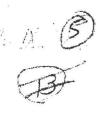




## THE DEPUTY SECRETARY OF DEFENSE WASHINGTON, D. C. 20301



1 4 MAY 1969

MEMORANDUM FOR SECRETARY OF THE ARMY

SUBJECT: Major Program Memorandum (MPM) on Land Forces (U)

Enclosed for your review and comment is a draft of the MPM on Land Forces. I would like to have your comments within four weeks to assure that they can be fully considered before making decisions on these issues.

At the same time, would you please submit Program Change Requests for the following Army items:

- 1. Omnibus Force Structure and Manpower Adjustment
- 2. Shillelagh, TOW, and Dragon Procurement
- 3. M551 Sheridan
- 4. M-16 Rifle
- 5. Improved Reserve Readiness
- 6. Repriced Five-Year Defense Program Materiel Annex

I would like to call your attention to the section in the MPM which tasks the Army to provide a test plan for several new force structure and manning concepts. Please prepare this information and submit it with your other comments on the MPM.

I want to emphasize that this is a draft and that no decisions will be made until I have had an opportunity to consider thoroughly your views and those of the Joint Chiefs of Staff.

your views and those of the Joint	Chiefs of Staff.
Office of the Secretary of Defense	$\wedge$
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Declassify in Part:	
Reason: MDR: 12-M-0437	

Enclosure

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## THE DEPUTY SECRETARY OF DEFENSE WASHINGTON, D. C. 20301

DECLASSIFIED IN FULL Authority: EO 13526 Chief, Records & Declass Div, WHS Date:

1 4 MAY 1969

JAN 2 4 2012 .

MEMORANDUM FOR SECRETARY OF THE NAVY

SUBJECT: Major Program Memorandum (MPM) on Land Forces (U)

Enclosed for your review and comment is a draft of the MPM on Land Forces. I would like to have your comments within four weeks to assure that they can be fully considered before making decisions on these issues.

At the same time, would you please submit Program Change Requests for the following Marine Corps items:

- 1. Omnibus Force Structure and Manpower Adjustment
- 2. Repriced Five-Year Defense Program Materiel Annex

I want to emphasize that this is a draft and that no decisions will be made until I have had an opportunity to consider thoroughly your views and those of the Joint Chiefs of Staff.

Enclosure



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## THE DEPUTY SECRETARY OF DEFENSE WASHINGTON, D. C. 20301

1 4 MAY 1969

DECLASSIFIED IN FULL Authority: EO 13526

Chief. Records & Declass Div. WHS

Date:

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MEMORANDUM FOR Chairman of the Joint Chiefs of Staff

SUBJECT: Major Program Memorandum (MPM) on Land Forces (U)

Enclosed for your review and comment is a draft of the MPM on Land Forces. I am sending copies to the Secretaries of the Military Departments for comments and suggestions. I would like to have your comments, and those of the Chiefs, within four weeks to assure that they can be fully considered before making decisions on these issues.

I want to emphasize that this is a draft and that no decisions will be made until I have had an opportunity to consider thoroughly your views and those of the Chiefs.

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Enclosure

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THE DEPUTY SECRETARY OF DEFENSE WASHINGTON, D. C. 20301

DECLASSIFIED IN FULL Authority: EO 13526

1 4 MAY 1969

Chief, Records & Declass Div, WHS

Date:

JAN 2 4 2012

MEMORANDUM FOR SECRETARY OF THE AIR FORCE

SUBJECT: Major Program Memorandum (MPM) on Land Forces (U)

Enclosed is the "For Comment" draft of the MPM on Land Forces. I am sending copies to the Chairman of the Joint Chiefs of Staff and the Secretaries of the Army and the Navy in order to have the benefit of their review and comments.

Any comments you may wish to make should be submitted to me within four weeks.

