INTEGRATED DEFENSIVE ELECTRONIC COUNTERMEASURES (IDECM)

December 2021 Selected Acquisition Report (SAR)

DECEMBER 31, 2021
DEPARTMENT OF THE NAVY

Contents

Common Acronyms and Abbreviations
Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost
PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Manager

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Mission and Description

The Integrated Defensive Electronic Countermeasures (IDECM) System is a Radio Frequency (RF), self-protection electronic countermeasure suite on the F/A-18 aircraft. IDECM improves the survivability of the F/A-18 aircraft against RF guided threats during Air-to-Ground/Surface and Air-to-Air missions. The system is comprised of onboard components, which receive and process radar signals, along with onboard and offboard jammer components that transmit appropriate RF jamming responses.

There are four IDECM variants in development, production, or sustainment. Blocks 1-3 are compatible with F/A-18E/F aircraft only and are no longer in reporting. Block 4 is compatible with F/A-18C-F aircraft.

IDECM Block 1: A federated suite, consisting of the ALQ-165 On-Board Jammer (OBJ) and ALE-50 expendable decoy.

IDECM Block 2: An integrated suite, consisting of the ALQ-214 OBJ and ALE-50 expendable decoy.

IDECM Block 3: An integrated suite, consisting of the ALQ-214 OBJ and ALE-55 Fiber Optic Towed Decoy.

IDECM Block 4: A hardware Engineering Change Proposal to the ALQ-214 OBJ to render it suitable for operation on F/A-18C/D aircraft, while retaining all functionality, when installed on F/A-18E/F.

ALQ-214 Software Improvement Program (SWIP): ALQ-214 Software/Firmware updates that will enhance F/A-18 mission execution and improve mission survivability against modern air, land and naval threat systems by enhancing digital receiver and technique generator capabilities. ALQ-214 Adaptive Radar Countermeasures (ARC): ALQ-214 ARC will leverage the SWIP infrastructure and enhance jamming and aircrew situational awareness against advanced and/or unknown threat radar systems.

Executive Summary

Significant Accomplishments:

IDECM Block-4 (IB-4) ALQ-214 Software Improvement (SWIP)

SWIP fielding decision occurred May 2021. System stability and Wingman Compatibility improvements demonstrated. SWIP Fleet Release (U.S. Navy) planned May 2022.

Adaptive Radar Countermeasures (ARC)

The ARC Mainline Integration contract was awarded on August 27, 2020 to Leidos Incorporated for development and integration of ARC software/firmware (SW/FW) on the F/A-18. The predecessor contract, ARC Risk Reduction, concluded on September 30, 2020 following completion of the ARC System Requirements Review. ARC Mainline Integration will deliver three incremental SW/FW builds (output of three spiral developments) to the government for testing and evaluation. Deliveries commence in Q4 FY 2022 (Build 1), Q4 FY 2023 (Build 2) with IOC planned in Q1 FY 2024 (Build 3). Release Build 1 will deliver to the United States Government (USG) for Test & Evaluation Q4 FY 2022. Release Build 1 capabilities will include a standardized message interface (Run Time Process or "App") from the Jammer to ARC, multiple instantiations of the ARC algorithm within the 214 (enabling 1vN capability) and Novel Open and Closed Loop Modeling & Simulation solutions for automated test to enhance horizontal testability at Contractor and USG laboratories.

IDECM Block-4 (IB-4) Production

The FRP 14 through 16 contract (base with two options) was awarded on September 27, 2017. As of March 31, 2022, L3Harris has delivered 97 FRP 14 & 15 ALQ-214A(V) production systems (APN-1/-5 Funded Assets; Excludes FMS and APN-6). SW/FW delays for the ALQ-214 Digital Receiver Technique Generator 2 (DRTG 2) Shop Replaceable Assembly (SRA) Engineering Change Proposal (ECP) development have impacted the FRP 14 and FRP 15 delivery schedules. A Request for Variance (RFV) for delivery of non-conforming items has been incorporated on the contract to allow for partial sell-off of systems containing the DRTG G2 SRAs. Full sell-off will be accomplished following completion of the government Validation/Verification DRTG G2 SRA ECP (ECD August 2022). All FRP 14 hardware has been shipped in place at the Original Equipment Manufacturer (OEM) in accordance with (IAW) the FRP 14 RFV. FRP 15 hardware is also being shipped in place at the OEM IAW the FRP 15 RFV which was executed December 1, 2020. FRP 15 deliveries completed in March 2022. The OEM is assessing their contractual requirements and ability to deliver FRP 16 IAW the contract schedule. There are concerns regarding printed wiring board deficiencies that are causing manufacturing delays as well as remaining work from FRP 14 & 15 which will likely affect FRP16 deliveries. There is potential for an RFV or no-cost delivery schedule modification to be requested by the OEM in support of FRP 16 hardware.

