	(+ 5115.4)	(8623.7)
PECULIAR SUPPORT	(449.2)	(+ 964.2)	(1413.4)*
INITIAL SPARES	(375.7)	(+ 355.6)	(731.3)
CONSTRUCTION	---	---	---
 TOTAL: CONSTANT FY70 \$	 5992.4	 + 7052.8	 13045.2
 ESCALATION	 1362.8	 +24654.4	 26017.2
DEVELOPMENT	(119.4)	(+ 608.3)	(727.7)
PROCUREMENT	(1243.4)	(+24046.1)	(25289.5)
CONSTRUCTION	---	---	---
 TOTAL PROGRAM COST	 7355.2	 +31707.2	 39062.4

B. FOREIGN MILITARY SALES

COUNTRY	QUANTITY	ESTIMATED COST
ISRAEL	51	\$ 1371.7M
JAPAN	14	292.6M
SAUDI ARABIA	62	2768.0M
 TOTAL	 127	 \$ 4432.3M

C. NUCLEAR COSTS

NONE

Adjusted by +\$4.3M to bring base-year dollars to true FY 1970 constant dollars.
Actual adjustment should be +\$2.9M, and a correction will be made in the next SAR.

* Includes \$43.7M adjustment for change in methodology for computing inflation on programs with advance procurement funding.

CONTRACT INFORMATION
SYSTEM: F-15
(DOLLARS IN MILLIONS)

AS OF DATE: 31 DEC 84

<u>CONTRACTOR COSTS</u>	<u>INITIAL CONTRACT PRICE</u>			<u>CURRENT CONTRACT PRICE</u>			<u>PRICE AT COMPLETION</u>
	<u>TARGET</u>	<u>CEILING</u>	<u>QTY</u>	<u>TARGET</u>	<u>CEILING</u>	<u>QTY</u>	<u>CONTRACTOR ESTIMATE</u>
1. <u>DEVELOPMENT</u>							
F33657-83-C-0043/P20003, CPIF, MCDONNELL DOUGLAS CORP, ST LOUIS, MO MULTI-STAGED IMPROVEMENT PROGRAM (MSIP) PHASE II	341.8	N/A	N/A	358.4	N/A	N/A	380.6
2. <u>PROCUREMENT</u>							
F33657-83-C-2149, FPIF, NORTHROP CORP, ROLLINGS MEADOWS, IL BAND III, INTERNAL COUNTERMEASURES SET	202.9	220.6	N/A	202.9	220.6	N/A	202.9
F33657-82-C-2123, FFP, LORAL ELECTRONICS SYSTEM, NY, NY RADAR WARNING RECEIVER	68.7	N/A	36	68.7	N/A	36	68.7
F33657-83-C-2133, FFP, MCDONNELL DOUGLAS CORP, ST LOUIS, MO FY83 AIRCRAFT BUY	615.1	N/A	39	801.7	N/A	39	801.7
F33657-83-C-2187, FFP, GOODYEAR AEROSPACE CORP, AKRON, OH SIMULATORS	65.2	N/A	3	65.2	N/A	3	65.2
F33657-83-C-2001, FFP, PRATT & WHITNEY, WEST PALM BEACH, FL LOT 13 ENGINE BUY	306.3	N/A	72	306.3	N/A	72	306.3
3. <u>CONSTRUCTION</u>							
N/A							

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SAR-84-091

SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823) (U)

PROGRAM: F-16

AF-16 F-16

AS OF DATE: December 31, 1984

INDEX (U)

SUBJECT

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Cover Sheet Information
Program Highlights
Schedule
Technical/Operational Characteristics
Program Acquisition Cost
Unit Cost Summary
Cost Variance Analysis
Program Acquisition Unit Cost History
Contract Information

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AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

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1. (U) Designation and Nomenclature (Popular Name): F-16 Multimission Fighter (Fighting Falcon)

2. (U) DoD Component: U. S. Air Force

3. (U) Responsible Office and Telephone Number:

F-16 Program Office
Aeronautical Systems Division
Wright-Patterson AFB, OH

PM: Brig Gen Ronald W. Yates
Assigned: August 15, 1983
AUTOVON 785-6151
Commercial (513) 255-6151

4. (U) Program Elements:

RDT&E: 27133F
PROCUREMENT: 27133F

5. (U) Program Highlights (Since Last Report):

F-16A/B: At the end of CY84, 779 F16A/B aircraft have been delivered to the USAF, leaving only six more aircraft to close out the USAF F-16A/B buy. Over 1200 USAF, European, and Foreign Military Sales aircraft are deployed in 12 countries around the world. Operational performance and readiness of the USAF F-16A/B fleet has been outstanding as indicated by a sustained mission capable rate of over 80 percent since April 1984, exceeding the Tactical Air Force standard of 75 percent. The F-16A/B continues to meet its current mission requirements.

F-16C/D: The first F-16C or MSIP II (Multinational Staged Improvement Program II) aircraft was delivered to USAF on July 19, 1984. A total of 17 F-16 C/D aircraft have been delivered by the end of CY84. Development test and evaluation (DT&E) and initial operational test and evaluation (IOT&E) are underway. Tactical Air Command (TAC) has begun F-16C/D pilot and maintenance training at Luke AFB. The F-16C/D is expected to meet its current mission requirements utilizing interim contractor support.

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~~DECLASSIFIED ON: 31 Dec 1997~~

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F-16, December 31, 1984

Congressional approval was granted for a follow-on multiyear procurement of 720 aircraft in FY86-89. The production rate will be 180 aircraft per year with options for 36 additional aircraft in FY88 and FY89.

6. (U) Schedule:

F-16A/B a. (U)	<u>Milestones</u>	<u>Development Estimate</u>	<u>Current Estimate</u>
	Complete Competitive Flight Test	Dec 74	Dec 74
	Award Development Contract	Jan 75	Jan 75
	DSARC II	Mar 75	Apr 75
	Radar Contractor Selection	Jan 76	Nov 75
	First FSD Flight	Dec 76	Dec 76
	DSARC IIIA	Jan 77	Jan 77
	DSARC IIIB	Sep 77	Oct 77
	First Flight, Production Aircraft	Aug 78	Aug 78
	First Aircraft to TAC	Sep 78	Sep 78
	Deliver 100th Production Aircraft to USAF	May 80	May 80
	F-16A/B PMRT	N/A	Oct 85 (Ch 1)

b. (U) Explanation of Changes

added. (Ch 1) Program Management Responsibility Transfer (PMRT) date

c. (U) References - - Decision Coordinating Paper (DCP) #143, 10 Mar 75

F-16C/D d. (U)	<u>Milestones (Ch 2)</u>	<u>Development Estimate</u>	<u>Current Estimate</u>
	Begin MSIP I	Feb 80	Feb 80
	Program Direction-MSIP II	Dec 80	Dec 80
	Begin MSIP II	May 81	May 81
	MSIP I First Delivery	Nov 81	Nov 81
	Deliver First F-16C to USAF	Jul 84	Jul 84
	Initial F-16C/D Delivery to TAF	Dec 84	Dec 84

e. (U) Explanation of Changes

(Ch 2) Integration of F-16C/D (MSIP) milestones into SAR.

f. (U) References--F-16 Multinational Staged Improvement Program (F-16C/D)
Program Baseline, Nov 84

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F-16, December 31, 1984

7. (U) Technical/Operational Characteristics (F-16A/B):

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
a. (U) Technical			
(S) Sustained Turn Rate, 30,000 ft. Mach 1.2 (Deg per sec/G) Mach 0.9 (Deg per sec/G)	(b)(1)		
b. (U) Operational			
(U) Mission Reliability (%)	85	91	91
(U) Mean Flight Time Between Failure (MFTBF) (Hrs.)	1.75	3.05	2.92
(U) Air-to-Air Mission No./wt. per Missile No./wt. of Ammo	2/169 500/280	2/195 500/280	2/195 500/280
(U) Air-to-Ground Mission No./wt. per Weapon No./wt. of ECM Pod	2/1980 1/392	2/1980 --	2/1980 1/675
() Max Sustained Speed (Mach) Sea Level, Air-to-Air	(b)(1)		
() Max Sustained Speed (Mach) Altitude, Air-to-Air			
() Design Mission Combat Radius Air-to-Air (nm) Air-to-Ground (nm)			
c. (U) Explanation of Changes - - None.			
d. (U) References - - Decision Coordinating Paper 143, 10 Mar 75.			

(S) Technical/Operational Characteristics (F-16C/D):

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
a. (U) Technical			
() Turn Rate, Air-to-Air, 30,000 ft 1/ 5/ Mach 1.2 (Deg/Sec) Mach 0.9 (Deg/Sec)	(b)(1)		
() Turn Rate, Air-to-Ground, (Deg/Sec) 3/ 5/ 500 KTAS, 200 ft			

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F-16, December 31, 1984

7. (U) Technical/Operational Characteristics (F-16C/D): (Ch 1) (Con't)

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
b. (U) Operational			
(U) Mean Time Between Maintenance (Hrs.)	3.0	--	3.0
(U) Air-to-Air Mission 1/ No./wt. per Missile No./wt. of Ammo	2/195 500/280	-- --	2/195 500/280
(U) Air-to-Air Mission 2/ No./wt. per AIM-9L/wt. per AMRAAM No./wt. of Ammo	4/195/328 500/280	-- --	4/195/328 500/280
(U) Air-to-Ground Mission 3/ No./wt. per Weapon No./wt. per Missile No./wt. of Ammo	2/1980 2/195 500/280	-- -- --	2/1980 2/195 500/280
(U) Air-to-Ground Mission 4/ No./wt. per Weapon No./wt. per Missile No./wt. of Ammo	4/464 2/195 500/280	-- -- --	4/464 2/195 500/280
(S) Total Mission Radius (nm) Air-to-Air 1/ 5/ Air-to-Ground: Hi-Lo-Lo-Hi 3/ 5/ Air-to-Ground: Lo-Lo-Lo-Hi 3/ 5/	(b)(1)		
(S) Max Speed, Air-to-Ground 200 ft 3/ 5 with weapons (kts) without weapons (kts)			

AS AMENDED

c. (U) Explanation of Changes

(Ch 1) Incorporation of F-16C/D Technical/Operational Characteristics into SAR.

d. (U) References -- F-16C/D MSIP Baseline, 8 Nov 1984.

- 1/ Air-to-Air Loading 1: 2 AIM-9L, 500 Rounds Ammo, 2 370 Gal Tanks
- 2/ Air-to-Air Loading 2: 2 AIM-9L, 500 Rounds Ammo, 2 370 Gal Tanks, 2 AMRAAM
- 3/ Air-to-Ground Loading 1: 2 AIM-9L, 500 Rounds Ammo, 2 370 Gal Tanks, 2 Mk-84,
1 ALQ-131
- 4/ Air-to-Ground Loading 2: 2 AIM-9L, 500 Rounds Ammo, 2 370 Gal Tanks,
4 AGM-65/TRL, LANTIRN Pods
- 5/ Values for Loading 2 to be determined upon completion of performance tests and analyses

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F-16, December 31, 1984

(U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1975 Constant (Base-Year)\$	Current (Then-Year)\$	Escalation Rate (%)
--------------------	----------	--------------------------------	-----------------------	---------------------

Appropriation: RDT&E

Current&Prior Years	8	877.3	1220.7	N/A
Budget Year (1986)	-	43.1	94.9	4.4
Balance of FYDP	-	267.2	636.5	N/A
(1987)	-	(93.3)	(214.1)	4.2
(1988)	-	(98.4)	(234.5)	4.0
(1989)	-	(57.5)	(142.0)	3.7
(1990)	-	(18.0)	(45.9)	3.4
Balance to Complete	-	-0-	-0-	N/A
Subtotal	8	1187.6	1952.1	N/A

Appropriation: Procurement

Current&Prior Years	1139	8011.5	16880.0	N/A
Budget Year (1986)	180	1362.4	3693.4	5.7
Balance of FYDP	828	5951.8	18203.0	N/A
(1987)	(180)	(1286.2)	(3661.7)	5.5
(1988)	(216)	(1467.1)	(4372.0)	5.2
(1989)	(216)	(1625.4)	(5058.2)	4.8
(1990)	(216)	(1573.1)	(5111.1)	4.4
Balance to Complete	648	4559.8	16115.3	N/A
Subtotal	2795	19885.5	54891.7	N/A
Total	2803	21073.1	56843.8	N/A

Program Status---

- (1) Percent Program Completed: 57.9% (11/19)
- (2) Percent Program Cost Appropriated: 31.8% (18100.7/56843.8)

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F-16, December 31, 1984

(U) Program Acquisition/Current Procurement Unit Cost Summary: (Current
(Then-Year) Dollars in Millions)

	<u>SAR Current</u>	<u>Current Year</u> <u>UCR Baseline</u>	<u>Budget Year</u> <u>UCR Baseline</u>
	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>
a. Program Acquisition--			
(1) Cost	56843.8	49919.5	56843.8
(2) Quantity	2803	2659	2803
(3) Unit Cost	20.280	18.774	20.280
b. Current Procurement--	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	3306.5	4145.4	3693.4
Less CY Adv Proc	-586.8	-787.2	-553.1
Plus PY Adv Proc	455.5	462.1	441.2
Net Total	3175.2	3820.3	3581.5
(2) Quantity	150	150	180
(3) Unit Cost	21.168	25.469	19.897

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F-16, December 31, 1984

(U) Cost Variance Analysis:

a. Summary--(Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	659.1	5395.4	-	6054.5
Previous Changes:				
Economic	+35.3	+1680.3	-	+1715.6
Quantity	-	+19359.0	-	+19359.0
Schedule	+0.1	+1502.2	-	+1502.3
Engineering	+420.8	+13089.7	-	+13510.5
Estimating	+8.4	-2248.5	-	-2240.1
Other	+20.6	+35.8	-	+56.4
Support	+154.9	+9769.0	-	+9923.9
Subtotal	+640.1	+43187.5		+43827.6
Current Changes:				
Economic	-3.8	+535.3	-	+531.5
Quantity	-	+1527.3	-	+1527.3
Schedule	-	+383.6	-	+383.6
Engineering	+628.1	+3782.1	-	+4410.2
Estimating	+28.6	-271.1	-	-242.5
Other	-	-	-	-
Support	-	+351.6	-	+351.6
Subtotal	+652.9	+6308.8	-	+6961.7
Total Changes	+1293.0	+49496.3	-	+50789.3
Current Estimate	1952.1	54891.7	-	56843.8

(FY 1975 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	578.6	3798.2	-	4376.8
Previous Changes:				
Quantity	-	+7069.4	-	+7069.4
Schedule	-	+312.4	-	+312.4
Engineering	+233.3	+4488.3	-	+4721.6
Estimating	-18.7	-1035.3	-	-1054.0
Other	+15.5	+24.6	-	+40.1
Support	+101.0	+3729.1	-	+3830.1
Subtotal	+331.1	+14588.5	-	+14919.6
Current Changes:				
Quantity	-	+413.1	-	+413.1
Schedule	-	-	-	-
Engineering	+265.6	+1069.3	-	+1334.9
Estimating	+12.3	-8.7	-	+3.6
Other	-	-	-	-
Support	-	+25.1	-	+25.1
Subtotal	+277.9	+1498.8	-	+1776.7
Total Changes	+609.0	+16087.3	-	+16696.3
Current Estimate	1187.6	19885.5	-	21073.1

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F-16, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd)

b. (U) Current Change Explanations--

(Dollars in Millions)
Base-Year \$ Then-Year \$

(1) (U) RDT&E

Revised economic escalation indices (Economic)	N/A	-3.8
Development of an F-16F variant configuration (Engineering)	+258.4	+610.7
Continued development and testing of APG-68 radar improvements (Engineering)	+7.2	+17.4
Re-estimate of retrofit development program for air defense F-16s (Estimating)	+7.4	+16.5
Revision in estimate of ECM improvements (Estimating)	+2.4	+5.4
Re-estimate of test and mission support requirements (Estimating)	+2.7	+7.5
Adjustment for prior year escalation (Estimating)	+1.1	+2.1
Adjustment for difference between President's budget and inflation rate change. This results in an artificial adjustment without regard to program content (Estimating)	-1.3	-2.9

(2) (U) PROCUREMENT

Revised economic escalation indices (Economic)	N/A	+535.9
Favorable currency exchange rate impact associated with multinational coproduction program (Economic)	N/A	-0.6
Increase in quantity by addition of 144 production aircraft	+912.4	+3409.3
Flyaway cost associated with procuring 144 additional aircraft (Quantity)	(+413.1)	(+1527.3)
Engineering changes applicable to the 144 F-16s since baseline (Engineering)	(+306.1)	(+1131.7)

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F-16, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd)

b. (U) Current Change Explanations (Cont'd)--

(Dollars in Millions)
Base-Year \$ Then-Year \$

(2) (U) PROCUREMENT (Cont'd)

Estimating changes applicable to the 144 F-16s since baseline (Estimating)	(+45.7)	(169.1)
Peculiar Support for 144 additional aircraft (Support)	(+72.4)	(+316.3)
Initial Spares for 144 additional aircraft (Support)	(+75.1)	(+264.9)
Procurement schedule change by reducing FY86 and FY87 production rate from 18 to 15 aircraft per month (Schedule)	N/A	+383.6
Introduction of an F-16F variant configuration in the FY89 procurement program	+844.4	+2915.9
Flyaway cost associated with planned procurement of 364 aircraft in the F-16F configuration (Engineering)	(+722.8)	(+2504.2)
Support cost associated with the F-16F configuration (Support)	(+121.6)	(+411.7)
Introduction of a higher thrust advanced derivative engine (ADE) engine in the FY89 procurement program	+168.0	+532.2
Flyaway cost associated with the ADE (Engineering)	(+97.6)	(+311.9)
Support cost associated with the ADE (Support)	(+70.4)	(+220.3)
Deletion of Multiple Stores Ejector Rack (MSER) pending future definition of an updated rack configuration (Engineering)	-57.2	-165.7

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F-16, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd)

b. (U) Current Change Explanations (Cont'd)--

(Dollars in Millions)
Base-Year \$ Then-Year \$

(2) (U) PROCUREMENT (Cont'd)

Grassroots re-estimate of flyaway cost (Estimating)	-67.0	-208.8
Billing and Price adjustments of prior year contracts (Estimating)	-28.3	-62.9
Adjustment for prior year escalation (Estimating)	-88.3	-208.7
Adjustment for difference between President's budget and inflation rate change. This results in an artificial adjustment without regard to program content (Estimating)	+10.7	+32.0
One-time change resulting from a correction to the methodology for computing inflation on programs with advance procurement funding (Estimating)	+153.5	N/A
Re-estimate of Alternate Fighter Engine (AFE) costs including the effects of FY85/86 source selections	-210.0	-490.2
Flyaway cost change resulting from AFE re-estimate (Estimating)	(-35.0)	(+8.2)
Peculiar support cost change due to AFE re-estimate (Support)	(+16.8)	(+51.6)
Initial spares cost change due to AFE re-estimate (Support)	(-191.8)	(-550.0)
Congressional disapproval of planned multiyear procurement in FY 85 DoD appropriations act for operational flight trainer (Support)	+6.0	+16.5
Refinement of peculiar support estimates (Support)	-108.8	-296.5
Prior year initial spares re-estimate (Support)	-36.6	-83.2

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F-16, December 31, 1984

11. (U) Program Acquisition Unit Cost (PAUC) History:

Initial SAR/Development Estimate to Current Estimate

PAUC (Initial SAR/ Development Estimate)	Changes (Then Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
9.201	+.802	+.411	+.673	+6.393	-.886	+3.666	+.020	+11.079	20.280

12. (U) Contract Information: (Dollars in Millions)

a. (U) RDT&E--None

b. (U) Procurement

Attack Radar:
Westinghouse Electric Corp, Harmans, MD,
F33657-81-C-0641. (FY83) FPIF
January 27, 1983

Current Contract Target Price	Qty	PM's Est Price At Completion
\$242.7	116	\$249.9

	Cost Variance	Schedule Variance
Previous Cumulative Variances (4/30/84)	\$ -10.0	\$ -21.4
Cumulative Variances To Date (11/30/84)	\$ -18.8	\$ -11.4
Net Change	\$ - 8.8	\$ +10.0

Explanation of Change: The increase in the negative cum to date cost variance since the last report of \$-8.8M is the result of Block IV and V software development and software integration and testing efforts exceeding the original plan. In addition a high failure rate of the dual mode transmitter in final test which is causing extensive trouble shooting and retesting. The trouble shooting and retesting in turn is increasing the use of routine and high dollar material. In the November time period, hardware deliveries for the radar are behind the recovery schedule; however, due to renewed management emphasis the recovery to contract schedule should be achieved by late 1985. A number of changes were incorporated to stabilize the DMT design in anticipation of improved yields. The favorable change in the negative cum to date schedule variance since the last report of \$+10.0M is due to the completion of tasks in final assembly and final test that had been scheduled for completion in a previous period. In addition there was receipt of previously scheduled high dollar parts such as dual mode transmitter drivers and transmitters. The Program Manager's estimate is predicated on a Cost Performance Index (CPI) of 1.167 and augmented by \$6.6M in anticipation of COD's to be charged to this contract at a later time. We feel the potential liabilities are adequately funded. The F-16 Program Office has budgeted this effort to ceiling which is the limit of the Air Force liability.

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F-16, December 31, 1984

	Current Contract Target Price	Qty	PM's Est Price At Completion
International Staged Improvement Program (MSIP): General Dynamics/Fort Worth Division, Fort Worth, Texas F33657-82-C-2038. FPIF May 6, 1982	\$500.4	N/A	\$488.4

	Cost Variance	Schedule Variance
Previous Cumulative Variances (4/30/84)	\$ -3.0	\$ -22.9
Cumulative Variance to Date (11/30/84)	\$ -9.7	\$ -19.2
Net Change	\$ -6.7	\$ + 3.7

Explanation of Change: The increase in the negative cum to date cost variance since the last report of \$-6.7M is caused by General Dynamics/Electronics increased automatic test equipment design and development effort for microwave assemblies and printed circuit boards. In addition, ASPJ software effort to support microwave stimulus interface (MSI) and microwave measurement unit (MMU) development tasks also contributed to the increase. Neither the microwave assemblies nor the ASPJ software will effect future costs. The favorable change in the negative cum to date schedule variance since the last report of \$+3.7M is due to final billing and corresponding payment for the electrical generator system. The payment resulted in the recording of earned budget one month ahead of schedule. The early delivery of the electrical generator system will not impact the total program. The Program Manager's estimate at completion is formulated based on a cost performance index of 1.031 and contains an additional contingency of \$14.6M to fund anticipated but currently unknown COD's for this contract. We feel the PM estimate adequately addresses the known and unknown risks associated with the MSIP effort.

	Current Contract Target Price	Qty	PM's Est Price At Completion
16 Aircraft: General Dynamics/Fort Worth Division, Fort Worth, Texas, F33657-82-C-2034 (FY82) FPIF August 30, 1983	\$955.7	160	\$952.5

	Cost Variance	Schedule Variance
Previous Cumulative Variances (4/30/84)	\$ -25.2	\$ -13.5
Cumulative Variances To Date (11/30/84)	\$ -33.8	\$ - 9.9
Net Change	\$ - 8.6	\$ + 3.6

Explanation of Change: The favorable change in the negative cum to date schedule variance since the last report of \$+3.6M and the increase in the negative cum to date cost variance of \$-8.6M since the last report were caused by a reporting error. There was an improper mechanical distribution among programs of actual cost and related earned budget. The corrective action has been implemented by General Dynamics and should be corrected in the December Cost Performance Report. The cost variance in the previous month (prior to the error) was \$-24.3M. There will be no impact in the total program. The Program Manager's estimate at completion reflects the fact the program is 85% complete in November and following nicely the trend set by previous General Dynamics production contracts. The cum Cost Performance Index (CPI) reached a low of 1.035 in October. After several months of being under 1.0 the monthly CPI for October was .811. The PM's estimate reflects the use of the contractor's MR and these favorable performance indices. This contractual effort is budgeted at target price which is ample funding for this continually improving effort.

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F-16, December 31, 1984

F-16 Aircraft:	Current Contract Target Price	Qty	PM's Est Price At Completion
General Dynamics/Fort Worth Division, Fort Worth, Texas, F33657-82-C-2034 (FY83) FPIF August 30, 1983	\$904.9	120	\$925.4

	Cost Variance	Schedule Variance
Previous Cumulative Variances (4/30/84)	\$ -23.1	\$ - 3.8
Cumulative Variances To Date (11/30/84)	\$ -42.9	\$ -30.9
Net Change	\$ -19.8	\$ -27.1

Explanation of Change: The increase in the negative cum to date cost variance of \$-19.8M is due to the parts shortages in airframe fabrication and subassembly and robotic tasks being performed manually due to reprogramming of the robots in fabrication within the center fuselage. Other reasons for the change are due to the incorporation of revised higher 1984 applied G&A rates and the effects of the temporary inefficiencies due to a strike at General Dynamics Fort Worth Division during November 1984. The impact of the strike on the total program was being assessed when the November Cost Performance Report (CPR) was being prepared and should be incorporated in the company's cost estimate as part of the December CPR. The increase in the negative cum to date schedule variance since the last report of \$-27.1M is due to a partial return to purchase order delivery schedule in the manufacturing function after previously being ahead of schedule. This is also true of procurement equipment and hardware within the airframe WBS. The situation was caused by the strike at the General Dynamics Fort Worth Division. The impact of the strike is currently being assessed. Action will be taken as the impacts become known and the actions required identified. The Program Manager's estimate at completion is based on the Cum Cost Performance Index of 1.072 and contains a contingency for future but unknown COD's of \$7.8M. We feel the new direct labor rates, the result of the new union contract, is more than adequately considered in General Dynamic's forward pricing rates and that any excess could be applied to offset the increase of the revised G&A rates. We have indications from General Dynamics that the impact will be nominal. The F-16 Program Office has funded this effort at target price and has budgeted a contingency of \$21.0M to cover the future impacts of the new labor union pact, the revised G&A rates and the potential COD's. We anticipate no funding problem on this contract.

F-16 Aircraft:	Current Contract Target Price	Qty	PM's Est Price At Completion
General Dynamics/Fort Worth Division, Fort Worth, Texas, F33657-82-C-2034 (FY84) FPIF August 30, 1983	\$991.6	144	\$993.1

	Cost Variance	Schedule Variance
Previous Cumulative Variances	\$ ----	\$ ----
Cumulative Variances To Date (11/30/84)	\$ -7.2	\$ -6.6
Net Change	\$ -7.2	\$ -6.6

Explanation of Change: The increase in the negative cum to date cost variance of \$-7.2M is due to late requisitioning of hardware in stores management and fire control systems and the transfer of ECP 0972 F-16C/D block 25A avionics software revisions to the 1982 program P00152. In addition the temporary inefficiencies in factory due to the strike and the incorporation of the revised 1984 applied overhead rates. No corrective action is required at this time. The effect on the total program was being assessed when

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F-16, December 31, 1984

the November Cost Performance Report (CPR) was being prepared; but should be reflected in the December 1984 CPR. Corrective action will be taken as required. The increase in the negative cum to date schedule variance change since the last report of \$- 6.6M is the result of behind schedule requisitioning in the Airframe WBS of raw material, hardware, and equipment from inventory. In addition, within the Fire Control WBS, negative variances were caused by the late deliveries of items associated with testing of the core memory stores replaceable unit cards, delays in the burn in phase of the testing cycle with the multifunctional display, and retrofit hardware delays associated with the testing of the core memory stores replaceable unit cards. Schedule recovery is expected in 1985 with no impact to the total program. The Program Manager's estimate at completion was developed using a cum to date Cost Performance Index of 1.123 and a contingency of \$6.1M for anticipated but unknown COD's. This effort is budgeted at target price. With 17.0% of the contract effort complete; the contractor has not identified a use for any of the \$40.5M in management reserve. The MR can be applied to future problems or used to reduce the eventual cost at completion. We see no funding problem on this contractual effort.

F100 Engine:	Current Contract	PM's Est Price
Pratt & Whitney, W. Palm Beach, Florida,	<u>Target Price</u>	<u>Qty</u>
F33657-82-C-0258 (P00011) FFP	\$295.6	120
March 14, 1984		\$295.6
Previous Cumulative Variances	<u>Cost Variance</u>	<u>Schedule Variance</u>
Cumulative Variances To Date	N/A	N/A
Net Change		

Explanation of Change: CPR/CSSR is not available since Firm Fixed Price (FFP) contracts do not require these reports. We used the 25 October 1984 CFSR for the target price and the funds required at completion. The cut off date for the report was 30 Sep 84.

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AF-16 F-16

SUPPLEMENTAL INFORMATION
SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: F-16

REPORT AS OF: December 31, 1984
DoD COMPONENT: USAF

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85-1037-T

PROGRAM FUNDING SUMMARY
SYSTEM: F-16

REPORT AS OF: 31 December 1984

BASE YEAR: FY 1975

G. Program Funding Summary

CURRENT ESTIMATE
(Dollars in Millions)

APPROPRIATION: RDT&E

BASE YEAR DOLLARS					THEN YEAR DOLLAR				
FISCAL YEAR	QUANTITY	ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	ESCALATION RATE (%) 2/
			NON-REC	REC					
1975	—	—	—	—	31.2	32.0	32.0	32.0	—
1976	—	—	—	—	187.2	214.7	214.7	214.7	11.0
1977	—	—	—	—	57.7	69.0	69.0	69.0	5.4
1977	—	—	—	—	211.9	256.4	256.4	256.4	2.1
1978	—	—	—	—	121.3	162.3	162.3	162.3	5.9
1979	—	—	—	—	65.8	93.6	93.6	93.6	8.4
1980	—	—	—	—	17.4	27.6	27.6	27.6	9.4
1981	—	—	—	—	24.6	43.1	43.1	43.1	11.9
1982	—	—	—	—	30.8	57.9	57.9	53.4	9.2
1983	—	—	—	—	36.1	70.9	70.9	64.4	4.9
1984	—	—	—	—	48.5	98.6	94.0	57.6	3.8
1985	—	—	—	—	44.8	94.6	7.5	2.0	3.7
1986	—	—	—	—	43.1	94.9	—	—	4.4
1987	—	—	—	—	93.3	214.1	—	—	4.2
1988	—	—	—	—	98.4	234.5	—	—	4.0
1989	—	—	—	—	57.5	142.0	—	—	3.7
1990	—	—	—	—	18.0	45.9	—	—	3.4
TOTAL	8.0	—	—	—	1187.6	1952.1	1129.0	1076.1	

1/ Reflects program office records as of 31 Dec 84.

2/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

PROGRAM FUNDING SUMMARY
SYSTEM: F-16

REPORT AS OF: 31 December 1984

BASE YEAR: FY 1975

G. Program Funding Summary

CURRENT ESTIMATE
(Dollars in Millions)

APPROPRIATION: PROCUREMENT - AIRCRAFT

FISCAL YEAR	QUANTITY	BASE YEAR DOLLARS				THEN YEAR DOLLAR			
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED 1/	EXPENDED 1/	ESCALATION RATE (%) 2/
			NON-REC	REC					
1977	—	123.7	—	—	182.2	257.6	257.6	257.6	6.2
1978	105.0	24.2	61.0	523.6	889.5	1385.9	1385.9	1385.9	6.6
1979	145.0	40.5	30.1	551.6	854.8	1434.4	1434.4	1434.4	8.7
1980	175.0	75.5	50.5	676.6	874.7	1641.9	1641.9	1641.9	9.7
1981	180.0	95.1	43.0	705.6	936.1	1918.0	1916.1	1881.4	11.9
1982	120.0	246.9	51.4	477.4	998.5	2205.7	2119.4	1842.3	9.6
1983	120.0	94.9	196.8	541.8	945.8	2178.3	1941.8	1407.7	9.0
1984	144.0	148.0	72.4	691.4	1045.3	2551.7	1819.7	261.5	8.0
1985	150.0	228.0	68.1	872.7	1284.6	3306.5	1470.2	0.5	4.8
1986	180.0	204.0	41.6	1013.1	1362.4	3693.4	—	—	5.7
1987	180.0	171.4	11.8	981.5	1286.2	3661.7	—	—	5.5
1988	216.0	172.7	10.9	1166.6	1467.1	4372.0	—	—	5.2
1989	216.0	228.1	36.0	1243.8	1625.4	5058.2	—	—	4.8
1990	216.0	224.6	25.2	1267.9	1573.1	5111.1	—	—	4.4
1991	216.0	227.5	4.6	1312.1	1579.7	5358.4	—	—	4.4
1992	216.0	222.6	0.5	1392.2	1670.7	5916.1	—	—	4.4
1993	216.0	—	0.7	1372.3	1309.4	4840.8	—	—	4.4
TOTAL	2795.0	2527.5	704.6	14790.2	19885.5	54891.7	13987.0	10113.2	

1/ Reflects program office records as of 31 Dec 84.

2/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index. Procurement escalation index results from a composite of standard OSD directed rates and escalation rates peculiar to the EPG program. The raw rates shown are the standard OSD directed rates.

Deliveries (Planned/Actual)

As of 31 Dec 84

R&D

8/8

Procurement

F-16 A/B

774/779

F-16 C/D

16/17

Variance Analysis: Contractor makes a conscious effort to stay ahead of schedule

Program Acquisition Costs

System: F-16

As of Date: December 31, 1984

Base Year: FY 1975

(Dollars in Millions)

A. Program Acquisition Cost

	(1) Development Estimate (FY75-82)	(2) <u>Changes</u>	(3) Current Estimate (FY75-93)
1. Cost			
Development	578.6	+ 609.0	1,187.6
Procurement	3,798.2	+16,087.3	19,885.5
Airframe	(1,375.4)	(+ 4,966.2)	(6,341.6)
Engine	(911.3)	(+ 2,985.5)	(3,896.8)
Electronics	(539.6)	(+ 3,544.1)	(4,083.7)
Armament	(171.6)	(+ 587.8)	(759.4)
Sys/Proj Mgt	(33.8)	(+ 379.5)	(413.3)
Total Flyaway	(3,031.7)	(+12,463.1)	(15,494.8)
Peculiar Support	(435.2)	(+ 2,417.9)	(2,853.1)
Other Weapon System Cost	(—)	(+ 153.5)	(153.5)
Initial Spares	(331.3)	(+ 1,052.8)	(1,384.1)
Construction	—	—	—
Total: Constant FY75 \$	<u>4,376.8</u>	<u>+16,696.3</u>	<u>21,073.1</u>
Escalation	1,677.7	+34,093.0	35,770.7
Development	(80.5)	(+ 684.0)	(764.5)
Procurement	(1,597.2)	(+33,409.0)	(35,006.2)
Construction	—	—	—
Total Program Cost	<u>6,054.5</u>	<u>+50,789.3</u>	<u>56,843.8</u>

B. Foreign Military Sales: Sales to date are as follows:

(1) 348 for EPG Program for a total cost of \$3,008.5M (FY75\$) which includes 116 @ \$936.1M for Belgium, 58 @ \$477.0M for Denmark, 102 @ \$902.1M for the Netherlands, and 72 @ \$693.3M for Norway

(2) 44 follow-on aircraft @ \$944.5M (Then Year) for Belgium

(3) 12 follow-on aircraft @ \$154.8M (Then Year) for Denmark

(4) 111 follow-on aircraft @ \$1,695.1M (Then Year) for the Netherlands

(5) 80 @ \$2,074.8M (Then Year) for Egypt

(6) 150 @ \$3,746.4M (Then Year) for Israel

(7) 36 @ \$931.2M (Then Year) for Korea

(8) 40 @ \$1,034.8M (Then Year) for Pakistan

(9) 160 @ \$4,158.2M (Then Year) for Turkey

(10) 24 @ \$593.9M (Then Year) for Venezuela

C. Nuclear Costs: None

GENERAL DYNAMICS / FORT WORTH DIVISION

F33657-82-C-2038 (MSIP) FPIF

	(1)			(2)			(3)
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>
<u>CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>
<u>PROCUREMENT</u>	144.0	165.6	MSIP	500.4	563.7	MSIP	497.8

GENERAL DYNAMICS / FORT WORTH DIVISION

F33657-82-C2034 (FY 82) FPIF

	(1)			(2)			(3)
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>
<u>CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>
<u>PROCUREMENT</u>	562.0	608.7	160	955.7	1,031.4	160	952.3

GENERAL DYNAMICS / FORT WORTH DIVISION

F33657-82-C-2034 (FY 83) FPIF

	(1)			(2)			(3)
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at Completion</u>
<u>CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>
<u>PROCUREMENT</u>	723.3	782.9	120	904.9	979.1	120	916.0

GENERAL DYNAMICS / FORT WORTH DIVISION

F33657-82-C-2034 (FY 84) FPIF

	(1)		(2)		(3)	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>		
<u>CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>
<u>PROCUREMENT</u>	669.7	724.8	144	991.6	1,079.3	144
						991.0

WESTING HOUSE ELECTRIC CORPORATION

F33657-82-C-0641 (FY 83) YPIF

	(1)		(2)		(3)	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>		
<u>CONTRACTOR COST</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>
<u>PROCUREMENT</u>	236.5	270.5	116	242.7	277.4	116
						252.7

PRATT & WHITNEY, WEST PALM BEACH, FLORIDA

F33657-82-C-0258 (P00011) FFP

	(1)		(2)		(3)	
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>		
<u>CONTRACTOR COSTS</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>
<u>PROCUREMENT</u>	294.3	294.3	120	295.6	295.6	120
						295.6

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PROGRAM: F/A-18

AS OF 31 DECEMBER 1984

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1. Designation/Nomenclature (Popular Name): (U) F/A-18 Naval Strike Fighter (Hornet)
2. DOD Component: (U) U.S. Navy
3. Responsible Office and Telephone Number: (U)

F/A-18 Program Office
Naval Air Systems Command
Washington, D.C. 20361

PM: Captain G. H. Strohsahl
Assigned: 30 September 1983
Autovon: 222-7954
ROC: LT D. B. Tamayo
Autovon: 222-9190/91

4. Program Elements: (U)

RDT&E (6.4) Development: 64263N

Procurement: 24145N, 26128M, 24134M, 26493M, 24136N, 26492M, 24159N
24157N, 24158N, 26144M

Construction 24611N, 26196M

Construction

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1.

OASD(PA) DFOISR

85-T-880

5. Program Highlights (Since Last Report): The Operational Test and Evaluation major event was the integration of four F/A-18s from VX-4/5 in CVW-14 F/A-18 squadrons deployed in USS CONSTELLATION (CV-64). Integrated Maritime Air Superiority (MAS) scenarios and War-at-Sea strikes were flown and various deck cycle times and aircraft configurations were evaluated. Other tests included release of Walleye I ERDL, AGM-123A Skipper II, and MK 20 Rockeye II weapons. An operational effectiveness assessment of stand-alone HARM was successfully completed. Radar performance in an ECM environment was evaluated and NCTR performance was assessed in a clear environment. The KY-58 secure voice equipment integration with ARC-182 was completed, and the operational test of the F/A-18 integrated EW Suite/HARM missile began on 10 December 1984.

Program costs have grown by approximately \$3 billion as a result of stretching out F/A-18 acquisitions for two successive years and increasing the number of F/A-18 support sites. In fact, the deferral of 136 aircraft from the FYDP years reported in the December 1983 SAR to the outyears reported in the December 1984 SAR, caused approximately 60% of the growth. This growth continues to be offset by the recurring unit flyaway cost for the F/A-18 remaining well below the FY82 baseline of \$22.5M throughout the FYDP years, despite the continued acquisition of additional capability for the F/A-18.

6. Schedule:

a. Milestones	Development Estimate	Current Estimate
Release of RFP	Oct 74	Oct 74
Award of Advanced Engineering Contracts		
General Electric (Engine)	May 75	May 75
McDonnell Douglas (Airframe)	May 75	May 75
Award of Full Scale Development Contract to General Electric (Engine)	Nov 75	Nov 75
DSARC II	Dec 75	Dec 75
Award of Full Scale Development Contract to McDonnell Douglas (Airframe)	Jan 76	Jan 76
First Flight	Jul 78	Nov 78
DSARC III-A Redesignated Program Review	Mar 80	N/A
OSD Program Review for DSARC principals	N/A	Apr 80
Fighter Missions IOT&E	Oct 80	Feb 81
Begin Fighter Board of Inspection Survey Trials	Nov 80	Mar 82
DSARC IIIB	Nov 80	N/A
DSARC III (Fighter)	N/A	Jun 81
OSD Limited Program Review	N/A	Mar 81

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DSARC III (Attack)	N/A	Dec 82
OPEVAL Completion	Dec 81	Oct 82
End Board of Inspection Survey Trials	May 82	Feb 83
IOC for first F/A-18 Squadron	Sep 82	Mar 83
Navy Support Date	Oct 83	Oct 83
Review for DSARC Principals	N/A	Apr 85 (Ch-1)

b. Explanation of Changes

(Ch-1) Program Review for DSARC principals rescheduled for Apr 85 to allow inclusion of data on initial F/A-18 aircraft carrier workups.

c. References -- DCP #141 dated November 18, 1976, subject "Development Estimate" OSD Program Review Decision Memorandum, dated March 17, 1983, subject "Approved Program".

7. Technical/Operational Characteristics:

a. <u>Technical</u>	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Weight (Lb)			
(U) Empty VF	21,649 # / 1/	23,014	23,014
(U) Empty VA	21,720 # / 1/	23,014	23,014
(S) Take-off gross	(b)(1)		
Escort Mission			
(S) Max take-off gross,	(b)(1)		
Interdiction Mission			
(U) Dimensions (Ft)			
Length	56 # /	56	56
Height	15.3 # /	15.3	15.3
Wing Span	37.5 # /	37.5	37.5
(U) Spotting Factor, A-7	1.2	1.2	1.2
Equivalent			
b. <u>Operational</u>			
(U) Speed			
(U) At Altitude, Combat			
Weight (Mach)	1.7 # / 1/	1.7	1.7
(U) Radius (NM)			
(U) Fighter Escort, Internal Fuel	400	362	362
(U) Strike Mission	550	575	575
(U) Combat Ceiling VF (Ft)	(b)(1)		(b)(1)
(S) Maximum Thrust	(b)(1)		
(U) Military Thrust	48,100 1/	48,000	48,000
(U) Mission Reliability,	0.7	.89 3/	0.8
VF @ 2,500 Hr			

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b. Operational

Development
Estimate

Demonstrated
Performance

Current
Estimate

(U) System maintenance VF			
Mean Flight Hours Between			
Failure, Fighter Configuration			
@ 2,500 Hrs	1.4	2.77 <u>4/</u>	3.7
Organizational Level			
Unscheduled Direct			
Maintenance Manhours per			
Flight Hour VF @ 2,500 Hrs	8	2.22 <u>4/</u>	6
Maintenance Operating Factor	12 <u>2/</u>		12 <u>2/</u>
Maintenance Men per Aircraft			
BIT Development Completion	N/A		95%
BIT False Indication Rate	N/A		10%
(U) Standard Depot Level			
Maintenance (Mos)	48 <u>#/</u>		48

Notes (U):

1/(U) For these data elements, initial Milestone II values were established as the Planning Estimate (PE) with the Development Estimate (DE) to be based on the design resulting from the Detail Design Review. This Review was held on 26 and 27 Oct 77 and the changes were incorporated in the subsequent SAR (Dec 77). There have been no other changes in these DE values.

2/(U) This reporting factor is no longer being used.

3/(U) Reliability demonstration 90% confidence, .96 actually demonstrated.

4/(U) Measured at 9000 cumulative flight-hour Maintainability Demonstration completed 4 May 1982.

#/(U) Items not required by DCP 141.

c. References -- DCP #141, dated November 18, 1976, subject "Development Estimates" DCP/IPS #141 dated October 1, 1982.