Enclosure





## THE DEPUTY SECRETARY OF DEFENSE WASHINGTON, D. C. 20301

1 4 MAY 1969

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Date:

JAN 2 4 2012

MEMORANDUM FOR Director of Defense Research & Engineering

Assistant Secretary of Defense (C)
Assistant Secretary of Defense (I&L)
Assistant Secretary of Defense (ISA)
Assistant Secretary of Defense (M&RA)

Maucatanberg

SUBJECT: Major Program Memorandum (MPM) on Land Forces (U)

Enclosed is the "For Comment" draft of the MPM on Land Forces. I am sending copies to the Chairman of the Joint Chiefs of Staff and the Secretaries of the Military Departments in order to have the benefit of their review and comments.

Any comments you may wish to make should be submitted directly to me or to the Assistant Secretary of Defense (Systems Analysis) within four weeks.

Enclosure

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For Comment Draft

May 14, 1969

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MAJOR PROGRAM MEMORANDUM

SECRETARY OF DEFENSE

on

LAND FORCES

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May 14, 1969

SECRETARY OF DEFENSE MAJOR PROGRAM MEMORANDUM

SUBJECT: Land Forces (U)

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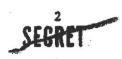
JAN 2 4 2012

This memorandum summarizes the major conclusions from our initial review of Army and Marine Corps land forces and provides program guidance on structure, material, and manpower for these forces. Geographic distribution and readiness objectives for major units are included in the program guidance. In addition, key policies are given for material procurement and for management of our land forces.

The results of the National Security Study Memorandum 3 (NSSM-3)
Beview of General Purpose Forces may call for revisions to this program
guidance. Also, changes in the situation in Southeast Asia could have a
significant impact on our programmed land forces. In the meantime,
however, we are not recommending any major changes in the force structure.

Our tentative plans and conclusions follow:

- 1. For FY 71, we plan to maintain our current 32% division forces rather than 35% as proposed by the Joint Chiefs of Staff. The planned forces consist of 27% Army division forces, including 8 reserve, and 5 Marine Corps division forces, including 1 reserve.
- 2. For the post-Vietnam Baseline Force, we plan to continue the previously approved level of 19% active and 9 reserve division forces: 16% active and 8 reserve Army, and 3 active and 1 reserve Marine Corps. The Joint Chiefs of Staff propose a total of 21% active and 10 reserve division forces for the post-Vietnam Baseline.
- 3. The readiness of the 6% active divisions in CONUS has improved greatly during the past year and now is close to being fully satisfactory. All but one of these divisions are at two weeks deployability or better. This one division is expected to reach four weeks deployability by the end of June 1969. We consider maintaining and improving this readiness to be one of our highest priority objectives.
- 4. The readiness of the Army Reserve and National Guard division forces is also improving, but it is still not satisfactory. Equipment problems are part of the difficulty and must be resolved as soon as possible. However, the greatest potential for improved readiness lies in new methods of preparing units for deployment and in new organizational concepts. (The latter may enable greater wartime force expansion as well). We are now studying these new methods and concepts in depth. Later this year, we will begin testing them to see which are most desirable and feasible.
- 5. There are numerous problems in some of our newly acquired weapons and in some of our weapons still under development. Several of our new





weapons have doubtful effectiveness and reliability, and one, the M60/Shillelagh tank, so far has not been made usable at all. We are reviewing critical weapon programs in depth and have found that some of the problems are due to inadequate user testing and field experimentation before commitment to production. Because of these findings, we want greater emphasis placed on demonstrating performance as a condition for starting production. We expect that this will result not only in better weapons, but in shorter and less costly programs.

- 6. In addition to emphasizing user testing, we must improve requirements analyses for land forces weapons and equipment. The main problem is inadequate Service participation in trade-off analyses for the introduction of new and improved items. The Services usually propose new, more expensive items as one-for-one substitutes or add-ons to our existing forces. Even though a new item may be well worth its cost, if total Service funds cannot be increased (as is often the case), something else in the Service's program must be given up. Under these circumstances, decisions and the program may be delayed if appropriate items to be given up are not clearly identified. We believe that the Services should take the primary role in analyzing these trade-offs. Therefore, we expect in many future cases to ask the Services for trade-off analyses before completing our review of major program proposals (if such analyses are not provided at the outset).
- 7. Finally, we want to improve and simplify the program management methods for land forces. The new Planning and Control Memorandum (PCM) attached to this document represents an initial step in this direction. Much of the improvement involves greater delegation of authority to the Services. For example, while we must decide on the number of major combat forces in the Army and Marine Corps, the Services should have full authority to organize the support structure for these forces. Thus, we are dropping certain support units from the force control tables in the PCM and in the Five-Year Defense Program. Also, we expect to make further improvements in this system.