FRP 17 & 18 contract (base with 1 option) was awarded on July 31, 2020. FRP 17 deliveries are planned to begin in September 2022. The FRP 18 option was exercised on March 3, 2021. FRP 18 deliveries are planned to begin in September 2023.

A revised APB, approved on September 24, 2021, adjusted total program quantity to 425 (APN-1 and APN-5 USN and USMC systems). This is the first APB that includes all USN and USMC IDECM systems. The AN/ALQ-214 IDECM configuration change was approved by ASN(RD&A) on March 04, 2022. This change is the result of USMC removing the requirement for the integration of Adaptive Radar Countermeasures (ARC) on USMC F/A-18C/Ds.

Significant Issues: There are no significant software-related issues with this program at this time.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation	
Date	**Significant Development Description**
1st Quarter FY 2008	In September 2007, PMA272 requested re-designation of IDECM from Acquisition Category (ACAT) II to ACAT IC. The requirement to re-designate was identified as part of a cost estimate performed by the AIR 4.2 Cost Department in support of the re-baseline effort and in preparation for the IB-3 FRP decision. The analysis identified that continued RDT&E investments over the course of the IBs 1-3 development program resulted in cumulative RDT&E funding, which is above the demarcation line between ACAT II and ACAT I ($365M total in FY 2000$). The request to re-designate as ACAT IC was approved by ASN (RD&A) in March 2008.
2nd Quarter FY 2008	In January 2008, corrective actions (hardware and software) for all anomalies required for IB-3 to return to OT were incorporated and demonstrated to be effective through DT laboratory and flight testing. IB-3 returned to Initial Operational Test and Evaluation (IOT&E) in February 2008. IB-3 IOT&E completed in September 2008. The OT Report was received on December 19, 2008 with a finding of "operationally effective" but "not operationally suitable".
3rd Quarter FY 2009	The IDECM ACAT IC APB was approved and includes the increments for IB 2/3 and the increment for IB-4.
2nd Quarter FY 2009	An IDECM Block 4 Program Decision Review was conducted with ASN (RD&A) in March 2009. The IB-4 acquisition and contract strategy, which supported development of a Common OBJ for the F/A-18 C/D/E/F aircraft through sole source contract awards to Harris (formerly Exelis) for modifications to the ALQ-214, was presented to ASN (RD&A). An IB-4 APB schedule deviation was recommended to replace IB-4 Milestone B and C events with In -Process Reviews (IPRs) to provide more appropriate oversight of an ECP modification to a system already in FRP. ASN (RD&A) support for the IB-4 strategy was documented by an ADM, dated May 4, 2009. IB-4 cost, schedule and performance requirements were contained in the IDECM APB Change 1, approved July 10, 2009.
2nd Quarter FY 2009	An IDECM Block 3 Program Decision Review was conducted with ASN (RD&A) in March 2009. The purpose of the review was to evaluate Program Office recommendations to deviate from APB schedules and to include additional IB-3 LRIP awards, allowing for the correction of deficiencies identified during IB-3 IOT&E Report (OT-IIB), prior to FRP. ASN (RD&A) supported the IB-3 acquisition strategy change to include additional LRIP lots specifically LRIP 5 in FY 2009 and LRIP 6 in FY 2010. ASN (RD&A) support for the IB-3 strategy was documented by an Acquisition Decision Memorandum (ADM), dated April 13, 2009. IB-2/3 cost, schedule and performance requirements were contained in the IDECM APB Change 1, approved July 10, 2009.
1st Quarter FY 2010	An IDECM Block 4 ECP Preliminary Design Review (PDR) was successfully completed in November 2009.
3rd Quarter FY 2010	An IDECM Block 4 ECP Critical Design Review (CDR) was successfully completed in May 2010. As a result of CDR, AIR-4.2 updated the cost estimate and identified an Operations & Support (O&S) cost deviation to the APB. The O&S cost estimate increased due to use of an incorrectly calculated Mean Time Between Failure (MTBF), which resulted in an artificially low estimate of the number of failures and associated repair costs. A Program Deviation Report was routed and the IDECM APB Change 2 was approved on October 18, 2010.
2nd Quarter FY 2011	As a result of PB12, IB-4 required a cost re-baseline to address an increase of funds over the Future Years Defense Program (FYDP). The RDT&E breach was due to an increase of funds for ALQ-214 SWIP for Deny-Delay jamming functionality. The procurement breach was due to an increase of funds to procure additional IB-4 systems. A Program Deviation Report (PDR) was routed and the IDECM APB Change 3 was approved on June 07, 2011.
3rd Quarter FY 2013	An In-Process Review was conducted with ASN(RD&A) on April 9, 2013. System software demonstrated a lack of maturity requiring additional time, which resulted in an APB schedule breach of the Operational Test (OT) Start. ASN(RD&A) approved revision of the APB objectives to reflect current estimates for OT Start, IPR 5, IPR 6 and IOC. There was no impact to cost or performance. The IPR resulted in direction to update the IDECM Acquisition Strategy to reflect award of the existing Firm Fixed Price (FFP) production option