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1975 Constant (Base Year)\$	Current (Then Year)\$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	--------------------------	------------------------

APPROPRIATION: RDT&E

Current & Prior Years	11	1652.3	2403.6	N/A
Budget Year (1986)	0	0	0	N/A
Balance of FYDP	0	0	0	N/A
(1987)	0	0	0	N/A
(1988)	0	0	0	N/A
(1989)	0	0	0	N/A
(1990)	0	0	0	N/A
Balance to Complete	0	0	0	N/A
SUBTOTAL	11	1652.3	2403.6	N/A

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Fiscal Year Period	Quantity	FY 1975 Constant (Base Year)\$	Current (Then Year)\$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	--------------------------	------------------------

APPROPRIATION: PROCUREMENT

Current & Prior Years	409	5838.8	14061.7	N/A
Budget Year (1986)	84	961.5	2849.6	5.7%
Balance of FYDP	490	4398.0	14640.0	N/A
(1987)	(102)	(1063.5)	(3310.5)	5.5%
(1988)	(120)	(1102.7)	(3592.3)	5.2%
(1989)	(122)	(1077.8)	(3637.7)	4.8%
(1990)	(146)	(1154.0)	(4099.5)	4.4%
Balance to Complete	383	2357.0	8896.1	N/A
SUBTOTAL	1366	13555.3	40447.4	N/A

APPROPRIATION: MILCON

Current & Prior Years	0	19.5	36.6	N/A
Budget Year (1986)	0	.3	.6	4.4%
Balance of FYDP	0	4.2	9.6	N/A
(1987)	0	(.4)	(.8)	4.2%
(1988)	0	(0)	(0)	4.0%
(1989)	0	(3.8)	(8.8)	3.7%
(1990)	0	(0)	(0)	3.4%
Balance to Complete	0	0	1.0	N/A
SUBTOTAL	0	24.4	47.8	N/A
TOTAL	1377	15232.0	42898.8	N/A

Program Status --

(1) Percent Program Completed: 64.7% or 11 of 17 years

(2) Percent Program Cost Appropriated: 38.5% or \$16501.9M of \$42898.8M

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	CURRENT YEAR		BUDGET YEAR
	SAR CURRENT ESTIMATE	UCR BASELINE ESTIMATE	UCR BASELINE ESTIMATE
a. Program Acquisition --			
(1) Cost	42898.8	39941.7	42898.8
(2) Quantity	1377	1377	1377
(3) Unit Cost	31.154	29.006	31.154
b. Current Procurement --	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	2588.2	2797.6	2849.6
Less CY Adv Proc	-207.7	-337.9	-268.1
Plus PY Adv Proc	+218.4	+218.4	+207.7
Net Total	2598.9	2678.1	2789.2
(2) Quantity	84	84	84
(3) Unit Cost	30.939	31.882	33.205

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10. Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
BASLINE ESTIMATE(DE)	1834.4	11012.6	28.3	12875.3
Previous Changes:				
Economic	+190.7	+8947.1	-1.2	+9136.6
Quantity	-	+6870.4	-	+6870.4
Schedule	+14.6	+3402.6	+1.6	+3418.8
Engineering	+55.6	+1360.5	-	+1416.1
Estimating	+300.2	+4016.6	+24.9	+4341.7
Other	+6.5	-	-	+6.5
Support	+3.0	+1889.8	-1.4	+1891.4
SUBTOTAL	+570.6	+26487.0	+23.9	+27081.5
Current Changes:				
Economic	-	-628.0	-	-628.0
Quantity	-	-	-	-
Schedule	-	+413.5	-	+413.5
Engineering	-	+178.8	-	+178.8
Estimating	-1.4	+1904.4	-4.4	+1898.6
Other	-	-	-	-
Support	-	+1079.1	-	+1079.1
SUBTOTAL	-1.4	+2947.8	-4.4	+2942.0
TOTAL CHANGES	+569.2	+29434.8	+19.5	+30023.5
CURRENT ESTIMATE	\$2403.6	\$40447.4	\$47.8	\$42898.8

(FY 1975 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
BASLINE ESTIMATE(DE)	\$1437.7	\$6560.9	\$18.0	\$8016.6
Previous Changes:				
Economic	-	-	-	-
Quantity	-	+3079.6	-	+3079.6
Schedule	+9.4	+393.3	-	+402.7
Engineering	+37.8	+428.4	-	+466.2
Estimating	+162.1	+1436.9	+9.1	+1608.1
Other	+4.5	-	-	+4.5
Support	+1.5	+695.5	-5	+696.5
SUBTOTAL	+215.3	+6033.7	+8.6	+6257.6
Current Changes:				
Economic	-	-	-	-
Quantity	-	-	-	-
Schedule	-	+4.6	-	+4.6
Engineering	-	+52.3	-	+52.3
Estimating	-7	+579.0	-2.2	+576.1
Other	-	-	-	-
Support	-	+324.8	-	+324.8
SUBTOTAL	-7	+960.7	-2.2	+957.8
TOTAL CHANGES	+214.6	+6994.4	+6.4	+7215.4
CURRENT ESTIMATE	\$1652.3	\$13555.3	\$24.4	15232.0

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b. Current Change Explanations

	(Dollars in Millions)	
	Base Year \$	Then Year \$
(1) <u>RDT&E</u>		
Reprogramming of unobligated balances (Estimating)	- .7	-1.4
Total RDT&E cost change	<u>- .7</u>	<u>-1.4</u>
(2) <u>Procurement</u>		
Revised escalation indices (Economic)	-	-628.0
Changes in annual procurement quantities due to rephased schedule (Schedule)	+4.6	+413.5
Preplanned product improvements (Engineering)	+52.3	+178.8
Elimination of multiyear procure- ment in out years, All Weather F/A-18 initiation, elimination of projected FMS sales, revised ancillary equipment (Estimating)	+579.0	+1904.4
Adjusted allocation for support due to changes in aircraft procurement schedule (Support)	+324.8	+1079.1
Total procurement cost change	<u>+960.7</u>	<u>+2947.8</u>
(3) <u>MILCON</u>		
Estimating: Changes in program allocation of MILCON funds	-2.2	-4.4
Total MILCON cost change	<u>-2.2</u>	<u>-4.4</u>

c. References -- DSARC II Decision Memorandum dated December 22, 1976,
subject "Development Estimate"

11. Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Baseline Estimate

(Same as Current Baseline Estimate)

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b. Current Baseline Estimate to Current Estimate

PAUC DE	CHANGES (THEN YEAR DOLLARS IN MILLIONS)								PAUC (Current Estimate)
	ECON	QTY	SCH	ENG	EST	SPT	OTHER	TOTAL	
15.876	+6.179	-1.536	+2.783	+1.158	+4.532	+2.157	+0.005	+15.278	31.154

12. Contract Information: (Dollars in Millions)

a. Procurement

<u>FY82 Airframes</u>	<u>Current Target</u>	<u>Contract Qty</u>	<u>PM's Estimated Price at Completion</u>
McDonnell Douglas, St. Louis MO N00019-81-C-0050/FFP, 9 Feb 83 Changes Explanation of change: Not reported on FFP contracts	\$262.0M	63	\$262.0M

<u>FY83 Engines</u>	<u>Current Target</u>	<u>Contract Qty</u>	<u>PM's Estimated Price at Completion</u>
General Electric, Lynn MA N00019-82-C-0421/FFP, 30 Jan 84 Explanation of change: Not reported on FFP contracts	\$296.5M	175	\$296.5M

<u>FY83 Airframes</u>	<u>Current Target</u>	<u>Contract Qty</u>	<u>PM's Estimated Price at Completion</u>
McDonnell Douglas, St. Louis MO N00019-83-C-0272/FFP, 15 Jun 84 Explanation of change: Not reported on FFP contracts	\$1414.6	84	\$1414.6

<u>FY84 Airframes</u>	<u>Current Target</u>	<u>Contract Qty</u>	<u>PM's Estimated Price at Completion</u>
McDonnell Douglas, St. Louis MO N00019-83-C-0272/FFP, 15 Jun 84 Explanation of change: Not reported on FFP contracts	\$1380.1M	84	\$1380.1M

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PROGRAM: F/A-18, 31 DECEMBER 1984

<u>FY84 Engines</u>	<u>Current Target</u>	<u>Contract Qty</u>	<u>PM's Estimated Price at Completion</u>
General Electric, Lynn MA N00019-83-C-0086/FFP, 28 Feb 85	\$307.8M	186	\$307.8M
Explanation of change: Not reported on FFP contracts			

<u>FY85 Airframes</u>	<u>Current Target</u>	<u>Contract Qty</u>	<u>PM's Estimated Price at Completion</u>
McDonnell Douglas, St. Louis MO N00019-84-C-0086/FFP, 30 Sep 85 (Est definitization date)	\$1400.0M	84	\$1400.0M
Explanation of change: Not reported on FFP contracts			

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N-15 F-18

0058C(6)

SELECTED ACQUISITION REPORT (RES: DD-COMP (Q&A) 823)

Program: F/A-18

As of 31 December 1984

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OFFICE OF THE SECRETARY OF DEFENSE
ACQUISITION AND SUPPORT
DEPARTMENT OF DEFENSE

SEP 06 1985

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PROGRAM FUNDING SUMMARY

Program Funding Summary
System: F/A-18

As of: 31 December 1984
Base Year: FY 1975

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN YEAR DOLLARS			
		ADV PROC (NON-ADD)	FLYAWAY	(NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED
			NON-REC	REC					
APPROPRIATION: RDT&E									
1975	-	-	-	-	19.5	20.0	20.0	20.0	-
1976	-	-	-	-	100.1	110.4	110.4	110.4	9.0
1977	-	-	-	-	18.9	22.2	22.2	22.2	2.25
1977	-	-	-	-	271.3	341.9	341.9	341.9	7.0
1978	1	-	-	-	462.8	626.8	626.8	626.8	7.0
1979	8	-	-	-	336.3	496.1	496.1	496.1	9.0
1980	2	-	-	-	192.8	314.8	314.8	314.8	11.0
1981	-	-	-	-	95.6	173.1	173.1	169.7	11.9
1982	-	-	-	-	100.1	190.5	190.5	185.7	7.8
1983	-	-	-	-	53.9	107.8	107.8	46.2	4.9
TOTAL	11	-	-	-	1652.3	2403.6	2403.6	2333.8	

APPROPRIATION: PROCUREMENT									
1978	0	19.8	-	-	19.8	34.1	34.1	30.3	7.0
1979	9	30.4	22.3	207.0	329.6	576.1	576.1	529.4	9.0
1980	25	58.7	32.5	390.0	598.1	1185.6	1185.6	1120.4	11.0
1981	60	48.3	.3	690.0	969.0	2116.9	2116.9	1779.7	11.9
1982	63	74.8	14.8	642.6	1044.7	2482.5	2482.5	2088.2	14.3
1983	84	93.5	51.2	747.6	1030.5	2606.0	2434.0	2149.8	9.0
1984	84	78.0	0	672.0	926.7	2472.3	2214.4	1860.8	8.0
1985	84	70.4	18.6	688.2	920.4	2588.2	1175.2	37.8	4.8
1986	84	86.5	14.8	722.4	961.5	2849.6	0.0	0.0	5.7
1987	102	101.5	6.3	846.6	1063.5	3310.5	0.0	0.0	5.5
1988	120	102.8	.8	888.0	1102.7	3592.3	0.0	0.0	5.2
1989	122	114.1	2.6	878.4	1077.8	3637.7	0.0	0.0	4.8
1990	146		0	1022.0	1154.0	4099.5	0.0	0.0	4.4
1991	192		0	1228.8	1318.3	4890.6	0.0	0.0	4.4
1992	191		0	1165.1	1038.7	4005.5	0.0	0.0	4.4
TOTAL	1366		164.3	10789.3	13555.3	40447.4	12222.8	8596.4	

Program Funding Summary
System: F/A-18

As of: 31 December 1984
Base Year: FY 1975

CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN YEAR DOLLARS			
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	ESCALATION RATE (%)
			NON-REC	REC					
APPROPRIATION: CONSTRUCTION									
1977	-	-	-	-	.3	.4	.4	.4	2.4
1978	-	-	-	-	.5	.6	.6	.6	10.4
1979	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	3.8	6.5	6.5	6.5	11.9
1981	-	-	-	-	.2	.4	.4	.4	7.6
1982	-	-	-	-	6.9	12.9	12.9	12.9	4.9
1983	-	-	-	-	2.8	5.6	5.6	5.6	4.3
1984	-	-	-	-	4.6	9.4	9.4	9.4	1.9
1985	-	-	-	-	.4	.8	.8	.8	2.0
1986	-	-	-	-	.3	.6	0.0	0.0	4.4
1987	-	-	-	-	.4	.8	0.0	0.0	4.2
1988	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	3.8	8.8	0.0	0.0	3.7
1990	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	.4	1.0	0.0	0.0	3.4
TOTAL	-	-	-	-	24.4	47.8	36.6	36.6	-

2. DELIVERIES (planned and actual) and ASSOCIATED VARIANCE ANALYSIS:

DELIVERIES (Planned/Actual)
Development 11/11
Procurement 310/310
Variance Analysis: None

3. PROGRAM ACQUISITION COSTS:

Program Acquisition Costs
System: F/A-18
(\$M)

As of: 31 December
Base Year: FY 1975

a. Program Acquisition Cost

COST	(1) DEV EST (FY75-85)	(2) CHANGES	(3) CURR EST (FY - 95)
DEVELOPMENT	1437.700	+214.600	1652.300
PROCUREMENT	6560.900	+6994.400	13555.300
Airframe	(3599.600)		
Engine	(1059.700)		
Avionics	(198.800)		
Armament/Oth GFE	(61.300)		
TOTAL FLYAWAY	(4919.400)	(+5974.100)	(10893.500)
GSE	(610.300)		
TRAINING & OTH SPT	(517.500)		
INITIAL SPARES	(513.700)		
TOTAL SUPPORT	(1641.500)	(+1020.300)	(2661.800)
CONSTRUCTION	18.000	+6.400	24.400
TOTAL: CONSTANT FY75 \$	8016.600	+7215.400	15232.000
ESCALATION	4858.700	22808.100	27666.800
Development	(396.700)	(+354.600)	(751.300)
Procurement	(4451.700)	(+22440.400)	(26892.100)
Construction	(10.300)	(+13.100)	(23.400)
E. TOTAL PROGRAM COST	12875.300	30023.5	42898.800

b. Foreign Military Sales: Sales to date total 147 F/A-18 aircraft to Spain and Australia. Sales to date total 72 aircraft for \$2.369B. Sales to Australia total 75 aircraft for \$2.712B.

c. Nuclear Costs: None

4. CONTRACT INFORMATION

CONTRACTOR COSTS	INITIAL CONTRACT PRICE			CURRENT CONTRACT PRICE			PRICE AT COMPLETION
	TARGET	CEILING	QTY	TARGET	CEILING	QTY	CONTRACTOR ESTIMATE
PROCUREMENT							
FY82 Airframes McDonnell Douglas Co. N00019-82-C-0501/FFP Mar 24, 1983	1089.5	1089.5	63.0	1089.5	1089.5	63.0	1089.5
FY83 Engines General Electric Co. N00019-82-C-0421/FFP Jan 30, 1984	296.5	296.5	175.0	296.5	296.5	175.0	296.5
FY83 Airframes McDonnell Douglas Co. N00019-83-C0272/FFP Jun 15, 1984	1414.6	1414.6	84.0	1414.6	1414.6	84.0	1414.6
FY84 Airframes McDonnell Douglas Co. N00019-83-C0272/FFP Jun 15, 1984	1380.1	1380.1	84.0	1380.1	1380.1	84.0	1380.1
FY84 Engines General Electric Co. N00019-83-C-0086/FFP Feb 28, 1985	307.8	307.8	186.0	307.8	307.8	186.0	307.8
FY85 Airframes McDonnell Douglas Co. N00019-84-C-0086/FFP Sep 30, 1985 (Estimated definitization date)	1400.0	1400.0	84.0	1400.0	1400.0	84.0	TBD

(3)

N-16 FFG 7

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SAR-84-144

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

Program: FFG 7 Class

AS OF DATE: December 31, 1984

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FOR OPEN PUBLICATION

MAR 22 1985

AS AMENDED
11

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (DASD--PA)
DEPARTMENT OF DEFENSE

REPRODUCED AT GOVERNMENT EXPENSE

1. Designation/Nomenclature (Popular Name): FFG 7 Class/Guided Missile Frigate (OLIVER HAZARD PERRY Class)
2. DoD Component: U.S. Navy
3. Responsible Office and Telephone Number:
Guided Missile Frigate Ship Acquisition PM: CAPT R.B. Woodruff, USN
Program Office (PMS399) Assigned: November 30, 1984
Washington, D.C. 20362 Area Code 202-692-2922
AUTOVON 222-2922
4. Program Elements:
RDT&E: 63509N (S4627-024 only)
63564N (S4627-024 only)
64567N (SSL67-024, S0408-024, and S0857-024)
PROCUREMENT (SCN): 24224N

~~CLASSIFIED BY: OPNAVINST 55513.3A, encl. (17), ID: 03A-17~~
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FFG 7 Class, December 31, 1984

5. Program Highlights (Since Last Report):

The FY 84 Appropriations Act added one FFG 7 Class ship constructed with an upgraded MK-92 Fire Control System (FCS) and an X-band phased array radar. The end cost of \$300.0M included in the Act was insufficient. The Navy requested that this ship be constructed with the MK-92 FCS Phase II upgrade (with Coherent Receiver Transmitter) at an estimated end cost of \$376.3M. The FY 85 Appropriations Act approved the Phase II upgrade and authorized transfer of \$36.3M from various FY 83 SCN programs to fully fund this ship at the end cost of \$376.3M. However, because additional legislation is required, the \$40.0M of FY 83 Advance Procurement is not currently available. Congressional relief from the FY 83 restrictive language will be requested.

Demonstrated performance of Navigational Draft changed from 24.5 to 25.4 feet to reflect FFG 36 inclining data.

Demonstrated performance for Full Load Displacement changed from 3537 to 3882 tons based on FFG 36 inclining data.

Demonstrated performance of Sustained Speed decreased from 29.2 to 28.5 knots based on utilization of FFG 36 trial data.

(b)(1) Demonstrated performance of Fuel Endurance at 20 knots changed from (b)(1) N.M. based on utilization of FFG 36 trial data.

FFG 51, fourteenth ship at Todd, Los Angeles, was delivered to the Navy November 2, 1984.

FFG 48, twelfth ship at Todd, Seattle, was delivered to the Navy November 15, 1984.

FFG 50, eighteenth follow ship at Bath Iron Works, was delivered to the Navy November 16, 1984.

A contract was awarded November 28, 1984 with Todd Pacific Shipyards, Los Angeles Division for construction of the FFG included in the FY 84 Appropriations Act.

Total program costs are estimated herein to be \$9804.2M of which \$8,402.8M are sunk costs (obligations through December 31, 1984), and \$1,401.4M are considered costs to complete.

FFG 7 Class ships will fulfill their mission requirements of supplementing other escorts in the protection of underway replenishment groups, amphibious forces, and military shipping.

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FFG 7 Class, December 31, 1984

6. ~~(S)~~ Schedule:

a. Milestones	Development Estimate	Current Estimate
Characteristics Approved	Oct 72	Oct 72 ^{1/}
Complete Lead Ship Contract Design	Apr 73	Apr 73
Complete OPEVAL/IOT&T in Major Ship Systems		
(1) SPS-49	Aug 74	Aug 75
(2) Sonar	Oct 74	Aug 75
Complete Follow Ship Contract Design	Nov 74	Nov 74
Complete IOT&E for Combat System Equipments	Feb 75	Aug 75
DSARC III	Mar 75	Dec 75
Production Contract Award		
(1) Lead Ship	Jun 73	Oct 73
(2) Follow Ships, First Increment	Apr 75	Feb 76
(3) Follow Ships, Second Increment	N/A	Feb 77
(4) Follow Ships, Last Increment	Jun 77	Nov 84 (Ch-1)
Launch - Lead Ship	Mar 76	Sep 76
Delivery		
(1) Lead Ship	Jun 77	Nov 77
(2) Last Ship	Dec 82	Nov 88 (Ch-2)
IOC ^{2/}	Jul 77	Mar 79
Final Contract Trial		
(1) Lead Ship	Dec 77	Jul 78
(2) Last Ship	Jun 83	May 89 (Ch-3)
Ready for Operational Deployment		
(1) Lead Ship	May 78	Mar 79
(2) Last Ship	Nov 83	(b)(1) (Ch-4)

- ^{1/} Ship Characteristics (Oct 72) were repromulgated in the PF Top Level Requirements (TLR) (Feb 3, 1975), and updated in the FFG TLR (Apr 9, 1982).
^{2/} Initial Operational Capability is defined as completion of the Post Shakedown Availability for the lead ship of the Class.

b. Explanation of Changes

- (Ch-1) Changed from Sep 1984 to Nov 1984 because of administrative delays.
(Ch-2) Changed from Oct 1988 to Nov 1988 because of administrative delays.
(Ch-3) Changed from Apr 1989 to May 1989 because of administrative delays.
(Ch-4) Changed from (b)(1) because of administrative delays.

c. References - - DCP #97, dated April 24, 1974

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FFG 7 Class, December 31, 1984

~~7. (a)~~ Technical/Operational Characteristics:

	Development Estimate	Demonstrated Performance	Current Estimate
a. Technical			
Length, Overall (ft)	440	445/453 ^{1/}	445/453 ^{1/}
Beam, Max. @ W.L. (ft)	45	45	45
Navigational Draft (ft)	24	25.4	25.4(Ch-1)
Displacement, Full Load (tons)	3400	3882	3900(Ch-2)
Propulsion			
(1) Gas Turbine (2 ea)	LM-2500	LM-2500	LM-2500
(2) Shaft Horsepower	40,000	40,000	40,000
b. Operational			
Speed, Sustained (kts)	28	28.5	28.4(Ch-3)
Endurance			
(1) Fuel (N.M.@ 20 kts)	(b)(1)		Ch-4)
(2) Stores (days)			
(a) Fresh Provisions	30	35	30
(b) Dry Provisions	45	81.9	45
Fire Control System	MK-92 Mod 2	MK-92 Mod 2	MK-92 Mod 2 ^{2/}
Fire Control Panel, Torpedo	MK-309	MK-309	MK-309
Launcher, Missile	MK-13 Mod 4	MK-13 Mod 4	MK-13 Mod 4
Launcher, Torpedo (2 ea)	MK-32	MK-32	MK-32
Gun (76mm) ^{3/}	MK-75	MK-75	MK-75
Acoustic Countermeasures	NIXIE	NIXIE	NIXIE
Sonar ^{4/}	AN/SQS-505 Type	AN/SQS-56	AN/SQS-56
Radar, Air Search	AN/SPS-49	AN/SPS-49	AN/SPS-49
Radar, Surface Search	AN/SPS-55	AN/SPS-55	AN/SPS-55

^{1/} FY 1978 and prior/FY 1979 and later ships.

^{2/} The MK-92 Mod 2 Fire Control System (FCS) is installed in all but the last ship. This FY 1984 ship (FFG 61) will incorporate the MK-92 FCS Phase II upgrade, designated MK-92 Mod 6.

^{3/} CIWS installed in FY 1978 and subsequent ships in addition to MK-75.

^{4/} In addition to AN/SQS-56, FY 1979 and later ships are configured to accept TACTAS (AN/SQR-19) when available.

c. Explanation of Changes

(Ch-1) Changed from 25.5 to 25.4 feet to reflect FFG 36 inclining data and anticipated displacement growth for remaining space and weight items.

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FFG 7 Class, December 31, 1984

7. ~~(S)~~ Technical/Operational Characteristics (Cont'd):

(Ch-2) Increased from 3740 to 3900 tons based on FFG 36 inclining data and current estimate for remaining space and weight items.

(Ch-3) Increased from 28.2 to 28.4 kts based on FFG 36 trial data and reflects anticipated displacement growth for remaining space and weight items.

(Ch-4) Changed from (b)(1) N.M. based on FFG 36 trial data and reflects anticipated displacement growth for remaining space and weight items.

d. References - - DCP #97, dated April 24, 1974.

8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1973 Constant (Base Year) \$	Current (Then Year)\$	Escalation Rate (%)
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Appropriation: RDT&E

Current & Prior Years	-	19.7	23.0	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	-	-	-	N/A
(1987)	-	-	-	-
(1988)	-	-	-	-
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	-	19.7	23.0	N/A

Appropriation: Procurement (SCN)

Current & Prior Years	51	4384.8	9740.6	N/A
Budget Year (1986)	-	7.2	22.8	5.7
Balance of FYDP	-	5.2	17.8	N/A
(1987)	-	(2.9)	(9.7)	5.5
(1988)	-	(2.2)	(7.6)	5.2
(1989)	-	(.1)	(.5)	4.8
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	51	4397.2	9781.2	N/A

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FFG 7 Class, December 31, 1984

8. Program Acquisition Cost: (Cont'd): (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1973 Constant (Base Year) \$	Current (Then Year)\$	Escalation Rate (%)
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Appropriation: MILCON

Current & Prior Years	-	-	-	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	-	-	-	N/A
(1987)	-	-	-	-
(1988)	-	-	-	-
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	-	-	-	N/A
Total	51	4416.9	9804.2	N/A

Program Status - -

- (1) Percent Program Completed: 78.9% (15/19)
 - (2) Percent Program Cost Appropriated: 99.6% (\$9763.6/\$9804.2)
- (All 51 ships appropriated; remainder is outfitting and post delivery requirements for prior year ships.)

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current	UCR Baseline	UCR Baseline
	Estimate	Estimate	Estimate
a. Program Acquisition --			
(1) Cost	9804.2	9857.5	9804.2
(2) Quantity	51	51	51
(3) Unit Cost	192.239	193.284	192.239
b. Current Procurement --	(FY1985)	(FY1985)	(FY1986)
(1) Cost	54.2	47.2	22.8
Less CY Adv Proc	-	-	-
Plus PY Adv Proc	-	-	-
Less OF/PD on PY progs	-54.2	-47.2	-22.8
Net Total	-	-	-
(2) Quantity	-	-	-
(3) Unit Cost	-	-	-

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10. Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	RD&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)	14.1	3230.4	-	3244.5
Previous Changes:				
Economic	-	+2581.0	-	+2581.0
Quantity	-	+307.6	-	+307.6
Schedule	-	+1599.7	-	+1599.7
Engineering	+25.3	+838.6	-	+863.9
Estimating	-16.4	+1007.8	-	+991.4
Support	-	+243.7	-	+243.7
Subtotal	+8.9	+6578.4	-	+6587.3
Current Changes:				
Economic	-	-179.1	-	-179.1
Engineering	-	+41.5	-	+41.5
Estimating	-	+105.7	-	+105.7
Support	-	+4.3	-	+4.3
Subtotal	-	-27.6	-	-27.6
Total Changes	+8.9	+6550.8	-	+6559.7
Current Estimate	23.0	9781.2	-	9804.2

(FY 1973 Constant Dollars (Base Year) in Millions)

	RD&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)	14.1	2606.3	-	2620.4
Previous Changes:				
Quantity	-	+104.4	-	+104.4
Schedule	-	+209.7	-	+209.7
Engineering	+16.9	+461.6	-	+478.5
Estimating	-11.0	+988.6	-	+977.6
Support	-	+105.0	-	+105.0
Subtotal	+5.9	+1869.3	-	+1875.2
Current Changes:				
Engineering	-	+14.4	-	+14.4
Estimating	-.3	-94.6	-	-94.9
Support	-	+1.8	-	+1.8
Subtotal	-.3	-78.4	-	-78.7
Total Changes	+5.6	+1790.9	-	+1796.5
Current Estimate	19.7	4397.2	-	4416.9

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FFG 7 Class, December 31, 1984

10. Cost Variance Analysis (Cont'd):

b. Current Change Explanations --

	(Dollars in Millions)	
	<u>Base Year \$</u>	<u>Then Year \$</u>
(1) <u>RD&E</u>		
Changed methodology for escalation computation and historical escalation rates. (Estimating)	-0.3	--
(2) <u>Procurement</u>		
Revised Jan 85 economic escalation rates. (Economic)	N/A	-179.1
Reflects combat system upgrade for the FY 84 ship (FFG 61). (Engineering)	+14.4	+41.5
Increase in then year dollars reflects an adjustment for Jan 85 escalation rates, a funding reserve for MX transfer, and the estimate for the FY 84 ship (FFG 61). This increase is partially offset by reduced estimates within the end costs of FY 83 and prior year ships and a decreased estimate for Outfitting and Post Delivery requirements. Base year dollars decreased because of changed methodology for escalation computation. (Estimating)	-94.6	+105.7
Reflects procurement of additional equipment as Class battle spares, partially offset by reduced estimates for previous items. (Support)	+1.8	+4.3

c. References -- DCP #97, dated April 24, 1974.

11. Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Baseline Estimate

PAUC in Initial SAR Estimate is same as Current Baseline Estimate.

b. Current Baseline Estimate to Current Estimate

PAUC (Development Estimate)	Changes (Then Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
64.9	+47.1	+4.7	+31.4	+17.7	+21.5	+4.9	-	+127.3	192.2

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FFG 7 Class, December 31, 1984

12. Contract Information: (Dollars in Millions)

a. RDT&E

b. Procurement

(1) Follow Ship Construction

Bath Iron Works Corp.
 Bath, ME, N00024-79-C-2800, FPIF
 April 27, 1979 (FY79)
 April 28, 1980 (FY80 Option)

Current Contract
Target Qty

PM's Est Price
At Completion

\$222.8 3
 \$204.9 3

\$190.6
 \$176.8

For FY79 Ships:

Previous Cumulative Variances $\frac{1/}{2/}$
 Cumulative Variances To Date $\frac{2/}{2/}$
 Net Change

Cost Variance
 +\$38.4
 +\$38.1
 -\$ 0.3

Schedule Variance
 -\$0.4
 -\$0.2
 +\$0.2

Explanation of Change: The unfavorable change in cost variance is because of an increase in labor and material costs. The favorable change in schedule variance is because of a decrease in overhead costs. Contractor schedule performance is significantly ahead of contract schedule requirements. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For FY80 Ships:

Previous Cumulative Variances $\frac{1/}{2/}$
 Cumulative Variances To Date $\frac{2/}{2/}$
 Net Change

Cost Variance
 +\$26.1
 +\$29.6
 +\$ 3.5

Schedule Variance
 -\$2.4
 -\$0.5
 +\$1.9

Explanation of Change: The favorable change in cost variance is because of a decrease in material and overhead costs. The unfavorable schedule variance decreased because of an improvement in both labor and overhead costs. Contractor schedule performance is significantly ahead of contract schedule requirements. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(2) Follow Ship Construction

Todd Shipyards Corp (Los Angeles
 Division) N00024-79-C-2801, FPIF
 April 27, 1979 (FY79)
 April 28, 1980 (FY80 Option)

Current Contract
Target Qty

PM's Est Price
At Completion

\$244.2 3
 \$ 74.7 1

\$235.5
 \$ 73.1

$\frac{1/}{1/}$ Based on Cost Performance Report data as of March 31, 1984.

Based on Cost Performance Report data as of September 30, 1984.

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FFG 7 Class, December 31, 1984

Contract Information (Cont'd): (Dollars in Millions)

For FY79 Ships:	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances $\frac{1/}{2/}$	+\$1.6	+\$0.2
Cumulative Variances To Date $\frac{2/}{2/}$	+\$1.6	\$--
Net Change	\$--	-\$0.2

Explanation of Change: The unfavorable change in schedule variance is because of unfavorable labor cost, partially offset by favorable material cost. This variance has been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For the FY80 Ship:	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances $\frac{1/}{2/}$	-\$2.6	+\$0.6
Cumulative Variances To Date $\frac{2/}{2/}$	-\$0.6	\$--
Net Change	+\$2.0	-\$0.6

Explanation of Change: The favorable change in cost variance is because of favorable material cost, partially offset by unfavorable labor cost. The change in schedule variance is because of unfavorable labor and material performance. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(3) <u>Follow Ship Construction</u>	<u>Current Contract</u>	<u>PM's Est Price</u>
Todd Shipyards Corp. (Seattle Division)	<u>Target</u> <u>Qty</u>	<u>At Completion</u>
N00024-79-C-2802, FPIF		
April 27, 1979 (FY79)	\$163.7 2	\$159.1
April 28, 1980 (FY80 Option)	\$ 74.7 1	\$ 75.8

For FY79 Ships:	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances $\frac{1/}{2/}$	+\$0.3	\$--
Cumulative Variances To Date $\frac{2/}{2/}$	+\$2.2	\$--
Net Change	+\$1.9	\$--

Explanation of Change: The favorable change in cost variance is because of improved labor and material costs. This variance has been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For the FY80 Ship:	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances $\frac{1/}{2/}$	-\$3.5	-\$2.7
Cumulative Variances To Date $\frac{2/}{2/}$	-\$3.9	-\$2.1
Net Change	-\$0.4	\$--

Based on Cost Performance Report data as of March 31, 1984.
Based on Cost Performance Report data as of September 30, 1984.

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FFG 7 Class, December 31, 1984

Contract Information (Cont'd): (Dollars in Millions)

Explanation of Change: The unfavorable change in cost variance is because of unfavorable material cost. This variance has been taken into consideration in the Program Manager's estimated price at completion and total program costs.

(4) <u>Follow Ship Construction</u> Bath Iron Works Corp. Bath, ME, N00024-81-C-2201, FPIF May 22, 1981 (FY81) March 22, 1982 (FY82) October 28, 1982 (FY83)	Current Contract		PM's Est Price At Completion
	Target	Qty	
	\$260.9	3	\$239.6
	\$175.1	2	\$156.4
	\$ 91.5	1	\$ 84.0
For FY81 Ships:	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances $\frac{1/}{2/}$	+\$13.8		-\$6.9
Cumulative Variances To Date $\frac{2/}{2/}$	+\$16.0		-\$6.6
Net Change	+\$ 2.2		+\$0.3

Explanation of Change: The favorable change in cost variance is because of a decrease in labor, overhead and material costs. The favorable change in schedule variance is because of improved labor performance. Contractor schedule performance is significantly ahead of contract schedule requirements. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For FY82 Ships:	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances $\frac{1/}{2/}$	+\$5.9	-\$0.4
Cumulative Variances To Date $\frac{2/}{2/}$	+\$8.5	-\$1.2
Net Change	+\$2.6	-\$0.8

Explanation of Change: The favorable change in cost variance is because of improved labor, material and overhead costs. The unfavorable change in schedule variance is because of an increase in unfavorable overhead performance, partially offset by a decrease in unfavorable labor performance. However, Contractor's schedule performance is significantly ahead of contract schedule requirements. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For the FY83 Ship:	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances $\frac{1/}{2/}$	+\$1.1	+\$0.3
Cumulative Variances To Date $\frac{2/}{2/}$	+\$1.6	+\$0.8
Net Change	+\$0.5	+\$0.5

Explanation of Change: The favorable change in cost variance is because of improved labor, material and overhead costs. The favorable change in schedule variance is because of improved labor and overhead costs. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

Based on Cost Performance Report data as of March 31, 1984.

Based on Cost Performance Report data as of September 30, 1984.

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FFG 7 Class, December 31, 1984

Contract Information (Cont'd): (Dollars in Millions)

(5) Follow Ship Construction Todd Shipyards Corp. (Los Angeles Division), M00024-81-C-2202, FPIF	Current Contract Target	Qty	PM's Est Price At Completion
May 22, 1981 (FY81)	\$202.0	2	\$193.3
March 22, 1982 (FY82)	\$ 96.5	1	\$ 95.5
October 28, 1982 (FY83)	\$ 97.8	1	\$ 97.0
November 28, 1984 (FY84)	\$ 96.1	1	\$ 96.1

For FY81 Ships:	Cost Variance	Schedule Variance
Previous Cumulative Variances $\frac{1/}{2/}$	+\$2.6	-\$3.7
Cumulative Variances To Date $\frac{1/}{2/}$	+\$0.9	-\$2.7
Net Change	-\$1.7	+\$1.0

Explanation of Change: The unfavorable change in cost variance is because of unfavorable labor cost, partially offset by favorable material cost. The change in schedule variance is because of improved labor performance, partially offset by unfavorable material performance. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For the FY82 Ship:	Cost Variance	Schedule Variance
Previous Cumulative Variances $\frac{1/}{2/}$	-\$0.1	+\$0.2
Cumulative Variances To Date $\frac{1/}{2/}$	-\$1.8	-\$2.1
Net Change	-\$1.7	-\$2.3

Explanation of Change: The unfavorable change in both cost and schedule variance is because of unfavorable labor and material costs. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For the FY83 Ship:	Cost Variance	Schedule Variance
Previous Cumulative Variances $\frac{1/}{2/}$	-\$0.7	+\$1.0
Cumulative Variances To Date $\frac{1/}{2/}$	-\$1.2	+\$0.3
Net Change	-\$0.5	-\$0.7

Explanation of Change: The unfavorable change in both cost and schedule variance is because of unfavorable material cost, partially offset by favorable labor cost. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

For the FY84 Ship:	Cost Variance	Schedule Variance
Previous Cumulative Variances	\$--	\$--
Cumulative Variances To Date	\$--	\$--
Net Change	\$--	\$--

Based on Cost Performance Report data as of March 31, 1984.

Based on Cost Performance Report data as of September 30, 1984.

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FPG 7 Class, December 31, 1984

12. Contract Information (Cont'd): (Dollars in Millions)

(6) Follow Ship Construction
Todd Shipyards Corp. (Seattle
Division), N00024-81-C-2203, FPIF
May 22, 1981 (FY81)

Current Contract
Target Qty

PM's Est Price
At Completion

\$100.7 1

\$99.9

Previous Cumulative Variances ^{1/}
Cumulative Variances To Date ^{2/}
Net Change

Cost Variance
-\$2.6
-\$2.2
+\$0.4

Schedule Variance
-\$7.6
-\$7.3
+\$0.3

Explanation of Change: The favorable change in cost variance is because of favorable labor and material costs. The favorable change in schedule variance is because of favorable labor performance, partially offset by unfavorable material performance. These variances have been taken into consideration in the Program Manager's estimated price at completion and total program costs.

^{1/} Based on Cost Performance Report data as of March 31, 1984.

^{2/} Based on Cost Performance Report data as of September 30, 1984.

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N-16 FFG7

1. Program Funding System:
SYSTEM: FFG 7 CLASSAS OF DATE: December 31, 1984
BASE YEAR: FY 1973CURRENT ESTIMATE
(\$ in Millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION ^{1/} RATE (%)
		ADV PROC (NON-ADD)	SATLAWAY (NON -ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&E, N									
1971	--	--	--	--	1.2	1.1	1.1	1.1	5.1
1972	--	--	--	--	11.6	11.4	11.4	11.4	4.6
1973	--	--	--	--	1.4	1.5	1.5	1.5	4.4
1974	--	--	--	--	--	--	--	--	7.8
1975	--	--	--	--	--	--	--	--	10.9
1976	--	--	--	--	0.1	0.1	0.1	0.1	6.6
1977	--	--	--	--	--	--	--	--	2.9
1977	--	--	--	--	0.7	1.0	1.0	1.0	2.6
1978	--	--	--	--	1.0	1.5	1.5	1.4	6.8
1979	--	--	--	--	2.4	4.0	4.0	3.8	8.4
1980	--	--	--	--	1.3	2.4	2.4	2.3	10.6
TOTAL	--	--	--	--	19.7	23.0	23.0	22.4	

APPROPRIATION: RDT&E, N

APPROPRIATION: SCN									
1973	1	--	--	152.6	152.6	204.6	204.6	202.6	5.3
1974	-	--	--	7.4	7.4	11.0	11.0	11.0	9.0
1975	3	--	--	115.8	115.8	189.2	189.2	186.3	14.1
1976	6	--	--	470.3	470.3	828.3	827.8	810.6	11.5
1977	-	--	--	0.2	0.2	0.4	0.4	0.4	2.0
1977	8	16.5	--	567.1	567.1	1,108.8	1,099.5	1,080.6	6.2
1978	8	22.0	--	534.2	534.2	1,143.0	1,128.1	1,100.8	8.2
1979	8	--	--	706.3	706.3	1,550.3	1,456.7	1,354.2	9.6
1980	5	--	--	414.3	426.2	1,018.5	916.3	828.9	9.8
1981	6	--	--	588.3	601.9	1,502.6	1,240.7	1,011.9	9.6
1982	3	--	--	332.6	357.6	934.8	647.8	458.8	7.5
1983	2	--	--	274.7	274.7	754.5	464.5	213.9	3.8
1984	1	--	--	152.6	152.6	440.4	190.3	26.4	3.6
1985	-	--	--	17.9	17.9	54.2	2.9	0.3	4.8
1986	-	--	--	7.2	7.2	22.8	--	--	5.7
1987	-	--	--	2.9	2.9	9.7	--	--	5.5
1988	-	--	--	2.2	2.2	7.6	--	--	5.2
1989	-	--	--	0.1	0.1	0.5	--	--	4.8
TOTAL	51	38.5	SEP 6 1985	4,245.7	4,397.2	9,781.2	8,379.8	7,283.7	

APPROPRIATION: MILCON

TOTAL	-	--	--	--	--	--	--	--	
-------	---	----	----	----	----	----	----	----	--

^{1/} Since the annual rates shown do not incorporate spend-out rates nor the compounding effect of prior year's escalation, they cannot be used to track the inflation amounts shown for applicable years.

RANDOLPH

85 1647

2. Deliveries
SYSTEM: FFG 7 Class

As of Date: December 31, 1984

Deliveries (Planned/Actual)

	<u>To Date</u>
R&D	-/-
Procurement	41/41

3. Program Acquisition Costs
SYSTEM: FFG 7 Class

As of Date: December 31, 1984
Base Year : FY 73

(Dollars in Millions)

a. Program Acquisition Cost	(1) Development Estimate (FY 71-84)	(2) <u>Changes</u>	(3) Current Estimate (FY 71-89)
1. Cost			
Development	14.1	+5.6	19.7
Procurement	2,606.3	+1,790.9	4,397.2
Basic Ship Costs	(1,557.5)	(+847.8)	(2,405.3)
Gov't Furnished Eqmt Costs	(860.2)	(+839.9)	(1,700.1)
Other Costs	(17.6)	(+89.7)	(107.3)
Total Production	(2,435.3)	(+1,777.4)	(4,212.7)
Outfitting & Post Delivery	(171.0)	(+13.5)	(184.5)
Construction	--	--	--
Total: Constant FY73 \$	<u>2,620.4</u>	<u>+1,796.5</u>	<u>4,416.9</u>
Escalation	624.1	+4,763.2	5,387.3
Development	--	(+3.3)	(3.3)
Procurement	(624.1)	(+4,759.9)	(5,384.0)
Construction	--	--	--
Total Program Cost	<u>3,244.5</u>	<u>+6,559.7</u>	<u>9,804.2</u>

b. Foreign Military Sales:

Four ships have been acquired by Australia; two in FY 75/76 buy, one in FY 78 and one in FY 80 at a current total value of \$759.7 excluding FMS administrative cost. There are two In Country Support cases in support of the four RAN FFGs with a current value of \$73.6 excluding FMS administrative cost. Australia is constructing two FFGs in Australia under auspices of the Australian Frigate (AF) Project. There is a FMS Case to provide material, documentation and services to support the AF Project which totals \$265.3, excluding the FMS administrative cost.

c. Nuclear Costs: None

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4. Contract Information
SYSTEM: FFG 7 Class
(Dollars in Millions)

AS OF DATE: December 31, 1984

CONTRACTOR COSTS 1/	(1)			(2)			(3)
	<u>Initial Contract Price</u>			<u>Current Contract Price 2/</u>			<u>Price At Completion 2/</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor Estimate</u>
1. <u>DEVELOPMENT</u>							
2. <u>PROCUREMENT</u>							
(a) Follow Ship Construction Bath Iron Works Corporation Bath, Maine N00024-79-C-2800 (FPIF)(Definitized)							
April 27, 1979	209.9	230.0	3	222.8	243.0	3	190.6
April 28, 1980 3/	195.4	214.1	3	204.9	223.6	3	176.8
(b) Follow Ship Construction Todd Shipyards Corporation (Los Angeles Division) N00024-79-C-2801 (FPIF)(Definitized)							
April 27, 1979	214.4	241.5	3	244.2	274.4	3	235.5
April 28, 1980 3/	66.3	75.3	1	74.7	84.5	1	73.1
(c) Follow Ship Construction Todd Shipyards Corporation (Seattle Division) N00024-79-C-2802 (FPIF)(Definitized)							
April 27, 1979	144.2	162.4	2	163.7	182.3	2	159.1
April 28, 1980 3/	68.2	75.4	1	74.7	83.1	1	75.8

1/ Values exclude escalation and Government reservation for changes.

2/ Based on Cost Performance Report data as of September 30, 1984.

3/ Reflects exercise of options.

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Contract Information
SYSTEM: FFG 7 Class
(Dollars in Millions)

AS OF DATE: December 31, 1984

	(1)			(2)			(3)
	Initial Contract Price			Current Contract Price 2/			Price At Completion 2/ Contractor
2. <u>PROCUREMENT</u> (cont'd) 1/	Target	Ceiling	Qty	Target	Ceiling	Qty	Estimate
(d) Follow Ship Construction Bath Iron Works Corporation Bath, Maine N00024-81-C-2201 (FPIF)(Definitized)							
May 22, 1981	247.0	270.1	3	260.9	284.9	3	239.6
March 22, 1982 3/	169.8	185.5	2	175.1	191.1	2	156.4
October 28, 1982 3/	89.3	97.5	1	91.5	99.7	1	84.0
(e) Follow Ship Construction Todd Shipyards Corporation (Los Angeles Division) N00024-81-C-2202 (FPIF)(Definitized)							
May 22, 1981	181.9	205.5	2	202.0	228.5	2	192.1
March 22, 1982 3/	88.0	97.3	1	96.5	107.0	1	94.8
October 28, 1982 3/	89.9	99.3	1	97.8	108.4	1	95.4
November 28, 1984 3/	96.1	106.3	1	96.1	106.3	1	96.1
(f) Follow Ship Construction Todd Shipyards Corporation (Seattle Division) N00024-81-C-2203 (FPIF)(Definitized)							
May 22, 1981	93.6	106.2	1	100.7	114.4	1	99.9

3. CONSTRUCTION

1/ Values exclude escalation and Government reservation for changes.

2/ Based on Cost Performance Report data as of September 30, 1984.

3/ Reflects exercise of options.

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SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)8234)

PROGRAM: BRADLEY FIGHTING VEHICLE SYSTEMS (BFVS)

A15 BFVS

AS OF DATE: December 31, 1984

INDEX

84-038

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Program Acquisition Unit Cost History	10
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1. (U) Designated/Nomenclature (Popular Name): Bradley Infantry Fighting Vehicle (IFV), M2, Bradley Cavalry Fighting Vehicle (CFV), M3 (Bradley Fighting Vehicles)

2. (U) DoD Component: Department of Army

3. (U) Responsible Office and Telephone Number:

PM, Bradley Fighting Vehicle
(Provisional)
US Army Tank Automotive Command
Warren, MI 48090

Acting PM: COL Gordon G. Corcoran
Assigned: 31 Aug 84
AUTOVON 786-5909

4. (U) Program Elements:

RDTE:	<u>DA Project</u>
6.46.16.A	1X4646 16D258
	1X4646 16D258
6.46.17.A	1X4646 17D340
PROCUREMENT:	<u>SSN</u>
21X2033	G80702
	G21100

<u>Title</u>
Infantry Fighting Vehicle (IFV) M2
Cavalry Fighting Vehicle (CFV) M3
25mm Gun, Ammo & Fuze
Procurement of Weapons & Tracked
Combat Vehicles

Classified by: [redacted] SEC MSR 03783004
Declassify on: OADR

DECLASSIFIED WHEN SEPARATED FROM CLASSIFIED ENCLOSURE

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Concur in Classification as of
2 APR 1985
<i>[Signature]</i>
SECURITY REVIEW, OACSI, HQDA

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5. (U) Program Highlights (Since Last Report):

The Bradley vehicles maintained scheduled production rates throughout CY84, but the shortage of integrated sight units, as a result of management problems at HAC, has caused some vehicles to be delivered without sights. HAC has exceeded the recovery schedule and expects to be back on schedule by Oct 85.

Fielding of the 3rd Infantry Division in USAREUR was completed, except for the divisional cavalry squadron scheduled for Jan 85. Operational readiness for both CONUS (88%) and OCONUS (94%) remain high.

The BFVS block 1 modification program primarily continued application of the TOW 2 subsystem (T2SS). The T2SS and four other improvements make up the M2E1/M3E1 configuration. E1 configuration vehicles were subjected to government tests beginning in May 84 at Redstone Arsenal and in Sep 84 at Aberdeen Proving Ground. A special DA IPR has been directed to consider the production decision.

Fourth-year-buy vehicles began a Production Reliability Verification Test in Jul 84. The initial result of this test is an increase in vehicle mean miles between combat mission failures to 460, as compared to the user requirement of 240 miles and 419 miles at Initial Production Testing (IPT).

The BFVS program Value Engineering savings goal for FY84 was \$1.5 million (four VEPs and 15 VECs). Nineteen proposals were approved, saving the government more than \$15 million. This cost avoidance is reflected in FY85-91 program estimates.