	in FY 2014 following IPR 5 in early FY 2014 and conduct of the final IPR (IPR 6) after completion of Operational Test.
1st Quarter FY 2014	An In-Process Review was conducted electronically with ASN(RD&A) from January 10, 2014 to January 24, 2014. The purpose of this IPR was to provide status of IB-4; gain concurrence to exercise the FY 2014 production award; and provide an assessment of the IDECM Configuration Steering Board (CSB) annual requirement. All input criteria were satisfied. The program was directed to return for IPR 6 following completion of OT to support the FY 2015 and planned subsequent annual procurements of the ALQ-214.
2nd Quarter FY 2015	On March 10, 2015, PMA 272 submitted a PDR for the ECP portion of the IB-4 program due to a flight test schedule breach. OT had been delayed due to a lack of aircraft and threat simulator availability at the test range. The previous "electronically conducted" IPR 5, documented stability of the IB-4 ECP hardware and software configuration and the OTRR granted start to OT. Based on IDECM maturity, ASN(RD&A) concurred with the IDECM program plan to award the FY 2015 ALQ-214 production contract and remove the requirement for IPR 6. A revised APB which reflects the current schedule estimates was signed February 17, 2016.
3rd Quarter FY 2015	IB-4 Hardware ECP Initial Operational Capability (IOC) achieved May 2015.
4th Quarter FY 2015	The Navy completed an IDECM SWIP operational assessment (OA) on September 30, 2015.
4th Quarter FY 2017	IDECM Block 2/3 reported deviations in the December 2015 and 2016 Selected Acquisition Report (SARs) for procurement costs as a result of funding/budget reductions, which stretched out the program duration. In the December 2016 SAR, the IDECM program office recommended managing the expendable requirements through the Naval Munitions Requirements Process (which aligns with Department of Defense Instruction (DoDI) 3000.04) along with all other countermeasure expendables in the Department of Navy (DoN) Inventory. In August 2017, the Navy supported the recommendation, via an Acquisition Decision Memorandum, which directed PMA-272 to manage the ALE-55 expendable Fiber Optic Towed Decoy solely through the NMRP.The 2019 President's Budget includes the requirement for a Dual Band Decoy (DBD) to counter future threats and is funded (RDT&E in FY2019 and Procurement (PANMC) in FY2022). DBD will not be part of IDECM Block 2/3 or Block 4 subprograms. In the process of aligning/planning the FYDP funding, DBD is planning for production readiness in FY2022 resulting in no future requirements for ALE-55 beyond FY2021. As a result of DBD planning/funding, the quantity projections for ALE-55 are drastically reduced and create a critical Nunn-McCurdy breach against both the original and current baseline of IDECM Block 2/3. This breach is due solely to reducing the quantity of ALE-55 by 69%.
4th Quarter FY 2017	On August 18, 2017, via ADM, PMA-272 was authorized to route a revised APB to reflect IDECM Block 4 changes to Procurement and O&S parameters due to an increase in quantities, from 190 units to 324 units. A revised APB, which reflects the current cost estimates, was signed February 12, 2018.
2nd Quarter FY 2018	Adaptive Radar Countermeasures (ARC) is an upgrade to the on-board component of the IDECM suite. The RDT&E associated with ARC, funded in PB 2019, was significant enough to cause an RDT&E deviation for IDECM Block 4. The Program Office documented this deviation in a Program Deviation Report (PDR).The RDT&E associated with ARC was incorporated into the APB approved on June 29, 2018.
3rd Quarter FY 2018	IDECM Block 2/3 reported a critical Nunn-McCurdy in the December 2017 SAR. The root cause analysis determined the Nunn-McCurdy to be quantity based and unrelated to the execution of the program. On May 10, 2018, the SAE approved a program restructure to include only the quantity required to reach IOC within the APB. Moving forward, the ALE-55 will be managed solely through the Naval Munitions Requirements Process (NMRP) in accordance with OPNAVINST 8011.9B. On May 28, 2018 the Nunn-McCurdy program certification was submitted to Congress. A new APB was approved June 29, 2018. Based on the program restructure, IDECM Block 2/3 is considered 100% delivered/expended.
3rd Quarter FY 2020	An IDECM Gate 6 review was conducted on July 13, 2020. During this review, the USN quantity was reduced from 389 to 350 (APN-1 and APN-5 systems) and the USMC quantity was reduced from 100 to 75 for a total of 425 systems. An updated APB is in routing to