Multiyear contracts for the transmission and turret drive (GE) and TOW subsystems were definitized in FY84, with total cost avoidance exceeding \$106 million.

The Bradley Fighting Vehicle System meets and exceeds the critical mission requirements.

	<u>Development Estimate</u>	<u>Current Estimate</u>
6. (U) <u>Schedule</u>		
a. <u>Milestones</u>		
(1) Concept Formulation Complete	Apr 72	Apr 72
(2) Engineering Development Contract Awarded	Nov 72	Nov 76
(3) Prototype Qualification Test - Contractor (PQT-C)		
Start	N/A	Dec 78
Complete	N/A	Jun 79
(4) Development Test II (PQT-G)		
Start	Dec 74	Jun 79
Complete	Nov 75	Jun 80

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6. (U) Schedule (Cont'd.)

	<u>Development Estimate</u>	<u>Current Estimate</u>
(5) Operational Test II (IFV)		
Start	N/A	Oct 79
Complete	N/A	Nov 79
(6) ASARC/DSARC III	N/A	Dec 79/ Jan 80
(7) First Production Contract Award	Oct 76	Feb 80
(8) Production (1st Delivery)	Oct 77	May 81
(9) Development Test III (FVT-G)		
Start	Oct 77	N/A
Complete	Jun 78	N/A
(10) Initial Production Testing		
Start	N/A	Jun 82
Complete	N/A	May 83
(11) Type Classification Standard		
IFV	Aug 78	Dec 79
CFV	Aug 78	Dec 79
(12) Initial Operational Capability (IOC)	Aug 78	Dec 83 (Ch-1)

b. Explanation of Changes:

Ch-1: IOC from "to be determined" to Dec 83. The Army has changed the responsibility for declaring IOC to the commander of the applicable operational command. Forces Command determined that the BFVS IOC occurred on 15 Dec 83.

c. References: Development Concept Paper (DCP) No. 30, Apr 72, with Cover Sheet Revision Sep 72.

7. ~~(S)~~ Technical/Operational Characteristics:

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
a. (S) <u>Technical</u>			
(1) (U) -Weight (Combat loaded) - lbs.	35-38,000	49,987	50,000
(2) (S) <u>Armor Protection @ 300M</u>	(b)(1)		
(a) () Frontal			
(b) () Side			
(c) () Rear			
b. (S) <u>Operational</u>			
(1) (S) <u>Firepower</u>			
<u>25mm Gun</u>	(b)(1)		
(a) (S) <u>Stabilization Accuracy on a</u>			
<u>4 Mil. Target (% of Time Target</u>			

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7. ~~(S)~~ Technical/Operational Characteristics: (Cont'd.)

	Development	Demonstrated	Current
(b) (S) Single Shot Accuracy to 1,000M (rd. to rd. std. dev.) (Stat) (Mils.) (AP)	(b)(1)		
(c) (S) Dispersion:			
(S) HE (Mils.) (500 rds/min)			
(S) AP (Mils.) (100 rds/min)			
(U) Receiver Life (rds.)	25,000	30,000	30,000
(U) Barrel Life (rds.)	3,750	13,000	13,000
<u>TOW</u>			
(a) (S) Hit Prob Moving Targets 500-3,000M	N/A	(b)(1)	
(b) (S) Hit Prob. Stat. Targets:			
(S) 500-2,000 Meters	N/A		
(S) 2,000-3,000 Meters	N/A		
(2) (U) Reliability			
(a) (U) System Completing 50 mi. Mission w/o Failure (MMBF)	330	419	460 (Ch-1)
(b) (U) 25mm Gun (MRBS)	2,000	9,021	9,021
(3) (U) Maximum Speed (MPH)			
(a) (U) Land	40-45	43.4	43.4
(b) (U) Water	3.6	4.4	4.4
(4) (U) Acceleration 0-30 (MPH) (sec)	18-22	17.1	17.1
(5) (U) Ground Pressure (p.s.i.)	7.0	7.8	7.8 (50K lbs)
(6) (U) Maintenance Ratio (Manhours/Oper. Hours)	.60	.40	.60

c. (U) Explanation of Changes: Ch-1: Vehicle Reliability or MMBF current estimate changed from 325 to 460, based on ongoing Production Reliability Verification Test (PRVT).

d. (U) References:

(1) Development Concept Paper (DCP) No. 30, Apr 72, with Cover Sheet Revision.

(2) Materiel Need for the Infantry Fighting Vehicle/Cavalry Fighting Vehicle, 2 Mar 78; with Change 1, 28 Apr 78; and update 25 Jul 79.

(3) Secretary of Defense Decision Memorandum (SDDM), 1 Feb 80.

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8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1972 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	---------------------------	------------------------

Appropriation: RDT&E

Current & Prior Years	21	309.7	519.5	N/A
Budget Year (1986)	-	.8	2.2	4.4
Balance of FYDP	-	-	-	-
Subtotal	21	310.5	521.7	N/A

Appropriation: Procurement - Vehicle

Current & Prior Years	2955	1445.1	4255.9	N/A
Budget Year (1986)	716	293.6	1034.6	5.7
Balance of FYDP	3211	1162.5	4568.3	N/A
(1987)	(870)	(334.6)	(1237.9)	5.5
(1988)	(880)	(327.9)	(1269.1)	5.2
(1989)	(900)	(311.4)	(1261.3)	4.8
(1990)	(561)	(188.6)	(800.0)	4.4
Balance to Complete	-	-	-	N/A
Subtotal	6882	2901.2	9858.8	N/A

Appropriation: Procurement - Firing Port Weapon

Current & Prior Yrs	25000*	8.8	23.3	N/A
Budget Year (1986)	-	-	-	N/A
Balance of FYDP	-	-	-	N/A
Subtotal	25000*	8.8	23.3	N/A

Appropriation: Procurement - 25mm Gun

Current & Prior Years	3362*	68.0	195.7	N/A
Budget Year (1986)	715*	15.4	53.9	5.7
Balance of FYDP	3117*	44.2	174.4	N/A
(1987)	(870)	(15.8)	(58.6)	5.5
(1988)	(900)	(12.6)	(49.5)	5.2
(1989)	(920)	(11.0)	(45.1)	4.8
(1990)	(427)	(4.8)	(21.2)	4.4
Balance to Complete	-	-	-	N/A
Subtotal	7194*	127.6	424.0	N/A

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8. (U) Program Acquisition Cost (Current Estimate in Millions of Dollars) Cont'd

Fiscal Year Period	Quantity	FY 1972 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	---------------------------	------------------------

Appropriation: Procurement - Spares

Current & Prior Years	N/A	99.1	293.8	N/A
Budget Year (1986)	N/A	8.7	30.5	5.7
Balance of FYDP	-	30.8	120.8	N/A
(1987)	-	(9.6)	(35.6)	5.5
(1988)	-	(8.7)	(33.7)	5.2
(1989)	-	(8.2)	(33.3)	4.8
(1990)	-	(4.3)	(18.2)	4.4
Balance to Complete	N/A	-	-	N/A
Subtotal	N/A	138.6	445.1	N/A

Appropriation: Procurement - Total

Current & Prior Years	2955	1621.0	4768.7	N/A
Budget Year (1986)	716	317.7	1119.0	5.7
Balance of FYDP	3211	1237.5	4863.5	N/A
(1987)	(870)	(360.0)	(1332.1)	5.5
(1988)	(880)	(349.2)	(1352.3)	5.2
(1989)	(900)	(330.6)	(1339.7)	4.8
(1990)	(561)	(197.7)	(839.4)	4.4
Balance to Complete	-	-	-	N/A
Subtotal	6882**	3176.2	10751.2	N/A

Appropriation: MILCON

Current & Prior Years	-	14.9	39.6	N/A
Budget Year (1986)	-	-	-	-
Balance of FYDP	-	-	-	-
Subtotal	-	14.9	39.6	N/A
Total	6903	3501.6	11312.5	N/A

* Non-add to quantity totals.

** Reflects vehicle quantity only.

Program Status --

(1) Percent Program Completed: 80.8% (21/26)

(2) Percent Program Cost Appropriated: 47.1% (\$5327.8/\$11312.5)

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BFVS, December 31, 1984

9. (U) Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	<u>Current Year</u> SAR Current Estimate	<u>UCR Baseline</u> Estimate	<u>Budget Year</u> UCR Baseline Estimate
a. Program Acquisition			
(1) Cost	11312.5	11322.1	11312.5
(2) Quantity	6903	6903	6903
(3) Unit Cost	1.639	1.640	1.639
b. Current Procurement (FY 1985) (FY 1985) (FY 1986)			
(1) Cost	1062.7	1176.9	1119.0
Less CY Adv Proc	24.9	67.1	35.9
Plus FY Adv Proc	29.8 6	29.6	17.6
Net Total	1067.4	1139.4	1100.7
(2) Quantity	655	710	716
(3) Unit Cost	1.630	1.605	1.537

10. (U) Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	122.1	314.8	-	436.9
Previous Changes:				
Economic	-.3	+101.9	-.3	+101.3
Quantity	+18.0	+2648.1	-	+2666.1
Schedule	+22.1	+515.8	-	+537.9
Engineering	+171.0	+914.5	-	+1085.5
Estimating	+40.6	+5403.3	+36.6	+5480.5
Other	+17.9	-	-	+17.9
Support	+135.6	+860.4	-	+996.0
Subtotal	+404.9	+10444.0	+36.3	+10885.2
Current Changes:				
Economic	-.8	+51.7	-1.0	+49.9
Quantity	-	-	-	-
Schedule	-	+75.3	-	+75.3
Engineering	-4.1	+81.6	-	+77.5
Estimating	-.4	-380.8	+4.3	-376.9
Other	-	-	-	-
Support	-	+164.6	-	+164.6

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BFVS, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd.)

	RDT&E	PROC	MILCON	TOTAL
Subtotal	-5.3	-7.6	+3.3	-9.6
Total Changes	+399.6	+10436.4	+39.6	+10875.6
Current Estimate	521.7	10751.2	39.6	11312.5

(FY 1972 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	98.3	227.3	-	325.6
Previous Changes:				
Quantity	+11.1	+905.8	-	+916.9
Schedule	+13.8	+59.4	-	+73.2
Engineering	+84.4	+303.6	-	+388.0
Estimating	+29.4	+1459.9	+13.0	+1502.3
Other	+11.0	-	-	+11.0
Support	+65.1	+267.6	-	+332.7
Subtotal	+214.8	+2996.3	+13.0	+3224.1
Current Changes:				
Quantity	-	-	-	-
Schedule	-	-	-	-
Engineering	-2.3	+21.5	-	+19.2
Estimating	-.3	-112.3	+1.9	-110.7
Other	-	-	-	-
Support	-	+43.4	-	+43.4
Subtotal	-2.6	-47.4	+1.9	-48.1
Total Changes	+212.2	+2948.9	+14.9	+3176.0
Current Estimate	310.5	3176.2	14.9	3501.6

b. Current Change Explanations -

(Dollars in Millions)
Base Year \$ Then Year \$

(1) RDT&E

Revised Jan 85 economic escalation rates
(Economic)

0 - .8

DA/AMC Decision not to develop TOW 2
Subsystem retrofit kit (Engineering)

-2.3 -4.1

Contracts negotiated less than estimated
(Estimating)

- .3 - .4

Total RDT&E Change

-2.6 -5.3

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BFVS, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd.)

(Dollars in Millions)

Base Year \$ Then Year \$

(2) Procurement

Revised Jan 85 economic escalation rates.
(Economic)

N/A +51.7

Reschedule of production rate due to program
build-up in later years, Vehicle (+72.1), 25mm
Gun (+3.2) (Schedule)

0 +75.3

Increase due to addition of planned approved
product improvements to end of program (CFV
mods, restowage, optical improvements,
(Engineering)

+21.5 +81.6

Changes to Vehicle, 25mm Gun, and FPW
estimates based on latest contractual data and
revised estimates (Estimating)

-112.3 -380.8

Increase due to change in initial spares
definition (+147.3), which requires procure-
ment of spares throughout vehicle procurement;
revised TMDE and peculiar support equipment
due to new fielding plan and Basis of Issue
requirement change (+13.4); additional
classroom spares (+3.9)
(Support)

+43.4 +164.6

Total Procurement Change

-47.4 -7.6

(3) Military Construction

Revised Jan 85 economic escalation
rates (Economic)

N/A -1.0

Net adjustment to include Bradley Unique
Sites (Estimating)

+1.9 +4.3

Total Construction Cost Change

+1.9 +3.3

c. (U) References:

(1) Development Concept Paper (DCP) No. 30, Apr 72, with Cover Sheet

(2) Secretary of Defense Decision Memorandum (SDDM), 1 Feb 80.

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BFVS, December 31, 1984

12. (U) Contract Information: (Dollars in Millions) (Cont'd.)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$+.8	\$-.6
Cumulative Variances to Date (10/84)	\$+10.3	\$-6.2
Net Change	\$ 9.5	\$-5.6

Explanation of Change: From Dec 83 to Oct 84 favorable cost variance has increased principally in vehicle integration and burden accounts mostly due to delays in reporting material actuals. Low value material cost was planned against an inaccurate price file and some low value material cost must be reallocated back to the contract. "Other material" actual costs are understated because those costs are unverified. Labor burden costs are favorable due to underruns in labor usage. Unfavorable schedule variance has increased mostly in material for the hull/frame, suspension, power pack and auxiliary automotive systems due to credit not taken for manufacturing order parts until work orders are closed and due to work orders not completed as scheduled because fewer vehicles completed key stations than planned. The schedule variance is insignificant because deliveries are on schedule through Dec 84, and a contract cost underrun is forecasted.

<u>Vehicle</u>	<u>Current Contract</u> <u>Target Price</u>	<u>Qty</u>	<u>PMs Est Price</u> <u>at Completion</u>
c. FMC Corp., San Jose, CA, DAAE07-84-C-A005 IFV, CFV, & MLRS Production, FPE Awarded 9 May 84, Definitized	\$294.3	678	(b)(4)
-A005, less MLRS	\$267.7	600	

<u>TOW Subsystems</u>	<u>Current Contract</u> <u>Target Price</u>	<u>Qty</u>	<u>PMs Est Price</u> <u>at Completion</u>
d. HAC, El Segundo, CA DAAE07-82-G-2010, D.O. #2000, TOW Subsystems, FFP, Awarded 21 May 82, Definitized on 2 Mar 84	\$249.7	1200	\$249.7

<u>Transmissions</u>	<u>Current Contract</u> <u>Target Price</u>	<u>Qty</u>	<u>PMs Est Price</u> <u>at Completion</u>
e. GEOS, Pittsfield, MA DAAE07-83-G-A054, Transmission Production (FY83/4/5/Multiyear), FFP, awarded 15 Nov 82, Definitized on 31 Jul 84	\$210.9	2114	(b)(4)

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BFVS, December 31, 1984

12. (U) Contract Information: (Dollars in Millions) (Cont'd.)

	Current Contract <u>Target Price</u>	<u>Qty</u>	<u>PMs Est Price at Completion</u>
<u>Turret Drive System</u>			
f. GEOS, Pittsfield, MA			
DAAE07-82-G-5805, D.O. #0001,			
Turret Drive Sys. Production (FY83/4			
multiyear), FFP, awarded 21 Aug 82,			
Definitized on 7 Dec 84	\$93.5	1202	(b)(4)

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DELIVERIES (PLAN/ACTUAL)

84-039

SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3

As of Date: December 31, 1984

(U) Deliveries (Plan/Actual)

R&D

MICV	13/13
IFV	7/7
CFV	1/1
25mm Weapon	40/40

Procurement

IFV	858/860
CFV	626/625
25mm Weapon	1954/1949

Variance Analysis:

Vehicle deliveries are ahead of schedule. 25mm Weapon deliveries are behind schedule due to part shortages at Hughes Helicopter, Inc.

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SEP 9 1985 23

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

OASD(PA) STC/STC

85-1686

No SECURITY Objection FOR RELEASE
29 AUG 1985
George Brownell SECURITY REVIEW, OASD, HQDA

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Program Acquisition Costs
System: Bradley Fighting Vehicle Systems, M2/M3

As of Date: December 31, 1984
Base Year: FY72

(Dollars in Millions)

a. (U) Program Acquisition Cost

	(1) Development Estimate (FY66-FY90)	(2) Changes	(3) Current Estimate (FY66-FY90)
Development	98.3	+212.2	310.5
Vehicles	(34.3)	(+207.3)	(241.6)
25mm Weapon/Ammo	(64.0)	(+4.9)	(68.9)
Procurement	227.3	+2948.9	3176.2
IFV/CFV	(170.6)	(+2730.6)	(2901.2)
FPW	(N/A)	(+8.8)	(8.8)
25mm Wpn	(54.2)	(+73.4)	(127.6)
Initial Spares	(2.5)	(+136.1)	(138.6)
Military Construction	N/A	+14.9	14.9
Total: Constant FY72 \$	325.6	+3176.0	3501.6
Escalation	111.3	+7699.6	7810.9
Development	(23.8)	(+187.4)	(211.2)
Procurement	(87.5)	(+7487.5)	(7575.0)
Construction	(N/A)	(+24.7)	(24.7)
Total Program Cost	436.9	+10875.6	11312.5

b. Foreign Military Sales. None

c. Nuclear Costs. None

d. Costs Excluded from Program Estimate. 25mm ammunition procurement costs are excluded, since these costs are not system specific.

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UNCLASSIFIED**PROGRAM FUNDING SUMMARY**

SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3

AS OF DATE: 31 December 1984

BASE YEAR: FY1972

CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E

FY66					1.5	1.2	1.2	1.2	3.0
FY67					6.5	5.3	5.3	5.3	3.2
FY68					2.8	2.4	2.4	2.4	3.6
FY69					5.4	4.8	4.8	4.8	4.7
FY70					1.9	1.8	1.8	1.8	5.5
FY71					5.3	5.2	5.2	5.2	5.1
FY72					2.1	2.2	2.2	2.2	4.6
FY73					9.2	10.1	10.1	10.1	4.3
FY74	3				16.9	20.1	20.1	20.1	8.0
FY75	3				12.9	16.6	16.6	16.6	10.9
FY76	7				24.2	32.8	32.8	32.8	6.6
FY7T					5.8	8.2	8.2	8.2	2.9
FY77					39.5	57.5	57.5	57.5	2.6
FY78	8				31.8	49.9	49.9	49.9	6.8
FY79					25.3	43.5	43.5	43.5	8.4
FY80					20.4	38.7	38.7	38.7	10.6
FY81					20.1	41.6	41.5	40.1	10.6
FY82					41.1	90.5	89.4	80.5	7.6
FY83					21.1	48.6	48.5	36.5	4.9
FY84					11.1	26.5	17.0	6.7	3.8
FY85					4.8	12.0	.7	.1	3.7
FY86					.8	2.2	0	0	4.4
TOTAL	21				310.5	521.7	497.4	464.2	

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UNCLASSIFIED**PROGRAM FUNDING SUMMARY****SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3**AS OF DATE: 31 December 1984
BASE YEAR: FY1972CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: PROCUREMENT

VEHICLE									
FY69			.5		.5	.4	.4	.4	2.7
FY79			16.2	2.6	18.8	39.2	39.2	39.2	9.0
FY80	100		13.7	83.3	101.2	236.4	231.8	231.2	11.8
FY81	400		9.9	207.1	239.4	627.7	611.6	596.6	11.6
FY82	600	21.0	1.3	248.6	287.7	807.7	798.0	756.8	14.3
FY83	600	16.4		254.0	261.7	790.9	707.1	445.0	9.0
FY84	600	9.3	17.0	220.2	248.7	791.3	682.1	41.2	8.0
FY85	655	7.4	8.5	263.0	287.1	962.3	57.6	0	4.8
FY86	716	7.8	.4	270.8	293.6	1034.6	0	0	5.7
FY87	870	18.1	.4	303.9	334.6	1237.9	0	0	5.5
FY88	880	18.2		304.0	327.9	1269.1	0	0	5.2
FY89	900	8.3		303.0	311.4	1261.3	0	0	4.8
FY90	561			188.6	188.6	800.0	0	0	4.4
TOTAL	6882	106.5	67.9	2649.1	2901.2	9858.8	3127.8	2110.4	

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UNCLASSIFIED**PROGRAM FUNDING SUMMARY****SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3**AS OF DATE: 31 December 1984
BASE YEAR: FY1972**CURRENT ESTIMATE**
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: PROCUREMENT

<u>FIRING PORT WEAPON</u>									
FY80	1600		1.1	1.3	2.4	5.5	5.5	5.0	11.8
FY81	4000		.2	1.7	1.9	5.1	5.1	4.7	11.6
FY82	19400		.1	4.4	4.5	12.7	12.7	9.9	14.3
TOTAL	25000		1.4	7.4	8.8	23.3	23.3	19.6	
<u>GUN</u>									
FY80	310		2.7	11.3	14.0	32.6	31.6	30.8	11.8
FY81	480			8.0	8.0	21.0	19.7	19.3	11.6
FY82	720			10.3	10.3	28.8	27.3	25.0	14.3
FY83	532		1.7	8.8	10.5	31.6	29.8	21.9	9.0
FY84	630			13.2	13.2	41.7	29.9	4.5	8.0
FY85	690			12.0	12.0	40.0	31.1	0	4.8
FY86	715	2.4	1.4	14.0	15.4	53.9	0	0	5.7
FY87	870	3.0		15.8	15.8	58.6	0	0	5.5
FY88	900	2.6		12.6	12.6	49.5	0	0	5.2
FY89	920	.9		11.0	11.0	45.1	0	0	4.8
FY90	427			4.8	4.8	21.2	0	0	4.4
TOTAL	7194	8.9	5.8	121.8	127.6	424.0	169.4	101.5	

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UNCLASSIFIED**PROGRAM FUNDING SUMMARY**

SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3

AS OF DATE: 31 December 1984
BASE YEAR: FY1972CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	^{1/}	^{1/}	
			NON-REC	REC			OBLIGATED	EXPENDED	

APPROPRIATION: PROCUREMENT

<u>SPARES</u>								
FY80					3.5	8.1		11.8
FY81					17.1	44.7		11.6
FY82					20.0	56.0		14.3
FY83					21.7	65.4		9.0
FY84					18.7	59.2		8.0
FY85					18.1	60.4		4.8
FY86					8.7	30.5		5.7
FY87					9.6	35.6		5.5
FY88					8.7	33.7		5.2
FY89					8.2	33.3		4.8
FY90					4.3	18.2		4.4
TOTAL					138.6	445.1		
^{1/} Obligations and expenditures for system initial spares are not currently available to the reporting PM, inasmuch as funds are allocated direct to supporting MSCs.								

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UNCLASSIFIED**PROGRAM FUNDING SUMMARY**

SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3

AS OF DATE: 31 December 1984
BASE YEAR: FY1972CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: PROCUREMENT - TOTAL

FY69			.5		.5	.4			2.7
FY79			16.2	2.6	18.8	39.2			9.0
FY80	100		17.5	95.9	121.1	282.6			11.8
FY81	400		10.1	216.8	266.4	698.5			11.6
FY82	600	21.0	1.4	263.3	322.5	905.2			14.3
FY83	600	16.4	1.7	262.8	293.9	887.9			9.0
FY84	600	9.3	17.0	233.4	280.6	892.2			8.0
FY85	655	7.4	8.5	275.0	317.2	1062.7			4.8
FY86	716	10.2	1.8	284.8	317.7	1119.0			5.7
FY87	870	21.1	.4	319.7	360.0	1332.1			5.5
FY88	880	20.8		316.6	349.2	1352.3			5.2
FY89	900	9.2		314.0	330.6	1339.7			4.8
FY90	561			193.4	197.7	839.4			4.4
TOTAL	6882	115.4	75.1	2778.3	3176.2	10751.2			

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UNCLASSIFIED**PROGRAM FUNDING SUMMARY**

SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3

AS OF DATE: 31 December 1984
BASE YEAR: FY1972CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: CONSTRUCTION

FY82					1.9	4.7			7.6
FY83					3.7	9.4			4.9
FY84					3.0	7.9			3.8
FY85					6.3	17.6			3.7
TOTAL					14.9	39.6			

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CONTRACT INFORMATION 1/
SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3
(Dollars in Millions)

REPORT AS OF: DECEMBER 31, 1984

(U)	CONTRACTOR COST	INITIAL CONTRACT		PRICE QTY	CURRENT CONTRACT		PRICE QTY	PRICE AT COMPLETION CONTRACTOR ESTIMATE
		TARGET	CEILING		TARGET	CEILING		
<u>PRODUCTION</u>								
a. FMC Corp., San Jose, CA, DAAE07-82-C-0001, IFV/CFV, & MLRS Production, FPIF, awarded 9 Apr 82, definitized								
	9 Apr 82	605.1	715.4	668	635.0	748.4	668	627.8
	-0001, less MLRS	570.9	N/A	600	600.0	N/A	600	594.4
b. FMC Corp., San Jose, CA, DAAE07-83-C-A001, IFV/CFV, & MLRS Production, FPIF, awarded 23 May 83, definitized								
	23 May 83	292.0	327.0	672	296.1	330.7	678	291.9
	-A001, less MLRS	264.3	N/A	600	270.8	N/A	600	264.2
c. FMC Corp., San Jose, CA, DAAE07-84-C-A005, IFV/CFV, & MLRS Production, FPE, awarded 9 May 84, definitized								
	9 May 84	289.1	289.1	678	294.3	294.3	678	294.3
	-A005, less MLRS	263.0	N/A	600	267.7	N/A	600	267.7

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CONTRACT INFORMATION 1/
SYSTEM: BRADLEY FIGHTING VEHICLE SYSTEMS, M2/M3
(Dollars in Millions)

REPORT AS OF: DECEMBER 31, 1984

(U)	CONTRACTOR COST	INITIAL CONTRACT TARGET CEILING	PRICE QTY	CURRENT CONTRACT TARGET CEILING	PRICE QTY	PRICE AT COMPLETION CONTRACTOR ESTIMATE
d.	HAC, El Segundo, CA, DAAEO7-82-G-2010, D.O. #2000, TOW Subsystems, FFP, awarded 21 May 82 definitized 31 Jul 84	249.7 249.7	1200	249.7 249.7	1200	249.7
e.	GEOS, Pittsfield, MA, DAAEO7-83-C-A054, Transmission Production, FY83/4/5 Multiyear, FFP, awarded 15 Nov 82 definitized 31 Jul 84	227.0 227.0	2114	210.9 210.9	2114	210.9
f.	GEOS, Pittsfield, MA, DAAEO7-82-G-5805, D.O. #0001, Turret Drive Sys Production, FY83/4 Multiyear, FFP, awarded 21 Aug 82, definitized 7 Dec 84	113.4 113.4	1202	93.5 93.5	1202	93.5

1/ Contract information reported reflects data extrated from the October 1984 CPRs.

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1. 2012年12月1日，甲公司以每股10元的价格购入乙公司普通股股票10000股，占乙公司普通股股本总额的10%，另支付相关税费1000元，款项以银行存款支付。

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6 DIRECTORATE FOR FREEDOM OF INFORMATION
9 AND SECURITY REVIEW (OASD-PA)
10 DEPARTMENT OF DEFENSE

4. (U)Program Elements:

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SAF/PAS

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DECLASSIFY: OADR

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GLCM, December 31, 1984

5. ~~(S)~~ Program Highlights (Since Last Report):

GLCM initial operational capability was achieved on schedule at RAF Greenham Common, UK in December 1983. Also, initial operational capability at Comiso AS, Italy, was attained on schedule in March 1984.

(b)(1)

Both bases demonstrated their capability during the year by successfully completing NATO Tactical Evaluations. Dual source contracts were awarded to General Dynamics/Convair (162 missiles) and McDonnell Douglas (108 missiles) on December 17, 1984. Included in those contracts are options for an additional 30 missiles which will be exercised at a later date. GLCM will meet mission requirements.

6. (U) Schedule

	<u>Development Estimate</u>	<u>Current Estimate</u>
a. (U) Milestones		
1. DSARC I	N/A	N/A
2. First Flight	N/A	N/A
3. First Guided Flight	N/A	N/A
4. DSARC II	Jan 77	Jan 77
5. First FSD Flight	Apr 78	May 80
6. IOT&E Start (First Flight)	Sep 80	May 82
7. First Operational Platform Launch	Jan 80	Feb 82
8. IOT&E Completed Attack (Block IIA)	Apr 81	Jul 83
9. AFSARC III	N/A	Oct 83
10. Initial Operational Capability (IOC)	May 82	Dec 83

b. (U) Explanation of Changes - No Changes

c. (U) References - Fiscal Year 1979 RDT&E Descriptive Summary (PE 64362F).

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~~SECRET RESTRICTED DATA~~

GLCM, December 31, 1984

7. (U) Operational/Technical Characteristics

	Development Estimate	Demonstrated Performance	Current Estimate
a. (U) Technical:			
1. (b)(1),(b)(3):42 USC §2168(a) (1)(C)--(FRD)			
2. (U) Radar Cross Section M2 (8-10 GHz/60 degrees conical section)	(b)(1)	N/A	(b)(1)
3. (U) Air Vehicle:			
(1) Weight (lbs)	N/A	2643	2650
(2) Length (in)	N/A	219	219
(3) Diameter (in)	N/A	20.4	20.4
b. (U) Operational:			
1. (U) Range: Operational (km)	2500	2882	2500
2. (U) Speed (Mach):			
(1) Maximum Penetration			
(2) Cruise			
3. (U) Penetration Altitude - Smooth Terrain(ft,AGL)			
4. (U) Terminal Accuracy (CEP,ft)			
5. (U) Mission Reliability	.85	.76	.80
c. (U) Explanation of Changes-- No Changes			
d. (U) References - GLCM System Specification No. SS07878 GLCM 001A, 20 February 1979; TAF ROC 304-77, 14 February 1977.			

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GLCM, December 31, 1984

8. (U)Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1977 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate %
--------------------	----------	--------------------------------	------------------------	-------------------

Appropriation: RDT&E

Current & Prior Years	5	260.0	383.1	N/A
Budget Year (1986)	-	0.4	0.7	4.4
Balance of FYDP	-	0.3	0.5	N/A
(1987)	-	(0.3)	(0.5)	4.2
(1988)	-	-	-	-
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	5	260.7	384.3	N/A

Appropriation: Procurement (3020)

Current & Prior Years	389	1,118.5	2,162.7	N/A
Budget Year (1986)	95	250.1	555.2	5.7
Balance of FYDP	76	103.2	240.9	N/A
(1987)	(76)	(103.2)	(240.9)	5.5
(1988)	-	-	-	-
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	560	1,471.8	2,958.8	N/A

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8. (U) Program Acquisition Cost (Cont'd): (Current Estimate in Millions)

Fiscal Year Period	Quantity	FY 1977 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate %
--------------------	----------	--------------------------------	------------------------	-------------------

Appropriation: MILCON

Current & Prior Years	-	137.9	246.8	N/A
Budget Year (1986)	-	32.0	63.9	4.4
Balance of FYDP	-	44.1	92.0	N/A
(1987)	-	(37.7)	(78.3)	4.2
(1988)	-	(6.4)	(13.7)	4.0
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	-	214.0	402.7	N/A

Appropriation: ALL

Total	565	1,946.5	3,745.8	N/A
-------	-----	---------	---------	-----

Program Status --

- (1) Percent Program Completed: 72.7% (8/11)
- (2) Percent Program Cost Appropriated: 74.6% (\$2,792.6/\$3,745.8)

9. (U) Program Acquisition / Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a. (U) Program Acquisition --			
(1) Cost	3,745.8	3,734.6	3,745.8
(2) Quantity	565	565	565
(3) Unit Cost	6.630	6.610	6.630
b. (U) Current Procurement -- (FY 1985)	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	572.3	580.1	555.2
Less CY Adv Proc	-11.9	-13.9	-9.8
Plus FY Adv Proc	+23.0	+23.0	+11.9
Net Total	583.4	589.2	557.3
(2) Quantity	120	120	95
(3) Unit Cost	4.862	4.910	5.866

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GLCM, December 31, 1984

10. (U) Cost Variance Analysis:

a. (U) Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	88.7	1,365.4	73.1	1,527.2
Previous Changes:				
Economic	18.7	374.5	-18.4	374.8
Quantity	-13.9	-212.2	-	-226.1
Schedule	29.1	109.2	6.6	144.9
Engineering	4.6	56.7	-	61.3
Estimating	244.4	756.9	102.3	1,103.6
Other	-	160.8	-28.0	132.8
Support	12.3	369.8	234.0	616.1
Subtotal	295.2	1,615.7	296.5	2,207.4
Current Changes:				
Economic	-0.7	+23.2	-4.7	+17.8
Quantity		+2.6		+2.6
Schedule				
Engineering				
Estimating	+1.1	-82.3	+37.8	-43.4
Other				
Support		+34.2		+34.2
Subtotal	0.4	-22.3	33.1	11.2
Total Changes	295.6	1,593.4	329.6	2,218.6
Current Estimate	384.3	2,958.8	402.7	3,745.8

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GLCM, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd):

(FY 1977 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	74.8	927.6	51.2	1,053.6
Previous Changes:				
Quantity	-9.4	-124.7	-	-134.1
Schedule	18.0	-1.0	-	17.0
Engineering	3.5	32.0	-	35.5
Estimating	162.8	387.3	46.1	596.2
Other	-	90.8	-16.9	73.9
Support	10.4	183.9	118.2	312.5
Subtotal	185.3	568.3	147.4	901.0
Current Changes:				
Quantity		-0.8		-0.8
Schedule				
Engineering				
Estimating	+0.6	-38.7	+15.4	-22.7
Other				
Support		+15.4		+15.4
Subtotal	0.6	-24.1	15.4	-8.1
Total Changes	185.9	544.2	162.8	892.9
Current Estimate	260.7	1,471.8	214.0	1,946.5

b. (U) Current Change Explanations -

(Dollars in Millions)
Base Year \$ Then Year \$

(1) RDT&E

Revised Jan 85 Economic Escalation Rates (Economic).	N/A	-0.7
Transfer of Procurement Funds to continue Material Improvement Program in FY86 and FY 87 (Estimating)	+0.6	+1.2
Reduced test requirements (Estimating)	-0.4	-0.7
Reestimate based on impact of revised January 1985 Economic Escalation Rates on prior years (Estimating).	+0.4	+0.6

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GLCM, December 31, 1984

10. (U) Cost Variance Analysis (Cont'd):

b. (U) Current Change Explanations (cont'd) -

	(Dollars in Millions)	
	<u>Base Year \$</u>	<u>Then Year \$</u>
(2) <u>PROCUREMENT</u>		
Revised January 1985 Economic Escalation Rates (Economic).	N/A	+23.2
Deferral of 25 backup GLCM missiles from FY86 to FY87 to rephase training assets and maintenance missiles. (Schedule)	-1.0	-0.1
Deferral of backup (5) Transporter Erector Launchers (TELs) and (7) Launch Control Centers (LCCs) from FY86 to FY87 in order to align with GLCM missile delivery schedule. (Schedule)	+0.2	+2.7
Effect on GLCM program due to TOMAHAWK (SLCM) schedule rephasing from FY89-92 to FY86-88 (Estimating).	-5.6	-12.8
Reduction in missile recurring flyaway costs due to effects of contract competition (Estimating).	-7.5	-16.5
Reduction in backup TELs (1) and LCCs (2) due to reduction in requirements. No program impact anticipated (Estimating).	-7.8	-17.3
Congressional FY85 action reduced full funding. No program impact anticipated (Estimating).	-0.9	-1.8
Transfer of funds to RDT&E to continue Material Improvement Program (MIP) (Estimating).	-0.5	-1.2
Reestimate of flyaway costs to cover rephase of Support Equipment (Estimating).	-7.7	-16.3

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GLCM, December 31, 1984

10. (U)Cost Variance Analysis (Cont'd):

b. (U)Current Change Explanations (cont'd) -

	(Dollars in Millions)	
	Base Year \$	Then Year \$
Classified Program increase in FY85 (Estimating).	+1.0	+2.0
Reestimate based on impact of revised January 1985 Economic Escalation Rates on prior years (Estimating).	-9.7	-18.4
Rephasing of Support Equipment due to deferral of missile buys (Support).	+16.6	+37.0
Reduction in FY86 initial spares due to across the board budget cuts (Support).	-1.2	-2.8

(3) MILCON

Revised Jan 85 Economic Escalation Rates (Economic).	N/A	-4.7
Congressional action in FY85 to reduce funds for Main Operating Base (MOB 3) activation resulted in tighter FY86-88 construction schedule. No impact to activation date (Estimating).	+13.2	+33.7
Reestimate based on impact of revised January 1985 Economic Escalation Rates on prior years (Estimating).	+4.7	+4.1

c. (U)References - January 1978 Five Year Defense Plan (FYDP)

11. (U)Program Acquisition Unit Cost (PAUC) History:

a. (U)Initial SAR Estimate to Current Estimate.

PAUC (Initial SAR Est)	Changes (Then Year Dollars in Millions)								PAUC Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
2.175	.695	.129	.261	.108	1.876	1.151	.235	4.455	6.630

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GLCM, December 31, 1984

12. (U)Contract Information: (Dollars in Millions)

a. (U)RDT&E: N/A

b. (U)Procurement:

	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
(1) All-Up-Round Missile:			
General Dynamics (FY84 AUR)	189.8	208*	189.8
San Diego, CA			
NO0032-83-C-3339			
FFP, March 1984			

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		

Explanation of Change: None, this is the initial report for this contract.

	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
General Dynamics (FY82 AUR)	189.9	142*	199.6
San Diego, CA			
NO0032-83-C-3263			
FPI, July 1981			
(November 1984 CPR)			

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	-4.3	-3.1
Cumulative Variances To Date	+7.4	-3.7
Net Change	+11.7	-0.6

Explanation of Change: The cost variance is due largely to material control problems which result in an overstated positive cost variance. Cost performance has improved but it is forecasted that this contract will exceed target price. Other factors which have changed are: (1) consolidation of body section fabrication along with utilization of numerically controlled machines; (2) consolidation of facilities from Kearny Mesa plant and Lindbergh Field; and, (3) larger production lots for increased economies of scale.

Cumulative schedule variance has deteriorated due to: (1) failures of GFE causing teardown, reinstallation, and retest; and (2) rework on REM batteries was necessary due to failed acceptance. There is no impact to the delivery schedule or the program. This contract is 95% complete.

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GLCM, December 31, 1984

12. (U) Contract Information (Cont'd): (Dollars in Millions)

	<u>Current Contract</u>	<u>PM's Est Price</u>
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
General Dynamics (FY85 AUR)	174.3 180*	174.3
San Diego, CA		
NO0019-84-C-4484		
FFP, December 1984		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		
Net Change		

Explanation of Change: None, this is the initial report for this contract.

	<u>Current Contract</u>	<u>PM's Est Price</u>
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
McDonnell Douglas (FY85 AUR)	182.9 120*	182.9
St. Louis, MO		
NO0019-84-C-4485		
FFP, December 1984		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		
Net Change		

Explanation of Change: None, this is the initial report for this contract.

* Note: Quantity buy is total for GLCM and SLCM missiles.

(2) TEL/LCC:

	<u>Current Contract</u>	<u>PM's Est Price</u>
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
General Dynamics (FY84)	111.5 48	111.5
San Diego, CA		
NO0019-84-C-4120		
FFP, March 1984		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		
Net Change		

Explanation of Change: None, this is the initial report for this contract.

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GLCM, December 31, 1984

12. (U) Contract Information (Cont'd): (Dollars in Millions)

(3) <u>Common Weapons Control System:</u>	<u>Current Contract</u>	<u>PM's Est Price</u>	
	<u>Target Price</u>	<u>Qty</u>	<u>At Completion</u>
McDonnell Douglas (FY82/83 WCS)	171.6	117	173.5
St. Louis, MO			
NO0019-83-C-3323			
FPI, September 1981			
(November 1984 CPR)			

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	-3.0	-7.2
Cumulative Variances To Date	-9.6	-9.7
Net Change	-6.6	-2.5

Explanation of Change: The cumulative cost variance has deteriorated since the last report and results largely from material control problems which show an overstated negative variance. Other factors are: (1) extensive manufacturing labor expended in the start-up of lot 2 production, (2) transfer of CWCS effort from St. Louis to Titusville, Fla. and resulting receipt of discrepant vendor hardware requiring tooling scrappage and rebuild greater than planned, (3) high volume of rework due to "cracked ship" and circuit card problems and, (4) production assessment and production readiness review support greater than planned.

The cumulative schedule variance has deteriorated from the previous report due to: (1) continued accounting errors in CFE, (2) late shipments of 4 Random Access Storage Systems (RASS's), and (3) receipt of discrepant vendor hardware resulting in both tool scrappage and rebuild activity.

Increased cost and schedule variances are mainly due to accounting errors and are not performance related. Consequently, there is no program impact.

c. MILCON: N/A

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AF-17 GLCM

SAR-84-165 (2)
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SUPPLEMENTAL INFORMATION ADDENDUM TO THE
COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS DD-COMP (Q&A) 823)
PROGRAM: GROUND LAUNCHED CRUISE MISSILE (BGM-109G) (U)

REPORT AS OF: December 31, 1984

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (DASD - PA)
DEPARTMENT OF DEFENSE

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 PROGRAM: (GLCH)
 SYSTEM: (GLCH)

CURRENT ESTIMATE
 (\$ in Millions)

AS OF DATE: (December 31, 1984)
 BASE YEAR: (FY 1977)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&E									
1978	5				16.9	18.7	18.7	18.7	7.6
1979					28.8	34.9	34.9	34.9	8.4
1980					44.1	59.4	59.4	59.4	9.4
1981					72.2	107.6	107.6	107.6	11.9
1982					50.1	80.1	80.1	75.9	9.2
1983					16.6	27.6	27.1	24.6	4.9
1984					20.9	36.1	21.1	7.9	3.8
1985					10.4	18.7	0.6	0.1	3.7
1986					0.4	0.7	-	-	4.4
1987					0.3	0.5	-	-	4.2
TOTAL	5	N/A	N/A	N/A	260.7	384.3	349.5	329.1	
APPROPRIATION: PROCUREMENT									
1979	-	15.2	-	-	15.2	20.2	20.2	20.2	8.7
1980	-	5.4	-	-	5.4	8.2	8.2	8.2	9.7
1981	11	8.4	7.9	41.9	95.2	164.1	163.1	145.4	11.9
1982	54	16.8	6.7	126.4	194.4	350.5	347.3	343.3	9.6
1983	84	11.5	2.4	198.1	239.6	455.4	435.7	354.8	9.0
1984	120	11.7	3.1	229.5	297.0	592.0	429.8	118.7	8.0
1985	120	6.6	8.6	229.8	271.7	572.3	69.1	6.5	4.8
1986	95	2.8	4.5	206.5	250.1	555.2	-	-	5.7
1987	76	-	3.2	87.0	103.2	240.9	-	-	5.5
TOTAL	560	78.4	36.4	1119.2	1471.8	2958.8	1473.4	997.1	
APPROPRIATION: CONSTRUCTION									
1981					2.3	3.8	3.8	3.8	11.9
1982					43.1	74.5	72.3	64.8	9.2
1983					42.2	75.0	66.0	56.3	4.9
1984					40.4	74.5	59.6	35.0	3.8
1985					9.9	19.0	11.4	2.0	3.7
1986					32.0	63.9	-	-	4.4
1987					37.7	78.3	-	-	4.2
1988					6.4	13.7	-	-	4.0
TOTAL	N/A	N/A	N/A	N/A	214.0	402.7	213.1	161.9	

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UNCLASSIFIED**DELIVERIES AND ASSOCIATED VARIANCE ANALYSIS**
SYSTEM: GLCM**AS OF DATE: (December 31, 1984)****Deliveries (Planned/Actual)**

	<u>To Date</u>
(U) R&D	
Missile	5/5
Launcher (TEL)	3/3
Control (LCC)	2/2
 (U) Procurement	
Missile	95/103
Launcher (TEL)	36/34
Control (LCC)	19/18

(U) Variance Analysis:**Missile:**

Positive variance (that is, plan less than actual) reflects increased management attention to Quality Assurance and correction of GFE problems. Also, increase in manufacturing labor has contributed to the increased production.

TEL/LCC:

Negative variance (that is, plan greater than actual) results from a combination of parts shortages and inadequate contractor management attention to problems.

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PROGRAM ACQUISITION COSTS

SYSTEM: GLCM

(\$ in Millions)

AS OF DATE: (December 31, 1984)
BASE YEAR: (FY 1977)

	(1) Development Estimate (FY 78 - 86)	(2) Changes	(3) Current Estimate (FY 78 - 88)
1. (U) COSTS:			
Development	74.8	185.9	260.7
Procurement	927.6	544.2	1471.8
Air Vehicle	(646.9)	(-138.8)	(508.1)
Launch Equipment	(131.8)	(515.7)	(647.5)
Total Flyaway	(778.7)	(376.9)	(1155.6)
Peculiar Support	(129.0)	(146.4)	(275.4)
Initial Spares	(19.9)	(20.9)	(40.8)
Construction	51.2	162.8	214.0
TOTAL: CONSTANT FY 77 \$	<u>1053.6</u>	<u>892.9</u>	<u>1946.5</u>
Escalation	473.6	1325.7	1799.3
Development	(13.9)	(109.7)	(123.6)
Procurement	(437.8)	(1049.2)	(1487.0)
Construction	(21.9)	(166.8)	(188.7)
TOTAL PROGRAM COSTS:	<u>1527.2</u>	<u>2218.6</u>	<u>3745.8</u>

2. (U) FOREIGN MILITARY SALES: NONE

3. ~~(S)~~ NUCLEAR COSTS: Total DOE Warhead costs not included in total program cost for GLCM are:

(b)(1)

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CONTRACTOR COSTS
SYSTEM: GLCM
(\$ in Millions)

AS OF DATE: (December 31, 1984)

	(1)	(2)			(3)		
		Initial Contract Price			Current Contract Price		
		Target	Ceiling	Qty	Target	Ceiling	Qty
1. (U) <u>DEVELOPMENT</u> N/A							
2. (U) <u>PROCUREMENT</u>							
3339 a. General Dynamics (FY 84 AUR)		187.2	187.2	208	189.8	189.8	208
b. General Dynamics (FY 82 AUR)		172.0	192.8	142	189.9	197.4	142
4484 c. General Dynamics (FY 85 AUR)		164.2	164.2	180	174.3	174.3	180
4485 d. McDonnell Douglas (FY 85 AUR)		176.7	176.7	120	182.9	182.9	120
4120 e. General Dynamics (FY 84 TEL/LCC)		111.5	111.5	48	111.5	111.5	48
f. McDonnell Douglas (FY 82/83 CWCS)		150.1	165.8	117	171.6	189.6	117
3. (U) <u>CONSTRUCTION</u> N/A							

*Contractor Estimate includes undefinitized changes not included under Current Contract Price.