	update total program quantity to reflect that change, which was documented in the Gate 6/CSB minutes, approved by N98 and ASN(RD&A) PMD on September 4, 2020.
2nd Quarter FY2021	IDECM SWIP fielding decision occurred May 2021. System stability and architectural enhancements required to support ARC were demonstrated. SWIP Fleet Release (USN) planned March 2022.
4th Quarter FY 2021	A revised APB, approved on September 24, 2021, adjusted total program quantity to 425 (APN-1 and APN-5 USN and USMC systems) as previously approved in the IDECM Gate 6 review conducted July 13, 2020. The requirement was documented in the Gate 6/CSB minutes, approved by N98 and ASN(RD&A) PMD on September 4, 2020 and OPNAV Ser N98/20U144718 dated August 4, 2020. This is the first APB that includes all USN and USMC IDECM systems.
4th Quarter FY2021	AN/ALQ-214 IDECM configuration change memo was approved by ASN(RD&A) on March 04, 2022. This change is the result of USMC removing the requirement for the integration of Adaptive Radar Countermeasures (ARC) on USMC F/A-18C/Ds.

Schedule

Schedule Events

Schedule Events					
Events	**Development APB Objective**	**Current APB Development Objective/Threshold**		**Current Estimate/Actual**	**Deviation**
ALQ-214 (IB4) IPR (Post-PDR Assessment)	Jan 2010	Jan 2010	Jul 2010	Mar 2010	
ALQ-214 (IB4) IPR (Post-CDR Assessment)	Jul 2010	Jul 2010	Jan 2011	Jul 2010	
ALQ-214 (IB4) IPR (Production Cut-in Review 1)	Dec 2011	Dec 2011	Jun 2012	Mar 2012	
ALQ-214 (IB4) IPR (Production Cut-in Review 2)	Feb 2013	Feb 2013	Aug 2013	Apr 2013	
ALQ-214 (IB4) IPR (Production Cut-in Review 3)	Jan 2014	Jan 2014	Jul 2014	Feb 2014	
ALQ-214 (IB4) OT (Start)	Dec 2013	Dec 2013	Jun 2014	Jun 2014	
ALQ-214 (IB4) IOC	Nov 2014	Nov 2014	May 2015	May 2015	

Acronyms and Abbreviations:
CDR - Critical Design Review
IB4 - IDECM Block 4
IPR - In-Process Review
MS - Milestone
OPEVAL - Operational Evaluation
OT - Operational Test
PDR - Preliminary Design Review

Significant Schedule Risks

Significant Schedule Risks	
Current Estimate (December 2021)	
1.	Diminishing Manufacturing Sources and Material Shortages
2.	Budget Reductions and Congressional Actions
3.	Availability of adequate threat test assets

Performance

Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
ALQ-214 (IB2/3/4 On-Board Jammer) Ao					
0.95	0.95	0.9	0.92	0.92	
ALQ-214 (IB2) Operating Envelope					
LBA	LBA	LBA	LBA	LBA	

Acronyms and Abbreviations:
Ao - Operational Availability
IB-2 - IDECM Block 2
IB-3 - IDECM Block 3
IB-4 - IDECM Block 4
LBA - Limits of Basic Airframe
ORD - Operational Requirements Document

Performance Notes:
Classified Performance information is provided in the classified annex to this submission.

Requirements Source:
ORD (Block 4) dated November 2003 and Statement of Functionality (SOF) dated October 12, 2010.

Acquisition Budget Estimate

Total Acquisition Cost

Category	Base Year	Development APB (June 2018) Objective (BY2018$)	APB (Current) 09/24/2021) Objective (BY2018$)	APB (Current) 09/24/2021) Threshold (BY2018$)	Budget Estimate PB 2023 BY$	Budget Estimate PB 2023 TY$	Deviation
RDT&E	2018	409.7	420.4	462.4	429.8	427.3	2.23
Procurement	2018	895.5	1181.7	1299.9	1179.3	1203.3	-0.20
MILCON	2018	-	-	-	-	-	-
Acq. O&M	2018	-	-	-	-	-	-
Total		1305.2	1602.1	1762.3	1609.1	1630.6	
PAUC	2018	4.028	3.770	4.147	3.786	3.837	0.44%
APUC	2018	2.764	2.780	3.058	2.775	2.831	-0.20%

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	0	0
Procurement	425	425

Budget Notes:
Cost includes APN-1, APN-5 and APN-6. Excludes FMS.

Quantity Notes:
Quantity includes APN-1 and APN-5 USN and USMC systems. Excludes FMS and APN-6.

Risk and Sensitivity Analysis

Risks and Sensitivity Analysis	
Current Procurement Cost (December 2021)	
1.	The current procurement cost estimate reflects the NAVAIR Cost and Scheduling Department estimate used as the basis of the IDECM President's 2023 Budget. The current baseline estimate remains current and unchanged. The current procurement cost estimate is based upon a cost risk adjusted model that reflects costs at the 50% Confidence level to account for schedule uncertainty, production uncertainty and other risks and uncertainties.
Original Baseline Estimate (June 2008)	
1.	In September 2007, PMA 272 requested re-designation of IDECM from Acquisition Category (ACAT) II to ACAT IC. The requirement to re-designate was identified as part of a cost estimate performed by the AIR 4.2 Cost department in support of the re-baseline effort and in preparation for the IB-3 FRP decision. The request to re-designate as ACAT IC was approved by ASN (RD&A) in March 2008. The original baseline estimate was developed in support of the IDECM ACAT IC APB for IB 1-3 and was approved in June 2008.
Revised Original Estimate (N/A)	
None	
Admin Baseline Estimate (Month YYYY)	
1.	N/A

Unit Cost

Current Baseline Compared with Current Estimate

Category ($M)	Current APB	Current Estimate	% Change	NMC Breach
PAUC				
Cost	1602.1	1609.1	0.44%	-
Quantity	425	425	0.00%	-
Unit Cost	3.770	3.786	0.43%	
APUC				
Cost	1181.7	1179.3	-0.20%	-
Quantity	425	425	0.00%	-
Unit Cost	2.780	2.775	-0.20%	

Original Baseline Compared with Current Estimate

Category ($M)	Original APB	Current Estimate	% Change	NMC Breach
PAUC				
Cost	1305.2	1609.1	23.28%	-
Quantity	324	425	31.17%	-
Unit Cost	4.028	3.786	-6.01%	
APUC				
Cost	895.5	1179.3	31.69%	-
Quantity	324	425	31.17%	-
Unit Cost	2.764	2.775	0.39%	

Unit Cost Notes:
The percent Change in PAUC and APUC from Original APB to Current Estimate is due to the adjusted total program quantity (and associated procurement costs) from 324 to 425 systems.