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A-12 MLRS

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84-048

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
PROGRAM: MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)

AS OF DATE: December 31, 1984

INDEX

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Schedule	2
Technical/Operational Characteristics	3
Program Acquisition Cost	4
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Cost Variance Analysis	6
Program Acquisition Unit Cost History	8
Contract Information	9

1. (U) Designation/Nomenclature (Popular Name): HC/Armored Vehicle - Mounted Rocket Launcher: M270 (Multiple Launch Rocket System (MLRS))

2. (U) DoD Component: Department of the Army

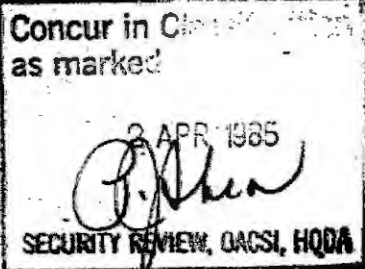
3. (U) Responsible Office and Telephone Number:

MLRS Project Office
Program Management Division
Redstone Arsenal, AL 35898-5700

PM: COL Nicholas Hurst
Assigned: 7 January 1985
AUTOVON: 746-1195
Commercial: 205-876-1195

4. (U) Program Elements:

RDT&E: PE1PRO5(MLRS)-64314A/D564
PROCUREMENT: PE 2032/D564
CONSTRUCTION: PE 6100



~~CLASSIFIED BY: MLRS Security Classification
Guide dtd 12 Apr 82, Revised
13 Oct 82
DECLASSIFY BY: 31 Dec 1990~~

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5. (U) Program Highlights (Since Last Report):

Follow-on Evaluation (FOE), as directed by the General Officers' Program Review (GOPR), was successfully completed during this reporting period. The FOE consisted of an evaluation of the system changes incorporated to improve performance. All deficiencies previously noted by the GOPR were successfully corrected.

Initial fly-to-buy (FTB) tests began in January 1984 as scheduled; however, in late March 1984, the tests were halted due to fuze problem. The fuze problem has been corrected and tests resumed in October 1984.

Contract deliveries of the crated rounds were also affected by the fuze problem. While the fuze problem was being resolved, crated rounds continued to be produced less the fuze and properly stored for the fuze installation when available. Fuze deliveries are now reinstated. A recovery schedule has been established that will assure crated round delivery recovery during June 1985 without a delay in unit fieldings.

Production deliveries as of 31 December 1984: 1,668 Launch Pod/Containers (LP/Cs) (10,008 rockets); 277 practice LP/Cs (1,662 practice rockets); 117 Self-propelled Launcher Loaders (SPLLs).

MLRS fielding is being accomplished on schedule. Five divisional MLRS Batteries were fielded in FY84 (CONUS-2, Europe-2, Korea-1).

Present data available indicate that all mission requirements can be achieved.

6. (U) Schedule:

	<u>Planning Estimate</u>	<u>Current Estimate</u>
a. (U) Milestones --		
DSARC I	Jan 77	Jan 77
Validation Contract Awards (2)	Sep 77	Sep 77
DT/OT I (Government)		
Start	Nov 79	Nov 79
Complete	Feb 80	Feb 80
DSARC III	May 80	May 80
Maturation Contract Award	May 80	Apr 80
Low Rate Production Contract Award	May 80	Apr 80
Initial Production		
Delivery (Rocket)	Jan 82	May 82
(SPLL)	Feb 82	Aug 82
Production Qualification Test		
Start	Jan 82	May 82
Complete	Sep 82	Feb 83
OT III		
Start	Jun 82	Oct 82
Complete	Sep 82	Mar 83
DSARC IIIa	Nov 82	N/A
ASARC IIIa	Nov 82	N/A
GOPR	N/A	Mar 83
Initial Operational Capability (IOC)	Nov 82	Mar 83

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MLRS, December 31, 1984

6. (U) Schedule (Cont'd):

b. (U) Explanation of Changes -- None

c. (U) References -- Draft Decision Coordinating Paper (DCP) Number 165, 15 May 79; Secretary of Defense Memorandum, 7 Aug 80, subject: Decision Memorandum on Multiple Launch Rocket System (MLRS) DSARC III.

7. (U) Technical/Operational Characteristics:

	<u>Planning Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
a. (U) Technical --			
(b)(1)			
b. (U) Operational --			
(U) Reliability			
Rocket Preflight, Launch, & Inflight	.97	.95 (CH-3)	.96 (CH-2)
Launcher (SPLL)	.92	.87 (CH-3)	.87 (CH-3)
Mean Fire Cycle Between Failure (MFCBF)	250	N/A	N/A
Mean Kilometers Between Failure (MKBF)	750	N/A	N/A
(U) Maintainability			
SPLL (Mean Time to Repair (MTTR))			
Organizational	1.0	2.3	2.3
Direct/General Support	4.0	2.4	2.4
(U) Availability			
Operational	N/A	.78 (CH-3)	.78 (CH-3)
Essential Unscheduled Maintenance Actions Per 1000 Hours of Launcher Module Operation	N/A	23	23
Percent of Items Removed with no Evidence of			

(b)(1)

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MLRS, December 31, 1984

7. (U) Technical/Operational Characteristics (Cont'd):

c. (U) Explanation of Changes --

(b)(1)

(U) CH-2 -- The current status reflects a change in demonstrated rocket reliability from .94 to .96. This is based upon the latest test results for FOE, Fly-to-Buy, and accuracy verification.

(U) CH-3 - Demonstrated DT/OT III results. Demonstrated performance and current estimate for launcher reliability and operational availability, erroneously reported in Dec 83 SAR.

d. (U) References -- Draft DCP Number 165, 15 May 79; Memorandum for Secretary of the Army, 7 Aug-80, subject: Decision Memorandum of Multiple Launch Rocket System (MLRS)/DSARC III; Memorandum, Secretary of the Army, 14 Apr 83, subject: System Acquisition Decision Memorandum - Multiple Launch Rocket System (MLRS) General Officers' Program Review, 3 Mar 83.

8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity SPLs/Rockets	FY 1978 Constant (Base Year)\$	Current (Then Year)\$	Escalation Rate (%)
--------------------	-----------------------	--------------------------------	-----------------------	---------------------

Appropriation: RDT&E 1/

1985 & Prior Years	10/504	267.7	334.8	N/A
Budget Year (1986)	-	-	-	4.4
Balance of FYDP	-	-	-	N/A
(1987)	-	-	-	4.2
(1988)	-	-	-	4.0
(1989)	-	-	-	3.7
(1990)	-	-	-	3.4
Balance to Complete	-	-	-	N/A
Subtotal 1/	10/504	267.7	334.8	N/A

1/ Does not include \$37.6 (escalated) funding by MOU participants.

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MLRS, December 31, 1984

8. (U) Program Acquisition Cost (Cont'd): (Current Estimate in Millions)

Fiscal Year Period	Quantity SPLs/Rockets	FY 1978 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate (%)
--------------------	-----------------------	--------------------------------	------------------------	---------------------

Appropriation: Procurement

1985 & Prior Years	304/116,322	1,010.0	1,933.7	N/A
Budget Year (1986)	44/72,000	258.3	569.4	5.7
Balance of FYDP	0/174,510	497.1	1,192.5	N/A
(1987)	(0/72,000)	(199.5)	(461.5)	5.5
(1988)	(0/72,000)	(198.3)	(479.9)	5.2
(1989)	(0/30,510)	(98.7)	(249.5)	4.8
(1990)	-	(0.6)	(1.6)	4.4
Balance to Complete	-	-	-	N/A
Subtotal	348/362,832	1,765.4	3,695.6	N/A

Appropriation: Military Construction (MILCON)

1985 & Prior Years	-	33.5	63.1	N/A
Budget Year (1986)	-	6.7	14.8	4.4
Balance of FYDP	-	4.5	10.3	N/A
(1987)	-	(4.5)	(10.3)	4.2
(1988)	-	-	-	4.0
(1989)	-	-	-	3.7
(1990)	-	-	-	3.4
Balance to Complete	-	-	-	N/A
Subtotal	-	44.7	88.2	N/A
Total	358/362,832	2,077.8	4,118.6	N/A

Program Status -

(1) Percent Program Completed: 68.7% (11 yrs/16 yrs)

(2) Percent Program Cost Appropriated: 56.6% (\$2331.6/\$4118.6)

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MLRS, December 31, 1984

9. (U) Program Acquisition/Current Procurement Unit Cost Summary (Current (Then Year) Dollars in Millions)

		Current Year		Budget Year
		SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a.	(U) Program Acquisition --			
(1)	(U) Cost	4118.6	4302.7	4118.6
(2)	(U) Quantity	358	403	358
(3)	(U) Unit Cost	11.5	10.7	11.5
b.	(U) Current Procurement -- (FY 1985)		(FY 1985)	(FY 1986)
(1)	(U) Cost	561.9	561.9	569.4
	Less CY Adv Proc	- 137.4	-137.4	-41.0
	Plus PY Adv Proc	+ 55.2	+ 55.2	+71.7
	Net Total	+ 479.7	+479.7	600.1
(2)	(U) Quantity	44	44	44
(3)	(U) Unit Cost	10.9	10.9	13.6

10. (U) Cost Variance Analysis:

a. (U) Summary -- (Current (Then Year) Dollars in Millions)

	RDTE	PROC	MILCON	TOTAL
Planning Estimate	+300.2	+3153.8	0	+3454.0
Previous Changes:				
Economic	+ 18.3	+ 856.4	+ 3.6	+ 878.3
Quantity	-	+ 295.9	-	+ 295.9
Schedule	-	- 2.0	-	- 2.0
Engineering	-	-	-	-
Estimating	+ 4.5	- 351.4	+75.3	- 271.6
Other	+ 9.5	+ 9.1	-	+ 18.6
Support	-	- 70.5	-	- 70.5
Subtotal	+ 32.3	+ 737.5	+78.9	+ 848.7
Current Changes:				
Economic	-0.1	+48.5	+ .8	+49.2
Quantity	-	-115.5	-	-115.5
Schedule	-	-	-	-
Engineering	-	-	-	-
Estimating	+2.4	-122.2	+8.5	-111.3
Other	-	-	-	-
Support	-	-6.5	-	-6.5
Subtotal	+2.3	-195.7	+9.3	-184.1
Total Changes	+34.6	+541.8	+88.2	+664.6
Current Estimate	334.8	3695.6	88.2	4118.6

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MLRS, December 31, 1984

10. (U) Cost Variance Analysis

b. (U) Current Change Explanations --

(Dollars in Millions)
FY1978 Base Year Then Year

(2) (U) Procurement (Continued)

The reduction in support is due to
 budgetary reductions in spare parts.
 (SUPPORT)

-3.6

-6.5

(3) (U) MILCON

Revised Jan 85 economic
 escalation rates (ECONOMIC)

N/A

+0.8

Revised estimate, increase in
 construction requirements. (ESTIMATING)

+2.6

+8.5

c. (U) References -- Draft Decision Coordinating Paper (DCP), No. 165,
 15 May 1979.

11. (U) Program Acquisition Unit Cost (PAUC) History:

a. (U) Planning Estimate to Current Baseline Estimate

PAUC (Planning Est)	Changes (Then Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
\$18.9	+2.6	-8.8	-0.01	-	-1.1	-0.2	+1	-7.4	\$11.5

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MLRS, December 31, 1984

12. (U) Contract Information

(Dollars in Millions)

b. Procurement --

<u>Initial Production Facilities</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
LTV Aerospace & Defense Company, Dallas, TX, DAAH01-80-C-0679, CPIF, May 1980 FY82 Opt II	\$12.1	N/A	(b)(4)
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$-2.2		\$-2.3
Cumulative Variances To Date (10/84)	\$-6.6		\$-2.0
Net Change	\$-4.4		\$+0.3

Explanation of Change: Performance data as of October reflects that the contract is 81% complete. The cost variance reflects growth being experienced for tooling equipment to load motors, fabricate launch tubes, and the retrofit of equipment to enhance productivity to meet the required production rate. Improvement in the schedule variance reflects delivery of high rate tooling. Impact of the above is reflected in the PM's estimate.

<u>Initial Production Facilities</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
LTV Aerospace & Defense Company, Dallas, TX, DAAH01-80-C-0679, CPIF, May 1980 FY83 OPT III (Final submission since effort is over 90% complete.)	\$10.2	N/A	(b)(4)
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$+0.1		\$ 0.0
Cumulative Variances To Date (10/84)	\$-1.4		\$+0.1
Net Change	\$-1.5		\$+0.1

Explanation of Change: The contract is 98% complete. The cost variance is due to increase in costs for launch tube tooling at Brunswick and procurement of an additional radiographic inspection machine at ARC that was not in the original budget. The contract is on schedule. Impact of the above is reflected in the PM's estimate.

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MLRS, December 31, 1984

12. (U) Contract Information (Cont'd): (Dollars in Millions)

b. Procurement (Continued) --

<u>SPLLs/LP/Cs-Tact/Prac</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
LTV Aerospace & Defense Company, Dallas, TX, DAAH01-80-C-0681, FPI, May 1980			(b)(4)
FY82 Buy (Final submission since effort is over 90% complete.)	\$ 96.5	68/416/0	
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$-0.8		\$-7.8
Cumulative Variances To Date (10/84)	\$-1.5		\$-1.3
Net Change	\$-0.7		\$+6.5

Explanation of Change: The contract is 100% complete. Improvement in schedule variance reflects completion of hardware deliveries. The cost variance results from increased manufacturing costs due to man/machine interface requirements; IDWA cost growth experienced at LTV (Dallas) on SPLL base, turret and cage weldments; and purchase of motor case machining due to delay in release of the Stammets machining equipment to production. Impact of these problems is reflected in the PM estimate.

<u>SPLLs/LP/Cs-Tact/Prac</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
LTV Aerospace & Defense Company, Dallas, TX, DAAH01-80-C-0681, FPI, May 1980			(b)(4)
FY83 Buy	\$188.7	72/3711/503	
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 0.0		\$ 0.0
- Cumulative Variances To Date (10/84)	\$-1.2		\$-1.7
- Net Change	\$-1.2		\$-1.7

Explanation of Change: The contract is 52% complete. The cost variance is due to delay in release of Stammets machine to production which necessitated procurement of motor case machining; late availability of fuzes; and increased overhead costs due to actual rates higher than negotiated. The schedule variance is due to late delivery of fuzes from KDI; and planned non-recurring effort for which earned value will be reported when subcontractor billings are charged to work-in-process. Impact of the above is reflected in the PM's estimate.

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MLRS, December 31, 1984

12. (U) Contract Information (Cont'd): (Dollars in Millions)

b. Procurement (Continued) --

<u>SPLs/LP/Cs-Tact/Prac</u>	<u>Current Contract Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
LTV Aerospace & Defense Company, Dallas, TX, DAAH01-83-C-A107, FFP September 1983			(b)(4)
MYP-1	\$ 89.9	0/229/110	
MYP-2	\$414.9	76/6000/658	
MYP-3	\$260.1	44/8412/658	

Firm fixed price contract. Cost and schedule variances are not applicable.

<u>Test Program Sets</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
LTV Aerospace & Defense Company, Dallas, TX, DAAH01-84-C-1022, FPI, September 1983	\$7.6	303	(b)(4)
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 0.0		\$ 0.0
Cumulative Variances To Date (10/84)	\$ 0.0		\$ 0.0
Net Change	\$ 0.0		\$ 0.0

Explanation of Change: None

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SYSTEM: MLRS
CURRENT ESTIMATE
(\$ IN MILLIONS)

AS OF DATE: December 31, 1984
BASE YEAR: FY 1978

FISCAL YEAR	SEP 9 1985 QTY 1/ RKT ADDED	PROC (NON-ADD)	BASE YEAR DOLLARS		THEN YEAR			ESCALATION RATE 2/ %	
			FLYAWAY (NON-ADD)	TOTAL	TOTAL	OBLIGATED	EXPENDED		
			NON-REC	REC	APPROPRIATION: RDT&E 3/				
1976	-	-	-	-	\$ 1.2	\$ 1.0	1.0	\$ 1.0	6.6
1977	-	-	-	-	0.5	0.4	.4	.4	2.9
1977	-	-	-	-	7.6	6.9	6.9	6.9	2.6
1978	-	-	-	-	44.4	46.4	46.4	46.4	7.0
1979	-	-	-	-	61.9	70.9	70.9	70.9	8.4
1980	-	-	-	-	53.7	67.8	67.8	67.2	9.4
1981	-	-	-	-	50.9	70.0	70.0	70.0	11.9
1982	-	-	-	-	27.3	40.0	40.0	39.8	7.6
1983	-	-	-	-	17.0	26.1	26.1	24.2	4.9
1984	-	-	-	-	2.1	3.4	3.2	1.5	3.8
1985	-	-	-	-	1.1	1.9	.2	-	3.7
TOTAL	504/10	-	-	-	\$ 267.7	\$ 334.8	332.9	328.3	
APPROPRIATION: PROCUREMENT									
1980	1,374/12	-	\$ 14.1	\$ 32.1	\$ 47.4	\$ 67.3	\$ 65.5	65.3	9.7
1981	2,340/32	-	15.5	56.2	73.4	117.5	114.4	112.8	11.9
1982	2,496/68	-	10.0	89.3	111.5	197.2	174.3	170.4	14.3
1983	23,640/72	28.2	8.0	215.6	235.4	444.4	401.2	225.0	9.0
1984	36,000/76	57.3	-	264.2	274.0	545.4	483.2	89.4	8.0
1985	50,472/44	65.6	-	259.3	268.3	561.9	304.5	97.4	4.8
1986	72,000/44	18.6	-	249.0	258.3	569.4	-	-	5.7
1987	72,000/0	-	-	199.1	199.5	461.5	-	-	5.5
1988	72,000/0	-	-	198.3	198.3	479.9	-	-	5.2
1989	30,510/0	-	-	98.7	98.7	249.5	-	-	4.8
1990	0/0	-	-	0.6	0.6	1.6	-	-	4.4
TOTAL	362,832/348	169.7	\$ 47.6	\$1662.4	\$1765.4	\$3695.6	\$1543.1	760.3	
APPROPRIATION: CONSTRUCTION									
1982	-	-	-	-	11.5	\$ 20.4	-	-	7.6
1983	-	-	-	-	14.1	26.6	-	-	4.9
1984	-	-	-	-	3.4	6.7	-	-	3.8
1985	-	-	-	-	4.5	9.4	-	-	3.7
1986	-	-	-	-	6.7	14.8	-	-	4.4
1987	-	-	-	-	4.5	10.3	-	-	4.2
TOTAL	-	-	-	-	\$44.7	\$ 88.2	-	-	

- 2/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the 2.9% indices.
 1/ Rocket quantities do not include practice rounds.
 3/ Does not include \$37.6 (escalated) funding by MOU participants.
 4/ Includes initial spares.

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A-11 MLRS

84-049

DELIVERIES
SYSTEM: MLRS

As of Date: December 31, 1984

2. (Planned and Actual)

R&D

To Date

Rounds
SPLL's

504/470 1/
10/10

Procurement

M77 Rounds
LRP
Practice Rounds 2/
SPLL's 3/

9978/10,008
1068/1362
143/147

Variance Analysis: LRP M77 LP/C deliveries are behind schedule due to fuze technical problems.

1/ LTV deleted 17 rockets from their program due to cost ceiling placed on contract on 10 Apr 79 (Validation Phase). An additional 17 rockets were deleted from Maturation Phase in Jun 81 due to restructuring of the test program.

2/ Modification P050 to LRP (FY81 Buy) Contract DAAH01-80-C-0681 converted 270 Tactical rockets to practice rockets.

3/ The SPLL deliveries in the 31 December 1984 SAR was inadvertently reported as 117. The correct number should be 147.

PROGRAM ACQUISITION COSTS

SYSTEM: MLRS

As of Date: December 31, 1984
Base Year: FY 1978
(DOLLARS in Millions)

A. PROGRAM ACQUISITION COST

(1) Cost	(1) Planning Estimate (FY76-88)	(2) <u>Changes</u>	(3) Current Estimate (FY76-90)
Development 1/	261.0 2/	+ 6.7	267.7
Procurement	1971.3	-205.9	1765.4
M77	(1624.6)	(-394.7)	(1229.9)
Practice Rounds	(97.9)	(- 29.5)	(68.4)
SPLL	(118.9)	(+277.9)	(396.8)
Total Flyaway	(1841.4)	(-146.3)	(1695.1)
Other Weap. Sys			
Cost	(123.0)	(-108.9)	(14.1)
Initial Spares	(6.9)	(+ 49.3)	(56.2)
Construction	0	+ 44.7	44.7
Total: <u>Constant FY78\$</u>	2232.3	-154.5	2077.8
Escalation	1221.7	+819.1	2040.8
Development	(39.2)	(+ 27.9)	(67.1)
Procurement	(1182.5)	(+747.7)	(1930.2)
Construction	(0)	(+ 43.5)	(43.5)
Total Program Cost	<u>3454.0</u>	<u>+664.6</u>	<u>4118.6</u>

1/ Does not include \$37.6M (escalated) funding by MOU Participants.

2/ Adjusted by \$+.7M to reflect true FY78 constant (base year) dollars.

B. FOREIGN MILITARY SALES: Sales to date to MOU Partners (UK, GE, FR) equal \$23 million for 7 AVML's, 14 RPC trainers, 108 practice rockets, special tools and spare parts.

C. NUCLEAR COST: None

CONTRACTOR COSTS

SYSTEM: MLRS

AS OF DATE: 31 December 1984
DATA AS OF: October 1984

	(1)			(2)			(3)
	Initial Contract Price			Current Contract Price			Price at Completion
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate
1. DEVELOPMENT	N/A						
2. PROCUREMENT							
<u>Initial Production Facilities</u>							
<u>DAAH01-80-C-0679</u>							
LTV Aerospace & Defense Company, CPIF, May 80							
FY82 Opt II	12.0	N/A	N/A	12.1	N/A	N/A	17.6
FY83 Opt III	10.2	N/A	N/A	10.2	N/A	N/A	11.3
<u>SPLL's/LP/C's - Tact/Prac</u>							
<u>DAAH01-80-C-0681</u>							
LTV Aerospace & Defense Company, FPI, May 80							
FY82 Buy	75.3	82.8	68/416/0	96.5	106.0	68/416/0	96.5
FY83 Buy	189.1	208.6	72/3711/503	188.7	208.0	72/3711/503	192.0
<u>DAAH01-83-C-A107</u>							
LTV Aerospace & Defense Company, FFP, Sep 83							
MYP - 1	89.9	N/A	0/229/110	89.9	N/A	0/229/110	89.9
MYP - 2	415.0	N/A	76/6000/658	414.9	N/A	76/6000/658	414.9
MYP - 3	260.3	N/A	44/8412/658	260.1	N/A	44/8412/658	260.1
<u>Test Program Sets</u>							
<u>DAAH01-84-C-1022</u>							
LTV Aerospace & Defense Company, FPI, Sep 83							
	7.6	8.4	303	7.6	8.4	303	7.6

N-17 HARM

~~(CONFIDENTIAL)~~SELECTED ACQUISITION REPORT (RCS:DD-COMP(Q&A)823)

PROGRAM: HARM (AGM-88A)

AS OF DATE: (December 31, 1984)

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1. Designation/Nomenclature (Popular Name): AGM-88A/High Speed
Anti-Radiation Missile (HARM)

2. DoD Component: U.S. Navy

3. Responsible Office and Telephone Number:
Defense Suppression Systems Program Office
Naval Air Systems Command
Washington, D.C. 20361

PM: CAPT L. E. Kaufman
Assigned: 25 May 83
AUTOVON 222-2137
Area Code (202) 692-2137

4. Program Elements:

RDT&E: 63313N (W1188, W1189); 63363N (WSH07)
64360N (W0553, W1240); 25601N (W1780)
Procurement: 24162N

~~Classified By: ~~SECRET~~ INST 5513.2A-30
Review: OADR~~

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SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

OASD(PA) DFOIS 85-T-892

5. Program Highlights (Since Last Report):

(U) Deliveries of the FY 1981 and FY 1982 production contracts have been completed. Twenty-nine of the FY 1982 production missiles were not accepted due to failure of Lot 7 Bendix rate gyroscopes. On December 13, 1984, Texas Instruments, the prime contractor, was requested to provide a plan for rework of the affected missiles and replacement of the gyros and to provide consideration to the Government. Deliveries of the FY 1983 production buy began in November 1984 on schedule.

(U) A limited POT&E began on April 2, 1984, by AFOTEC to verify missile effectiveness, refine tactical doctrine, and evaluate missile reliability. Concurrent with HARM improvement efforts during 1984 the HARM weapon system has been undergoing integration testing on the F/A-18 and the A-6E aircraft. The operational requirement for integration on the EA-6B has been approved by Chief of Naval Operations.

(U) The AGM-88A satisfies the mission requirement.

6. Schedule:

a. Milestones (U)	Development Estimate	Current Estimate
DSARC I	Oct 72	Oct 72
Weapon Systems Integration		
Contract Award	May 74	May 74
Contractor Initial Guided		
Missile Firing	Oct 76	Oct 76
DSARC II	Feb 78	Feb 78
Demonstrate Increased		
Maneuverability	Feb 79	Feb 79
Prototype Phase DT&E		
Start	Mar 78	Mar 78
Complete	Dec 79	Oct 80
DNSARC IIB	Sep 79	Nov 80
NTE		
Start	Apr 80	May 81
Complete	Sep 80	Oct 81
Joint Navy OPEVAL/Air Force		
IOT&E		
Start	Dec 80	Nov 81
Complete	Jul 81	Nov 82
Initial Production Contract	N/A	Dec 81
(Definitized)		
Full-Scale Production Contract	N/A	Sep 82
(Definitized)		
DSARC III (Full Rate Production)	Sep 81	Mar 83
Navy IOC (A-7E)	Oct 81	Nov 83
USAF IOC (F-4G)	Aug 82	Sep 84

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AGM-88A, December 31, 1984

b. Explanation of Changes -- None.

c. References -- DCP 93A dated 10 July 1978.

7. Technical/Operational Characteristics:

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
a. Technical			
(U) Length (ft)	13	13.7	13.7
(U) Weight (lbs)	780	807	796
(U) Diameter (in)	10	10	10
(U) Frequency Coverage (Band)	(b)(1)		Ch-1)
b. Operational			
Launch Envelope (Aircraft)	(b)(1)		
(U) Altitude (feet MSL)			
(U) Speed (Mach)			
Target Azimuth (relative to launch acft)			
(U) self protect mode			
(U) target of opportunity mode/prebrief mode			
Velocity (avg over first 10 NM)			
(U) Feet per Second (FPS)			
(U) Time to Target (seconds)			
Max Range (Level launch) (NM)			
(U) 5000 ft. altitude			
(U) 30000 ft. altitude			
Guidance Accuracy			
(U) Median CPA in feet			
Reliability			
(U) Missile Free Flight	.95	.91	.95
(U) MTBF Missile Captive Carry (Hrs)	125	170	206 (CH-2)
(U) MTBF Navy Avionics (AWG 25)	351	311	351
(U) Missile Storage (5 yrs/90% conf)	.90	TBD	.90
(U) Probability of fault detection using BIT (BIT Circuitry only) (98% conf)			
(U) Avionics and missile	.95	.95	.95

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AGM-88A, December 31, 1984

b. Operational (Cont'd)	Development <u>Estimate</u>	Demonstrated <u>Performance</u>	Current <u>Estimate</u>
Maintainability			
(U) Mean time to fault locate using BIT (sec)	20	14	14
(U) Mean time to repair (min)			
(U) Avionics "O" Level	55	30	30
(U) Avionics "I" Level	60	TBD	60
(U) Missile "O" Level	20	20	20
(U) Missile "I" Level	60	55	55

c. Explanation of Changes

(Ch-1) Change "Frequency Coverage (GHz)" to "Frequency Coverage (Band)." Downgrades the classification of the SAR to ~~CONFIDENTIAL~~ in lieu of ~~SECRET~~.

(Ch-2) Previously reported in percentiles is now converted to hours to reflect the basis for warranty effectivity.

d. References -- DCP 93A dated 10 July 1978.

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY1978 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	--------------------------------------	------------------------------	------------------------

Appropriation: RDT&E

Current & Prior Years	99	196.5 *	346.9	-
Budget Year (1986)	-	1.2	2.6	1.7188
Balance of FYDP	-	5.5	13.7	-
(1987)	-	(1.1)	(2.6)	1.7890
(1988)	-	(1.3)	(3.2)	1.8578
(1989)	-	(1.2)	(2.9)	1.9241
(1990)	-	(1.9)	(5.0)	1.9895
Balance to Complete	-	-	-	-
Subtotal	99	203.2	363.2	-

* Prebase years 1972-1977 actuals vice constant FY 1978 dollars used. To convert entire program to base FY 1978 dollars an amount of \$108.29 million must be added to this value.

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AGM-88A, December 31, 1984

8. Program Acquisition Cost (Cont'd):

Fiscal Year Period	Quantity	FY1978 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
--------------------	----------	--------------------------------------	------------------------------	------------------------

Appropriation: Procurement

Current & Prior Years	1489	421.0	797.8	-
Budget Year (1986)	904	121.9	266.7	2.1877
Balance of FYDP	4629	497.2	1203.4	-
(1987)	(1177)	(136.3)	(313.1)	2.2969
(1988)	(1627)	(170.4)	(409.6)	2.4039
(1989)	(1723)	(168.9)	(424.0)	2.5109
(1990)	(102)	(21.6)	(56.7)	2.6214
Balance to Complete	-	-	-	-
Subtotal	7022	1040.1	2267.9	-
Total	7121	1243.3	2631.1	-

Program Status --

- (1) Percent Program Completed: 73.7% (14/19)
 (2) Percent Program Cost Appropriated: 43.5% (\$1144.7/\$2631.1)

9. Program Acquisition/Current Procurement Unit Cost Summary:
 (Current (Then Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current	UCR Baseline	UCR Baseline
	Estimate	Estimate	Estimate
a. Program Acquisition--			
(1) Cost	2631.1	3320.8	2631.1
(2) Quantity	7121	8123	7121
(3) Unit Cost	.369	.409	.369
b. Current Procurement --			
(1) Cost	283.5	318.3	266.7
Less CY Adv Proc	-	-	-
Plus PY Adv Proc	-	-	-
Net Total	-	-	-
(2) Quantity	813	803	904
(3) Unit Cost	.349	.396	.295

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AGM-88A, December 31, 1984

10. Cost Variance Analysis:

a. Summary — (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	227.4	1130.5	-	1357.9
Previous Changes:				
Economic	6.1	131.3	-	137.4
Quantity	-	217.4	-	217.4
Schedule	20.0	770.3	-	790.3
Engineering	14.0	-	-	14.0
Estimating	148.1	615.0	-	763.1
Other	-	-	-	-
Support	-	40.7	-	40.7
Subtotal	188.2	1774.7	-	1962.9
Current Changes:				
Economic	-8.8	319.8	-	311.0
Quantity	-	-207.5	-	-207.5
Schedule	-	-45.0	-	-45.0
Engineering	-	-	-	-
Estimating	-43.6	-656.6	-	-700.2
Other	-	-	-	-
Support	-	-48.0	-	-48.0
Subtotal	-52.4	-637.3	-	-689.7
Total Changes	135.8	1137.4	-	1273.2
Current Estimate	363.2	2267.9	-	2631.1

(FY 1978 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	216.5	761.3	-	977.8
Previous Changes:				
Quantity	-	117.7	-	117.7
Schedule	14.1	206.5	-	220.6
Engineering	12.0	-	-	12.0
Estimating	100.4	308.0	-	408.4
Other	-	-	-	-
Support	-	9.6	-	9.6
Subtotal	126.5	641.8	-	768.3
Current Changes:				
Quantity	-	-79.2	-	-79.2
Schedule	-	-11.3	-	-11.3
Engineering	-	-	-	-
Estimating	-139.8	-251.1	-	-390.9
Other	-	-	-	-
Support	-	-21.4	-	-21.4
Subtotal	-139.8	-363.0	-	-502.8
Total Changes	-13.3	278.8	-	265.5
Current Estimate	203.2	1040.1	-	1243.3

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AGM-88A, December 31, 1984

10. Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	227.4	1130.5	-	1357.9
Previous Changes:				
Economic	6.1	131.3	-	137.4
Quantity	-	217.4	-	217.4
Schedule	20.0	770.3	-	790.3
Engineering	14.0	-	-	14.0
Estimating	148.1	615.0	-	763.1
Other	-	-	-	-
Support	-	40.7	-	40.7
Subtotal	188.2	1774.7	-	1962.9
Current Changes:				
Economic	-8.8	319.8	-	311.0
Quantity	-	-207.5	-	-207.5
Schedule	-	-45.0	-	-45.0
Engineering	-	-	-	-
Estimating	-43.6	-656.6	-	-700.2
Other	-	-	-	-
Support	-	-48.0	-	-48.0
Subtotal	-52.4	-637.3	-	-689.7
Total Changes	135.8	1137.4	-	1273.2
Current Estimate	363.2	2267.9	-	2631.1

(FY 1978 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	216.5	761.3	-	977.8
Previous Changes:				
Quantity	-	117.7	-	117.7
Schedule	14.1	206.5	-	220.6
Engineering	12.0	-	-	12.0
Estimating	100.4	308.0	-	408.4
Other	-	-	-	-
Support	-	9.6	-	9.6
Subtotal	126.5	641.8	-	768.3
Current Changes:				
Quantity	-	-79.2	-	-79.2
Schedule	-	-11.3	-	-11.3
Engineering	-	-	-	-
Estimating	-139.8	-251.1	-	-390.9
Other	-	-	-	-
Support	-	-21.4	-	-21.4
Subtotal	-139.8	-363.0	-	-502.8
Total Changes	-13.3	278.8	-	265.5
Current Estimate	203.2	1040.1	-	1243.3

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AGM-88A, December 31, 1984

b. Current Change Explanations --

	(Dollars in Millions)	
	<u>Base Year \$</u>	<u>Then Year \$</u>
(1) <u>RDTE</u>		
Revised escalation indices. (Economic)	N/A	-8.8
\$47.2 transferred from W1780 project to separate project for NWC lower cost seeker development program. Plus \$3.6 for deficiency corrections program. In base year dollars column, \$108.29 of \$139.8 change due to correction of computation error in prior year report, which reported 1972-1977 values in constant FY 1978 dollars vice actual dollars for those years. (Estimating)	-139.8	-43.6
(2) <u>Procurement</u>		
Revised Jan 85 economic escalation. (Economic)	N/A	319.8
Reduced procurement quantity. (Quantity)	-79.2	-207.5
Program rephasing, FY86-FY88 schedule advanced. (Schedule)	-11.3	-45.0
Production repricing recognizes substantial unit cost reductions achieved in negotiation of the FY83/FY84 production contract. Decreasing unit cost trend attributable to effect of threatened second sourcing initiative and other cost reduction measures pursued by the Navy. (Estimating)	-251.1	-656.6
Decrease in PGSE and ILS requirements associated with decrease in 1002 missiles. (Support)	-21.4	-48.0
(3) <u>MILCON</u> -- None.		

c. References -- DCP 93A dated 10 July 1978.

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AGM-88A, December 31, 1984

11. Program Acquisition Unit Cost (PAUC) History:

a. Development Estimate to Current Baseline Estimate

PAUC DE	Changes (Then Year Dollars in Millions)								PAUC CE
	Econ	Qty	Sch	Eng	Est	Spt	Oth	Tot	
0.202	0.063	-0.010	0.105	0.002	0.009	-0.001	-	0.168	0.369

12. Contract Information: (Dollars in Millions)

a. RDT&E -- none.

b. Procurement --

<u>Current Contract</u>	<u>Price</u>	<u>Qty</u>	<u>PM's Est Price</u>
			<u>At Completion</u>

All-Up-Round

Texas Instruments, Inc.
Lewisville, TX
N00019-83-C-0001, FFP
May 23, 1984

149.2	283	149.2
-------	-----	-------

Texas Instruments, Inc.
Lewisville, TX
N00019-84-C-0145, FFP
May 23, 1984

313.5	635	313.5
25.5	+ 87 OPT	25.5

Explanation of Change: Not reported on FFP contracts.

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N-17 HARM

~~(CONFIDENTIAL)~~

SELECTED ACQUISITION REPORT (RCS:DD-COMP(Q&A)823)

PROGRAM: HARM (AGM-88A)

AS OF DATE: (December 31, 1984)

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Unit Cost Summary	6
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Program Acquisition Unit Cost History	8
Contract Information	8

1.(u) Designation/Nomenclature (Popular Name): AGM-88A/High Speed
Anti-Radiation Missile (HARM)

2.(u) DoD Component: U.S. Navy

3.(u) Responsible Office and Telephone Number:
Defense Suppression Systems Program Office
Naval Air Systems Command
Washington, D.C. 20361

PM: CAPT L. E. Kaufman
Assigned: 25 May 83
AUTOVON 222-2137
Area Code (202) 692-2137

4.(u) Program Elements:

RDT&E: 63313N (W1188, W1189); 63363N (WSH07)
64360N (W0553, W1240); 25601N (W1780)
Procurement: 24162N

~~Classified by: OPNAVINST 5513.2A-30
Review on: OADR~~

(THIS PAGE IS UNCLASSIFIED)

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AS AMENDED

4-20-84 1005

~~(CONFIDENTIAL)~~

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PROGRAM ACQUISITION COSTS
System: AGM-88A

As of Date: (December 31, 1984)
Base Year: (FY78)

a. (u) Program Acquisition Cost

(Dollars in Millions)

	(1) Development Estimate (FY72-87)	(2) Changes	(3) Current Estimate (FY84-90)
1. (u) Cost			
Development	216.5	-13.3	203.2
Procurement	761.3	278.8	1040.1
Hardware	(523.1)	(252.6)	(775.7)
Prod Support	(108.4)	(61.4)	(169.8)
Total Flyaway	(631.5)	(314.0)	(945.5)
Fleet Support	(54.3)	(-5.7)	(48.6)
Initial Spares	(75.5)	(-29.5)	(46.0)
Construction	(0.0)	(0.0)	(0.0)
Total Constant FY78\$	977.8	265.5	1243.3
Escalation	380.1	1007.7	1387.8
Development	(10.9)	(149.1)	(160.0)
Procurement	(369.2)	(858.6)	(1227.8)
Construction	(0.0)	(0.0)	(0.0)
Total Program Cost	1357.9	1273.2	2631.1

b. (u) Foreign Military Sales:

(b)(1)

c. (u) Nuclear Costs: None

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BY SECURITY REVIEW (CAS) - 100
DEPARTMENT OF DEFENSE

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2(W) Deliveries (Planned/Actual)

	<u>To Date</u>
R&D	99/ 99
Procurement	214/200

Variance Analysis: Deliveries are behind schedule due to lot of 29 missiles which were conditionally accepted based on passing additional lot acceptance testing (LAT) of rate gyros. The additional testing was unsuccessful for 14 missiles.

PROGRAM FUNDING SUMMARY
System: AUM-88A

As of Date: (December 31, 1984)
Base Year: (FY 1978)

CURRENT ESTIMATE
(\$ in millions)

Fiscal Year	Qty	Base Year Dollars			Then Year Dollars				Escalation Rate (%)
		Adv Proc (Non-Add)	Flyaway (Non-Add)		Total	Total	Obligated	Expended	
			Non-Rec	Rec					
APPROPRIATION: PROCUREMENT									
1981	80	-	7.8	56.9	74.3	119.4	119.1	114.4	11.60
1982	118	-	10.5	41.6	63.2	110.5	100.6	58.5	14.30
1983	160	-	0.0	44.8	47.6	88.7	59.9	10.7	9.00
1984	318	-	17.4	76.9	99.4	195.7	168.7	25.9	8.00
1985	813	-	10.5	118.2	136.5	283.5	3.1	-	4.80
1986	904	-	7.2	108.1	121.9	266.7	-	-	5.70
1987	1177	-	3.2	122.0	136.3	313.1	-	-	5.50
1988	1627	-	1.2	157.4	170.4	409.6	-	-	5.20
1989	1723	-	0.0	161.1	168.9	424.0	-	-	4.80
1990	102	-	0.0	12.0	21.6	56.7	-	-	4.40
TOTAL	7022		57.8	899.0	1040.1	2267.9	451.4	209.5	

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SEP 09 1985

DEFENSE PROGRAMS AND POLICY
SECURITY REVIEW (SRS)
DEPARTMENT OF DEFENSE

PROGRAM FUNDING SUMMARY

System: AGM-88A

As of Date: (December 31, 1984)
Base Year: (FY 1978)

CURRENT ESTIMATE
(\$ in millions)

Fiscal Year	Qty	Base Year Dollars				Then Year Dollars			Escalation Rate (%)
		Adv Proc (Non-Add)	Flyaway (Non-Add)		Total	Total	Obligated	Expended	
			Non-Rec	Rec					
APPROPRIATION: RDT&E									
1972	-	-	-	-	3.1	2.1	2.1	2.1	4.61
1973	-	-	-	-	9.3	6.7	6.7	6.7	4.35
1974	-	-	-	-	12.4	9.7	9.7	9.7	7.97
1975	-	-	-	-	16.7	14.3	14.3	14.3	10.94
1976	13	-	-	-	30.3	27.4	27.4	27.3	6.61
1977	-	-	-	-	4.1	3.9	3.9	3.9	2.88
1977	16	-	-	-	32.4	31.4	31.3	31.3	2.58
1978	25	-	-	-	28.5	29.7	29.7	29.7	6.80
1979	-	-	-	-	38.7	44.6	44.6	41.4	8.40
1980	45	-	-	-	50.1	63.8	63.8	63.7	10.59
1981	-	-	-	-	52.3	72.6	72.6	72.2	10.61
1982	-	-	-	-	15.2	22.2	22.2	21.4	7.60
1983	-	-	-	-	3.7	5.7	5.7	4.2	4.90
1984	-	-	-	-	5.4	8.5	7.3	4.1	3.80
1985	-	-	-	-	2.6	4.3	.7	-	3.70
1986	-	-	-	-	1.2	2.6	-	-	4.40
1987	-	-	-	-	1.1	2.6	-	-	4.20
1988	-	-	-	-	1.3	3.2	-	-	4.00
1989	-	-	-	-	1.2	2.9	-	-	3.70
1990	-	-	-	-	1.9	5.0	-	-	3.40
TOTAL	99				311.5 *	363.2	342.0	332.0	

* \$203.2 reflects FY72 through FY77 actual dollars. To convert entire program to base FY78 dollars, the amount of \$108.3 is added to \$203.2.

CONTRACTOR COSTS	(1)			(2)			(3)
	Initial Contract Price			Current Contract Price			Price at Completion
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate
1. <u>DEVELOPMENT</u>							
N/A							
2. <u>PROCUREMENT</u>							
Texas Instruments, Inc. Lewisville, TX N00019-83-C-0001, FFP May 23, 1984	149.2	149.2	283	149.2	149.2	283	149.2
Texas Instruments, Inc. Lewisville, TX N00019-84-C-0145, FFP May 23, 1984	313.5 25.5	313.5 25.5	635 + 87 OPT	313.5 25.5	313.5 25.5	635 + 87 OPT	313.5 25.5
3. <u>CONSTRUCTION</u>							
N/A							

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SAR-84-113

AF-18 HARM

SELECTED ACQUISITION REPORT (RCS:DD-COMP(Q&A)823)

PROGRAM: HARM (AGM-88A)

AS OF DATE: December 31, 1984

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SECRETORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
OFFICE OF THE SECRETARY OF DEFENSE

1. Designation/Nomenclature (Popular Name): AGM-88A/High Speed
Anti-Radiation Missile (HARM)

2. DoD Component: U. S. Air Force (Navy is Executive Service)

3. Responsible Office and Telephone Number:

Defense Suppression Systems Office PM: CAPT L. E. Kaufman, USN
Naval Air Systems Command Assigned: 25 May 83
Washington, D. C. 20361 AUTOVON 222-2137
AERA CODE 202-692-2137

Deputy Project Manager for HARM Lt Col Norman D. Skrenes, USAF
Naval Air Systems Command PMA 242-1 Assigned: 5 July 1983
Washington, D. C. 20361 AUTOVON 222-2137
AERA CODE 202-692-2137

4. Program Elements:
RDT&E: 27162F Procurement: 27162F

OASD(PA) DFOISR 85-T-629

1

SAF/PAS

85-0171-T

SAF/PAS
-6 MAR 1985 08 56
INCOMING

5. Program Highlights (Since Last Report): FY 83 and FY 84 production contracts were awarded on 23 May 1984 to Texas Instruments for 123 and 285 missiles respectively. An FY 84 contract option was awarded on 31 December 1984. Partial approval in the fall of 1984 of FY 84 Navy and Air Force reprogramming requests authorized an additional quantity of 120 missiles (32 Air Force/88 Navy) which resulted in achieving a more economical production rate. These contracts include a no cost performance, material, and workmanship warranty.

First F-4G/HARM squadron combat capable on 27 September 1984 at George AFB, CA one month ahead of schedule.

FOT&E Phase IA (April - September 1984) evaluated IOT&E deficiency corrections. Operational effectiveness and suitability were judged satisfactory. FOT&E Phase IB is scheduled for May - July 1985. It will evaluate operational suitability of missile software changes to correct IOT&E deficiencies and evaluate suitability of missile software support.

The HARM AGM-88A system is expected to meet current mission requirements.