Contracts

IDECM Block IV (ALQ-214) FRP 14-16

Contract Data ($TYM)		
Contract Number	N00019-17-C-0090	
Effort Number	N/A	
Modification Number	P00027	
Award Date	September 27, 2017	
Definitization Date	September 27, 2017	
Order Number	N/A	
CAGE Code/CAGE Legal Name	28572	
Contract Title	IDECM Block IV (ALQ-214) FRP 14-16	
Contract Address	77 River Road; Clifton, NJ 07014-2000	
Contracts/Effort Price, Quantity, and Performance ($M)		
Initial Target Price 133.2	Current Target Price 542.2	
Initial Ceiling Price N/A	Current Ceiling Price N/A	
Contract's EAC 542.2	PM's EAC 542.2	
Initial Quantity 50	Current Quantity 252	Delivered Quantity 144
BAC N/A	BCWP N/A	ACWP N/A
BCWS N/A	Cost Variance N/A	Schedule Variance N/A

Contract Notes:
The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of FRP 15 and 16.

Cost Variance:
Cost Variance reporting is not required on this (FFP) contract.

Schedule Variance:
Schedule Variance reporting is not required on this (FFP) contract.

IDECM BLOCK IV (ALQ-214) FRP 17/18

Contract Data ($TYM)		
Contract Number	N00019-20-C-0002	
Effort Number	N/A	
Modification Number	P00005	
Award Date	July 31, 2020	
Definitization Date	July 21, 2020	
Order Number	N/A	
CAGE Code/CAGE Legal Name	28572	
Contract Title	IDECM BLOCK IV (ALQ-214) FRP 17/18	
Contract Address	77 River Road; Clifton, NJ 07014	
Contracts/Effort Price, Quantity, and Performance ($M)		
Initial Target Price 104.0	Current Target Price 179.2	
Initial Ceiling Price N/A	Current Ceiling Price N/A	
Contract's EAC 179.2	PM's EAC 179.2	
Initial Quantity 35	Current Quantity 54	Delivered Quantity 0 / Deliveries Commence 09/2022
BAC N/A	BCWP N/A	ACWP N/A
BCWS N/A	Cost Variance N/A	Schedule Variance N/A

Contract Notes:
The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the award of FRP 18 and the exercise of field support CLINs.

Cost Variance:
Cost Variance reporting is not required on this (FFP) contract.

Schedule Variance:
Schedule Variance reporting is not required on this (FFP) contract.

ALQ-214 Adaptive Radar Countermeasures (ARC)

Contract Data ($TYM)		
Contract Number	N00019-19-C-0051	
Effort Number	N/A	
Modification Number	P00008	
Award Date	February 25, 2019	
Definitization Date	February 25, 2019	
Order Number	N/A	
CAGE Code/CAGE Legal Name	5UTE0	
Contract Title	ALQ-214 Adaptive Radar Countermeasures (ARC)	
Contract Address	11951 Freedom Drive; Reston, VA 20190	
Contracts/Effort Price, Quantity, and Performance ($M)		
Initial Target Price 11.6	Current Target Price 76.6	
Initial Ceiling Price N/A	Current Ceiling Price	
Contract's EAC 76.6	PM's EAC 76.6	
Initial Quantity N/A	Current Quantity N/A	Delivered Quantity N/A
BAC 67.5	BCWP 37.97	ACWP 39.92
BCWS 39.66	Cost Variance 0.95	Schedule Variance 0.96

Contract Notes:
The difference between the Initial Contract Price Target and the Current Contract Price Target is due to incremental funding modifications.

Technologies and Systems Engineering

Significant Technical Risks

Significant Technical Risks	
Current Estimate (December 2021)	
1.	Diminishing Manufacturing Sources and Material Shortages
2.	Availability of adequate threat test assets

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	0.00%
Production	293	293	425	68.94%
Total Program Quantity Delivered	293	293	425	68.94%

Expended and Appropriated (TY $M)

Total Acquisition Cost: 1630.60
Expended to Date: 1322.08
Percent Expended: 81.08
Total Funding Years: 18
Years Appropriated: 15
Percent Years Appropriated: 83.33%
Appropriated to Date: 1519.30
Percent Appropriated: 92.86%

The above data is current as of April 18, 2022.

Deliveries and Expenditures Notes:
Expenditures reflect IDECM Block 4 RDT&E, Aircraft Procurement, Navy (APN-5), Aircraft Procurement, Navy (APN-1) and Aircraft Procurement, Navy (APN-6).

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date		
Approved Quantity		
Reference		
Start Year		
End Year		

LRIP Note:
There is no LRIP for this program.