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY1978 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
--------------------	----------	--------------------------------	------------------------	---------------------

Appropriation: RDT&E

Current & Prior Years	-	23.1	31.1	N/A
Budget Year (1986)	-	2.2	3.9	4.4
Balance of FYDP	-	3.4	6.4	N/A
(1987)	-	(2.1)	(3.9)	4.2
(1988)	-	(1.3)	(2.5)	4.0
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	N/A
Subtotal	-	28.7	41.4	N/A

Appropriation: Procurement

Current & Prior Years	1429	358.8	664.8	N/A
Budget Year (1986)	1715	235.2	485.3	5.7
Balance of FYDP	6023	667.4	1495.0	N/A
(1987)	(2529)	(290.0)	(627.7)	5.5
(1988)	(2540)	(274.3)	(621.5)	5.2
(1989)	(800)	(85.6)	(202.7)	4.8
(1990)	(154)	(17.5)	(43.1)	4.4
Balance to Complete	-	-	-	-
Subtotal	9167	1261.4	2645.1	N/A
Total	9167	1290.1	2686.5	N/A

Program Status --

- (1) Percent Program Completed: 64.3% (9/14)
- (2) Percent Program Cost Appropriated: 25.9% (695.9/2686.5)

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	<u>Current Year</u>		<u>Budget Year</u>
	<u>SAR Current</u>	<u>UCR Baseline</u>	<u>UCR Baseline</u>
	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>
a. Program Acquisition--			
(1) Cost	2686.5	3042.6	2686.5
(2) Quantity	9167	9405	9167
(3) Unit Cost	.293	.324	.293
b. Current Procurement --	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	306.0	338.2	485.3
Less CY Adv Proc	-	-	-
Plus PY Adv Proc	-	-	-
Net Total	306.0	338.2	485.3
(2) Quantity	871	871	1715
(3) Unit Cost	.351	.388	.283

10. Cost Variance Analysis:a. Summary -- (Current (Then Year) Dollars in Millions)

	<u>RDT&E</u>	<u>PROC</u>	<u>MILCON</u>	<u>TOTAL</u>
Development Estimate	11.5	1040.5	-	1052.0
Previous Changes:				
Economic	1.1	84.1	-	85.2
Quantity	-	379.6	-	379.6
Schedule	8.5	1177.8	-	1186.3
Engineering	-	-	-	-
Estimating	11.7	384.1	-	395.8
Other	-	-	-	-
Support	-	-56.3	-	-56.3
Subtotal	21.3	1969.3	-	1990.6
Current Changes:				
Economic	-	38.8	-	38.8
Quantity	-	-44.5	-	-44.5
Schedule	-	20.0	-	20.0
Engineering	-	-	-	-
Estimating	8.6	-388.5	-	-379.9
Other	-	-	-	-
Support	-	9.5	-	9.5
Subtotal	8.6	-364.7	-	-356.1
Total Changes	29.9	1604.6	-	1634.5
Current Estimate	41.4	2645.1	-	2686.5

AGM-88A, December 31, 1984

(FY 1978 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	10.3	693.7	-	704.0
Previous Changes:				
Quantity	-	185.9	-	185.9
Schedule	5.9	431.9	-	437.8
Engineering	-	-	-	-
Estimating	7.9	161.3	-	169.2
Other	-	-	-	-
Support	-	- 31.9	-	- 31.9
Subtotal	13.8	747.2	-	761.0
Current Changes:				
Quantity	-	-18.8	-	-18.8
Schedule	-	5.5	-	5.5
Engineering	-	-	-	-
Estimating	4.6	-168.3	-	-163.7
Other	-	-	-	-
Support	-	2.1	-	2.1
Subtotal	4.6	-179.5	-	-174.9
Total Changes	18.4	567.7	-	586.1
Current Estimate	28.7	1261.4	-	1290.1

10. Cost Variance Analysis (Cont'd):

b. Current Change Explanations --

(Dollars in Millions)		
	Base Year \$	Then Year \$
(1) <u>RDT&E</u>		
Correction of Operational Test Deficiencies (Estimating)	4.6	8.6
(2) <u>Procurement</u>		
Revised Jan 85 economic escalation rates (Economic)	-	38.8
Decrease in procurement quantity by 238 missiles in FY 89	- 25.5	- 60.2
- Cost associated with revised procurement quantity (Quantity)	(- 18.8)	(-44.5)
- Estimating changes due to decrease in procurement quantity (Estimating)	(- 6.7)	(-15.7)
Procurement of 154 missiles in FY 90 vice FY 89 plus accelerated procurement in FY 87/88 (Schedule)	5.5	20.0

AGM-88, December 31, 1984

Program repricing due to contractor negotiations (Estimating)	-155.3	-361.3
Adjustment for prior years escalation (Estimating)	- 6.3	- 11.5
Decrease in spares requirements(Support)	- 5.7	- 9.7
Revised estimate for Peculiar Support Equipment (Support)	7.8	19.2

c. References -- Draft Decision Coordinating Paper (DCP) #93A, 10 July 1978.

11. Program Acquisition Unit Cost (PAUC) History:

Initial SAR/Development Estimate to Current Estimate

PAUC (Initial SAR/DE)	Changes (Then Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
.148	.014	.003	.131	.000	.002	-.005	.000	.145	.293

AF-18 HARM

SELECTED ACQUISITION REPORT (RCS:DD-COMP(Q&A)823)
PROGRAM: HARM (AGM-88A)

AS OF DATE: (December 31, 1984)

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1. Designation/Nomenclature (Popular Name): AGM-88A/High Speed
Anti-Radiation Missile (HARM)

2. DoD Component: U. S. Air Force (Navy is Executive Service)

3. Responsible Office and Telephone Number:

27 Defense Suppression Systems Office
Naval Air Systems Command
Washington, D. C. 20361

PM: CAPT L. E. Kaufman, USN
Assigned: 25 May 83
AUTOVON 222-2137
AREA CODE 202-692-2137

Deputy Project Manager for HARM
Naval Air Systems Command PMA 242-1
Washington, D. C. 20361

Lt Col Norman D. Skrenes, USAF
Assigned: 5 July 83
AUTOVON 222-2137
AREA CODE 222-692-2137

4. Program Elements:

RDT&E: 27162F Procurement: 27162F

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SAF/PAS

85-1023-T

PROGRAM FUNDING SUMMARY

System: AGM-88A

As of Date: (December 31, 1984)

Base Year: (FY 1978)

CURRENT ESTIMATE
(\$ in millions)

Fiscal Year	Qty	Base Year Dollars				Then Year Dollars			Escalation Rate (%) 1/
		Adv Proc (Non-Add)	Flyaway (Non-Add)		Total	Total	Obligated	Expended	
			Non-Rec	Rec					
APPROPRIATION: RDT&E									
1977					.5	.5	.5	.5	7.3
1978					3.9	4.0	4.0	4.0	9.2
1979					2.0	2.3	2.3	2.3	8.4
1980					1.5	1.9	1.9	1.9	9.4
1981					7.0	9.7	9.7	9.7	11.9
1982					2.9	4.3	4.3	4.3	9.2
1983					3.1	4.8	4.8	3.0	4.9
1984					1.0	1.6	1.6	.6	3.8
1985					1.2	2.0	.1	--	3.7
1986					2.2	3.9	--	--	4.4
1987					2.1	3.9	--	--	4.2
1988					1.3	2.5	--	--	4.0
TOTAL					28.7	41.4	29.2	26.3	

1/ Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

PROGRAM FUNDING SUMMARY

System: AGM-88A

As of Date: (December 31, 1984)
Base Year: (FY 1978)

CURRENT ESTIMATE
(\$ in millions)

Fiscal Year	Qty	Base Year Dollars				Then Year Dollars			Escalation Rate (%) ^{1/}
		Adv Proc (Non-Add)	Flyaway (Non-Add)		Total	Total	Obligated	Expended	
			Non-Rec	Rec					
APPROPRIATION: PROCUREMENT									
1982	118	--	9.6	43.2	60.6	99.7	99.0	93.5	9.6
1983	123	--	2.9	33.9	43.1	75.6	75.6	31.6	9.0
1984	317	--	16.6	67.9	98.8	183.5	137.9	10.7	8.0
1985	871	--	12.0	134.4	156.3	306.0	--	--	4.8
1986	1715	--	14.4	217.3	235.2	485.3	--	--	5.7
1987	2529	--	7.3	278.4	290.0	627.7	--	--	5.5
1988	2540	--	2.0	261.2	274.3	621.5	--	--	5.2
1989	800	--	--	80.1	85.6	202.7	--	--	4.8
1990	154	--	--	14.4	17.5	43.1	--	--	4.4
TOTAL	9167		64.8	1130.8	1261.4	2645.1	312.5	135.8	

^{1/} Since outlay rates are not shown, the escalation rates cannot be used to verify the composite index.

PROGRAM ACQUISITION COSTS
System: AGM-88A

As of Date: (December 31, 1984)
Base Year: (FY78)

a. Program Acquisition Cost

	(1) Development <u>Estimate</u> (FY77-88)	(2) <u>Changes</u>	(3) Current <u>Estimate</u> (FY77-90)
1. <u>Cost</u>			
Development	10.3	18.4	28.7
Procurement	693.7	567.7	1261.4
Air Vehicle	654.1	541.5	1195.6
Total Flyaway	654.1	541.5	1195.6
Peculiar Support	26.2	10.6	36.8
Initial Spares	13.4	15.6	29.0
Construction	0.0	0.0	0.0
TOTAL Constant FY78\$	<u>704.0</u>	<u>586.1</u>	<u>1290.1</u>
 Escalation	 348.0	 1048.4	 1396.4
Development	1.2	11.5	12.7
Procurement	346.8	1036.9	1383.7
Construction	0.0	0.0	0.0
 TOTAL Program Cost	 <u>1052.0</u>	 <u>1634.5</u>	 <u>2686.5</u>

b. Foreign Military Sales: None

c. Nuclear Costs: None

System: AGM-88A

As Of Date: December 31, 1984

Deliveries (Plan/Actual)

	<u>To Date</u>
Development	0/0
Procurement	138/125

Variance Analysis: HARM rate gyros failed lot acceptance test (LAT). The gyros were to be used in the last 15 missiles to be delivered under the FY82 contract.

Contract Information: See Navy SAR

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SAR-84-060

N-18 HARPOON

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SELECTED ACQUISITION REPORT (RCS:DD-COMP(Q7A)823)
PROGRAM: HARPOON (AGM/RGM/UGM-84A/C/D)

AS OF DATE: DECEMBER 31 1984

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

1. Designation/Nomenclature (Popular Name) AGM-84A, C, D/RGM-84A, C, D/UGM-84A, C, D/Anti-Ship Weapon System (Harpoon)

2. DoD Component: U.S. Navy

3. Responsible Office and Telephone Number:

Anti-Ship Weapon System Program Office
PMA-258
Naval Air Systems Command
Washington, DC 20361

PM: Roger V. Goodson
Assigned: September 13, 1982
Telephone: (202) 692-3340
Aurovon: 222-3340

4. Program Elements:

EDT&E, N: P.E. 63312N, P.E. 64364N - development of AGM-84/RGM-84
P.E. 63364N - development of UGM-84
P.E. 25603N - Harpoon Improvements - FY. 79 only
P.E. 64227N - Harpoon Range Extension

WPN: P.E. 24229N
P.E. 24271N
P.E. 24284N

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~~Review on: 21 December 1982~~

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Harpoon, December 31, 1984

5. Program Highlights (Since Last Report): A second approval for limited production (ALP) of Block 1C was received 30 September 1984. Approval for Full Production will be granted upon successful completion of full system tests aboard the various launch platforms. HARPOON will meet operational mission requirements. A seeker product improvement effort was begun to improve performance in passive and active countermeasures environments.

6. Schedule:

a. Milestones

	<u>Development Estimate</u>	<u>Current Estimate</u>
Initiate Development (Validation Phase)	Mar 70	Mar 70
Award Engine Advanced Development Contract	Feb 71	Feb 71
Award Design Phase Contract	Jun 71	Jun 71
First Control Test Vehicle Launches	Aug 72	Oct 73
Complete 4 Successful Guidance Test Vehicle Launches	Mar 73	Mar 73
Award Weapon System Development Contract	Jun 73	Jun 73
First Prototype Missile Launch	Feb 74	Mar 74
Award Pilot Line Production Contract	Jun 74	Jul 74
Start Navy Technical Evaluation	Dec 74	Nov 74
Start OPEVAL (Msl, P-3 & FF-1052)	Jul 75	Aug 75
Complete OPEVAL (P-3 & FF-1052)	Dec 75	Mar 77
Approval for Service Use for Harpoon Weapon System	Dec 75	Feb 81
First Delivery to Fleet	Dec 75	Jul 77
IOC (FF-1052)	Jun 76	Jul 77
Definitization First Production Contract	Mar 76	Nov 76
IOC (Submarine)	Apr 76	Jul 77
Accept First Production Missile	Feb 77	Feb 77
IOC (P-3 Aircraft)	Jun 76	Aug 79
IOC (A-6 Aircraft)	Oct 81	Oct 81
Block 1C Missile - Approval for Limited Production	Nov 82	Jun 83

b. Explanation of Changes

None

c. References — Development Concept Paper (DCP) No. 77 dated
May 16, 1978 Amended by DSARC IIB, June 25, 1974.

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HARPOON(84A/C/D) December 31, 1984

7. Operational Characteristics:

a. Operational	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Speed (mach)	0.8	0.8	0.8
Range (nm)			
Max/Min			
Block 1/1B	(b)(1)		
Block 1C			
Altitudes/Launch Depth (ft)			
Max Launch (air)			
Min Launch (air)			
Max Launch (sub)	(b)(1)		
Min Launch (sub)			
(periscope depth)			
Reliability			
Missile (free flt %)	90	90	90
Missile (Ready storage, ship			
6 mos)	0.90	0.90	0.90
A/C C&L sys (MTBF hrs)	150	251	251
Ship C&L sys (MTBF hrs)	150	537	537
Missile (air carry MTBF hrs)			
P-3	250	381	250
A-6	250	148	250
Hlt Probability			
DD/60 nm	(b)(1)		
Block 1/1B (60 NM)			
Block 1C (70 NM)			
KOMAR/30 nm			
Block 1/1B			
Block 1C			

b. Explanation of Changes:

None:

- c. References -- Development Concept Paper No. 77 dated May 16, 1973
Amended by DSARC IIB, June 25, 1974.

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HARPOON(84A/C/D) December 31, 1984

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1970 Constant (Base Year)\$	Current (Then Year)\$	Escallation Rate (%)
--------------------	----------	--------------------------------	-----------------------	----------------------

Appropriation: RDT&E

Current & Prior Years	52	317.5	320.8	N/A
Budget Year (1986)	-	-	-	N/A
Balance of FYDP	-	23.4	88.8	N/A
(1987)	-	-	-	N/A
(1988)	-	(4.9)	(17.5)	4.0
(1989)	-	(7.9)	(29.6)	3.7
(1990)	-	(10.6)	(41.7)	3.4
Balance to Complete	-	-	-	N/A
Subtotal	52	340.9	409.6	N/A

Appropriation: Procurement

Current & Prior Years	2642	899.9	2113.6	N/A
Budget Year (1986)	395	97.2	338.6	5.7
Balance of FYDP	676	255.4	1004.3	N/A
(1987)	(153)	(58.5)	(214.1)	5.5
(1988)	(173)	(58.0)	(221.8)	5.2
(1989)	(150)	(64.0)	(255.8)	4.8
(1990)	(200)	(74.9)	(312.6)	4.4
Balance to Complete	-	-	-	N/A
Subtotal	3713	1252.5	3456.5	N/A

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HARPOON(84A/C/D) December 31, 1984

Appropriation: MILCON

Current & Prior Years	-	.3	.7	N/A
Budget Year (1986)	-	-	-	N/A
Balance of FYDP	-	-	-	N/A
Balance to Complete	-	-	-	N/A
Subtotal	-	.3	.7	N/A
Total	3765	1593.7	3866.8	N/A

Program Status —

(1) Percent Program Completed: 58.7% 14/19 Years

(2) Percent Program Cost Appropriated: 63.0% (\$2,435.2/\$3,866.8)

9. Program Acquisition/Current Procurement Unit Cost Summary:

(Current, (Then Year) Dollars in Millions)

	<u>Current Year</u>		<u>Budget Year</u>
	<u>SAR Current</u> <u>Estimate</u>	<u>UCR Baseline</u> <u>Estimate</u>	<u>UCR Baseline</u> <u>Estimate</u>
a. Program Acquisition —			
(1) Cost	3,866.8	3,828.9	3,866.8
(2) Quantity	3,765	3,804	3,765
(3) Unit Cost	1.027	1.007	1.027
b. Current Procurement —	(FY 1985)	(FY 1985)	(1986)
(1) Cost	310.6	362.0	338.6
Less CY Adv Proc	N/A	N/A	N/A
Plus FY Adv Proc	N/A	N/A	N/A
Net Total	N/A	N/A	N/A
(2) Quantity	354	354	395
(3) Unit Cost	.877	1.023	.857

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HARPOON(84A/C/D) December 31, 1984

10. Cost Variance Analysis:**a. Summary — (Current (Then Year) Dollars in Millions)**

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)	315.9	715.9	-	1031.8
Previous Changes				
Economic		+256.5		+ 256.5
Quantity	+ 2.6	+1618.0		+1620.6
Schedule		+ 95.3		+ 95.3
Engineering	+19.5	+ 155.9		+ 175.4
Estimating	- 2.2	+ 123.9		+ 121.7
Other				
Support		+ 526.9	+ .7	+ 527.6
Subtotal	+19.9	+2776.5	+ .7	+2797.1
Current Changes				
Economic		-153.7		-153.7
Quantity	- 2.6	-1040.4		-1043.0
Schedule		- 95.3		- 95.3
Engineering	+74.2	-155.9		- 81.7
Estimating	+ 2.2	+1288.4		+1290.6
Other				
Support		+121.0		+121.0
Subtotal	+73.8	- 35.9	-	+ 37.9
Total Changes	+93.7	+2740.6	+ .7	+2835.0
Current Estimates	409.6	3456.5	.7	3866.8

(FY 1970 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)	272.0	523.0	-	795.0
Previous Changes				
Quantity		+ 374.2		+ 374.2
Schedule		+ 1.9		1.9
Engineering	+ 27.8	+ 75.3		- 103.1
Estimating	- 31.8	+ 218.7		+ 186.9
Other				
Support		+ 160.4	+ .3	+ 160.7
Subtotal	- 4.0	+ 830.5	+ .3	+ 826.8
Current Changes				
Quantity		- 195.8		- 195.8
Schedule		- 1.9		- 1.9
Engineering	+ 41.1	- 75.3		- 34.2
Estimating	+ 31.8	+ 130.0		+ 161.8
Other				
Support		+ 42.0		+ 42.0
Subtotal	+ 72.9	- 101.0	-	- 28.1
Total Changes	+ 68.9	+ 729.5	+ .3	+ 798.7
Current Estimate	340.9	1252.5	.3	1593.7

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HARPOON(84A/C/D) December 31, 1984

b. Current Change Explanations -

	(Dollars in Millions)	
	<u>Base Year \$</u>	<u>Then Year \$</u>
(1) <u>RDT&E</u>		
Addition of Extended Range Program (Estimating)	+ 41.1	+ 73.8
(2) <u>Procurement</u>		
Added FY 90 (Quantity + 200) Various decreases FY 86 thru FY 89. Net decrease 39 units. (Quantity)	+ 110.1	+ 267.4
Estimating Change applicable to qty change (Decrease as a result of FY 84 contract negotiations)(Estimating)	- 170.1	- 511.4
Support for increase quantity (Added FY 90 to FYDP)(Support)	+ 9.7	+ 105.4
Correction of Previous Errors		
Economics		- 153.7
Quantity	- 305.9	- 1307.8
Schedule	- 1.9	- 95.3
Engineering	- 75.3	- 155.9
Estimating	+ 300.1	+ 1799.8
Support	+ 32.3	+ 15.6

c. References —

- . (DE) DCP No. 77 dated May 16, 1983, Amended by DSARC IIB, June 25, 1974.
- . FY 1986 Presidential Budget.

11. Program Acquisition Unit Cost (PAUC) History:

a. Current Baseline Estimate to Current Estimate

PAUC (DE)	Changes (Then Year Dollars in Millions)								PAUC (Current) Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
.353	.027	.074	-	.025	.376	.172	-	.674	1.027

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HARPOON (84A/C/D), December 31, 1984

12. Contract Information: (Dollars in Millions)

a. Procurement

<u>Missile:</u>	<u>Current Contract</u> <u>Target</u>	<u>Qty</u>	<u>PM's Est. Price</u> <u>At Completion</u>
McDonnell Douglas Astronautics St. Charles, Mo. N00019-80-C-0157/FFP February 29, 1980	\$222.4	425	\$ 222.4
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 20.3		None
Cumulative Variances To Date	\$ 20.3		None
Net Change	0		

<u>Missile:</u>	<u>Current Contract</u> <u>Target</u>	<u>Qty</u>	<u>PM's Est. Price</u> <u>At Completion</u>
McDonnell Douglas Astronautics St. Charles, Mo. N00019-81-C-0013/FFP April 30, 1981	\$ 305.5	409	\$ 305.5
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 36.9		None
Cumulative Variance To Date	\$ 36.9		None
Net Change	0		

<u>Missile</u>	<u>Current Contract</u> <u>Target</u>	<u>Qty</u>	<u>PM's Est. Price</u> <u>At Completion</u>
McDonnell Douglas Astronautics St. Charles, Mo. N00019-82-C-0013/FFP March 31, 1982	\$ 307.9	406	\$ 307.9
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variance	\$ 83.5		None
Cumulative Variance To Date	\$ 78.4		None
Net Change	\$- 5.1		

Explanation of Change: The McDonnell Douglas Astronautics Company's favorable cost variance is due to negotiations of not to exceed ordering items at a lower price. The program manager's assessment remains at the current negotiated contract price and is within approved funding.

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HARPOON(84A/C/D) December 31, 1984

<u>Missile</u>	<u>Current Contract</u>	<u>PM's Est. Price</u>	
	<u>Target</u>	<u>Qty</u>	<u>At Completion</u>
McDonnell Douglas Astronautics St. Charles, Mo. N00019-82-C-0017/FFP March 28, 1983	\$ 267.6	364	\$ 267.6
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variance	\$ 20.1		None
Cumulative Variance To Date	\$ 52.1		None
Net Change	\$+32.0		

Explanation of Change: McDonnell Douglas Astronautics Company's unfavorable cost variance is due to authorized engineering change proposals and orders placed against previously unpriced basic ordering agreements. The program managers assessment remains within approved funding.

<u>Engine</u>	<u>Current Contract</u>	<u>PM's Est. Price</u>	
	<u>Target</u>	<u>Qty</u>	<u>At Completion</u>
Teledyne CAE Toledo, Ohio N00019-81-C-0034/FFP May 29, 1981	\$ 25.5	423	\$ 25.0
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variance	\$ 0.5		None
Cumulative Variance To Date	\$ 0.5		None
Net Change	0		

<u>Engine</u>	<u>Current Contract</u>	<u>PM's Est. Price</u>	
	<u>Target</u>	<u>Qty</u>	<u>At Completion</u>
Teledyne CAE Toledo, Ohio N00010-82-C-0011/FFP June 30, 1982	\$ 24.5	426	\$ 24.5
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variance	\$ 0.2		None
Cumulative Variance To Date	\$ 0.2		None
Net Change	0		

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N-18 HARPOON

PROGRAM ACQUISITION COSTS SYSTEM: HARPCON (AGM/RGM/UGM-84A/C/D)

As Of Date: December 31, 1984
Base Year: 1970

a. PROGRAM ACQUISITION COST

	(1) DEVELOPMENT ESTIMATE (FY 70-81)	(2) CHANGES	(3) CURRENT ESTIMATES (FY 70-90)
1. COST			
DEVELOPMENT	272.0	68.9	340.9
PROCUREMENT (MISSILE)	523.0	729.5	1252.5
FLY-A-WAY	(457.6)	(566.1)	(1023.7)
FLEET SUPPORT	(31.4)	(86.7)	118.1
INITIAL SPARES	(34.0)	(76.7)	(110.7)
CONSTRUCTION	—	.3	.3
TOTAL: CONSTANT FY 70\$	795.0	798.7	1593.7
ESCALATION	236.8	2036.3	2273.1
DEVELOPMENT	(43.9)	(24.8)	(68.7)
PROCUREMENT	192.9	(2011.1)	(2204.0)
CONSTRUCTION	—	(.4)	(.4)
TOTAL PROGRAM COST	1031.8	2835.0	3,866.8

b. Foreign Military Sales: Sales to date total 1,638 missiles for an estimated cost of \$1,119M, R&D recoupment to date is \$54M. Netherlands - 12 at \$4M; Turkey - 63 at \$32M; Iran - 14 at \$7M; S. Korea - 120 at \$63M; Saudi Arabia - 230 at \$134M; (b)(1) Denmark - 92 at \$71M; UK - 360 at \$311M; Australia - 53 at 28M; W. Germany - 132 at \$73M; Japan - 227 at \$177M; Spain at \$32M; Greece - 64 at \$40M; (b)(1) (b)(1); Thailand - 17 at \$13M; Canada - 36 at \$35M; (b)(1)

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Review on: 31 December 1992

~~Declassify on: OADR~~

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SEP 06 1985

U.S. DEPARTMENT OF DEFENSE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20301

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PROGRAM FUNDING SUMMARY
 SYSTEM: (HARPOON (AGH/RGM/UGH-84A/C/D))
 AS OF DATE: DECEMBER 31, 1984
 BASE YEAR 1970

CURRENT ESTIMATE
 (\$ in millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E

1970	-	---	---	---	5.0	5.1	5.1	5.1	5.51
1971	12	---	---	---	19.1	19.3	18.9	18.9	5.14
1972	-	---	---	---	42.1	42.3	42.3	42.3	4.61
1973	-	---	---	---	70.8	71.8	71.8	71.7	4.35
1974	40	---	---	---	91.2	92.0	91.9	91.8	7.97
1975	-	---	---	---	68.9	69.1	68.1	68.7	10.94
1976	-	---	---	---	19.2	19.7	19.7	16.7	6.61
1979	-	---	---	---	1.2	1.5	1.5	1.5	8.40
1986	-	---	---	---	4.9	17.5	---	---	4.00
1989	-	---	---	---	7.9	29.6	---	---	3.70
1990	-	---	---	---	10.6	41.7	---	---	3.40
TOTAL	52	---	---	---	340.9	409.6	320.3	316.7	

APPROPRIATION: PROCUREMENT

1975	100	---	7.0	43.0	58.8	83.0	83.0	82.2	8.81
1976	170	---	7.4	69.3	88.2	134.2	134.2	130.8	6.59
1977	66	---	1.0	22.9	27.9	44.4	44.4	44.1	3.56
1977	220	---	---	78.2	89.3	150.8	150.8	148.4	3.78
1978	234	---	---	63.7	73.8	139.3	139.1	136.5	6.80
1979	240	---	---	59.6	66.3	137.8	137.8	134.3	8.72
1980	240	---	---	57.2	65.3	149.7	145.2	145.7	11.80
1981	240	---	---	61.1	85.0	217.2	217.2	209.9	11.60
1982	240	---	---	67.4	82.4	229.2	217.2	191.1	14.30
1983	223	---	---	58.4	77.2	229.6	197.8	170.5	9.00
1984	315	---	---	75.4	91.8	287.9	225.8	105.6	8.00
1985	354	---	---	73.7	93.9	310.6	231.3	16.8	4.80
1986	370	---	---	80.0	97.2	338.6	---	---	5.70
1987	44	---	---	40.7	58.5	214.1	---	---	5.50
1988	204	---	---	35.3	58.0	221.8	---	---	5.20
1989	258	---	---	40.9	64.0	255.8	---	---	4.80
1990	333	---	---	57.4	74.9	312.6	---	---	4.40
TOTAL	3713	---	15.4	999.6	1252.5	3456.6	1923.8	1515.9	

APPROPRIATION: CONSTRUCTION

1979	---	---	---	---	.3	.7	.7	.7	
------	-----	-----	-----	-----	----	----	----	----	--

SYSTEM: HARPOON (AGM/RGM/UGM-84A/C/D)

Am. of Date: 31 December 1984

Initial Contract
Ceiling Qty

Current Contract Price	
Celling	Oty

Price at Completion
Contractor Estimate

1. Development

All Development Contracts Are Complete

2. Procurement

McDonnell Douglas Corp.
N00019-80-C-0157 FPP 29 Feb 80

202.1 425

222.4 -425

222.4

McDonnell Douglas Corp.
N00019-81-C-0013 FFP 30 Apr 81

229.3 409

305.5 409

305.5

✓ McDonnell Douglas Corp.
N00019-82-C-0013 FFP 31 Mar 82

229.5 406

307.9 406

307.9

✓ McDonnell Douglas Corp. B/
N00019-82-C-0017 PFP 28 Mar 83

215.5 364

267.6 364

267.6

Teledyne CAE
N00019-81-C-0034 FFP 29 May 81

25.0 423

25.5 423

25.5

✓ Teledyne CAE
N00019-82-C-0011 FFP 30 Jun 82

24.3 426

24.5 426

24.5

1990-06-1985

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

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SAR-84-061

N-21 LAMPS

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A) 823)

PROGRAM: LAMPS MK III

AS OF DATE: December 31, 1984

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1. Designation/Nomenclature (Popular Name): Light Airborne Multi-Purpose System (LAMPS MK III)

2. DoD Component: U.S. Navy

3. Responsible Office and Telephone Number:

Light Airborne Multi-Purpose System
Project Office
Naval Air Systems Command
Washington, D.C.

PM: Capt R.G. Harrison
Assigned: May 23, 1984
Commercial (202) 692-8090
AUTOVON 222-8090

4. Program Elements:

RDT&E: 24243N, 63254N, 64212N
PROCUREMENT: 24228N, 24243N, 24262N, 28015N
CONSTRUCTION: 24611N, 24696N

CLEARED
FOR OPEN PUBLICATION

MAR 22 1985 25

FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (RASD-PA)
DEPARTMENT OF DEFENSE

~~CLASSIFIED BY: ID 82A-39 of
OPNAVINST 5513.2
REVIEW ON OADR~~

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OASD(PA) DFOISR

8-918

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LAMPS MK III, December 31, 1984

5. Program Highlights (Since Last Report): The Navy has accepted 36 production SH-60B Seahawk airframes, 26 full avionics populated Seahawks and 29 sets of LAMPS MK III shipboard electronics and Helicopter Landing Systems (HLS). Three ships are preparing for extended deployment of the SH-60B helicopter. Based on current projections, LAMPS MK III expected to fulfill all mission requirements.

6. Schedule:

a. Milestones	<u>Development Estimate</u>	<u>Current Estimate</u>
Program Initiated (TSOR issued)	Feb 69	Feb 69
DSARC I/II	Jun 72	Jun 72
DSARC IIA	Jul 73	Jul 73
Select System Prime Contractor (Phase I System Integration)	Apr 74	Apr 74
DSARC IIB	May 76	May 76
Award Full Scale Development Sustaining Engineering Contracts (Prototype System)	Sep 77	Sep 77
DSARC IIC	Feb 78	Feb 78
First Prototype Aircraft Flight	N/A	Dec 79
First Prototype Aircraft Delivery	Nov 79	Jan 80
Complete Prototype Ship System Installation	Oct 80	Nov 80
Complete OT IIA, HLS OPEVAL	N/A	Jun 81
Program Review	Aug 81	Sep 81
Award Aircraft Pilot Production Contract	Oct 81	Oct 81
Complete Initial Operational Evaluation	Jan 82	Feb 82
Complete Initial Board of Inspection and Survey Trials	Jan 82	Sep 82
DSARC III	Apr 82	Jun 82
Award Full Scale Production Contracts	Oct 82	Dec 82
First Production Ship ASW System Delivery	Jul 83	Jun 83
First Pilot Production Aircraft Delivery	Oct 83	Sep 83
Initial Operational Capability (IOC)	Jul 84	Jul 84

b. Explanation of Changes

No change from previous SAR.

c. References -- SDDM, dated December 8, 1982, subject "LAMPS MK III Program" (Approval for Production).

7. Technical/Operational Characteristics:

a. Technical	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Weight (lbs) (Maximum Gross)	20,829	21,884	21,884 (Ch-1)
Dimensions			
Length (ft)			
Overall	64.8	64.8	64.8
Folded	41.1	41.1	41.1
Width (ft)			
Normal (w/o main rotor)	14.3	14.3	14.3
Folded	10.8	10.8	10.8

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LAMPS MK III, December 31, 1984

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
(U) Dimensions (Continued)			
(U) Height (ft)			
Normal	11.9	11.9	11.9
Folded	13.2	13.2	13.2
b. (U) Operational			
(U) System Performance			
(U) Operate in Sea State	5	5	5
(U) Data Transfer Reliability (%)			
(d) ASW at 100nm	(b)(1)		
(d) ASST at 40 nm			
(U) Mission Reliability			
(d) ASW Probability of Success (Total System) (%)			
(d) ASST Probability of Success (Total System) (%)			
(U) Mean Flight Hours Between Failures			
SH-60B Seahawk (Air Vehicle Avionics)	2.0	1.5	2.3 (Ch-2)
(U) Maintainability			
(U) Direct Maintenance			
Man-hours/Flight Hour			
SH-60B Seahawk	N/A	11.97	18.5 (Ch-3)
(O-Level Total)			
(U) Mean Time to Repair (Hrs) (Elapsed Maintenance Time/ Maintenance Action)			
Air Vehicle	1.0	1.02	2.7 (Ch-4)
Ship Electronics	1.5	3.00	2.5
(d) Operational Availability (%) (Total System)	(b)(1)	(b)(1)	
(U) Aircraft Performance			
(d) Endurance			
ASW at 100nm (Hrs)	2.0	2.0	2.0
ASST at 40 nm (Hrs)	3.5	3.5	3.5
(d) Speed			
Mission Dash (Kts)	(b)(1)		

c. Explanation of Changes -- (Ch-1) NAVAIR certified weight (AIR-530).

(Ch-2) Current reports indicate performance improvements.

(Ch-3) Current reports indicate performance less than prior estimate.

(Ch-4) Same as Ch-3.

(Ch-5) Current estimate is the DCP-85 mature system goal.

d. References -- SDDM, dated December 8, 1982, subject "LAMPS MK III Program" (Approval for Production).

^{1/} (o) represents results obtained during operational testing. (d) represents results obtained during developmental testing.

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8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)^{1/}

Fiscal Year Period	Quantity	FY 1976 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: RDT&E^{2/}

Current & Prior Years	-	594.1	763.3	N/A
Budget Year (1986)	-	1.0	1.9	4.4
Balance Of FYDP	-	67.5	145.3	N/A
(1987)	-	(9.2)	(18.6)	4.2
(1988)	-	(17.9)	(37.6)	4.0
(1989)	-	(20.2)	(43.8)	3.7
(1990)	-	(20.2)	(45.3)	3.4
Balance to Complete	-	-	-	-
Subtotal	-	662.6	910.5	N/A
(Aircraft)	5	(583.8)	(791.6)	N/A
(Ship Systems)	3	(78.8)	(118.9)	N/A

Appropriation: APN

Current & Prior Years	90	1205.5	2608.9	N/A
Budget Year (1986)	18	150.5	378.8	5.7
Balance Of FYDP	72	521.2	1472.8	N/A
(1987)	(18)	(134.1)	(354.7)	5.5
(1988)	(18)	(130.2)	(360.4)	5.2
(1989)	(18)	(135.7)	(392.1)	4.8
(1990)	(18)	(121.2)	(365.6)	4.4
Balance to Complete	24	180.6	580.8	N/A
Subtotal	204	2057.8	5041.3	N/A

Appropriation: OPN

Current & Prior Years	33	141.0	266.0	N/A
Budget Year (1986)	6	22.7	47.1	4.4
Balance Of FYDP	11	76.1	170.2	N/A
(1987)	(4)	(21.2)	(45.2)	4.2
(1988)	(7)	(29.9)	(66.6)	4.0
(1989)	-	(12.8)	(29.4)	3.7
(1990)	-	(12.2)	(29.0)	3.4
Balance to Complete	-	-	-	-
Subtotal	50	239.8	483.3	-

^{1/} Excludes SC,N costs of \$601.7 for 46 ship systems (20 FFG-7 class ships, 25 CG-47 class ships and 1 DDG-51 class ship). The applicable systems/costs are reported in the FFG-7, CG-47 and DDG-51 Selected Acquisition Reports.

^{2/} Excludes RDT&E costs of \$41.6M for the Penguin missile.

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LAMPS MK III, December 31, 1984

8. Program Acquisition Cost (Cont'd): (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1976 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
--------------------	----------	---------------------------------	------------------------	---------------------

Appropriation: O&MN

Current & Prior Years	8	26.7	50.8	N/A
Budget Year (1986)	5	20.3	40.5	4.4
Balance Of FYDP	33	120.3	258.7	N/A
(1987)	(9)	(43.6)	(90.5)	4.2
(1988)	(15)	(56.0)	(120.8)	4.0
(1989)	(3)	(6.6)	(14.8)	3.7
(1990)	(6)	(14.1)	(32.6)	3.4
Balance to Complete	4	9.3	22.3	N/A
Subtotal	50	176.6	372.3	N/A

Appropriation: MILCON

Current & Prior Years	-	12.2	21.5	N/A
Budget Year (1986)	-	-	-	-
Balance Of FYDP	-	-	-	-
(1987)	-	-	-	-
(1988)	-	-	-	-
(1989)	-	-	-	-
(1990)	-	-	-	-
Balance to Complete	-	-	-	-
Subtotal	-	12.2	21.5	N/A
(Aircraft)	-	(9.7)	(17.1)	N/A
(Ship Systems)	-	(2.5)	(4.4)	N/A

Program Total

Total		3149.0	6828.9	N/A
(Aircraft)	209	(2651.3)	(5850.0)	N/A
(Ship Systems)	55	(497.7)	(978.9)	N/A

Program Status --

(1) Percent Program Completed: 65.4% (17/26)

(2) Percent Program Cost Appropriated: 54.3% (\$3710.5/\$6828.9)

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9. Program Acquisition/Current Procurement Unit Cost Summary: (Current
(Then Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current	UCR Baseline	UCR Baseline
	Estimate	Estimate	Estimate
(Aircraft)			
a. Program Acquisition --			
(1) Cost	5850.0	5964.2	5850.0
(2) Quantity	209	209	209
(3) Unit Cost	27.990	28.537	27.990
b. Current Procurement -- (FY 1985)		(FY 1985)	(FY 1986)
(1) Cost	476.7	481.3	378.8
Less CY Adv Proc	-57.9	-52.4	-54.9
Plus PY Adv Proc	+58.8	+58.8	+57.9
Net Total	477.6	487.7	381.8
(2) Quantity	24	18	18
(3) Unit Cost	19.900	27.094	21.211
(Ship Systems)			
a. Program Acquisition --			
(1) Cost	978.9	1032.1	978.9
(2) Quantity	53	55	53
(3) Unit Cost	18.470	18.765	18.470
b. Current Procurement -- (FY 1985)		(FY 1985)	(FY 1986)
(1) Cost	75.9	82.0	47.1
Less CY Adv Proc	-	-	-
Plus PY Adv Proc	-	-	-
Net Total	75.9	82.0	47.1
(2) Quantity	10	9	6
(3) Unit Cost	7.590	9.111	7.850

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LAMPS MK III, December 31, 1984

10. Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate DE	721.8	3170.4	15.4	3907.6
Previous Changes:				
Economic	+31.1	-24.3	+1.1	+7.9
Quantity	0.0	-197.1	0.0	-197.1
Schedule	0.0	+1176.1	0.0	+1176.1
Engineering	+92.3	+155.0	0.0	+247.3
Estimating	+40.4	+1384.7	+5.0	+1430.1
Other	0.0	0.0	0.0	0.0
Support	+1.6	+422.8	0.0	+424.4
Subtotal	+165.4	+2917.2	+6.1	+3088.7
Current Changes:				
Economic	-5.3	-37.6	0.0	-42.9
Quantity	0.0	-31.8	0.0	-31.8
Schedule	0.0	-26.3	0.0	-26.3
Engineering	0.0	+25.7	0.0	+25.7
Estimating	+28.6	-331.7	0.0	-303.1
Other	0.0	0.0	0.0	0.0
Support	0.0	+211.0	0.0	+211.0
Subtotal	+23.3	-190.7	0.0	-167.4
Total Changes	+188.7	+2726.5	+6.1	+2921.3
Current Estimate	910.5	5896.9	21.5	6828.9

(FY 1976 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate DE	579.7	1808.0	9.0	2396.7
Previous Changes:				
Economic	0.0	0.0	0.0	0.0
Quantity	0.0	-105.1	0.0	-105.1
Schedule	0.0	+199.3	0.0	+199.3
Engineering	+44.0	+60.1	0.0	+104.1
Estimating	+16.2	+676.9	+3.2	+696.3
Other	0.0	0.0	0.0	0.0
Support	+1.2	+173.4	0.0	+174.6
Subtotal	+61.4	+1004.6	+3.2	+1069.2
Current Changes:				
Economic	0.0	0.0	0.0	0.0
Quantity	0.0	-14.7	0.0	-14.7
Schedule	0.0	0.0	0.0	0.0
Engineering	0.0	-2.9	0.0	-2.9
Estimating	+21.5	-310.6	0.0	-289.1
Other	0.0	0.0	0.0	0.0
Support	0.0	-10.2	0.0	-10.2
Subtotal	+21.5	-338.4	0.0	-316.9
Total Changes	+82.9	+666.2	+3.2	+752.3
Current Estimate	662.6	2474.2	12.2	3149.0

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10. Cost Variance Analysis: (Continued)

b. Current Change Explanations --

	Dollars in Millions)	
	Base Year \$	Then Year \$
(1) <u>RDT&E</u>		
Revised escalation indices (Economic)	N/A	-5.3
Refinement of estimate of Preplanned Product Improvement Program (Estimating)	+21.5	+28.6
(2) <u>Procurement</u>		
a. <u>APN</u>		
Revised escalation indices (Economic)	N/A	-20.3
Acceleration of buy schedule for FY 1985 from 18 to 24 helicopters (Schedule)	N/A	-24.5
Reduction of anticipated number of approved ECP's (Engineering)	-2.9	+25.7
Refinement of prior estimates -- General Electric multi-year contract; refinement of estimates to reflect contract actuals (Estimating)	-276.5	-261.9
Refinement of support equipment and spares to reflect contract actuals (Support)	-41.2	+142.5
b. <u>OPN</u>		
Revised escalation indices (Economic)	N/A	-7.1
Decrease from 52 to 50 ship systems (Quantity)	-6.1	-13.9
Revised procurement schedule: SQQ-28 accelerated buy; SRQ-4 slipped buy; HLS slipped buy (Schedule)	N/A	+2.1
Refinement of prior estimates to reflect contract actuals (Estimating)	-33.5	-73.3
Revised procurement schedule (same as schedule explanation); refinement of support equipment and spares (Support)	+31.0	+68.5
c. <u>O&MN</u>		
Revised escalation indices (Economic)	N/A	-10.2
Decrease from 52 to 50 ship systems (Quantity)	-8.6	-17.9
Accelerated installation schedule (Schedule)	N/A	-3.9
Higher average unit cost due to decrease from 52 to 50 ship systems (Estimating)	-0.6	+3.5

c. References -- SDDM, dated December 8, 1982, subject "LAMPS MK III Program" (Approval for Production).

1. Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Baseline Estimate

Initial SAR Estimate was the Current Baseline Estimate.

11. Program Acquisition Unit Cost (PAUC) History: (Continued)

b. Current Baseline Estimate to Current Estimate

(1) Aircraft

PAUC DE (Baseline Estimate)	Changes(Then Year Dollars in Millions)								PAUC (Current) Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
15.5	0.0	-	+5.4	+1.4	+2.9	+2.8	-	+12.5	28.0

(2) Ship Systems

PAUC DE (Baseline Estimate)	Changes(Then Year Dollars in Millions)								PAUC (Current) Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
10.9	-1.1	-4.9	+0.4	-0.4	+12.8	+0.8	-	+7.6	18.5

12. Contract Information: (Dollars in Millions)

a. RDT&E -- Not Applicable

b. Procurement

<u>System Integrator:</u> IBM Corporation, Owego, NY, N00019-81-C-0172, FPI, Lot I 6 March 1981	Current Contract		PM's Est Price At Completion
	Target	Qty	
	324.2	18	328.9
Previous Cumulative Variances Cumulative Variances To Date (30 November 1984) Net Change	Cost Variance		Schedule Variance
	+0.1		\$-19.7
	-6.7		-6.0
	-6.8		+13.7

Explanation of Change: The negative change in the cumulative cost variance is due to unanticipated delays by subcontractors in formalizing production hardware baselines. The cumulative schedule variance has a positive net change as a result of improvement in the delivery of vendor acquired parts and major subassemblies.

<u>System Integrator:</u> IBM Corporation, Owego, NY N00019-82-C-0025, Lot II/III, FFP, 29 April 1982	Current Contract		PM's Est Price At Completion
	Target	Qty	
	331.0	27	331.0

12. Contract Information: (Continued)

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date	<u>N/A</u>	<u>N/A</u>
Net Change	N/A	N/A

Explanation of Change: This is a firm fixed price contract, therefore the cost variance and schedule variance section above is not applicable.

<u>Airframe:</u>	<u>Current Contract Target</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
Sikorsky Aircraft Division, Stratford, CT, N00019-81-C-0350, Production Lot II/III, FPI, 8 March 1982	321.4	48	318.0

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	+1.1	+5.4
Cumulative Variances To Date (30 November 1984)	<u>-0.9</u>	<u>+20.5</u>
Net Change	-2.0	+15.1

Explanation of Change: Sikorsky is presently experiencing an unfavorable cost variance resulting from unfavorable price and usage variances for raw materials. The contractor's favorable schedule variance is caused by earlier than planned use of resources.

<u>Airframe:</u>	<u>Current Contract Target</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
Sikorsky Aircraft Div., United Technologies, Stratford, CT, Lot IV N00019-83-C-0297/FFP 12 March 1984	112.2	18	112.2

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variance	N/A	N/A
Cumulative Variances To Date	<u>N/A</u>	<u>N/A</u>
Net Change	N/A	N/A

Explanation of Change: This is a firm fixed price contract, therefore the cost and schedule variance section above is not applicable.

12. Contract Information: (Continued)

	Current Contract	PM's Est Price
<u>RAST/HRS:</u>	<u>Target</u>	<u>At Completion</u>
Canadian Commercial	\$53.4	\$51.4
Corp., Mississauga, Ontario,	Qty	
N00019-81-C-0012, Lot I	18	
FPI, 10 April 1981		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variance	+\$1.4	-\$1.8M
Cumulative Variances To Date	<u>+\$1.6</u>	<u>-\$0.7M</u>
(30 November 1984)		
Net Change	+\$0.2	+\$1.1M

Explanation of Change: Canadian Commercial Corporation continues to experience a favorable cost variance with a positive net change as a result of direction aimed at promoting manufacturing efficiencies and savings in labor rates. The positive net change to the cumulative schedule variance is a result of the resolution of problems with expenditure timephasing and subcontractor delays in billings on technical manual tasks.

RAST/HRS:	Current Contract Target	Qty	PM's Est Price At Completion
Canadian Commercial Corp. Mississauga, Ontario, Lot II/III N00019-82-C-0097, FPI, 30 April 1982	\$50.7	27	\$47.9
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variance	+\$0.2		-\$2.0
Cumulative Variances To Date (30 November 1984)	+\$0.7		-\$1.3
Net Change	+\$0.5		+\$0.7

Explanation of Change: The positive net change to the cumulative cost variance reflects the continued savings in direct labor, material and other costs. Improvement to the cumulative schedule variance is due to an improvement in the ship installation equipment schedule.

c. MILCON -- Not Applicable.

N-21 LAMPS

UNCLASSIFIED

Program Funding Summary
SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984
BASE YEAR: FY 1976

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%) 1/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD) NON-REC	REC	TOTAL	TOTAL	OBLIGATED	EXPENDED	
APPROPRIATION: RDT&E, N									
1969	--	--	--	--	0.8	0.8	0.8	0.8	--
1970	--	--	--	--	3.0	3.0	3.0	3.0	--
1971	--	--	--	--	3.4	3.4	3.4	3.4	--
1972	--	--	--	--	22.7	22.7	22.7	22.7	--
1973	--	--	--	--	18.6	18.6	18.6	18.6	--
1974	--	--	--	--	9.5	9.5	9.5	9.5	--
1975	--	--	--	--	19.1	19.1	19.0	18.9	--
1976	--	--	--	--	24.4	24.4	24.4	24.4	--
1977	--	--	--	--	3.3	3.5	3.4	3.3	2.9
1977	--	--	--	--	65.9	71.9	71.9	71.7	2.6
1978	--	--	--	--	115.6	135.8	135.8	135.6	6.8
1979	--	--	--	--	72.8	94.5	94.5	94.0	8.4
1980	--	--	--	--	123.8	177.6	177.6	172.8	10.6
1981	--	--	--	--	62.6	98.0	99.8	98.1	10.6
1982	--	--	--	--	12.2	69.5	69.5	64.6	7.6
1983	--	--	--	--	5.2	8.9	8.9	4.9	4.9
1984	--	--	--	--	1.2	2.1	2.1	0.1	3.8
1985	--	--	--	--	--	--	--	--	3.7
1986	--	--	--	--	1.0	1.9	--	--	4.4
1987	--	--	--	--	9.2	18.6	--	--	4.2
1988	--	--	--	--	17.9	37.6	--	--	4.0
1989	--	--	--	--	20.2	43.8	--	--	3.7
1990	--	--	--	--	20.2	45.3	--	--	2.4
TOTAL 5A/P, 38/S 2/					662.6	910.5	764.9	746.4	--

APPROPRIATION: AP, N

1981	--	52.0	--	--	52.0	103.6	103.9	110.0	11.6
1982	18	59.5	40.7	199.7	348.3	702.0	686.8	604.3	14.3
1983	27	25.8	8.8	158.4	373.4	799.0	756.0	353.7	9.0
1984	21	24.8	--	120.7	232.1	527.6	406.2	86.3	8.0
1985	24	23.2	--	128.8	199.7	476.7	135.2	1.0	4.8
1986	18	20.9	--	100.8	150.5	378.8	--	--	5.7
1987	18	20.7	5.5	103.8	134.1	354.7	--	--	5.5
1988	18	20.4	0.6	99.4	130.2	360.4	--	--	5.2
1989	18	20.3	1.9	101.5	135.7	392.1	--	--	4.8
1990	18	17.5	--	99.7	121.2	365.6	--	--	4.4
1991	18	14.4	5.3	97.5	112.0	352.4	--	--	4.4
1992	6	--	0.8	53.6	49.5	161.8	--	--	4.4
1993	--	--	--	--	9.5	32.5	--	--	4.4
1994	--	--	--	--	9.6	34.1	--	--	4.4
TOTAL	204	299.5	63.6	1263.9	2057.8	5041.3	2088.1	1155.3	--

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Program Funding Summary
SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984
BASE YEAR: FY 1976

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QTY	BASE-YEAR DOLLARS			TOTAL	THEN-YEAR DOLLARS			ESCALATION RATE (%) 1/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD) NON-REC	REC		TOTAL	OBLIGATED	EXPENDED	
APPROPRIATION: OP,N									
1982	5	--	--	17.1	23.5	41.6	39.9	25.7	7.6
1983	9	--	--	26.0	43.8	80.5	63.7	25.3	4.9
1984	9	--	--	21.0	35.6	68.0	32.0	5.7	3.8
1985	10	--	--	24.4	38.1	75.9	0.1	--	3.7
1986	6	--	--	15.1	22.8	47.1	--	--	4.4
1987	4	--	--	10.1	21.1	45.2	--	--	4.2
1988	7	--	--	16.4	29.9	66.6	--	--	4.0
1989	--	--	--	--	12.8	29.4	--	--	3.7
1990	--	--	--	--	12.2	29.0	--	--	3.4
TOTAL	50 S/S	--	--	130.1	239.8	483.3	135.7	56.2	--
APPROPRIATION: O&M,N (FMP) 3/									
1984	1	--	--	--	3.0	5.5	--	--	3.8
1985	7	--	--	--	23.7	45.3	--	--	3.7
1986	5	--	--	--	20.3	40.5	--	--	4.4
1987	9	--	--	--	43.6	90.5	--	--	4.2
1988	15	--	--	--	56.0	120.8	--	--	4.0
1989	3	--	--	--	6.6	14.8	--	--	3.7
1990	6	--	--	--	14.1	32.6	--	--	3.4
1991	4	--	--	--	9.3	22.3	--	--	3.4
TOTAL	50 S/S	--	--	--	176.6	372.3	--	--	--
APPROPRIATION: MILCOM									
1982	--	--	--	--	7.2	12.5	11.4	11.2	7.6
1983	--	--	--	--	5.0	9.0	6.2	4.2	4.9
TOTAL	--	--	--	--	12.2	21.5	17.6	16.1	--

- 1/ Since spend-out rates are not shown, the escalation rates cannot be used to verify the composite index.
- 2/ Includes 5 aircraft and 3 ship systems which were incrementally funded with no annual procurement quantities identified.
- 3/ Ship alterations are done on a per ship basis. Obligations and expenditures are not broken out by weapon system.

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Deliveries (Planned and Actual) and Associated Variance Analysis
SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984

Deliveries

(Planned/Actual)
To Date

Aircraft:

RDT&E,N
Limited Production
Full Production

5 / 5
18 / 18
6 / 8

Variance Analysis: Deliveries are ahead of schedule because
of improved learning.

Deliveries

(Planned/Actual)
To Date

Ship Systems:

RDT&E,N
Limited Production
Full Production

3 / 3
16 / 16
12 / 12

Variance Analysis: None.

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DISCONTINUED - NO DELIVERY OF DATA
FACILITY REVIEW (MAY 1985)
REVIEWED BY: [illegible]

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Program Acquisition Costs SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984
BASE YEAR: FY 1976

(Dollars in Millions)

a. Program Acquisition Cost	(1) Development Estimate (FY69-86)	(2) Changes	(3) Current Estimate (FY69-94)
1. Cost			
Development	579.7	+ 82.9	662.6
Procurement (Aircraft)			
Airframe & Changes	342.1	+ 168.5	510.6
Engine	67.9	+ 36.4	104.3
Electronics & Comm	399.6	- 282.1	117.5
Armament & Other GFE	18.1	- 6.4	11.7
Weapon System Integration	62.2	+ 521.2	583.4
Total Flyaway	889.9	+ 437.6	1327.5
Peculiar Support Equipment	169.9	+ 10.1	180.0
Other Support Costs	269.6	+ 100.5	370.1
Total Support	439.5	+ 110.6	550.1
Initial Spares	153.4	+ 26.8	180.2
Total (Aircraft)	1482.8	+ 575.0	2057.8
Procurement (Ship Systems)			
Equipment (OP,N)			
Sailaway	124.4	+ 5.7	130.1
Support	40.3	+ 56.3	96.6
Spares	36.0	- 22.9	13.1
Total (OP,N)	200.7	+ 39.1	239.8
Installation (O&M,N) (FMP)*	124.5	+ 52.1	176.6
Total (Ship Systems)	325.2	+ 91.2	416.4
Construction (MILCON)	9.0	+ 3.2	12.2
Total: <u>Constant FY 76\$</u>	2396.7	+ 752.3	3149.0
Escalation			
Development	142.1	+ 105.8	247.9
Procurement	1362.4	+ 2060.3	3422.7
Construction	6.4	+ 2.9	9.3
Total	1510.9	+ 2169.0	3679.9
<u>TOTAL LAMPS MK III Prog. Cost</u>	<u>3907.6</u>	<u>+ 2921.3</u>	<u>6828.9</u>

* FMP - Fleet Modernization Program.

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Program Acquisition Costs SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984
BASE YEAR: FY 1976

(Dollars in Millions)

a. Program Acquisition Cost

	(1) Development Estimate (FY69-86)	(2) Changes	(3) Current Estimate (FY69-94)
1. <u>Cost</u>			
a. <u>Aircraft</u>			
Development	527.2	+ 56.6	583.8
Procurement			
Airframe & Changes.	342.1	+ 168.5	510.6
Engine	67.9	+ 36.4	104.3
Electronics & Comm	399.6	- 282.1	117.5
Armament & Other GFE	18.1	- 6.4	11.7
Weapon System Integration	62.2	+ 521.2	583.4
Total Flyaway	889.9	+ 437.6	1327.5
Peculiar Support Equipment	169.9	+ 10.1	180.0
Other Support Costs	269.6	+ 100.5	370.1
Total Support	439.5	+ 110.6	550.1
Initial Spares	153.4	+ 26.8	180.2
Total	1482.8	+ 575.0	2057.8
Construction (MILCON)	7.2	+ 2.5	9.7
Total: <u>Constant FY 76\$</u>	2017.2	+ 634.1	2651.3
Escalation			
Development	131.8	+ 76.0	207.8
Procurement	1085.5	+ 1898.0	2983.5
Construction	5.0	+ 2.4	7.4
Total	1222.3	+ 1976.4	3198.7
<u>Total Program Cost</u>	<u>3239.5</u>	<u>+ 2610.5</u>	<u>5850.0</u>

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Program Acquisition Costs

SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984

BASE YEAR: FY 1976

(Dollars in Millions)

a. Program Acquisition
Cost

	(1) <u>Development</u> <u>Estimate</u> (FY69-86)	(2) <u>Changes</u>	(3) <u>Current</u> <u>Estimate</u> (FY69-94)
1. <u>Cost</u>			
b. <u>Ship Systems</u>			
Development	52.5	+ 26.3	78.8
Procurement			
Equipment (OP,N)			
Sailaway	124.4	+ 5.7	130.1
Support*	40.3	+ 56.3	96.6
Spares	36.0	- 22.9	13.1
Total (OP,N)	200.7	+ 39.1	239.8
Installation (O&M,N)(FMP)**	124.5	+ 52.1	176.6
Total	325.2	+ 91.2	416.4
Construction (MILCON)	1.8	+ 0.7	2.5
Total: <u>Constant FY 76\$</u>	379.5	+ 118.2	497.7
Escalation			
Development	10.3	+ 29.8	40.1
Procurement	276.9	+ 162.3	439.2
Construction	1.4	+ 0.5	1.9
Total	288.6	+ 192.6	481.2
<u>Total Program Cost</u>	<u>668.1</u>	<u>+ 310.8</u>	<u>978.9</u>

* Includes trainers.

** FMP - Fleet Modernization Program.

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Program Acquisition Costs SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984
BASE YEAR: FY 1976

(Dollars in Millions)

3. Program Acquisition Costs (Continued)

b. Foreign Military Sales (FMS): Spanish Letter of Intent was signed 1 October 1984 for the purchase of long lead items to support the procurement of six (6) LAMPS MK III helicopters. It is anticipated that a Letter of Offer and Acceptance will be signed by 31 January 1985 for approximately \$174.3M for the six (6) helicopters and associated support equipment and services. Three (3) LAMPS MK III ship electronics systems and three (3) Helicopter Landing Systems (HLS) at approximately \$15.6M are being procured under a separate Spanish FMS case. It is anticipated that the Australian government will purchase six (6) HLS at approximately \$9.1M through FMS.

c. Nuclear Costs: None.

d. Excluded Costs: SC,N costs of \$601.7M for 46 ship systems (20 FFG-7 class ships, 25 CG-47 class ships, and 1 DDG-51 class ship) are excluded. The applicable systems/costs are reported in the FFG-7, CG-47, and DDG-51 Selected Acquisition Reports. RDT&E,N costs of \$41.6M for the Penguin missile are also excluded.

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Contract Information
SYSTEM: LAMPS MK III

AS OF DATE: December 31, 1984

(Dollars in Millions)

CONTRACTOR COSTS	(1)			(2)			(3)
	Initial Contract Price Target Ceiling Qty			Current Contract Price Target Ceiling Qty			Price at Completion Contractor Estimate
1. PROCUREMENT							
a. IBM Corporation PROD LOT I N00019-81-C-0172 Definitized March 6, 1981 Fixed Price Incentive	321.1	353.1	18	324.2	355.8	18	328.4
b. IBM Corporation PROD LOT II/III N00019-82-C-0025 Definitized April 29, 1982 Firm Fixed Price	290.1	N/A	27	331.0	N/A	27	331.0
c. United Technologies Corp. Sikorsky Aircraft Div. PROD LOT II/III N00019-81-C-0350 Definitized March 8, 1982 Fixed Price Incentive	142.5	155.7	27	321.4	350.4	48	318.7
d. United Technologies Corp. Sikorsky Aircraft Div. PROD LOT IV N00019-83-C-0297 Definitized March 12, 1984 Firm Fixed Price	116.6	N/A	18	112.2	N/A	18	112.2
e. Canadian Commercial Corp. PROD LOT I N00019-81-C-0012 Definitized April 10, 1981 Fixed Price Incentive	43.9	51.0	16	53.4	60.9	18	50.4
f. Canadian Commercial Corp. PROD LOT II/III N00019-82-C-0097 Definitized April 30, 1982 Fixed Price Incentive	49.8	53.5	27	50.7	53.8	27	48.2

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DISSEMINATION CONTROLS
AND SECURITY REVIEW (DD FORM 1)
DEPARTMENT OF DEFENSE

~~BUSINESS SENSITIVE~~
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SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
PROGRAM: AGM-65D

AF-20 AGM-65D

AS OF DATE: December 31, 1984

INDEX

<u>SUBJECT</u>	<u>PAGE</u>
Cover Sheet Information	1
Program Highlights	1
Schedule	2
Technical/Operational Characteristics	2
Program Acquisition Cost	3
Unit Cost Summary	5
Cost Variance Analysis	5
Program Acquisition Unit Cost History	7
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 AS REQUESTED
 MAR 15 1985 12
 DIRECTORATE FOR FREEDOM OF INFORMATION
 AND SECURITY REVIEW (DASD-PA)
 DEPARTMENT OF DEFENSE

1. Designation/Nomenclature (Popular Name): AGM-65D/IR Maverick

2. DoD Component: U.S. Air Force

3. Responsible Office and Telephone Number:

Maverick Program Office
 Aeronautical Systems Division
 Wright-Patterson AFB, OH

PM: Col R. Jennings
 Assigned: June 27, 1984
 AUTOVON 785-2417
 Commercial: (513) 255-2417

4. Program Elements:

RDT&E: 64608F
 PROCUREMENT: 27313F

5. Program Highlights (Since Last Report): Part 1 of FOT&E took place at Eglin AFB from May-Oct 84 and consisted of captive carry and launch missions with F-111F and F-16 aircraft. A total of 220.3 captive carry hours were recorded along with 17 missile launches. Part 2 consisted of 211.8 captive carry hours (no launches), with the emphasis on target acquisition and delivery aircraft survivability. Part 3 is scheduled to begin in May 85 at Nellis AFB and will focus on evaluating producibility changes. Part 3 will include 125 captive carry hours and 12 missile launches.

The Hughes production line was temporarily shut down in Aug 84 to correct quality problems. The line resumed production in Dec 84.

The IR Maverick is expected to satisfy current mission requirements.

DASD(PA) LFOISE

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 DECLASSIFY ON 31 DEC 89

JUL 84

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6. (U) Schedule:

a. (U) Milestones

	<u>Development Estimate</u>	<u>Current Estimate</u>
DSARC II	Sep 76	Sep 76
Engineering Development Contract Award	Apr 77	Oct 78
DT&E/IOT&E Flight Tests Start	Nov 78	Jun 80
Demonstration Milestones	May 79	N/A
DSARC III A (Pilot Prod. Partial Release)	Jun 79	Mar 82
Complete DT&E/IOT&E	Jan 80	Aug 82
DSARC III B (Pilot Production Full Go-Ahead)	Mar 80	Sep 82
DSARC III	N/A	N/A
IOC	Jun 81	Sep 85 (CH-1)
OSD Review	N/A	Apr 83
OSD Review	N/A	Aug 85

b. (U) Explanation of Changes --

(Ch-1) Due to production line shutdown and the resultant delay in shipment of hardware, the IOC was slipped from April 1985 to September 1985.

c. (U) References -- DCP 154, dated September 20, 1976, subject "Imaging Infrared Maverick Missile System."

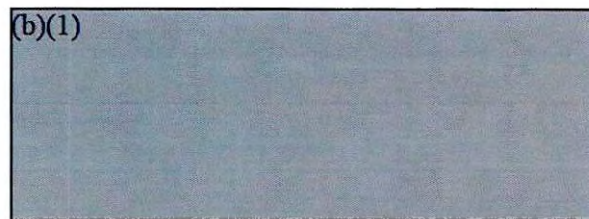
7. (U) Technical/Operational Characteristics:

a. (U) Technical

<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
---------------------------------	-------------------------------------	-----------------------------

- (S) Minimum Trackable Temperature (MTT) (Delta)
 - 1/4 milliradian (mr) Target
 - 1/2 milliradian (mr) Target
- (S) Minimum Resolvable Temperature (MRT) (Delta)
 - 1/4 milliradian spatial half period
- (U) Boresight Accuracy (mr)

(b)(1)




4.0 4.0 4.0

AS AMENDED

b. (U) Operational

- (S) Minimum Launch Range (ft)
 - (0.2 Mach, 15 degree offset)

(b)(1)



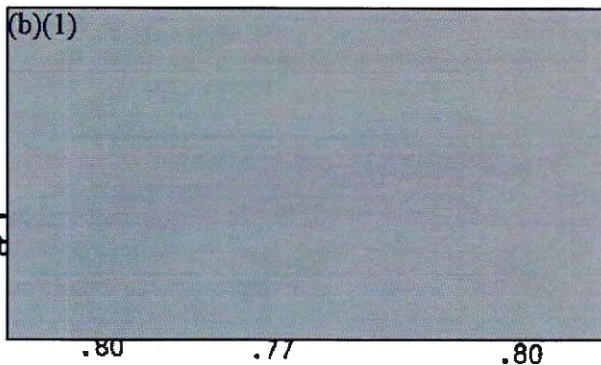
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7b. (U) Operational (Cont'd)

- () Maximum Launch Range (ft)
(1.2 Mach, 0 degree offset)
- () Lookdown Offset (Degrees
below LOS)
- () Launch Range (ft)
(exercised tank target,
forward hemisphere, 5KM visi-
bility, 400 ft/mm Abs humidit
Night)
- () Probability of Hit
- () Mission Success Probability



c. (U) Explanation of Changes -- N/A

d. (U) References -- DCP 154, dated September 20, 1976, subject "Imaging Infrared Maverick Missile System."

8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

FISCAL YEAR PERIOD	QUANTITY	FY 1975 CONSTANT (BASE-YEAR) \$	CURRENT (THEN-YEAR) \$	ESCALATION RATE (%)
--------------------	----------	---------------------------------	------------------------	---------------------

Appropriation: RDT&E

Current and Prior Years	33	106.6	167.8	N/A
Budget Year (1986)	-	-	-	N/A
Balance of FYDP	-	-	-	N/A
(1987)	-	-	-	N/A
(1988)	-	-	-	N/A
(1989)	-	-	-	N/A
(1990)	-	-	-	N/A
Balance to complete	-	-	-	N/A
Subtotal	33	106.6	167.8	N/A

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8. Program Acquisition Cost (Cont'd): (Current Estimate in Millions)

FISCAL YEAR PERIOD	QUANTITY	FY 1975 CONSTANT (BASE-YEAR) \$	CURRENT (THEN-YEAR) \$	ESCALATION RATE (%)
--------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: Procurement

Current and Prior Years	5680	494.6	1154.0	N/A
Budget Year (1986)	3500	186.4	489.8	5.7
Balance of FYDP	39900	1149.6	3404.5	N/A
(1987)	(5700)	(253.1)	(698.5)	5.5
(1988)	(10200)	(295.4)	(853.8)	5.2
(1989)	(12000)	(318.9)	(962.7)	4.8
(1990)	(12000)	(282.2)	(889.5)	4.4
Balance to complete	11584	275.5	906.5	N/A
Subtotal	60664	2106.1	5954.8	N/A
Total	60697	2212.7	6122.6	N/A

Program Status--

(1) Percent Program Completed: 64.7% (11/17)

(2) Percent Program Cost Appropriated: 21.6% (\$1321.8/\$6122.6)

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9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	<u>Current Year</u> SAR Current Estimate	<u>Current Year</u> UCR Baseline Estimate	<u>Budget Year</u> UCR Baseline Estimate
a. Program Acquisition --			
(1) Cost	6122.6	5775.9	6122.6
(2) Quantity	60697	60697	60697
(3) Unit Cost	.101	.095	.101
b. Current Procurement--	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	381.8	578.4	489.8
Less CY Adv Proc	-15.0	-	-
Plus PY Adv Proc	-	-	+15.0
Net Total	366.8	578.4	504.8
(2) Quantity	2600	4500	3500
(3) Unit Cost	.141	.129	.144

10. Cost Variance Analysis:

a. Summary--(Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	TOTAL
Development Estimate	134.4	1458.5	1592.9
Previous Changes			
Economic	+10.6	+268.5	+279.1
Quantity	-1.1	+1564.4	+1563.3
Schedule	+18.6	+ 799.6	+818.2
Engineering	0.0	0.0	0.0
Estimating	-0.5	+1421.3	+1420.8
Other	0.0	0.0	0.0
Support	+5.9	+95.7	+101.6
Subtotal	+33.5	+4149.5	+4183.0
Current Changes			
Economic	0.0	+33.8	+33.8
Quantity	0.0	0.0	0.0
Schedule	0.0	+240.0	+240.0
Engineering	0.0	+42.5	+42.5
Estimating	-0.1	+49.4	+49.3
Other	0.0	0.0	0.0
Support	0.0	-18.9	-18.9
Subtotal	-0.1	+346.8	+346.7
Total Changes	+33.4	+4496.3	+4529.7
Current Estimate	167.8	5954.8	6122.6

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10. Cost Variance Analysis (Cont'd): (FY1975 CONSTANT DOLLARS (BASE YEAR) IN MILLIONS)

	RDT&E	PROC	TOTAL
Development Estimates	100.0	895.1	995.1
Previous Changes			
Quantity	-0.7	+512.7	+512.0
Schedule	+6.4	+132.3	+138.7
Engineering	0.0	0.0	0.0
Estimating	-2.6	+501.2	+498.6
Other	0.0	0.0	0.0
Support	+3.5	+28.7	+32.2
Subtotal	+6.6	+1174.9	+1181.5
Current Changes			
Quantity	0.0	0.0	0.0
Schedule	0.0	+3.5	+3.5
Engineering	0.0	+15.0	+15.0
Estimating	0.0	+24.9	+24.9
Other	0.0	0.0	0.0
Support -	0.0	-7.3	-7.3
Subtotal	0.0	+36.1	+36.1
Total Changes	+6.6	+1211.0	+1217.6
Current Estimate	106.6	2106.1	2212.7

b. Current Change Explanations --

(Dollars in Millions)
Base-Year \$ Then-Year \$

(1) RDT&E

Program amount aligned to actual obligations in FY83. (Estimating)

- -0.1

(2) Procurement

Revised Jan 85 economic escalation indices (FY85 and Prior). (Economic)

N/A +22.2

Revised Jan 85 economic escalation indices (FY86-FY91). (Economic)

N/A +33.8

Adjustment for prior year escalation (FY85 & Prior). (Estimating)

-9.5 -22.2

Program schedule extended one year (11584 units to FY91) due to amendment to FY85 President's Budget. (Schedule)

+3.5 +240.0

Engineering change to 1800 units to modify them to AGM-65Gs (Engineering)

+15.0 +42.5

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10b. Current Change Explanations (Cont'd):

	<u>Base-Year \$</u>	<u>Then-Year \$</u>
Reestimate of Value Engineering Royalties using contract settlement. (Estimating)	-15.8	-44.9
Delta for 300 unit shift from Hughes to Raytheon pilot production in FY86 and change in FY87 competition assumptions. (Estimating)	+74.7	+214.8
Estimate updated using most current data available i.e. FY84 contract proposal and the Hughes productivity plan. (Estimating)	-24.9	-120.5
One-time change resulting from a correction to the methodology for computing inflation on programs with advance procurement funding. (Estimating)	+0.4	N/A
Plant 44 environmental cleanup not included in previous SARs, but part of Maverick program funds in FY82. (Support)	+0.2	+0.4
Reduction of initial spares due to funding cuts contained in the amended FY85 P.B. and the FY86 P.B. (Support)	-4.1	-9.0
Reestimate of Support using contract settlements. (Support)	-3.4	-10.3

c. References -- DCP 154, dated September 20, 1976, subject "Imaging Infrared Maverick Missile System."

11. Program Acquisition Unit Cost (PAUC) History:

Initial SAR Estimate to Current Estimate

Changes (Then-Year Dollars in Millions)									PAUC Current Estimate
PAUC Initial SAR Development Estimate	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
.0512	.0051	.0008	.0171	.0007	.0246	.0014	0	.0497	.1009

.0174

.0142

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12. Contract Information: (Dollars in Millions)

- a. RDT&E - N/A
b. Procurement

Pilot Production:

Hughes Aircraft Co.,
Missile Systems Group
Tucson, AZ
F33657-78-C-0468,
FPIF, October 30, 1978

<u>Current Contract</u>	
<u>Target Price</u>	<u>Qty</u>
\$142.00	200

<u>PM's Est Price</u>
<u>At Completion</u>
\$152.8

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$+1.0	\$-19.4
Cumulative Variance TO Date (31Oct84)	\$-3.2	-13.8
Net Change	\$-4.2	\$ +5.6

Explanation of Change: The Hughes Aircraft Company's unfavorable cost variance is primarily the result of greater than planned engineering effort on the guidance section and implementation tasks during FSD. As a result of a production shutdown beginning in August 1984 due to a quality problem, completion of contract delivery is expected to be delayed from November 1984 to July 1985. The program manager's assessment remains at the ceiling price and is within approved funding.

Second Source Qualification:

Raytheon Co, Missile Systems
Division
Bristol, TN, F33657-83-C-2113,
FPIF, May 23, 1983

<u>Current Contract</u>	
<u>Target Price</u>	<u>Qty</u>
\$60.8	15

<u>PM's Est Price</u>
<u>At completion</u>
\$67.3

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variance	\$+0.1	\$-2.8
Cumulative Variance to Date(31Oct84)	\$-2.4	\$-2.3
Net Change	\$-2.5	\$+0.5

Explanation of Change: The Raytheon Company's unfavorable schedule variance change is not significant. The unfavorable cost variance is the result of higher than planned activity to effect schedule recovery from an earlier schedule variance on the Guidance Control Unit. The program manager's assessment remains at the ceiling price and is within approved funding.

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12. Contract Information (Cont'd):

Follow on Production:	<u>Current Contract</u>		<u>PM's Est Price</u> <u>At Completion</u>
	<u>Target</u>	<u>Qty</u>	
Hughes Aircraft Co. Missiles Systems Group Tucson, AZ, F33657-83-C-2195, December 23, 1983	164.3	900	\$181.3
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variances	\$ 0		\$ 0
Cumulative Variance to Date (31Oct84)	\$-6.2		\$-17.8
Net Change	\$-6.2		\$-17.8

Explanation of Change: This is the initial report on this contract; therefore, the previous cumulative variances are zero. The schedule variance on this contract is the result of the Hughes Tucson production shutdown beginning in August. Completion of delivery is expected to be delayed to March 1986. The negative cost variance is the result of material shortages at various levels of assembly. Recovery is contingent upon implementation of Hughes Aircraft's quality improvement plan. The program manager's assessment remains at the ceiling price and is within approved funding.

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AF-20 AGM-65D

SUPPLEMENTAL INFORMATION
SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: IR MAVERICK (AGM-65D/G)

REPORT AS OF: December 31, 1984
DoD COMPONENT: USAF

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AND SECURITY REVIEW (CASU-PA)
DEPARTMENT OF DEFENSE

PROGRAM FUNDING SUMMARY

SYSTEM: AGM-650 and G (U)

AS OF DATE: DECEMBER 31, 1984

CURRENT ESTIMATE
(\$ in millions)

BASE YEAR: FY 1975

FISCAL YEAR	QTY	BASE-YEAR DOLLARS				THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&E									
1975	-	-	-	-	3.6	3.9	3.9	3.9	9.6
1976	-	-	-	-	3.7	4.3	4.3	4.3	9.6
1977	-	-	-	-	8.2	10.2	10.2	10.2	9.9
1978	-	-	-	-	-	-	-	-	7.4
1979	-	-	-	-	29.8	43.4	43.4	43.4	8.4
1980	-	-	-	-	30.6	49.5	49.5	49.5	9.4
1981	-	-	-	-	21.9	39.3	34.5	34.5	11.9
1982	-	-	-	-	6.0	11.6	10.4	9.4	9.2
1983	-	-	-	-	2.1	4.1	3.8	1.6	4.9
1984	-	-	-	-	.7	1.5	1.2	.8	3.8
TOTAL	33	-	-	-	106.6	167.8	161.2	157.6	
APPROPRIATION: PROCUREMENT									
1982	200	-	14.2	75.9	103.0	220.2	198.7	172.7	9.6
1983	900	-	30.0	71.7	110.5	248.9	217.1	85.8	9.0
1984	1980	-	6.4	109.9	128.1	303.1	56.6	7.1	8.0
1985	2600	6.0	.4	128.3	153.0	381.8	16.4	0	4.8
1986	3500	-	.4	189.8	186.4	489.8	-	-	5.7
1987	5700	-	7.1	243.6	253.1	698.5	-	-	5.5
1988	10200	-	7.0	286.0	295.4	853.8	-	-	5.2
1989	12000	-	7.5	307.7	318.9	962.7	-	-	4.8
1990	12000	-	.3	278.2	282.2	889.5	-	-	4.4
1991	11584	-	.3	271.5	275.5	906.5	-	-	4.4
TOTAL	60664	6.0	73.6	1962.6	2106.1	5954.8	488.8	265.6	
APPROPRIATION: CONSTRUCTION									
					N/A				

DELIVERIES (PLANNED AND ACTUAL) AND
ASSOCIATED VARIANCE ANALYSIS

System: AGM-65D (USAF)

As Of: 31 Dec 1984

Deliveries	<u>Planned/Actual To Date</u>
R & D	33/33
Procurement	245/69

Variance Analysis: Deliveries are behind schedule due to the Hughes (Tucson) production facility shutdown beginning in August 1984 as a result of quality problems.

PROGRAM ACQUISITION COSTS

System: AGM-65D and G (USAF)

As Of Date: 31 December 1984

Base Year: FY1975

(Dollars in Millions)			
Program Acquisition Cost	(1) Development Estimate (FY75-86)	(2) Changes	(3) Current Estimate (FY75-91)
<u>Cost</u>			
Development	100.0	+6.6	106.6
Procurement	895.1	+1211.0	2106.1
Air Vehicle	(792.1)	(+1189.4)	(1981.5)
Total Flyaway	(792.1)	(+1189.4)	(1981.5)
Peculiar Support	(99.1)	(+4.8)	(103.9) ^{1/}
Initial Spares	(3.9)	(+16.8)	(20.7)
Construction	-	-	-
Total Constant FY75\$	<u>995.1</u>	<u>+1217.6</u>	<u>2212.7</u>
Escalation	597.8	+3312.1	3909.9
Development	(34.4)	(+26.8)	(61.2)
Procurement	(563.4)	(+3285.3)	(3848.7)
Construction	-	-	-
Total Program Cost	<u>1592.9</u>	<u>+4529.7</u>	<u>6122.6</u>

^{1/} Includes \$54.7 million in flyaway costs for 891 training missiles.

Foreign Military Sales and Nuclear Costs are N/A.

AGM-65D CONTRACT INFORMATION

As Of Date: 31 December 1984

<u>CONTRACTOR COSTS</u>	(1) <u>INITIAL CONTRACT PRICE</u>			(2) <u>CURRENT CONTRACT PRICE</u>			(3) <u>PRICE AT COMPLETION</u>
	<u>TARGET</u>	<u>CEILING</u>	<u>QTY</u>	<u>TARGET</u>	<u>CEILING</u>	<u>QTY</u>	<u>CONTRACTOR ESTIMATE</u>
1. <u>Development</u>	N/A						
2. <u>Procurement</u>							
Hughes Pilot Production	99.8	111.4	200	142.0	152.8	200	148.7
Hughes Follow-on Production	163.0	180.0	900	164.3	181.3	900	166.4
Raytheon Second Source Qualification	60.8	67.3	15	60.8	67.3	15	63.6
3. <u>Construction</u>	N/A						

N-28 SPARROW

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SAR-84-075

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
Program: Sparrow (AIM/RIM-7M)

AS OF DATE: December 31, 1984

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Program Acquisition Unit Cost History	6
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1. Designation/Nomenclature: AIM/RIM-7M/Air-to-Air Guided Missile (Sparrow).

2. DOD Component: Department of the Navy.

3. Responsible Office and Telephone Number:
Air-to-Air Missile Systems Program Office
PMA-259
Washington, D.C. 20361

PM: CAPT L. E. Blase, USN
Assigned: Oct 1, 1982
AUTOVON 222-8222

4. Program Elements:
RDT&E, N: 64354N (W0457)
WPN: 24162N, 26138M (AIM-7M)
24229N (RIM-7M)

5. Program Highlights (Since Last Report):

Navy FOT&E for the AIM-7M is being conducted by COMOPTEVFOR at the Pacific Missile Test Center (PMTTC). Air Force testing is being done by TAC and will be conducted at White Sands Missile Range, New Mexico and Eglin Test Range, Florida. Testing began in October 1983. Conclusion is anticipated in the second quarter of fiscal year 1985. FOT&E for the RIM-7M is anticipated to be conducted during fiscal year 1987/1988.

The Air Force has returned to the program in FY 1985-1987 to procure AIM-7M missiles due to AMRAAM restructure.

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OSD(PA) DFOISR 85-T-893

5. Program Highlights (Cont'd):

Two FY 1985 contracts were signed for guidance and control sets for 3,476 missiles (Navy/1,702, Air Force/867, FMS/907) on 24 December 1984. The two contracts included the remainder of the FY 1984 buy for 447 missiles (Navy/121, Air Force/326), a Navy option item for 331 missiles which requires Congressional approval, and an additional FY 1983 Air Force quantity of 137.

The total Navy procurement quantity of AIM/RIM-7M has been increased by 1378 missiles (FY 1985-90) to enhance Fleet readiness level.

The AIM/RIM-7M system is expected to meet all its current mission requirements based on test and design actions taken to date.

6. Schedule:

a. Milestones	<u>Development Estimate</u>	<u>Current Estimate</u>
Full Scale AIM/RIM-7M Development go-ahead (DSARC II)	Apr 78	Apr 78
Commence Joint TECHEVAL	Feb 80	Jun 80
OSD Program Review	Apr 80	Aug 80
Commence IOT&E	Apr 80	Jun 81
Approval for Service Use	May 81	Nov 82
DSARC III	Jun 81	--
IOC (First delivery to Fleet)	Jul 81	Jan 83
DNSARC III	--	Nov 82

b. Explanation of Changes -- None.

c. References -- DCP #89, Revision B, dated 19 April 1979 and full approval for service use dated 8 November 1982.

7. Technical/Operational Characteristics:

a. Technical	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Weight			
Launch, lbs	510	510	510
Warhead, lbs	90	90	90
Size	Length 144", Diameter 8", Wing Span 40"		
Guidance	Semi-Active Continuous Wave or Pulse Doppler Radar		
Propulsion Impulse, lb/sec	31,000	31,000	31,000

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AIM/RIM-7M, December 31, 1984

7. (U) Technical/Operational Characteristics (Cont'd):

b. (U) Operational	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
--------------------	---------------------------------	-------------------------------------	-----------------------------

~~(c)~~ Seeker

Front lock sensitivity, dbm
Rear lock sensitivity, dbm
Subclutter visibility, db
Antenna gimbal limits, deg
Head slewing rate, deg/sec

(b)(1)

~~(c)~~ Performance/Range (b)(1)

(b)(1)

Max, NM nose aspect
Min, Ft tail aspect

~~(c)~~ Altitude (Min/Ft)

~~(c)~~ Launch probability (P_1) %, degraded by 0.2% per captive flight

~~(c)~~ Guidance probability (P_g) % guidance within lethal warhead radius (b)(1) or warhead kill following successful launch

~~(c)~~ Fuze probability (P_f) % proper fuzing within (b)(1) of target or warhead kill (b)(1) (b)(1) when properly armed

~~(c)~~ Multiple target (projected spacing) capability demonstrated at separation, Ft

~~(c)~~ Chaff (P_g) %

~~(c)~~ Reliability

Air captive carry, mean flight hours before failure (MFHBF)
Shipboard reliability %, probability of "up" missile aft 6 months deployment in launcher

c. (U) Explanation of Changes -- None.

d. (U) References -- DCP #89, Revision 8, dated 19 April 1979 and full approval for service use dated 8 November 1982.

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AIM/RIM-7M, December 31, 1984

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1978 Constant (Base Year) \$	Current (Then Year) \$	Escalation Rate (%)
-----------------------	----------	---------------------------------------	---------------------------	------------------------

Appropriation: RDT&E

Current & Prior Years	44	51.0	55.5	N/A
Subtotal	44	51.0	55.5	N/A

Appropriation: Procurement

Current & Prior Years	4230	467.5	868.7	N/A
Budget Year (1986)	1872	169.1	370.0	5.7
Balance of FYDP	4462	410.3	974.2	N/A
(1987)	(1910)	(163.9)	(376.2)	5.5
(1988)	(1352)	(120.0)	(286.2)	5.2
(1989)	(600)	(63.1)	(154.1)	4.8
(1990)	(600)	(63.3)	(157.7)	4.4
Balance to Complete	0	0	0	0
Subtotal	10564	1046.9	2212.9	N/A
Total	10608	1097.9	2268.4	N/A

Program Status --

(1) Percent Program Completed: 68.8% (11/16).

(2) Percent Program Cost Appropriated: 40.7% (\$924.2/\$2268.4).

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then
Year) Dollars in Millions)

	Current Year		Budget Year
	SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a. Program Acquisition --			
(1) Cost	2268.4	1977.1	2268.4
(2) Quantity	10608	9230	10608
(3) Unit Cost	.214	.214	.214
b. Current Procurement --	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	293.6	256.4	360.5
Less CY Adv Proc	0	0	0
Plus FY Adv Proc	0	0	9.5
Net Total	293.6	256.4	370.0
(2) Quantity	1671	1250	1872
(3) Unit Cost	.176	.205	.198

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10. Cost Variance Analysis:

a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)	54.0	840.9	0	894.9
Previous Changes:				
Economic	+.4	+106.1	0	+106.5
Quantity	0	+408.5	0	+408.5
Schedule	0	+300.7	0	+300.7
Estimating	+1.1	+140.6	0	+141.7
Support	0	+120.4	0	+120.4
Subtotal	+1.5	+1076.3	0	+1077.8
Current Changes:				
Economic	0	+170.0	0	+170.0
Quantity	0	+113.2	0	+113.2
Estimating	0	-61.1	0	-61.1
Support	0	+73.6	0	+73.6
Subtotal	0	+295.7	0	+295.7
Total Changes	+1.5	+1372.0	0	+1373.5
Current Estimate	55.5	2212.9	0	2268.4

(FY 1978 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)	51.6	581.8	0	633.4
Previous Changes:				
Quantity	0	+135.3	0	+135.3
Schedule	0	+123.2	0	+123.2
Estimating	-.6	+109.7	0	+109.1
Support	0	+56.1	0	+56.1
Subtotal	-.6	+424.3	0	+423.7
Current Changes:				
Quantity	0	+44.0	0	+44.0
Estimating	0	-34.7	0	-34.7
Support	0	+31.5	0	+31.5
Subtotal	0	+40.8	0	+40.8
Total Changes	-.6	+465.1	0	+464.5
Current Estimate	51.0	1046.9	0	1097.9

b. Current Change Explanations --

(Dollars in Millions)
Base Year \$ Then Year \$(1) Procurement

Revised Jan 85 economic escalation rates. (Economic)	N/A	+170.0
--	-----	--------

Increased quantity of 1,378 missiles in FY85-89 and add-on of FY90.	+40.8	+125.7
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AIM/RIM-7M, December 31, 1984

b. Current Change Explanations -- (cont'd)

(1) <u>Procurement</u>	(Dollars in Millions)	
	<u>Base Year \$</u>	<u>Then Year \$</u>
o Increase of 1,378 missiles. (Quantity)	(+44.0)	(+113.2)
o Increase missile quantities (778 in FY85-89 and an additional 600 in FY90) and a re-estimate of prior year rates. (Estimating)	(-34.7)	(-61.1)
o Increase in support due to additional missile procurement. (Support)	(+31.5)	(+73.6)

c. References -- DCP #89, Revision B, dated 19 April 1979 and full approval for service use dated 8 November 1982.

11. Program Acquisition Unit Cost (PAUC) History:

a. Planning Estimate to Development Estimate

Same as current baseline estimate.

b. Development Estimate (DE) to Current Estimate (CE)

PAUC DE	Changes (Then Year Dollars in Millions)								PAUC CE
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
\$.122	+.026	+.012	+.028	0	+.008	+.018	0	+.092	\$.214

c. Explanation of Change -- None.

12. Contract Information: (Dollars in Millions)

a. Procurement

GC&A		Current Contract		PM's Est Price At Completion
		Target	Qty	
Raytheon Company, Lowell, MA.				
N00019-83-C-0071, FFP,		238.1	1711	238.1
Dec 27, 1982 (Air Force)		(159.2)	(1167)	(159.2)
(FMS)		(19.9)	(135)	(19.9)
Raytheon Company, Lowell, MA.				
N00019-84-C-0161, FFP,		213.6	1584	213.6
Mar 3, 1984 (Air Force)		(102.1)	(746)	(102.1)
(FMS)		(32.4)	(240)	(32.4)

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12. Contract Information: (Dollars in Millions) (cont'd)

a. Procurement

	Current Contract		PM's Est Price
	Target	Qty	At Completion
GC&A			
NO0019-85-C-0075, FFP,	249.8	2176	291.4
Dec 24, 1984 (Air Force)	(58.4)	(446)	(58.4)
(FMS/Other)	(74.8)	(561)	(74.8)
General Dynamics, Pomona, CA			
NO0019-83-C-0070, Ltr Cont,	215.8	1344	215.8
FFP, Dec 27, 1982 (Air Force)	(110.1)	(689)	(110.1)
(FMS)	(21.6)	(135)	(21.6)
NO0019-85-C-0074, FFP,	207.4	1300	207.4
Dec 24, 1984 (Air Force)	(66.5)	(370)	(66.5)
(FMS/Other)	(55.7)	(397)	(55.7)

Explanation of Changes: Not reported on FFP contracts.

N-28 SPARROW

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AIM/RIM-7M, December 31, 1984

Program Acquisition Costs

System: SPARROW (AIM/RIM-7M)

AS OF DATE: December 31, 1984
BASE YEAR: FY 1978

(Dollars in Millions)

8.

a. Program Acquisition Cost:

	(1) Development Estimate (FY75-85)	(2) Changes	(3) Current Estimate (FY75-90)
1. Cost			
Development	51.6 ^{1/}	-.6	51.0
Procurement	581.8	+465.1	1046.9
G, C&A ^{2/}	(448.9)	(+349.9)	(798.8)
Propulsion	(30.8)	(+21.6)	(52.4)
Other Hardware	(23.6)	(-.8)	(22.8)
Procurement	(52.2)	(+11.7)	(63.9)
Total Flyaway	(555.5)	(+382.4)	(937.9)
Fleet Support	(18.3)	(+64.9)	(83.2)
Initial Spares	(8.0)	(+17.8)	(25.8)
Construction	(-)	(-)	(-)
Total: Constant FY78 \$	<u>633.4</u>	<u>+464.5</u>	<u>1097.9</u>
Escalation	261.5	909.0	1170.5
Development	(2.4)	(+2.1)	(4.5)
Procurement	(259.1)	(+906.9)	(1166.0)
Construction	(-)	(-)	(-)
Total Program Cost	<u>894.9</u>	<u>1373.5</u>	<u>2268.4</u>

b. Foreign Military Sales: Signed letters of offer to date total up to 1,680 for \$577.5.

c. Nuclear Costs: None.

^{1/} Includes \$2.4 in FY-75; \$7.8 in FY-76; and \$17.1 in FY-77 actuals.

^{2/} \$3.3 must be added to raise total pre-base year actuals to FY-78 dollars.

^{3/} Includes wings, fins and fuze.

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AIM/RIM-7M, December 31, 1984

Deliveries to December 1984

Deliveries (Planned/Actual)

	<u>To Date</u>
R&D	44/44
Procurement	1222/1328

Variance Analysis: Deliveries are ahead of schedule.