Operating and Support Costs

Total Program O&S Cost Compared with Baseline

	Current APB Objective (BY$)	Current APB Threshold (BY$)	Current Estimate (BY$)	Current Estimate (TY$)	Deviation
Total O&S ($Millions)	483.2	531.5	504.4	628.6	4.39%

O&S Cost Breakdown

Category (BY$ Million)	IDECM
Unit-Level Manpower	N/A
Unit Operations	N/A
Maintenance	0.038
Sustaining Support	0.002
Continued System Improvements	0.019
Other	N/A
Total O&S	0.059

Cost Estimate Source: POE

O&S Cost Notes:

a. Disposal/Demilitarization Cost Estimate and Source of Estimate: While these costs are not part of the O&S 2020 CAPE Cost Element Structure and hence are not included in the totals above, their Life Cycle Cost impact has been estimated at 3.400 BY 2018 $M and 5.202 TY $M.

b. Sustainment Strategy:
The IDECM Block 4 (IB-4), ALQ-214(V)4/5, is an Engineering Change Proposal to the ALQ-214(V)2/3 and as such will follow the same sustainment strategy and infrastructure established for the fielded ALQ-214(V)2/3. The maintenance concept for the ALQ-214(V)4/5 is two levels, Organizational to Depot.

Organizational Level activities will include: removal and replacement of faulty Weapons Replaceable Assemblies (WRAs) identified by Built-In Test (BIT)/Maintenance Service Panel (MSP) Code; loading of Operational Flight Program/Mission Data File with Memory Loader Verifier System as required; retest by BIT to verify repair action; end-to-end testing with Government support equipment (GSE) as required; corrosion control and phase inspections. Maintenance Support for the IB-4 is performed by fleet personnel. There are presently no Contractor Engineering & Technical Services or Navy Engineering & Technical Services representatives. If additional support is required, the Type Commander can then request technical assistance for the IDECM Deputy Assistant Program Manager Logistics (DAPML). The DAPML will assess the issue and request support from the Fleet Support Team (FST) and/or Original Equipment Manufacturer (OEM).

Depot Level activities will include: removal and replacement of faulty modules/parts to the component or Shop Replaceable Assembly (SRA) level and verification of repair. Depot level maintenance consists of inspection, test, troubleshooting, repair, overhaul and disposal of WRAs/SRAs which are beyond repair. Depot support is provided by the OEMs managed by the Naval Supply Systems Command Weapon Systems Support, Philadelphia. The ALQ-214(V)4/5 contain a BIT capability consisting of Periodic BIT (PBIT) and Initiated BIT (IBIT). IBIT is used as a preflight and maintenance test on the ground when commanded by the mission computer or other controller. These BIT determine if the ALQ-214(V)4/5 WRAs are operational. PBIT provides

automatic and continuous monitoring of mission critical parameters on a background basis during normal system operation. PBIT will not fault isolate but will give clear indications of mission critical failures signaling that IBIT needs to be run. IBIT consists of a series of tests to assess the operational status of the system as well as fault isolate problem hardware. End-to-end testing utilizes a combination of Organizational Support Equipment (OSE) and BIT as required.

A Maintenance Plan (MaPI) for IB-4 is currently available to support the logistics program. The MaPIs are updated as necessary to reflect configuration changes. IB-4 MaPI is a deliverable from the Logistics Management Information database and contains all necessary information for interim supply support and development of source data for the F/A-18 Interactive Electronic Technical Manual. The IB-4 MaPI is managed by the FST at Fleet Readiness Center Southeast, In Service Support Center, Jacksonville, Florida.

c. For Each Acquired System or System Variant:
    i. Quantity to Sustain: 425
    ii. First Operational Fiscal Year: 2014
    iii. Final Operational Fiscal Year: 2042
    iv. Unit Expected Service Life: 20 years

d. Antecedent System(s) O&S Costs:
    i. Antecedent program: ASPJ: # of Aircraft Operating Years: 6,480 (Not actual, but used in order to provide a comparison between the ALQ-214(V)4/5 Suite and its antecedent system). The Antecedent Average Annual Cost per System is derived from total cost from Naval VAMOSC database NAMSR divided by the total number of systems in NAMSR. This value is then multiplied by the total number of operating system years associated with ALQ-214(V)4/5 Suite to provide a point of comparison.