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ANNUAL SELECTED ACQUISITION REPORT

System: Sparrow (AIM/RIM-7M)
(Then Year Dollars in Millions)

AS OF DATE: December 31, 1984

F. Contractor Costs (\$M)	(1) Initial Contract Price			(2) Current Contract Price			(3) Price at Completion
	Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor Estimate
1. PROCUREMENT							
<u>Raytheon Company, Lowell</u>							
N00019-83-C-0071	121.7	238.1	1711	N/A	238.1	1711	238.1
FFP-27 Dec 82 (Air Force)	(81.5)	(159.2)	(1167)	N/A	(159.2)	(1167)	(159.2)
(FMS)	(10.1)	(19.9)	(135)	N/A	(19.9)	(135)	(19.9)
N00019-84-C-0161	N/A	213.6	1584	N/A	213.6	1584	213.6
FFP-3 Mar 84 (Air Force)	N/A	(102.1)	(746)	N/A	(102.1)	(746)	(102.1)
(FMS)	N/A	(32.4)	(240)	N/A	(32.4)	(240)	(32.4)
N00019-85-C-0075	249.8	249.8	2176	249.8	249.8	2176	249.8
FFP-24 Dec 84 (Air Force)	(58.4)	(58.4)	(446)	(58.4)	(58.4)	(446)	(58.4)
(FMS/Other)	(74.8)	(74.8)	(561)	(74.8)	(74.8)	(561)	(74.8)
<u>General Dynamics, Pomona</u>							
N00019-83-C-0070-Ltr Cont	107.9	215.8	1344	N/A	215.8	1344	215.8
FFP-27 Dec 82 (Air Force)	(55.1)	(110.1)	(689)	N/A	(110.1)	(689)	(110.1)
(FMS)	(10.8)	(21.6)	(135)	N/A	(21.6)	(135)	(21.6)
N00019-85-C-0074	207.4	207.4	1300	207.4	207.4	1300	207.4
FFP-24 Dec 84 (Air Force)	(66.5)	(66.5)	370	(66.5)	(66.5)	(370)	(66.5)
(FMS/Other)	(55.7)	(55.7)	(397)	(55.7)	(55.7)	(397)	(55.7)

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ANNUAL SELECTED ACQUISITION REPORT

System: Sparrow (AIM/RIM-7M)

CURRENT ESTIMATE

(\$ in Millions)

AS OF DATE: December 31, 1984

BASE YEAR: FY 1978

G. PROGRAM FUNDING SUMMARY

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	NET FLYAWAY (NON ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&EN

1975	-	-	-	-	2.4	2.4	2.4	2.4	10.9
1976	-	-	-	-	7.8	7.8	7.8	7.8	6.6
1977	-	-	-	-	.8	.8	.8	.8	2.9
1977	38	-	-	-	12.8	12.8	12.8	12.7	2.6
1978	-	-	-	-	-	-	-	-	-
1979	6	-	-	-	11.9	12.9	12.9	12.6	8.4
1980	-	-	-	-	12.0	13.8	13.8	13.0	10.6
1981	-	-	-	-	-	-	-	-	-
1982	-	-	-	-	3.3	5.0	5.0	4.8	7.6
TOTAL	44	-	-	-	51.0	55.5	55.5	54.1	

APPROPRIATION: WPN

1980	60	-	2.8	19.3	23.7	34.3	34.3	25.1	11.8
1981	625	-	1.2	81.5	87.7	141.0	141.0	138.2	11.6
1982	559	-	7.7	62.0	72.9	127.5	127.5	98.8	14.3
1983	620	-	-	60.9	68.3	127.3	106.0	56.3	9.0
1984	695	-	-	59.9	73.6	145.0	109.8	48.8	8.0
1985	1671	-	-	130.5	141.3	293.6	-	-	4.8
1986	1872	-	6.4	149.2	169.1	370.0	-	-	5.7
1987	1910	-	-	145.2	163.9	376.2	-	-	5.5
1988	1352	-	-	102.2	120.0	286.2	-	-	5.2
1989	600	-	-	52.3	63.1	154.1	-	-	4.8
1990	600	-	-	56.8	63.3	157.7	-	-	4.4
TOTAL	10564	-	18.1	919.8	1046.9	2212.9	518.6	367.2	

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SSN-688, 31 December 1984

5. Program Highlights

Newport News Shipbuilding delivered the OLYMPIA (SSN 717) on 14 November 1984 and Electric Boat Division delivered the AUGUSTA (SSN 710) on 5 December 1984.

On 26 November 1984, Newport News Shipbuilding was awarded a contract for construction of three (FY 85) SSN's and Electric Boat Division awarded one (FY 85) SSN 688 Class submarine.

The FY 85 contracts increased the total number to forty-eight SSN 688 Class submarines.

6. Schedule

A. Milestones	Dev Est	Current Est
Characteristics Approved	Nov 68	Nov 68
DSARC I	Feb 70	Feb 70
DCP #27 Approved	Mar 70	Mar 70
Production Contract	Jan 71	Jan 71
Award		
Production Started -	Jan 71	Jan 71
First Ship		
Launch - First Ship	4th Qtr FY 73	Apr 74
Acceptance Trials -	1st Qtr FY 75	Oct 76
First Ship		
Delivery - First Ship	1st Qtr FY 75	Nov 76
AN/BQQ-5 for SSN 688	Jun 73	Jun 74
Accepted		
Start At - Sea Eval of	Sep 74	Sep 74
AN/BQQ-5 on SSN 660		
AN/BQQ-5 First Prod.	N/A	Dec 76
Unit Delivered		
Initial Operating	1st Qtr FY 75	Nov 76
Capability 1/		

B. Explanation of Changes

1/ IOC reflects commissioning of the first ship.

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SSN-628, 31 December 1984

7. Technical/Operational Characteristics

A.	Technical	Developmental Estimate	Demonstrated Performance	Current Estimate
	Submarine			
(a)	Length	360 feet	360 feet	360 feet
(b)	Beam Max.	33 feet	33 feet	33 feet
(c)	Draft Dev	32 feet	32 feet	32 feet
(d)	Displacement	6,900 tons	6,900 tons	6,900 tons
(e)	Operating Depth	(b)(1)		
(f)	Propulsion			
	Type	S6G	S6G	S6G
	SHP	(b)(1)		
(g)	Crew	133	133	133
	AN/BQQ-5B			
(a)	Maintainability(MTTR)	40	177	177
(b)	Hardware Reliability			
	Passive	1,400	599 <u>1/</u>	599
	Active	480	N/A <u>2/</u>	N/A <u>2/</u>
B.	Operational			
(a)	Speed (Max)	(b)(1) knots	(b)(1) knots	(b)(1) knots
(b)	Endurance			
	Fuel	Nuclear	Nuclear	Nuclear
	Stores (days)	(b)(1)	(b)(1)	(b)(1)
(c)	Armament	4 torpedo tubes	4 torpedo tubes	4 torpedo tubes

C. Explanation of Changes

- 1/ AN/BQQ-5B are based on demonstrated performance during OPEVAL and FOT&E
- 2/ Deleted from DCP #104 on 9 September 1975.

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SSN-688, 31 December 1984

.. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1971 Constant (Base Year)\$	Current(Then Year) \$	Escalation Rate (%)
Appropriation: RDT&E				
Current&Prior Years	-	23.5	44.7	N/A
Budget Year (1986)	-	0	0	4.40
Balance of FYDP	-	9.4	27.7	N/A
(1987)	-	(2.6)	(7.3)	4.20
(1988)	-	(2.6)	(7.6)	4.00
(1989)	-	(2.1)	(6.3)	3.70
(1990)	-	(2.1)	(6.5)	3.40
Balance to Complete	-	-	-	N/A
Subtotal		32.9	72.4	
Appropriation: SCN				
Current&Prior Years	48	8666.4	18108.1	N/A
Budget Year (1986)	4	850.8	2770.3	5.70
Balance of FYDP	14	2693.6	10003.4	N/A
(1987)	(4)	(781.7)	(2625.0)	5.50
(1988)	(4)	(837.2)	(2966.9)	5.20
(1989)	(2)	(411.8)	(1645.7)	4.80
(1990)	(4)	(662.9)	(2765.8)	4.40
Balance to Complete	-	136.0	629.5	N/A
Subtotal	66	12346.8	31511.3	
Appropriation: MILCON				
Current&Prior Years	-	17.9	30.5	N/A
Budget Year (1986)	-	0.0	0.0	N/A
Balance of FYDP	-	0.0	0.0	N/A
(1987)	-	0.0	0.0	N/A
(1988)	-	0.0	0.0	N/A
(1989)	-	0.0	0.0	N/A
(1990)	-	0.0	0.0	N/A
Balance to Complete	-	0	0	N/A
Subtotal	-	17.9	30.5	
Total	66	12397.6	31614.2	

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SSN-688, 31 December 1984

Program Status - -

(1) Percent Program Completed: 60.7% (17/28)

(2) Percent Program Cost Appropriated: 57.5% (\$18183.3/\$31614.2)

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SSN-688, 31 December 1984

9. Program/Acquisition/Current Procurement Unit Cost Summary:
(Current (Then Year) Dollars in Millions)

	<u>Current Year</u>	<u>Budget Year</u>
	<u>SAR Current</u>	<u>UCR Baseline</u>
	<u>Estimate</u>	<u>Estimate</u>
a. Program Acquisition - -		
(1) Cost	31614.2	31088.9
(2) Quantity	66	64
(3) Unit Cost	479.0	485.8
b. Current Procurement -- (FY 1985)		(FY 1986)
(1) Cost	2754.6	2965.4
Less CY Adv Proc	(562.8)	(617.8)
Plus PY Adv Proc	404.3	404.3
Less OF/PD	(89.6)	(85.4)
Net Total	2506.5	2666.5
(2) Quantity	4	4
(3) Unit Cost	626.6	666.6

10. Cost Variance Analysis :

a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)		5747.5		5747.5
Previous Changes:				
Economic	4.7	-687.6	-4.0	-686.9
Quantity		23295.6		23295.6
Schedule		87.3		87.3
Engineering	40.0	1903.2		1943.2
Estimating	25.0	-1330.9	0.1	-1305.8
Other		412.8		412.8
Support		1513.5	34.4	1547.9
Subtotal	69.7	25193.9	30.5	25294.1
Current Changes:				
Economic	1.0	-1913.9	-1.0	-1913.9
Quantity		1676.0		1676.0
Engineering		96.2		96.2
Estimating	1.7	905.0		906.7
Support		-193.4	1.0	-192.4
Subtotal	2.7	569.9	0.0	572.6
Total Changes	72.4	25763.8	30.5	25866.7
Current Estimate	72.4	31511.3	30.5	31614.2

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SSN-688, 31 December 1984

0. Cost Variance Analysis :

a. Summary -- (FY 1971 Constant (Base Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate (DE)		5126.8		5126.8
Previous Changes:				
Quantity		6020.0		6020.0
Schedule		14.6		14.6
Engineering	23.2	510.8		534.0
Estimating	9.6	-618.5		-608.9
Other		298.5		298.5
Support		309.3	17.3	326.6
Subtotal	32.8	6534.7	17.3	6584.8
Current Changes:				
Quantity		392.0		392.0
Engineering		25.6		25.6
Estimating	0.1	323.3		323.4
Support		-55.6	0.6	-55.0
Subtotal	0.1	685.3	0.6	686.0
Total Changes	32.9	7220.0	17.9	7270.8
Current Estimate	32.9	12346.8	17.9	12397.6

(Dollars in Millions)

b. Current Change Explanations - -

Base Year\$ Then Year\$

(1) RDT&E

Revised Jan 85 economic escalation rates (Economic)		+1.0
Increased Program requirements (Estimating)		+1.7

(2) Procurement

- Revised Jan 85 economic escalation rates and change to prior year rate computations (Economic)		-1913.9
- Net increase of 2 ships (Quantity)	+392.0	+1676.0
- Installation of VLS associated with the additional ships (Engineering)	+ 18.0	+ 78.3

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SSN-688, 31 December 1984

0. Cost Variance Analysis (cond't): Base Year\$ Then Year\$

- Installation of Thin Lined Towed Array on an SSN-688 (Engineering)	+2.3	+5.0
- Installation of a SUPERJET Propeller on an SSN-688 (Engineering)	+5.3	+12.9
- Revised estimates to support latest ship contract award, revised GFE estimates, refinement of prior year estimates, and adjustments to program manager's reserve. (Estimating)	-168.9	-589.7
- Reflects offset of actual impact of indices and additional refinement of ship cost estimates (Estimating)	+492.2	+1494.7
- Additional Post Delivery/Outfitting to support increase in quantity (Support)	+24.3	+111.6
- Reduction in Post Delivery/Outfitting requirements and adjustment due to outlay assumptions (Support)	-79.9	-305.0

(3) MILCON

- Revised Jan 85 economic escalation rates (Economic)		-1.0
- Reflects offset of actual impact of indices	+6	+1.0

11. Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Baseline Estimate - N/A

b. Current Baseline Estimate to Current Estimate

PAUC (DE)	Changes(Then Year Dollars in Millions)								PAUC (Baseline)
	Econ	Oty	Sch	Eng	Est	Spt	Oth	Total	Estimate)
179.6	-39.4	+285.8	+1.3	+30.9	-6.0	+20.5	+6.3	+299.4	479.0

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12. Contract Information: (Dollars in Millions)

a. Procurement

SSN 688 Construction	Current Contract <u>Target</u>	<u>Qty</u>	PM's Est Price At Completion
Electric Boat Division	\$560.2	2	\$ 561.8

Contract type: N00024-83-C-2039/FPI
30 Nov 1982

Previous Cumulative Variances	<u>Cost Variance</u> \$ -8.8	<u>Schedule Variance</u> \$ +3.3
Cumulative Variances To Date	\$ +4.5	\$ +0.9
Net Change	\$ +13.3	\$ -2.4

Explanation of Change: The change in cost variance results from a change in the methodology for reporting material costs. The current cost variance is accurate in accordance with DODI 7000.2 criteria. The contractor has implemented corrective procedures for future reporting. The current cost variance is insignificant. The schedule variance continues to be insignificant. The Program Manager's assessment of total program costs is within budget for this contract.

SSN 688 Construction	Current Contract <u>Target</u>	<u>Qty</u>	PM's Est Price At Completion
Electric Boat Division	\$803.6	3	\$ 803.6

Contract type: N00024-84-C-2063/FPI
30 Nov 1983

Previous Cumulative Variances	<u>Cost Variance</u> \$ -6.3	<u>Schedule Variance</u> \$ -1.1
Cumulative Variances To Date	\$ +0.6	\$ +2.0
Net Change	\$ +6.9	\$ 3.1

Explanation of Change: Cost and schedule variances are favorable due to increased manning at Quonset structural area. The Program Manager's assessment of total program costs is within budget for this contract.

SSN 688 Construction	Current Contract <u>Target</u>	<u>Qty</u>	PM's Est Price At Completion
Newport News Shipbuilding	\$1057.9	4	\$ 1057.9

Contract type: N00024-84-C-2064/FPI
29 Nov 1983

Previous Cumulative Variances	<u>Cost Variance</u> \$ -0.8	<u>Schedule Variance</u> \$ +0.2
Cumulative Variances To Date	\$ -0.8	\$ -0.7
Net Change	\$ 0	\$ -0.9

Explanation of Change: Cost and schedule variances are insignificant. The Program Manager's assessment of total program costs is within budget for this contract.

SSN 688 Construction	Current Contract	PM's Est Price
Electric Boat Division	<u>Target</u> <u>Qty</u>	<u>At Completion</u>
	\$ 261.3 2	\$ 326.5

Contract type: N00024-79-C-2720
16 April 1979

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$ -16.6	\$ -6.7
Cumulative Variances To Date	\$ -17.8	\$ -7.4
Net Change	\$ - 1.2	\$ -0.7

Explanation of Change: There are no significant changes in cost and schedule variances. The unfavorable cost variance is due to schedule recoupment efforts in the Groton trades area, and should level off during the next year. The schedule variance is insignificant and has no impact on the contract. The Program Manager's assessment of total program cost for this contract is within budget.

SSN 688 Construction	Current Contract	PM's Est Price
Electric Boat Division	<u>Target</u> <u>Qty</u>	<u>At Completion</u>
	\$ 471.3 2	\$ 480.3

Contract type: N00024-82-C-2055/FPI
11 Feb 1982

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$ -23.5	\$ -1.0
Cumulative Variances To Date	\$ - 7.1	\$ +6.6
Net Change	\$ +16.4	\$ +7.6

Explanation of Change: The change in cost variance results from a change in the methodology for reporting material costs. The current Cost Variance is accurate in accordance with DODI 7000.2 criteria. The contractor has implemented corrective procedures for future reporting. The current cost and schedule variances are insignificant. The Program Manager's assessment of total program costs for this contract is within budget.

N-30 SSN-688

Program Funding Summary
SYSTEM: SSN 688 CLASS SUBMARINE

AS OF DATE: 31 DEC 1984
BASE YEAR: 1971

CURRENT ESTIMATE
(\$ in Millions)

YEAR	QTY	BASE-YEAR DOLLARS			TOTAL	THEN-YEAR DOLLARS			ESCLATION RATE(%)
		(NON-ADD)	FLYAWAY (NON-AD			TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: RDT&E									
1970	0	0			0.5	0.5	0.5	0.5	5.51
1971	0	0			1.8	1.8	1.8	1.8	5.14
1972	0	0			1.1	1.2	1.2	1.2	4.61
1973	0	0			1.1	1.2	1.2	1.2	4.35
1974	0	0			0.4	0.5	0.5	0.5	7.97
1975	0	0			0.0	0.0	0.0	0.0	10.94
1976	0	0			0.0	0.0	0.0	0.0	6.61
1977	0	0			1.1	1.8	1.8	1.8	2.58
1978	0	0			1.0	1.7	1.7	1.7	6.80
1979	0	0			3.7	6.6	6.6	6.6	8.40
1980	0	0			1.4	2.7	2.7	2.7	10.59
1981	0	0			2.2	4.7	4.7	4.7	10.61
1982	0	0			2.2	5.0	5.0	4.9	7.60
1983	0	0			3.5	8.4	8.4	8.2	4.90
1984	0	0			2.0	4.7	4.2	3.8	3.80
1985	0	0			1.5	3.9	0.2	0.0	3.70
1986	0	0			0.0	0.0	0.0	0.0	4.40
1987	0	0			2.6	7.3	0.0	0.0	4.20
1988	0	0			2.6	7.6	0.0	0.0	4.00
1989	0	0			2.1	6.3	0.0	0.0	3.70
1990	0	0			2.1	6.5	0.0	0.0	3.40
TOTAL	0	0			32.9	72.4	40.5	39.6	

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Program Funding Summary
SYSTEM: SSN 688 CLASS SUBMARINE

AS OF DATE: 31 DEC 1984
BASE YEAR: 1971

CURRENT ESTIMATE
(\$ in Millions)

YEAR	QTY	BASE-YEAR DOLLARS			TOTAL	THEN-YEAR DOLLARS			ESCLATION RATE(%)
		ADV PROC	FLYAWAY (NON-ADD)			TOTAL	OBLIGATED	EXPENDED	
		(NON-ADD)	NON-REC	REC					
APPROPRIATION: SCN									
1969	0	23.0		23.0	23.0	26.5	26.5	26.5	
1970	3	96.6		498.4	498.4	601.5	601.5	600.5	5.60
1971	4	56.6		490.5	490.5	616.6	616.5	615.6	5.10
1972	5	103.8		648.1	648.1	909.1	903.1	894.2	4.40
1973	6	85.1		592.3	594.1	1041.8	1040.4	1021.2	5.30
1974	5	80.0		437.3	439.1	932.8	932.4	917.6	9.00
1975	3	0.0		234.6	237.4	534.2	532.2	524.4	14.10
1976	2	52.7		288.5	292.8	584.6	578.3	573.6	11.50
1977	0	88.5		86.3	86.4	189.0	189.0	188.6	2.00
1977	3	99.0		819.5	824.8	1392.1	1377.2	1340.5	6.20
1978	1	0.0		193.2	200.0	439.5	423.8	417.5	8.20
1979	1	10.9		510.7	522.3	759.6	703.2	689.0	9.60
1980	2	29.0		353.7	370.5	946.9	835.6	649.6	9.80
1981	2	68.8		474.3	492.1	1177.1	1010.6	732.3	9.60
1982	2	138.5		708.4	725.8	1569.6	1276.8	727.2	7.50
1983	2	137.8		661.3	680.1	1651.4	1286.8	410.6	3.80
1984	3	123.2		643.1	662.2	1981.2	1493.4	291.7	3.60
1985	4	168.7		851.9	878.3	2754.6	1738.2	21.5	4.90
1986	4	167.3		833.1	850.8	2770.3	0.0	0.0	5.70
1987	4	122.4		759.4	781.7	2625.0	0.0	0.0	5.50
1988	4	152.6		812.6	837.2	2966.9	0.0	0.0	5.20
1989	2	61.5		388.8	411.8	1645.7	0.0	0.0	4.80

Program Funding Summary
SYSTEM: SSN 688 CLASS SUBMARINE

AS OF DATE: 31 DEC 1984
BASE YEAR: 1971

CURRENT ESTIMATE
(\$ in Millions)

YEAR	QTY	BASE-YEAR DOLLARS			TOTAL	THEN-YEAR DOLLARS			ESCLATION RATE(%)
		(NON-ADD)	FLYAWAY (NON-AD			TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
APPROPRIATION: SCN (CONTINUED)									
1990	4	0.0		627.1	662.9	2765.8	0.0	0.0	4.40
1991	0	0.0		0.0	41.6	181.3	0.0	0.0	4.40
1992	0	0.0		0.0	38.3	174.1	0.0	0.0	4.40
1993	0	0.0		0.0	30.0	142.5	0.0	0.0	4.40
1994	0	0.0		0.0	17.1	84.6	0.0	0.0	4.40
1995	0	0.0		0.0	8.0	41.6	0.0	0.0	4.40
1996	0	0.0		0.0	1.0	5.4	0.0	0.0	4.40
TOTAL	66	1866.0	0	11936.1	12346.8	31511.3	15565.5	10642.1	

APPROPRIATION: MILCON

1973	0	0	0		2.9	3.9	3.9	3.9	5.55
1974	0	0	0		1.6	2.3	2.3	2.3	11.75
1975	0	0	0		2.7	4.3	4.3	4.3	16.12
1976	0	0	0		4.2	7.0	7.0	7.0	3.02
1977	0	0	0		0.0	0.0	0.0	0.0	1.56
1977T	0	0	0		0.0	0.0	0.0	0.0	2.80
1978	0	0	0		2.5	4.8	4.8	4.8	7.68
1979	0	0	0		3.8	7.6	7.6	7.6	9.31
1980	0	0	0		0.0	0.0	0.0	0.0	10.59
1981	0	0	0		0.0	0.0	0.0	0.0	10.61
1982	0	0	0		0.2	0.6	0.6	0.6	7.6
TOTAL	0	0	0		17.9	30.5	30.5	30.5	

AS OF DATE: 31 DEC 1984

2. DELIVERIES:

PLANNED/ACTUAL

TO DATE

PROCUREMENT:

31/30

VARIANCE ANALYSIS: DELIVERY OF ONE SHIP IS BEHIND SCHEDULE DUE TO
DECREASED LABOR PRODUCTIVITY.

Program Acquisition Costs
System: SSN-688

As of Date: December 31, 1984
Base Year: FY 1971

a. Program Acquisition Cost	Development Estimate ----- (FY70-76)	Changes -----	Current Estimate ----- (FY70-96)
	(1)	(2)	(3)
1. Cost			
Development	0.0	32.9	32.9
Procurement	5,126.8	7,220.0	12,346.8
Basic Ship Cost	2,484.6	4,796.4	7281.0
GFE	2,248.0	2,287.7	4535.7
Other	234.2	(114.8)	119.4
OF/PD	160.0	250.7	410.7
Construction	0.0	17.9	17.9
Total: Constant FY 71\$	5126.8	7,270.8	12,397.6
	-----	-----	-----
Escalation	620.7	18,595.9	19,216.6
Development	0.0	39.5	39.5
Procurement	620.7	18,543.8	19164.5
Construction	0.0	12.6	12.6
	-----	-----	-----
Total Program Cost	5,747.5	25,866.7	31,614.2
	-----	-----	-----

b. Foreign Military Sales (FMS). N/A

c. Nuclear Costs. SSN 688 draws upon general reactor plant research and development work performed by the Department of Energy, but this contribution cannot be quantified.

System: SSN-688

As of Date: 31 December 1984

F. (U) CONTRACTOR COSTS (\$M)	(1)			(2)			(3)
	Initial Contract Price Target	Ceiling	Qty	Current Contract Price Target	Ceiling	Qty	Price at Completion Contractor Estimate
1. Procurement							

Newport News Shipbuilding Newport News, VA 23607							
N00024-84-C-2064 Basic Constr of SSN-753,756,& 758-759	1057.4	1192.0	4	1057.9	1192.5	4	1/
Electric Boat Division Groton, CT 06340							
N00024-79-C-2720 Basic Constr of SSN 719-720	265.3	313.2	2	261.3	352.8	2	353.5
N00024-82-C-2055 Basic Constr of SSN 724-725	471.3	517.3	2	471.3	517.7	2	500.6
N00024-83-C-2039 Basic Constr of SSN 751-752	560.2	631.7	2	560.2	631.7	2	562.1
N00024-84-C-2063 Basic Constr of SSN 754-755 & 757	803.0	908.5	3	803.6	909.1	3	1/

1/ CONTRACTOR DATA WAS NOT AVAILABLE FOR 31 DECEMBER REPORT (SSNS 756-759 HAD JUST AWARDED 11/84)

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SELECTED ACQUISITION REPORT (RCS-DD-COMP (Q & A) 823)

PROGRAM: STINGER

84-025

A-22 STINGER

AS OF DATE: December 31, 1984

INDEX

<u>SUBJECT</u>	<u>PAGE</u>
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Program Highlights	2
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Cost Variance Analysis	6
Program Acquisition Unit Cost History	7
Contract Information	8

1. (U) Designation and Nomenclature (Popular Name): FIM 92A/92B

Man Portable Air Defense Guided Missile System
STINGER/STINGER POST/STINGER Reprogrammable Microprocessor

2. (U) DoD Component: Department of the Army

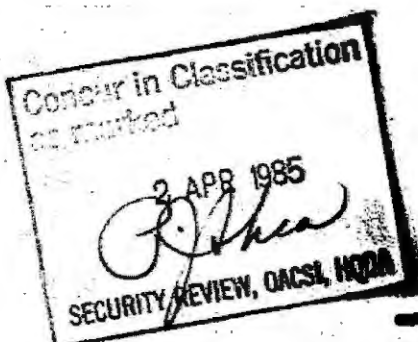
3. (U) Responsible Office and Telephone Number:

STINGER Project Manager's Office
Redstone Arsenal, AL 35898-5000

PM: COL RICHARD C. DEAN
Assigned: August 16, 1982
AUTOVON: 746-6191
Commercial: 205-876-6191

4. (U) Program Elements:

RDT&E: 64306.646
Procurement: C18500



~~CLASSIFIED BY: STINGER Security
Classification Card, dtd 26 Oct 84
DECLASSIFY ON: 31 Dec 92~~

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STINGER, December 31, 1984

5. (U) Program Highlights (Since Last Report): A letter contract with General Dynamics, for engineering development of Reprogrammable Microprocessor (RMP), was issued 25 Sep 84, with finalization scheduled for 8 Mar 85.

(b)(1)

6. (U) Schedule:

a. <u>Milestones</u> (Basic STINGER)	<u>Development Estimate</u>	<u>Current Estimate</u>
DSARC II	May 72	May 72
Development Contract Awarded	Jun 72	Jun 72
ASARC/DSARC III	Aug 75	Oct/Nov 77
ASARC/DSARC IIIa	Aug 77	N/A
Initial Operational Capability (IOC)	Sep 77	Feb 81
b. <u>Milestones</u> (STINGER-POST)		
Special ASARC (Development)	Apr 77	Apr 77
Development Contract Award	Jun 77	Jun 77
Completion of Design Evaluation Testing	Apr 79	Jan 81
Completion of Guided Test Vehicles	Apr 80	May 82
Completion of Prototype Qualification Test/OT	Jan 81	Oct 82
Completion of R&D Program	Feb 81	Nov 82
Special ASARC (POST Production)	Mar 81	Jan 83
First Unit Equipped	Sep 82	Aug 87
c. <u>Milestones</u> (STINGER-RMP)		
Special ASARC (Development)	Jun 83	Jun 83
Development Contract Award	Feb 84	Sep 84 (CH-1)
Completion of Design Evaluation Testing	Jan 87	Jul 86 (CH-1)
Production Baseline Established	Nov 86	Nov 86
Completion of Guided Test Vehicles/ Testing	Aug 86	Jul 87 (CH-1)
Completion of R&D Program	Feb 87	Dec 87 (CH-1)
First Unit Equipped (FUE)	Aug 87	Dec 87 (CH-1)

d. Explanation of changes -

(CH-1) (U) Change in RMP milestones is based on the schedule contained in the negotiated contract.

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STINGER, December 31 1984

e. References - DCP 114, dated Jul 72, for Basic/Revised; DCP 114, dated 5 Jun 78, for POST; ASARC III, Jun 83, for STINGER-RMP.

7. ~~(S)~~ Technical/Operational Characteristics:

a. (U) Technical (BASIC/POST/RMP STINGER)

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
Ready-to-Fire Weapon Weight Including Onboard IFF Antenna (lbs)	32	35	35/35.5/36

b. ~~(S)~~ Operational (BASIC/STINGER)

(1) (U) Basic STINGER

(a) ~~(S)~~ Intercept
Range
Minimum (m)
Maximum (km)

(b) ~~(S)~~ Intercept
Altitude Maximum (km)

(c) ~~(S)~~ Maximum
Acquisition
Range No
Offset (km)

(d) ~~(S)~~ Activation
Time (Secs)

(e) ~~(S)~~ System Effectiveness (E_s)

(f) ~~(S)~~ Infrared
Countermeasure
(Performance
Degradation %)

(b)(1)



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STINGER, December 31 1984

(1) (U) Basic STINGER (Cont'd)

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
(g) (U) Weapon Reliability	.89	.89 (CH-2)	.89 (CH-2)
(h) (U) IFF Maximum Instantaneous Search Sector (Degrees)	<u>+6</u>	<u>+5</u>	<u>+5</u>

(2) ~~(U)~~ STINGER (POST/RMP)

(a) (U)	Intercept Range Minimum (m) Maximum (km)	(b)(1)
(b) (U)	Intercept Altitude Maximum (km)	
(c) (U)	Maximum Acquisition Range- No Offset (km)	
(d) (U)	Activation Time (Secs)	
(e) (U)	System Effectiveness (Es)	
(f) (U)	Infrared Countermeasures (Performance Degradation %)	
(g) (U)	Weapon Reliability	.89 .83 .90/.90

c. (U) Explanation of changes - (CH-1) Item (1.e.) was adjusted based on the reliability change. (CH-2) Item (1.g.) was changed from 0.86 to 0.89 to include tests conducted in 1984.

d. (U) References - DCP 114, dated Jul 72 for Basic/Revised DCP 114, dated 5 Jun 78 for POST, ASARC III, Jun 83, for STINGER RMP.

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STINGER, December 31, 1984

8. (U) Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1972 Constant (Base-Year) \$	Current (Then-Year) \$	Escalation Rate(%)
-----------------------	----------	---------------------------------------	---------------------------	-----------------------

Appropriation: RDT&E

Current & Prior Years	211	166.0	242.5	N/A
Budget Year (1986)	3	7.2	18.6	4.4
Balance Of FYDP (1987)	--	1.2	3.2	N/A
	--	(1.2)	(3.2)	4.2
Balance to Complete	--	--	--	N/A
Subtotal	214	174.4	264.3	N/A

Appropriation: Procurement

Current & Prior Years	11650	352.4	930.0	N/A
Budget Year (1986)	3439	86.7	304.8	5.7
Balance Of FYDP (1987)	34681	581.6	2291.9	N/A
	(7130)	(159.3)	587.5	5.5
(1988)	(8506)	(140.2)	(540.7)	5.2
(1989)	(8568)	(129.9)	(523.3)	4.8
(1990)	(10477)	(152.2)	(640.4)	4.4
Balance to Complete	4960	75.3	330.9	N/A
Subtotal	54730	1096.0	3857.6	N/A
Total	54944	1270.4	4121.9	N/A

Program Status--

- (1) (U) Percent Program Completed: 57.1% (8/14)
- (2) (U) Percent Program Cost Appropriated: 28.4% (\$1172.5/\$4121.9)

9. (U) Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then-Year) Dollars in Millions)

		Current Year		Budget Year
		SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a.	(U) Program Acquisition			
(1)	(U) Cost	4121.9	3764.7	4121.9
(2)	(U) Quantity	54944	46417	54944
(3)	(U) Unit Cost	.075	.081	.075
b.	(U) Current Procurement (FY 1985)	(FY 1985)	(FY 1986)	
(1)	(U) Cost	207.3	209.6	304.8
	Less CY Adv Proc	N/A	N/A	N/A
	Plus PY Adv Proc	N/A	N/A	N/A
	Net Total	207.3	209.6	304.8
(2)	(U) Quantity	2360	2360	3439
(3)	(U) Unit Cost	.088	.089	.089

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STINGER, December 31, 1984

10. (U) Cost Variance Analysis:

a. Summary (Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	TOTAL
Development Estimate	80.8	393.0	473.8
Previous Changes:			
Economic	+5.8	+694.5	+700.3
Quantity	+10.8	+375.1	+385.9
Schedule	+27.4	+551.2	+578.6
Engineering	+113.5	+87.0	+200.5
Estimating	+28.5	+1322.1	+1350.6
Other	+7.3	--	+7.3
Support	+2.7	+65.0	+67.7
Subtotal	+196.0	+3094.9	+3290.9
Current Changes:			
Economic	-.4	-25.7	-26.1
Quantity	+.2	+62.8	+63.0
Schedule	--	+185.2	+185.2
Engineering	--	--	--
Estimating	-12.3	+147.4	+135.1
Other	--	--	--
Support	--	--	--
Subtotal	-12.5	+369.7	+357.2
Total Changes	+183.5	+3464.6	+3648.0
Current Estimate	264.3	3857.6	4121.9

(FY 1972 Constant Dollars (Base Year) in Millions)

	RDT&E ^{1/}	PROC	TOTAL
Development Estimate	76.6	334.3	410.9
Previous Changes:			
Quantity	+6.5	+123.6	+130.1
Schedule	+13.7	+125.4	+139.1
Engineering	+63.8	+18.8	+82.6
Estimating	+9.2	+408.2	+417.4
Other	+6.0	--	+6.0
Support	+1.9	+23.6	+25.5
Subtotal	+101.1	+699.6	+800.7
Current Changes:			
Quantity	+.1	+15.7	+15.8
Schedule	--	+20.4	+20.4
Engineering	--	--	--
Estimating	-3.4	+26.0	+22.6
Other	--	--	--
Support	--	--	--
Subtotal	-3.3	+62.1	+58.8
Total Changes	+97.8	+761.7	+859.5
Current Estimate	174.4	1096.0	1270.4

^{1/} Adjusted by \$+.2M to reflect true FY 72 base year dollars.

STINGER, December 31, 1984

b. Current Change Explanations

(Dollars in Millions)
Base-Year \$ Then-Year \$(1) RDTE

Revised Jan 85 economic escalation rates. (Economic)

N/A -.4

Additional 3 RMP Missiles (+.2) (Quantity) and deletion of follow-on STINGER Program (-12.3). (Estimating)

-3.3 -12.1

(2) Procurement

Revised Jan 85 economic escalation rates. (Economic)

N/A -25.7

Reduction of missiles in early years and rescheduling procurement in subsequent years as a result of budget cuts. (Schedule)

+20.4 +185.2

Additional 8080 missiles for Sgt York and 444 additional peace-time losses due to stretchout of program (+102.3); reduction of 4505 IFF Interrogators from requirements (-39.5) (Quantity)

+15.7 +62.8

Unit costs and ECO estimates revised to reflect experienced costs (-184.9); addition of estimated warranty risk balance of cost of 8524 missiles added for Sgt York, additional peace-time losses, and the addition of pedestal mounted STINGER. (+332.3) (Estimating)

+26.0 +147.4

11. (U) Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Estimate

PAUC (Dev) (Est)	Changes (Then-Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
.0204	+.0123	-.0036	+.0139	+.0037	+0.27	+.0012	+.0001	+.0546	.075

STINGER, December 31, 1984

12. (U) Contract Information: (Dollars In Millions)

a. Production

<u>Basic STINGER</u>	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
General Dynamics, Pomona Div DAAH01-82-C-A003 FPI Jan 31, 82 Definitized (As of Oct 84)	\$134.5	3755	(b)(4)
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variance	\$+1.7		\$-1.9
Cumulative Variance to Date	<u>\$-4.8</u>		<u>\$+3.5</u>
	\$-6.5		\$-1.6

Explanation of Change: Cumulative Cost Variance is primarily attributed to initial contract closeout activities which include rework and additional management support efforts for delinquent hardware.

	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
General Dynamics, Pomona Div DAAH01-83-C-A055 FFP Sep 9, 83 Definitized	\$116.3	3198	\$116.3
	<u>Current Contract Target Price</u>	<u>Qty</u>	<u>PM's Est Price At Completion</u>
General Dynamics, Pomona Div DAAH01-83-C-A145 FFP/FPI Sep 6, 83 Definitized (As of Oct 84)	\$132.7	559	(b)(4)
	<u>Cost Variance</u>		<u>Schedule Variance</u>
Previous Cumulative Variance	\$-.8		No contract data available
Cumulative Variance to Date	<u>\$-1.5</u>		<u>\$-1.2</u>
	\$-.7		\$-1.2

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STINGER, December 31, 1984

12. (U) Contract Information: (Cont'd)

Explanation of Change: Cumulative Schedule Variance is unfavorable due to complexities experienced in test equipment and tool design.

Cumulative Cost Variance is unfavorable due to additional personnel required to comply with schedule and additional financial requirements to recover the late starts in the test equipment and tooling area.

	Current Contract Target Price	Qty	PM's Est Price At Completion
<u>STINGER Launch Sim</u> Brunswick Corp. DAAH01-81-C-A838 FPI Sep 30, 81 Definitized	\$11.2	83	(b)(4)
Explanation of Change: N/A			
<u>Basic STINGER</u> General Dynamics, Pomona Div DAAH01-84-C-A088 FFP Mar 23, 84 Definitized	\$108.3	2808	\$108.3
<u>RMP Engineering</u> General Dynamics, Pomona Div DAAH01-84-C-A255 Dev letter contract	\$35.5	N/A	(b)(4)

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FOR OPEN PUBLICATION

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PROGRAM FUNDING SUMMARY
STINGER WEAPON SYSTEM

DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD--PA)
DEPARTMENT OF DEFENSE

CURRENT ESTIMATE
(\$ in Millions)

As of: 31 December 1984
Base Year: FY1972

APPROPRIATION: RDTE

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
1971	179				4.7	4.5	4.5	4.5	4.4
1972					7.5	7.5	7.5	7.5	2.6
1973					18.1	19.8	19.8	19.8	7.4
1974					21.8	25.4	25.4	25.4	9.4
1975					24.9	32.1	32.1	32.1	11.2
1976	26				16.4	22.4	22.4	22.4	8.7
7T					1.1	1.7	1.7	1.7	1.9
1977					18.6	26.7	26.7	25.3	8.0
1978					7.7	11.9	11.9	11.7	8.6
1979					14.3	24.6	24.6	24.2	8.5
1980	6				9.9	18.7	18.6	18.6	9.4
1981					2.7	5.6	5.6	5.6	11.9
1982					7.6	16.6	16.6	16.4	7.6
1983					8.7	20.0	20.0	.6	4.9
1984					- 0 -	- 0 -			3.8
1985	3				2.0	5.0			3.7
1986					7.2	18.6			4.4
1987					1.2	3.2			4.2
TOTAL	214				\$174.4	\$264.3	\$237.4	\$215.8	

No SECURITY Objection
to PUBLIC RELEASE

29 AUG 1985

SECURITY REVIEW, OASD, 100A

85 1681

A-21 STINGER

**PROGRAM FUNDING SUMMARY
STINGER WEAPON SYSTEM**

**CURRENT ESTIMATE
(\$ in Millions)**

**As of: 31 December 1984
Base Year: FY1972**

APPROPRIATION: PROCUREMENT

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					
1978	258			19.5	21.1	36.9	36.9	36.2	6.8
1979	1651			34.4	51.5	100.8	100.6	100.3	8.7
1980	1482			31.1	40.2	81.0	80.4	77.9	9.7
1981	1144			23.3	31.5	70.2	66.3	63.4	11.9
1982	2544			42.7	59.6	166.7	164.0	154.2	14.3
1983	1006			37.1	43.0	129.3	114.1	67.1	9.0
1984	1205			43.2	43.4	137.8	110.0	22.8	5.6
1985	2360			57.5	62.1	207.3			6.4
1986	3439		3.2	68.2	86.7	304.8			5.7
1987	7130		4.1	119.5	159.3	587.5			5.5
1988	8506		1.8	132.7	140.2	540.7			5.2
1989	8568		1.8	128.6	129.9	523.3			4.8
1990	10477			150.1	152.2	640.4			4.4
1991	4960			75.3	75.3	330.9			4.8
TOTAL	54730		\$10.9	\$963.2	\$1096.0	\$3857.6	\$672.3	\$521.9	

DELIVERIES (PLANNED/ACTUAL)

R & D
PROCUREMENT

TO DATE
211/211
7146/7079

Variance Analysis: The 67 missile difference is because the Dec 84 production (one-half of lot 21) was not accepted until February 1985.

PROGRAM ACQUISITION COSTS
STINGER WEAPON SYSTEM
(\$ in Millions)

As of 31 Dec 84
Base Year: FY1972

a. Program Acquisition Cost

<u>COST</u>	<u>DEVELOPMENT ESTIMATE (FY72-82)</u>	<u>CHANGES</u>	<u>CURRENT ESTIMATE (FY72-91)</u>
Development	\$ 76.6 **	+ 97.8	\$ 174.4
Basic	(76.6)	(34.9)	(111.5)
POST-RMP	-	(62.9)	(62.9)
Procurement	334.3	+ 761.7	1096.0
Weapon (FLYAWAY)	(307.8)	(655.6)	(963.4)
IPF			
Belt Pack	(13.1)	(11.2)	(24.3)
Programmer	(1.0)	(2.4)	(3.4)
Other	(11.1)	(90.7)	(101.8)
Initial Spares	(1.3)	(1.8)	(3.1)
Total <u>Constant FY72\$</u>	<u>\$410.9</u>	<u>+ 859.5</u>	<u>\$1270.4</u>
Escalation	62.9	+2788.6	2851.5
Development	4.2	+ 85.9	90.1
Procurement	58.7	+2702.7	2761.4
Total Program Cost	<u>\$473.8</u>	<u>\$3648.1</u>	<u>\$4121.9</u>

b. Foreign Military Sales: Sales to date total 1398 STINGER missiles.
A breakdown by country is as follows:

<u>COUNTRY</u>	<u>TOTAL \$ *</u>
France	3.5
Germany	2.4
Italy	1.2
Japan	22.4
Netherlands	33.1
Saudi Arabia	38.4
Switzerland	.5
Turkey	7.2
United Kingdom	6.3
	<u>115.0</u>

* It should be noted that all countries listed did not necessarily buy STINGER missiles; however, a further breakdown would be classified.

** Adjusted by +\$0.2M to reflect true FY 72 base year dollars.

CONTRACTOR COSTS	INITIAL CONTRACT PRICE			CURRENT CONTRACT PRICE			PRICE AT COMPLETION
	TARGET	CEILING	QTY	TARGET	CEILING	QTY	CONTRACTOR ESTIMATE
<u>PROCUREMENT</u> STINGER LAUNCH SIM BRUNSWICK CORP. DAAH01-81-C-A838 FPI 30 SEP 81 DEFINITIZED	\$ 5.9M	\$ 6.8M	40	\$ 11.2M	\$ 12.8M	83	\$ 11.0M
<u>PROCUREMENT</u> BASIC STINGER GENERAL DYNAMICS, POMONA DIV DAAH01-84-C-A088 FFP/FPI 23 MAR 84 DEFINITIZED	\$ 108.7	\$108.9	2808	\$108.3	\$108.9	2808	\$108.7
<u>DEVELOPMENT</u> RMP ENGINEERING DAAH01-84-C-A.255 FPI 22 MAR 85 DEFINITIZED	\$ 35.4M	\$ 35.5M	N/A	\$ 35.5M	\$ 35.5M	N/A	\$ 35.4M
<u>PROCUREMENT</u> BASIC STINGER GENERAL DYNAMICS, POMONA DIV DAAH01-82-C-A003 FPI 31 JAN 82 DEFINITIZED (As of Oct 84)	\$116.6M	\$129.0M	3109	\$134.5M	\$147.6M	3755	\$134.5M
<u>PROCUREMENT</u> BASIC STINGER GENERAL DYNAMICS, POMONA DIV DAAH01-83-C-A055 FFP 9 SEP 83 DEFINITIZED	\$100.9M		2598	\$116.3M		3198	\$116.4M
<u>PROCUREMENT</u> STINGER-POST INITIAL PROD GENERAL DYNAMICS, POMONA DIV DAAH01-83-C-A145 FFP/FPI 6 SEP 83 DEFINITIZED	\$ 49.8M	\$ 56.6M	44	\$132.7M	\$151.3M	559	\$132.7M

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SAR-84-087

N-36 TOMAHAWK

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)
PROGRAM: TOMAHAWK SEA LAUNCHED CRUISE MISSILE, BGM-109

AS OF DATE: December 31, 1984

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SUBJECT

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CLEARED
FOR OPEN PUBLICATION

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (DASU-PA)
DEPARTMENT OF DEFENSE

1. Designation/Nomenclature (Popular Name): BGM-109/SEA LAUNCHED CRUISE MISSILE (TOMAHAWK)
2. DOD Component: U.S. Navy
3. Responsible Office and Telephone Number:

Director
Joint Cruise Missiles Project Office
Washington, DC 20363

RADM Stephen J. Hostettler
Assigned: 27 August 1982
AUTOVON 222-7409
Phone (202)692-7409

4. Program Elements:

RDT&E: 64367N, 63717N
PROCUREMENT: 28009N, 24229N, 24660N

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TOMAHAWK, December 31, 1984

5. Program Highlights (Since Last Report): (U) On December 3, the Assistant Secretary of the Navy, Research, Engineering, and Systems chaired the TOMAHAWK Department of the Navy Selected Acquisition Review Council (DNSARC Milestone III Review). Limited production was approved for both the Anti-ship and the Nuclear Land Attack Missiles in FY85 and FY86 at the quantities budgeted.

(U)Future production of the Surface Ship Weapon System MK 36 was also approved. Other TOMAHAWK significant events have been centered around production and logistic support for the Nuclear Land Attack (TLAM/N) and Anti-Ship (TASM) variants. A comprehensive captive carry program is underway to gather storage reliability data. The TLAM(N) and the TASM variants completed ship OPEVALS in April and May respectively. The Follow-On Testing and Evaluation (FOT&E) Program for fleet training and product improvement modifications began in April. OTL testing began with two successful TASM launches from a submarine at PMTC. In May, the second battleship, USS IOWA, was deployed with TOMAHAWK, OPEVAL of surface ship launched anti-ship missiles was completed, and the initial operational capability achieved. The following month the nuclear land attack variant of TOMAHAWK reached operational status. Development testing of the conventional land attack variant with a terminal dive mode of attack commenced in June. In July, a conventional land attack TOMAHAWK with live warhead was tested successfully --the missile was launched from a submerged submarine in the Pacific and flew a land attack mission over San Clemente Island destroying a reinforced concrete structure more than 400 miles from the launch point. With two anti-ship test launches in September, 1984, the Operational Test Launch Program initiated East Coast flight test operations, at the Atlantic Fleet Weapons Test Facility near Puerto Rico. The Conventional Land Attack Missile (TLAM/C) Block IIA began operational testing in February 1985 with OPEVAL completion in April 1985.

(U)Dual Source contracts were awarded to General Dynamics/Convair (162 missiles) and McDonnell Douglas (108 missiles) on December 17, 1984. Included in these contracts are options for an additional 30 missiles which will be exercised at a later date.

(U)TOMAHAWK is expected to satisfy its current mission requirements.

6. (U)Schedule

	Development Estimate	Current Estimate
a. Milestones		
a. (U)DSARC I - Land Attack (SUBMARINE)	2/74	2/74
Anti-Ship	2/74	2/74
b. (U)First Flight	5/76	3/76
c. (U)First Guided Flight - Land Attack	10/76	12/76
Anti-Ship	12/76	12/76
d. (U)DSARC II - Land Attack	1/77	1/77
Anti-Ship	1/77	1/77
e. (U)First FSD Flight - Land Attack	3/77	1/77
Anti-Ship	2/77	2/77
Land Attack		
Conventional	N/A	7/81 CH-1
Conventional (Blk IIA)	N/A	6/84 CH-1

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TOMAHAWK, December 31, 1984

6. (U)Schedule (continued)

	Development Estimate	Current Estimate
a. <u>Milestones</u>		
f. (U)Combined DTOT/OPEVAL Complete	Sub ;Ship	Sub ;Ship
Conventional Land Attack (Block I)	N/A ; N/A	N/A;N/A
Conventional Land Attack (Block IIA)	N/A ; N/A	4/85;4/85
Conventional Land Attack (Block IIB)	N/A ; N/A	6/87;6/87 CH-2
Anti-Ship	5/80;1/81	10/83;5/84 CH-2
Land Attack Nuclear	5/80;1/81	10/83;4/84 CH-3
g. (U)DNSARC III		
Conventional Land Attack (Block I)	N/A ; N/A	N/A;N/A
Conventional Land Attack (Block IIA)	N/A ; N/A	6/86;6/86
Conventional Land Attack (Block IIB)	N/A ; N/A	11/87;11/87
Anti-Ship	9/80;5/81	12/84;12/84 CH-4
Land Attack Nuclear	9/80;5/81	12/84;12/84 CH-4
h. (U)IOC		
Conventional Land Attack (Block I)	N/A ; N/A	N/A;4/83
Conventional Land Attack (Block IIA)	N/A ; N/A	3/86;3/86
Conventional Land Attack (Block IIB)	N/A ; N/A	9/87;9/87
Anti-Ship	6/81;6/82	11/83;6/84 CH-5
Land Attack Nuclear	1/82;6/82	6/84;6/84 CH-5

b. (U)Explanation of Changes

CH-1: First FSD Flight - Conventional Land Attack Variant flights now shown.

CH-2: Current estimated dates have now been established for the Conventional Land Attack (Block IIA and IIB)) programmatic milestones.

CH-3: The Land Attack Nuclear completed as scheduled with the Anti-Ship variant one month behind the previous SAR scheduled date.

CH-4: DNSARC III completed four months later than scheduled because of numerous pre-reviews and DNSARC council availability.

CH-5: Due to factors as discussed above and test schedule conflict with TLAM/N program, Anti-Ship IOC was one month behind schedule.

c. (U)References -- December 1984, subject "TOMAHAWK Weapons System".

1. Development Estimate - Draft DCP 125 dated 22 Dec 1976 (Land Attack), Program Memorandum No. 117 Revised 22 Dec 1976 (Anti-Ship) SECNAV approved 5 January 1977; Draft NDCP K0545 dated 27 December 1982 (TOMAHAWK Weapon System) submitted to SECNAV.
2. Approved Program - NDCP K0545 original signed June 1983; update at ASN (RE&S) for signature.

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TOMAHAWK, December 31, 1984

7. (U)Operational/Technical Characteristics:

	Development Estimate	Demonstrated Performance	Current Estimate
a.(U)Operational (Land Attack):			
1. () Range: Operational:(km)			
(1) Nuclear	2500	(b)(1);(b)(3): 42 CH-1	2500
(2) Conventional, Sub	N/A	USC	880
(3) Conventional, Ship	N/A		1250
2. () Cruise Speed (Mach):	(b)(1);(b)(3): 3:42	§2168(a) (1)(C)--(FRD) CH-2	(b)(1);(b)(3): 42
3. () Penetration Altitude (Ft AGL)	USC	CH-3	USC
4. () Terminal Accuracy(CEP,ft):	§2168(a) (1)(C)--(F	CH-4	§2168(a) (1)(C)--(FR
(1) Nuclear			
(2) Conventional			
5. () Mission Reliability			
(1) (Sub/Ship)(FFC)	.8/.8	(b)(1)	
(2) (Sub/Ship)(IFC)	.8/.7	N/A	N/A
b.(U)Technical (Land Attack):			
1. () Warhead Yield		(b)(1);(b)(3):42 USC §2168(a) (1)(C)--(FRD)	
(1) Nuclear	N/A		
(2) Conventional		BULLPUP B CH-6 BULLPUP B	
c.(U)Operational (Anti-Ship)			
1. () Range: Operational (km)	463	(b)(1)	
2. () Cruise Speed (Mach):	(b)(1)		
3. () Penetration Altitude (ft AGL)			
4. () Probability of Hit			
5. (U) Mission Success			
(1) Sub/Ship (FFC)	.72/.72		
(2) Sub/Ship (IFC)	.57/.50	N/A	N/A
d.(U)Explanation of Changes--			

CH-1: Range - AGM-109 Competitive Flyoff with correction for excess fuel.

CH-2: Cruise Speed - Based on current flight data.

CH-3: Penetration Altitude - Demonstrated performance betters estimate.

CH-4: Terminal Accuracy - Demonstrated performance betters estimate.

CH-5: Mission Reliability/5 Years Improvement based on current flight data

CH-6: Warhead Yield - Demonstrated since last SAR.

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TOMAHAWK, December 31, 1984

f. (U)References —

1. Development Estimate - Draft DCP 125 dated 22 Dec 1976 (Land Attack), Program Memorandum No. 117 Revised 22 Dec 1976 (Anti-Ship) SECNAV approved 5 January 1977; Draft NDCP K0545 dated 27 December 1982 (TOMAHAWK Weapon System) submitted to SECNAV.

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

Fiscal Year Period	Quantity	FY 1977 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate
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Appropriation: RDT&E

Current & Prior Years	74	1,079.8	1,377.4	N/A
Budget Year (1986)	-	44.6	83.8	4.4
Balance of FYDP	-	191.2	395.0	N/A
(1987)	-	(54.7)	(106.9)	4.2
(1988)	-	(39.3)	(79.9)	4.0
(1989)	-	(43.4)	(91.2)	3.7
(1990)	-	(53.8)	(117.0)	3.4
Balance to Complete	-	-	-	-
Subtotal	74	1,315.6	1,856.2	N/A

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TOMAHAWK, December 31, 1984

8. Program Acquisition Cost (Cont'd):(Current Estimate in Millions)

Fiscal Year Period	Quantity	FY 1977 Constant (Base Year)\$	Current (Then Year) \$	Escalation Rate
Appropriation: WPN				
Current & Prior Years	472	828.5	1,599.6	N/A
Budget Year (1986)	249	351.0	780.0	5.7
Balance of FYDP	2,011	2,050.5	5,159.4	N/A
(1987)	(330)	(398.0)	(929.9)	5.5
(1988)	(450)	(486.2)	(1,188.2)	5.2
(1989)	(617)	(591.8)	(1,510.2)	4.8
(1990)	(614)	(574.5)	(1,531.1)	4.4
Balance to Complete	1,262	1,231.9	3,494.7	N/A
Subtotal	3,994	4,461.9	11,033.7	N/A
Appropriation: OPN				
Current & Prior Years	-	221.3	388.5	N/A
Budget Year (1986)	-	56.6	111.1	4.4
Balance of FYDP	-	186.4	401.4	N/A
(1987)	-	(39.8)	(81.1)	4.2
(1988)	-	(53.1)	(112.1)	4.0
(1989)	-	(39.8)	(87.0)	3.7
(1990)	-	(53.7)	(121.2)	3.4
Balance to Complete	-	-	-	N/A
Subtotal	-	464.3	901.0	N/A
Appropriation: MILCOM				
Current & Prior Years	-	0.3	0.5	N/A
Subtotal	-	0.3	0.5	N/A
Appropriation: ALL				
Total	4,068	6,242.1	13,791.4	N/A

Program Status --

(1) Percent Program Completed: 63.2% (12/19)

(2) Percent Program Cost Appropriated: 24.4% (\$3,366.0/\$13,791.4)

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TOMAHAWK, December 31, 1984

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then Year) Dollars in Millions)

	Current Year SAR Current Estimate	UCR Baseline Estimate	Budget Year UCR Baseline Estimate
a. Program Acquisition --			
(1) Cost	13,791.4	13,017.3	13,791.4
(2) Quantity	4,068	4,068	4,068
(3) Unit Cost	3.390	3.200	3.390
b. Current Procurement --	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	661.3	706.9	891.1
Less CY Adv Proc	(28.0)	(28.0)	(64.6)
Plus FY Adv Proc	15.3	15.3	28.0
Net Total	648.6	694.2	854.5
(2) Quantity	180	180	249
(3) Unit Cost	3.603	3.857	3.432

10. Cost Variance Analysis:a. Summary -- (Current (Then Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate(DE)	866.1	1,556.8	-	2,422.9
<u>Previous Changes:</u>				
Economic	+21.2	-657.2	+0.1	-635.9
Quantity	-22.6	+7,649.2	-	+7,626.6
Schedule	+213.4	+675.3	-	+888.7
Engineering	+542.9	+757.8	-	+1,300.7
Estimating +9.8	25.3	-207.4	-0.1	-197.7
Other	-	-	-	-
Support	+2.9	+1,608.5	+0.5	+1,611.9
Subtotal	+767.76	+9,826.2	+0.5	+10,594.43
<u>Current Changes:</u>				
Economic	-7.5	-28.9	-	-36.4
Quantity	-	-	-	-
Schedule	-	-69.8	-	-69.8
Engineering	+229.9	+241.8	-	+471.7
Estimating	-	+303.0	-	+303.0
Other	-	-	-	-
Support	-	+105.6	-	+105.6
Subtotal	+222.4	+551.7	-	+774.1
Total Changes	+990.1	+10,377.9	+0.5	+11,368.5
Current Estimate	1,856.2	11,934.7	0.5	13,791.4

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TOMAHAWK, December 31, 1984

10. Cost Variance Analysis (Cont'd):

(FY 1977 Constant Dollars (Base Year) in Millions)

	RDT&E	PROC	MILCON	TOTAL
Baseline Estimate(DE)	782.8	1,023.6	-	1,806.4
<u>Previous Changes:</u>				
Quantity	-17.5	+2,641.0	-	+2,623.5
Schedule	+148.5	+82.2	-	+230.7
Engineering	+296.8	+327.9	-	+624.7
Estimating	-7.7	-48.3	-0.1	-56.1
Other	-	-	-	-
Support	+2.1	+656.5	+0.4	+659.0
Subtotal	+422.2	+3,659.3	+0.3	+4,081.8
<u>Current Changes:</u>				
Quantity	-	-	-	-
Schedule	-	+2.6	-	+2.6
Engineering	+110.6	+94.2	-	+204.8
Estimating	-	+101.3	-	+101.3
Other	-	-	-	-
Support	-	+45.2	-	+45.2
Subtotal	+110.6	+243.3	-	+353.9
Total Changes	+532.8	+3,902.6	+0.3	+4,435.7
Current Estimate	\$1,315.6	\$4,926.2	0.3	+6,242.1

b. Current Change Explanations -

(Dollars in Millions)
Base Year \$ Then Year \$(1) RDT&ERevised Jan 85 escalation rates.
(Economic)

N/A -7.5

Implementation of program additions:	+24.0	+47.8
TASM Improved Acquisition, Signal Certification System Development and Improved Nuclear Safety.		
Addition of missile and TWCS improvements.	+32.8	+65.1
Addition of FY90 R&D requirements.	+53.8	+117.0
TOTAL Engineering Change	+110.6	+229.9

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TOMAHAWK, December 31, 1984

(2) Procurement(Dollars in Millions)
Base Year \$ Then Year \$

Revised Jan 85 escalation rates. (Economic)	N/A	-28.9
Rephasing of 217 missiles from FY89-92 to FY86-88. (Schedule)	2.6	-69.8
Implement Congressionally mandated warranty decision (FY86-92). (Estimating)	+113.9	+340.8
Reestimate of programs. (Estimating)	-4.9	-14.8
Inclusion of Product/Reliability Improvement Program (FY86-92). (Engineering)	+94.2	+241.8
Savings to other Navy Programs. (Estimating)	-7.7	-23.0
Adjustments of spares requirements and additional Theater Mission Planning Center equipment. Schedule rephasing of associated missile support equipment and spares. Deletion of four ABL's and six Common Weapon Control System (CWCS) suites. Addition of FY90 OPN requirements. (Support)	+45.2	+105.6

c. References - 1. RDT&E - Development Estimate - FY 1981 RDT&E
Descriptive Summary Program Element 64367N

2. Procurement - Development Estimate - January
1978 Five Year Defense Plan (FYDP).

11. Program Acquisition Unit Cost (PAUC) History:

a. Initial SAR Estimate to Current Estimate - N/A

b. Current Baseline Estimate to Current Estimate:

PAUC (DE)	Changes (Then Year Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
2.083	-0.165	+0.387	+0.201	+0.436	+0.026	+0.422	0.0	+1.307	3.390

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TOMAHAWK, December 31, 1984

12. Contract Information: (Dollars in Millions)

a. RDT&E: Dollar Value of ongoing effort has dropped below reporting threshold.

b. <u>Procurement:</u>	Current Contract	PM's Est Price
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
General Dynamics (FY82 AUR)	189.9	142
San Diego, CA		199.6
N00032-82-C-3263		
FPI, July 81 (Nov 84 CPR)		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	-4.8	-2.1
Cumulative Variances To Date	+7.4	-3.7
Net Change	+12.2	-1.6

Explanation of Change: The cost variance is due largely to material control problems which result in an overstated positive cost variance. Cost performance has improved but it is forecasted that this contract will exceed target price. Other cost saving factors are: (1) consolidation of body section fabrication along with utilization of numerically controlled machines; (2) consolidation of facilities from Kearny Mesa Plant and Lindbergh Field; and (3) larger production lots for increased economies of scale. Cumulative schedule variance has deteriorated due to: (1) failures of GFE causing teardown, reinstallation, and retest; and (2) rework of REM batteries due to failed acceptances. There is no impact to the delivery schedule or the program. This contract is 95% complete.

<u>AUR Missile:</u>	Current Contract	PM's Est Price
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
General Dynamics (FY84 AUR)	189.8	208
San Diego, CA		189.8
N00019-83-C-3339		
FFP, March 84		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		
Net Change		

Explanation of Change: Not reported for FFP contracts.

<u>AUR Missile:</u>	Current Contract	PM's Est Price
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
General Dynamics (FY85 AUR)	174.3	180
San Diego, CA		174.3
N00019-84-C-4484		
FFP, December 84		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		
Net Change		

Explanation of Change: Not reported for FFP contracts.

TOMAHAWK, December 31, 1984

12. Contract Information (Cont'd): (Dollars in Millions)

<u>AUR Missile:</u>	<u>Current Contract</u>	<u>PM's Est Price</u>
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
McDonnell Douglas (FY85 AUR)	182.9 120	182.9
St. Louis, MO		
N00019-84-C-4485		
FFP, December 84		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		
Net Change		

Explanation of Change: Not reported for FFP contracts.

<u>Weapons Control System:</u>	<u>Current Contract</u>	<u>PM's Est Price</u>
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
McDonnell Douglas (FY82/3 WCS)	\$171.6 117	\$173.5
St. Louis, MO		
N00019-83-C-3323		
FPI, September 81 (Nov 84 CPR)		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	-3.7	-7.6
Cumulative Variances To Date	-9.7	-9.7
	-6.0	-2.1

Explanation of Change: The cumulative cost variance has deteriorated since the last report largely due to material control problems. Other negative factors are: (1) extensive manufacturing labor expended in the start-up of lot 2 production, (2) transfer of CWCS effort from St. Louis to Titusville, Fla. and resulting receipt of discrepant vendor hardware requiring tooling scrappage and rebuild greater than planned, (3) high volume of rework due to "cracked ship" and circuit card problems, and (4) production assessment and production readiness review support greater than planned.

The cumulative schedule variance has deteriorated from the previous report due to: (1) continued accounting errors in CPE, (2) late shipments of 4 Random Access Storage Systems (RASS's), and (3) receipt of discrepant vendor hardware resulting in both tool scrappage and rebuild activity.

Increased cost and schedule variances are mainly due to accounting errors and are not performance related. Consequently, there is no program impact.

<u>Engine:</u>	<u>Current Contract</u>	<u>PM's Est Price</u>
	<u>Target Price</u> <u>Qty</u>	<u>At Completion</u>
Williams International	115.6 579	115.6
Walled Lake, MI		
N00019-84-C-4210 (FY84 Engines)		
FFP, September 84		
	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	N/A	N/A
Cumulative Variances To Date		
Net Change		

Explanation of Change: Not reported for FFP contracts.

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N-36 TOMAHAWK

SUPPLEMENTAL INFORMATION ADDENDUM TO THE
COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (RCS DD-COMP (O) 823)
PROGRAM: TOMAHAWK SEA LAUNCHED CRUISE MISSILE (BGM-109) (U)

REPORT AS OF: December 31, 1984

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (U)

SYSTEM: TOMAHAWK

AS OF: December 31, 1984

BASE YEAR: FY 1977

1. (U) PROGRAM FUNDING SUMMARY

CURRENT ESTIMATE
(Dollars in Millions)

FISCAL YEAR	QUANTITY	BASE-YEAR DOLLARS				THEN YEAR DOLLARS			ESCALATION RATE (%) 1/
		ADV PROC (NON- ADD)	FLYAWAY NON-ADD		TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC	REC					

APPROPRIATION: RDT&E,N

1974	-	-	-	-	7.6	6.6	6.6	6.3	-
1975	-	-	-	-	43.9	37.3	37.3	37.3	-
1976	-	-	-	-	140.6	130.6	130.6	129.8	-
1977	36	-	-	-	116.5	119.2	119.0	119.0	-
1978	38	-	-	-	189.9	209.5	209.4	209.1	7.6
1979	-	-	-	-	127.3	154.1	154.0	153.1	8.4
1980	-	-	-	-	78.3	105.5	105.4	100.3	9.4
1981	-	-	-	-	89.8	133.9	133.8	132.1	11.9
1982	-	-	-	-	90.4	144.5	144.4	142.2	9.2
1983	-	-	-	-	71.1	118.5	118.4	111.2	4.9
1984	-	-	-	-	78.5	135.4	135.0	71.1	3.8
1985	-	-	-	-	45.9	82.4	20.8	0.4	3.7
1986	-	-	-	-	44.6	83.8			4.4
1987	-	-	-	-	54.7	106.9			4.2
1988	-	-	-	-	39.3	79.9			4.0
1989	-	-	-	-	43.4	91.2			3.7
1990	-	-	-	-	53.8	117.0			3.4
TOTAL	74	-	-	-	1,315.6	1,856.2	1,314.7	1,212.0	

APPROPRIATION: WPN

1980	6	10.7	0.0	12.8	19.9	30.1	30.1	30.0	9.7
1981	50	14.0	3.9	92.8	116.9	195.4	194.4	165.8	11.9
1982	61	14.0	7.2	102.7	128.8	232.7	227.9	199.2	9.6
1983	51	6.7	17.5	79.2	116.4	221.2	190.7	162.3	9.0
1984	124	15.3	10.4	135.6	171.6	341.7	307.5	103.0	8.0
1985	180	28.0	20.3	208.8	274.9	578.5	185.7	4.7	4.8
1986	249	64.6	30.6	247.3	351.0	780.0			5.7
1987	330	71.1	29.5	300.2	398.0	929.9			5.5
1988	450	90.2	44.6	380.4	486.2	1,188.2			5.2
1989	617	95.6	14.8	524.0	591.8	1,510.2			4.8
1990	614	106.7	0.0	528.4	574.5	1,531.1			4.4
1991	645	-	12.9	630.1	640.7	1,782.3			4.4
1992	617	-	11.6	543.8	591.2	1,712.4			4.4
TOTAL	3,994	516.9	203.3	3,786.1	4,461.9	11,033.7	1,136.3	665.0	

APPROPRIATION: OPN

1981	-	-	-	-	22.1	36.6	36.6	36.6	11.9
1982	-	-	-	-	44.6	75.1	67.8	55.2	9.2
1983	-	-	-	-	74.2	129.1	123.0	53.3	4.9
1984	-	-	-	-	36.1	64.9	52.3	15.9	3.8
1985	-	-	-	-	44.3	82.8	8.4	1.3	3.7
1986	-	-	-	-	56.6	111.1			4.4
1987	-	-	-	-	39.8	81.1			4.2
1988	-	-	-	-	53.1	112.1			4.0
1989	-	-	-	-	39.8	87.0			3.7
1990	-	-	-	-	53.7	121.2			3.4
TOTAL	-	-	-	-	464.2	901.0	288.1	162.3	

APPROPRIATION: MILCON

1982	-	-	-	-	0.3	0.5	0.5	0.5	9.2
TOTAL	-	-	-	-	0.3	0.5	0.5	0.5	

1/ Since the annual rates shown do not incorporate spend-out rates nor the compounding effect of prior years' escalation, they cannot be used to track the inflation amounts shown for the applicable years.

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~~RESTRICTED DATA~~

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (U)
SYSTEM: TOMAHAWK
(DOLLARS IN MILLIONS)

REPORT AS OF: December 31, 1984
BASE YEAR: FY 1977

2. (U) DELIVERIES (Plan/Actual)

	R&D TO DATE		Procurement TO DATE
R&D: Land Attack	47/37	Procurement: Land Attack	70/31
Anti-Ship	27/37	Anti-Ship	48/63
Total	74/74	Land Attack/Nuclear	14/14
		Total	132/108

Variance Analysis: Deliveries are 24 missiles behind schedule due to material shortages and technical problems.

3. (U) PROGRAM ACQUISITION COSTS

	(1) Development Estimate (FY74-86)	(2) Changes	(3) Current Estimate (FY74-92)
a. (U) <u>Program Acquisition Cost</u>			
Development 1/2/	782.8	(+532.8)	1315.6
Procurement	1023.6	+3902.6	4926.2
Air Vehicle (Flyaway)	(786.0)	(+3203.4)	(3989.4)
Other 3/	(90.2)	(+374.0)	(464.3)
Peculiar Support	(81.1)	(+141.2)	(222.3)
Initial Spares	-(66.3)	(+183.9)	(250.2)
Construction	0	0.3	0.3
Total Constant FY77\$	1806.4	+4435.7	6242.1
Escalation	616.5	+6932.8	7549.3
Development	(83.3)	+457.3	(540.6)
Procurement	(533.2)	(+6475.3)	(7008.5)
Construction	(0.0)	(0.2)	(0.2)
Total Prog Cost 4/5/	\$2,422.9	+11368.5	13,791.4

b. (U) Foreign Military Sales (FMS): N/A

c. (U) Nuclear Costs: DOE Warhead Costs (non-add) are (b)(1)

- 1/(U) The basic program is Land Attack. The Anti-Ship RDT&E represents the incremental cost to the basic program.
- 2/(U) "Development Estimate" and "Current Estimate" include \$174.5M in development cost, prior to the base year, which are not escalated to constant FY1977 dollars. The \$174.5M equates to \$183.6M in constant FY1977 dollars.
- 3/(U) Includes Submarine/ship launch and fire control equipment, and other support costs.
- 4/(U) Excludes SCN and O&M,N for shipboard installation and engineering support and excludes shipboard Vertical Launching System costs managed by the Naval Sea Systems Command.

OCT 02 1985

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COMPREHENSIVE ANNUAL SELECTED ACQUISITION REPORT (U)

SYSTEM: TOMAHAWK
(Dollars in Millions)

AS OF DATE: December 31, 1984

	(1)			(2)			(3)	
	Initial Contract Price			Current Contract Price			Price At Completion	
	Target	Ceiling	Qty	Target	Ceiling	Qty	A/ Contractor Estimate	A/
4. (U) CONTRACT INFORMATION								
a. DEVELOPMENT								
(1) Dollar Value of ongoing effort has dropped below reporting threshold.								
b. PROCUREMENT								
					Ch F1	Ch F1		
(1) General Dynamics(FY82 AUR) N00032-82-C-3263 FPI July 81	B/172.0	192.8	142	189.9 /	210.1 /	142	192.9	Ch F2
					Ch F3			
(2) General Dynamics (FY84 AUR) N00019-83-C-3339 PFP March 84	B/187.2	N/A	208	189.8/	N/A	208	189.8	Ch F3
(3) General Dynamics(FY85 AUR) N00032-84-C-4484 FFP December 84	B/174.3	N/A	86	174.3 /	N/A	180	174.3	
					Ch F4	Ch F4		
(4) McDonnell Douglas(FY82/3 WCS) N00019-83-C-3323 FPI September 81	150.1	165.8	117	171.6/	189.6 /	117	173.5	Ch F4
(5) Williams International C/ N00019-84-C-4210 (FY84 Engines) FFP September 84	130.1	N/A	579	115.6	N/A	579	115.6	
(6) McDonnell Douglas(FY85 AUR) B/ N00032-84-C-4485 FFP December 84	182.9	N/A	26	182.9	N/A	120	182.9	

(7) Changes Since Previous Report:

CH F1 - Value increase due to addition of authorized, unpriced work.

CH F2 - Reflects the addition of authorized work and re-estimate of work remaining.

CH F3 - Reflects increase due to negotiations of newly authorized effort.

CH F4 - Reflects the addition of authorized, planned and budgeted CCP's and ECP's.

Also reflects negotiation of contract modifications.

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A-6 BLACKHAWK

SELECTED ACQUISITION REPORT (RCS: DD-COMP (Q&A) 823)

PROGRAM: UH-60A BLACK HAWK

AS OF DATE: December 31, 1984

84-028

INDEX

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Program Highlights	2
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Technical/Operational Characteristics	3
Program Acquisition Cost	4
Unit Cost Summary	5
Cost Variance Analysis	6
Program Acquisition Unit Cost History	7
Contract Information	8

1. Designation/Nomenclature: UH-60A BLACK HAWK
2. DoD Component: Department of the Army
3. Responsible Office and Telephone Number:

BLACK HAWK Project Manager's Office
4300 Goodfellow Boulevard
St. Louis, Missouri 63120-1798

PM: COL R. H. Lauder
Assigned: November 9, 1983
AUTOVON: 693-1800

4. Program Elements:

RDT&E: 64206A
PROCUREMENT: A05002

DATE: 2 Apr 85

CONCUR in Protective Marking

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from Enclosures~~

5. Program Highlights (Since Last Report):

On October 31, 1984, DA awarded a three-year (FY 85-87) airframe Multiyear Contract (MYC) to Sikorsky Aircraft for 288 aircraft (54 EH-60A QUICK FIX and 234 UH-60A BLACK HAWK) at a value of \$832.4 million. This three-year MYC yielded \$129.5 million in cost savings over the award of three annual contracts. In November 1984, DA awarded a three-year (FY 85-87) airframe spares MYC to Sikorsky Aircraft in the amount of \$78.1 million. This three-year MYC yielded \$17 million cost savings over the award of three annual contracts.

In early September 1984, DA directed the BLACK HAWK Project Manager to explore reconfiguring UH-60A BLACK HAWK aircraft to fulfill DA's newly acquired Special Operations Forces (SOF) mission and added funding to the FY 86 Budget Request to aid in accomplishing this objective.

The BLACK HAWK system currently meets all mission requirements.

6. Schedule:

a. Milestones	Development Estimate	Current Estimate
First Year of Funding	Jul 67	Jul 67
Engine Development Contract Award	Dec 71	Mar 72
Prototype Development Contracts Awarded	Sep 72	Aug 72
First Flight	Sep 74	Nov 74
Engine Military Qualification Test (150 Hrs)	Dec 75	Mar 76
Development Test II Started	Feb 76	Mar 76
Completed	Dec 77	Dec 76
Operational Test II Started	Not Shown	Jun 76
Completed	Not Shown	Sep 76
DSARC III	Sep 76	Nov 76
Type Classification (Standard)	Not Shown	Nov 76
Prototype Evaluation Completed	Not Shown	Dec 76
Initial Production Contract Award	N/A	Dec 76
1st Production Aircraft Delivery	N/A	Oct 78
FDTE Started	Not Shown	Jun 79
Completed	Not Shown	Oct 79
ASARC IIIA	Not Shown	Oct 79
Initial Operational Capability (IOC)	Jun 79	Nov 79
Department of the Army Program Review (DAPR)	N/A (Ch-1)	Aug 84 (Ch-1)

b. Explanation of Changes -- (Ch-1) DA directed that a DAPR be held to consider the original procurement objective for UH-60A BLACK HAWK aircraft.

c. References -- DCP #13, June 13, 1971 and DCP #13 Update, November 1, 1977.

7. Technical/Operational Characteristics:

	<u>Development Estimate</u>	<u>Demonstrated Performance</u>	<u>Current Estimate</u>
a. Technical			
Payload (Pounds)	2640	2640	2640
Flight Performance with Payload			
(1) Vertical Climb in Feet Per Minute (FPM)	500	450 <u>1/</u>	688 (Ch-1)
(2) Cruise Speed (Knots), Maximum Continuous Power	150	145	145
(3) Endurance (Hours), Mission Profile	2.3	2.3	2.3
Meantime Between Failure (MTBF) (Hours)	4.0	6.6	4.8
Maintenance Man-hours/Flight HR (MMH/FH) <u>2/</u>	3.8	3.0 (Ch-2)	3.0
b. Operational			
Payload (Troop)	11	11	11
Air Transportability			
(1) C-130 (Quantity)	1	Not Req'd	Not Req'd
(2) C-141 (Quantity)	2	2	2
(3) C-5 (Quantity)	6	6	6
Mission Reliability (Probability of Success)	.986	.983	.987
c. Explanation of Changes			
(Ch-1) +216 (472 to 688). The current estimate reflects the actual weight of the 580th production aircraft and the impact of the 5% T700-GE-700 engine improvement.			
(Ch-2) +0.4 (2.6 to 3.0). The Demonstrated Performance increase was due to an update using FY 84 fleet wide sample of unscheduled maintenance data rather than the latest production lot sample data.			
d. References -- Same as 6c.			

Footnotes:

1/ Using 95% Intermediate Rated Power, at 2,850 ft. altitude only.

2/ Inspection and Servicing, total Corrective MMH/FH mission reconfiguration, preparation of aircraft for air transport and refueling through Aviation Intermediate Maintenance (AVIM) level.

8. Program Acquisition Cost: (Current Estimate in Millions of Dollars)

FISCAL YEAR PERIOD	QUANTITY	FY 1971 CONSTANT (BASE-YEAR)	CURRENT (THEN- YEAR) \$	ESCALATION RATE (%)
-----------------------	----------	------------------------------------	----------------------------	------------------------

Appropriation RDT&E

Current & Prior Years	10	375.5	519.3	N/A
Budget Year (1986)	-	-	-	N/A
Balance of FYDP (1987)	-	-	-	N/A
(1988)	-	-	-	N/A
(1989)	-	-	-	N/A
(1990)	-	-	-	N/A
Balance to Complete	-	-	-	N/A
Subtotal	10	375.5	519.3	N/A

Appropriation Procurement

Current & Prior Years	699	1,318.3	3,734.5	N/A
Budget Year (1986)	78	136.8	486.2	5.7
Balance of FYDP (1987)	330 (78)	474.8 (105.8)	1,885.2 (394.5)	N/A 5.5
(1988)	(85)	(145.6)	(568.6)	5.2

FISCAL YEAR PERIOD	QUANTITY	FY 1971 CONSTANT (BASE-YEAR) \$	CURRENT (THEN- YEAR) \$	ESCALATION RATE (%)
--------------------	----------	---------------------------------------	----------------------------	------------------------

Appropriation Procurement (Cont'd)

(1989)	(96)	(161.3)	(657.7)	4.8
(1990)	(71)	(62.1)	(264.4)	4.4
Balance to Complete	0.0	0.0	0.0	N/A
Subtotal	1,107	1,929.9	6,105.9	N/A
Total	1,117	2,305.4	6,625.2	N/A

Program Status

(1) Percent Program Complete 79.2% (19/24)

(2) Percent Program Cost Appropriated 64.2% (4,253.8/6,625.2)

9. Program Acquisition/Current Procurement Unit Cost Summary: (Current (Then-Year)
Dollars in Millions)

	Current Year		Budget Year
	SAR Current Estimate	UCR Baseline Estimate	UCR Baseline Estimate
a. Program Acquisition --			
(1) Cost	6,625.2	7,313.6	6,625.2
(2) Quantity	1,117	1,117	1,117
(3) Unit Cost	5.931	6.548	5.931
b. Current Procurement --	(FY 1985)	(FY 1985)	(FY 1986)
(1) Cost	476.6	521.1	486.2
Less CY Adv Proc	171.8	171.8	199.0
Plus PY Adv Proc	151.1	142.6	147.7
Net Total	455.9	491.9	434.9
(2) Quantity	86	78	78
(3) Unit Cost	5.301	6.306	5.576

10. Cost Variance Analysis

a. Summary -- (Current (Then-Year) Dollars in Millions)

	RDTE	PROC	MILCON	TOTAL
Development Estimate	409.9	1,897.4	-	2,307.3
Previous Changes:				
Economic	+52.3	+1,665.1	-	+1,717.4
Quantity	-22.0	-	-	-22.0
Schedule	+3.0	-51.2	-	-48.2
Engineering	+23.5	+54.2	-	+77.7
Estimating	+25.9	+3,257.4	-	+3,283.3
Other	+18.5	+1.4	-	+19.9
Support	+8.2	-30.0	-	-21.8
Subtotal	109.4	+4,896.9	-	+5,006.3
Current Changes:				
Economic	-	-188.5	-	-188.5
Quantity	-	-	-	-
Schedule	-	-9.7	-	-9.7
Engineering	-	+52.5	-	+52.5
Estimating	0	- 555.3	-	- 555.3
Other	-	-	-	-
Support	-	+12.6	-	+12.6
Subtotal	0	-688.4	-	-688.4
Total Changes	+109.4	+4,208.5	-	4,317.9
Current Estimate	519.3	6,105.9	-	6,625.2

a. Summary (Cont'd) -- (FY 1971 Constant (Base Year) Dollars in Millions)

	RDTE	PROC	MILCON	TOTAL
Development Estimate	^{1/} 357.6	1,584.4	-	1,942.0
Previous Changes				
Quantity	-20.2	-	-	-20.2
Schedule	+ 1.4	-106.8	-	-105.4
Engineering	+10.0	-2.7	-	+7.3
Estimating	+19.1	+682.2	-	+701.3
Other	+12.6	+ .8	-	+13.4
Support	+6.2	-110.9	-	-104.7
Subtotal	+29.1	+462.6	-	+491.7
Current Changes				
Quantity	-	-	-	-
Schedule	-	+ .7	-	+ .7
Engineering	-	+15.1	-	+15.1
Estimating	-11.2	-137.1	-	-148.3
Other	-	-	-	-
Support	-	+4.2	-	+4.2
Subtotal	-11.2	-117.1	-	-128.3
Total Changes	+17.9	+345.5	-	+363.4
Current Estimate	375.5	1,929.9	-	2,305.4

^{1/} Adjusted by \$.3M to reflect true FY71 constant (Base Year) dollars.

10. Cost Variance Analysis (Cont'd):

b. Current Change Explanations —

	(Dollars in Millions)	
	FY 1971 Constant (Base-Year) \$	Then-Year \$
(1) <u>RDT&E</u>		
Application of OSD generic historical RDTE inflation factors in lieu of the aircraft unique RDTE indices utilized in the last report. (Estimating)	-11.2	0.0
(2) <u>Procurement</u>		
Application of January 1985 DA/OSD inflation guidance (Economic).	0.0	-188.5
Increase of FY 85 procurement quantity from 78 to 86 (Schedule).	+0.7	-9.7
Increase to reflect initial funding of Special Operations Forces aircraft (Engineering).	+15.1	+52.5
Decrease reflects the use of lower airframe and engine prices shown in the FY 85-87 airframe multiyear contract (MYC) and the contractor's FY 86-88 T700 series engine MYC proposal (Estimating).	-137.1	-555.3
Increase is based on the inclusion of funds to procure a Command Instrument System Trainer (CIST) and Cockpit Emergency Procedures Trainer (CEPT) (Support).	+4.2	+12.6

(3) MILCON: None.

c. References -- Same as 6c.

11. Program Acquisition Unit Cost (PAUC) History:

Development Estimate to Current Estimate

PAUC (Dev Estimate)	Changes (Current (Then-Year) Dollars in Millions)								PAUC (Current Estimate)
	Econ	Qty	Sch	Eng	Est	Spt	Other	Total	
2.055	+1.369	-.009	-.052	+.116	+2.442	-.008	+.018	+3.876	5.931

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UH-60A BLACK HAWK, December 31, 1984

Footnote: Initial SAR dated December 31, 1971.

12. Contract Information: (Then-Year Dollars in Millions)

Procurement

<u>Airframe</u>	<u>Current Contract Target</u>	<u>Qty</u>
United Technologies Corp., Sikorsky Aircraft Division, Stratford, CT, DAAJ09-82-C-A326 FFP, April 12, 1982	N/A	294
United Technologies Corp., Sikorsky Aircraft Division, Stratford, CT. DAAJ09-85-C-A006 FFP, October 31, 1984	N/A	294
<u>Engine</u>		
General Electric Co., Lynn, MA DAAJ09-82-C-0006, FFP, April 30, 1982	N/A	214
General Electric Co., Lynn, MA DAAJ09-83-G-A395, FFP, October 7, 1983	N/A	1,554
<u>Auxiliary Power Unit</u>		
Turbomach Division, San Diego, CA DAAJ09-83-C-B159, FFP, May 31, 1983	N/A	207
Turbomach Division, San Diego, CA DAAJ09-84-C-A608, FFP, May 31, 1984	N/A	164

(b)(4)

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DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE

PROGRAM FUNDING SUMMARY
SYSTEM: UH-60A BLACK HAWK

AS OF DATE: December 31, 1984
BASE YEAR: FY 71

CURRENT ESTIMATE
(\$ in millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS			THEN-YEAR DOLLARS			ESCALATION RATE (%)
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)	TOTAL	TOTAL	OBLIGATED	EXPENDED	
			NON-REC REC					
APPROPRIATION: RDTE								
1968	-	-	-	.5	.5	.5	.5	4.2
1969	-	-	-	1.9	1.8	1.8	1.8	5.1
1970	-	-	-	1.3	1.2	1.2	1.2	5.3
1971	-	-	-	7.7	7.9	7.9	7.9	4.9
1972	-	-	-	21.1	22.7	22.7	22.7	4.8
1973	-	-	-	44.1	50.3	50.3	50.3	6.2
1974	-	-	-	83.4	102.7	102.6	102.6	8.0
1975	-	-	-	39.3	52.7	52.7	52.7	8.7
1976	-	-	-	65.8	93.6	93.6	93.6	6.3
7T	-	-	-	12.7	18.6	18.6	18.6	3.1
1977	-	-	-	49.9	76.0	76.0	76.0	3.9
1978	-	-	-	23.9	39.2	39.2	39.2	7.7
1979	-	-	-	6.3	11.4	11.4	11.4	9.7
1980	-	-	-	1.8	3.6	3.6	3.6	7.9
1981	-	-	-	3.3	7.0	7.0	7.0	11.3
1982	-	-	-	3.2	7.3	6.4	6.3	6.5
1983	-	-	-	3.3	7.8	7.8	5.7	4.2
1984	-	-	-	6.0	15.0	9.3	.3	4.1
TOTAL	10			375.5	519.3	512.6	501.4	

NOTE: The escalation rates shown represent the difference between the yearly inflation factors (including spendout rates). The factor to convert base year (FY71) constant dollars to the escalated dollars requirement for the first year funds were appropriated (1968) is .8834.

No SECURITY Objection
to PUBLIC RELEASE

29 AUG 1985

George Brown

A-5 BLACKHAWK

85 1684

PROGRAM FUNDING SUMMARY
SYSTEM: UH-60A BLACK HAWK

AS OF DATE: December 31, 1984
BASE YEAR: FY 71

CURRENT ESTIMATE (CONT'D)
(\$ in millions)

FISCAL YEAR	QTY	BASE YEAR DOLLARS				THEN-YEAR DOLLARS				ESCALATION RATE(%) 2/
		ADV PROC (NON-ADD)	FLYAWAY (NON-ADD)		TOTAL	TOTAL	OBLIGATED	EXPENDED		
		NON-REC	REC 1/							
APPROPRIATION: PROCUREMENT										
1977	15	3.7	19.4	37.1	74.1	139.9	139.9	139.4	1.7	
1978	56	4.9	11.9	81.4	112.9	246.8	246.1	245.2	15.0	
1979	92	5.2	5.4	132.2	158.3	395.6	392.8	387.1	14.3	
1980	94	5.5	3.2	124.2	137.8	378.7	378.7	376.3	10.0	
1981	80	8.4	2.3	119.4	163.7	474.9	474.9	459.0	5.5	
1982	96	44.1	2.5	141.8	209.1	619.6	617.5	597.9	2.2	
1983	96	47.7	8.3	154.9	186.7	570.9	545.8	486.9	3.2	
1984	84	43.6	.9	135.0	134.5	431.5	390.8	150.8	5.0	
1985	86	50.9	.6	128.2	141.2	476.6			5.2	
1986	78	56.0	2.1	112.3	136.8	486.2			5.7	
1987	78	50.0	2.1	109.8	105.8	394.5			5.5	
1988	85	49.1	2.1	126.9	145.6	568.6			5.2	
1989	96	58.6	2.1	145.5	161.3	657.7			4.8	
1990	71	--	2.1	129.0	62.1	264.4			4.4	
TOTAL	1,107	427.7	65.0	1677.7	1929.9	6105.9	3186.5	2842.6		

1/ Flyaway cost includes prior year advance procurement for the current year and excludes current year advance procurement for future years.

2/ The rates shown represent the difference between the yearly inflation factors (including spendout rates). The factor to convert base year (FY71) constant dollars to the escalated requirement of the year prior to the year of first appropriation (FY7T) is 1.8559.

PROGRAM ACQUISITION COST
SYSTEM: UH-60A BLACK HAWK

AS OF DATE: December 31, 1984
BASE YEAR: FY 71

(Dollars in Millions)

A. PROGRAM ACQUISITION COST

<u>COST</u>	(1) Development Estimate (FY 68-84)	(2) Changes	(3) Current Estimate (FY68-90)
Development <u>1/</u>	357.6 *	+17.9	375.5
Procurement	1,584.4	+345.5	1,929.9
Airframe			(1,040.9)
Engine			(329.8)
Avionics			(66.8)
Other Flyaway			(305.2)
Total Flyaway			(1,742.7)
Other Weap. Sys. Cost			(54.4)
Initial Spares			(132.8)
Construction			
Total: Constant FY 71 \$	<u>1942.0</u>	<u>+363.4</u>	<u>2,305.4</u>
Escalation	365.3	+3,954.5	4,319.8
Development	(52.3)	(+91.5)	(143.8)
Procurement	(313.0)	(+3,863.0)	(4,176.0)
Construction	0	0	0
Total Program Cost	<u>2,307.3</u>	<u>+4,317.9</u>	<u>6,625.2</u>

B. FOREIGN MILITARY SALES: NONE

C. NUCLEAR COSTS: NONE

* Adjusted by +\$0.3M to reflect true FY 71 constant (Base Year) dollars.

UH-60A BLACK HAWK CONTRACT SUMMARY
(\$ in millions)

AS OF DATE: 31 December 1984

CONTRACTOR COSTS	(1)			(2)			(3)
	Initial Contract Price			Current Contract Price			Price at
	Target	Ceiling	Qty	Target	Ceiling	Qty	Completion Contractor Estimate
a. RDT&E: None.							
b. Procurement							
<u>Airframe</u>							
United Technologies Corp., Sikorsky Aircraft Division Stratford, CT, DAAJ09-82-C-A326 FFP, April 12, 1982	N/A	950.1	294	N/A	1,010.1	294	1,103.1
United Technologies Corp., Sikorsky Aircraft Division Stratford, CT. DAAJ09-85-C-A006 FFP, October 31, 1984	N/A	832.4	288	N/A	851.3	294	998.9
<u>Engine</u>							
General Electric Co., Lynn, MA DAAJ09-82-C-0006, FFP, April 30, 1982	N/A	116.9	214	N/A	105.2	214	124.7
General Electric Co., Lynn, MA DAAJ09-83-C-A395, FFP, October 7, 1983	N/A	749.9	1552	N/A	813.1	1554	814.7

UH-60A BLACK HAWK CONTRACT SUMMARY (CONT'D)
(\$ in millions)

AS OF DATE: 31 December 1984

<u>CONTRACTOR COST</u>	(1)			(2)			(3)
	<u>Initial Contract Price</u>			<u>Current Contract Price</u>			<u>Price at</u>
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Completion</u> <u>Contractor</u> <u>Estimate</u>
<u>Auxiliary Power Unit</u>							
Solar Turbines, Inc. Turbomach Division, San Diego, CA DAAJ09-83-C-B159, FFP, May 31, 1983	N/A	7.3	150	N/A	10.8	207	10.8
Solar Turbines, Inc. Turbomach Division, San Diego, CA DAAJ09-84-C-A608, FFP, May 31, 1984	N/A	7.1	120	N/A	10.5	164	11.3
c. MILCON: None							

UH-60A BLACK HAWK
AIRCRAFT DELIVERY SUMMARY

AS OF DATE: 31 December 1984

DELIVERIES (PLANNED/ACTUAL)

R&D

Procurement

Variance Analysis: N/A

TO DATE

10/10

589/589