Summary force and cost tables are shown at pages 4 and 5. Detailed force structure, manpower, material, and financial tables are in the attached PCM.

I. FORCE STRUCTURE

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#### A. General

The force structure of both the Army and the Marine Corps consists of three major categories: Division Forces, Special Mission Forces, and General Support Forces. All active and reserve units are grouped in mission-oriented force packages within these categories. For example, "Continental Air Defense Force" units make up a force package in the Special Mission Forces category.

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For Comment Draft



May 14, 1969

#### AND MARINE CORPS LAND FORCES PYDP/DM TABLE 120-

	FT 65	PT 69	FF 70	77 73	FY 72	PE 73	FT 74	PY 75	FT 76-78
Division Porce Equivalents									
Active Army a/b/	16%	19%	19%	19%	16%	16%	16%	16%	16%
Active Marine Corps b/	3	. 4	4	4	3	3	3	3	3
Priority Reserve Army	6	ð	8	8	ā	8	8	8	8
Reserve Marine Corps Unsammed Army	1	1	1	1	1	1	1	1	1
Total Division Force Equivalents	26%	32%	32%	32%	29%	29%	29%	29%	29/2
Division Force Sets of Equipment									- 17
Army c/	22%	27%	27%	27%	25%	25%	25%	25%	25%
Harine Corps	4	5	5	5	4	4	4	4	4
Separate Brigades Active Army a/	7	11	11	11	8	8	8	8	8
Priority Reserve Army	ıí	19	21	21	21	21	21	21	21
Manauver Battalions	***	-5							
Active Army	174	217	213	213	178	178	178	178	178
Active Marine Corps	30	40	40	40	30	30	30	30	30
Priority Reserve Army	142	166	172	172	172	172	172	172	172
Reserve Marine Corps Total Manager Sattalions	10	433	435	435	10 390	390	390	390	390
5	339	433	930	433	250	390	370	250	330
Artillary Battalions Army									
Active	115	155	152	152	113	113	113	113	113
Priority Reserve	95	116	121	121	121	121	121	121	121
Marine Corps	23	140	***		7-2				
Active	14	19	19	19	15	15	15	15	L5
Reserve	5	5	5	5	5	5	5	5	5
Air Defense Batteries d/								B	3*
Active	207		220	240	239	245	245	245	245
Priority Reserve	227 158	106	87	75	63	63	63	63	63
Marine Corps	130	700	97						
Active	9	12	12	12	11	9	9	9	9
Reserve	3	4	4	4	4		-		317
Total Air Defense Batteries	397	343	323	331	,,,,	317	317	317	347
Authorised Strength (Thousands) o/									
Active Army	882	1 441	1,357	4,353	902	902	899	899	899
Trained Strongth Trainess	87	1,351	146	146	79	65	85	8.5	85
Total Active Army	969	1,534	1,503	1,499	981	987	984	984	984
Active Marine Corps	10000					4.4		193	193
Trained Strongth	178	287	288	288	191	193 12	193	193	12
Traines	12	26	26 314	26 314	200	205	-12 205	205	203
Total Activa Marine Corps	190	313	3T#	314	200	203	245		
Priority Reserve Army (Paid Drill)								604	604
Trained Strangth	570	561	590	597	595	604	604	56	56
Trainees	<u>71</u>	81	75	671	650	56 660	660	660	660
Total Priority Reserve Army	641	642	663	671	000	000	000	000	
Reserve Marine Corps (Paid Drill)				101 276		2.0	43	45	45
Trained Strength	40	44	46	43	45	45	9	3	3
Trainace	-6	- <u>7</u>	- <del>2</del>	<del>3</del>	3	<del>3</del>	48	48	48
Total Reserve Parine Corps	40	27	40	40	40	,,,	2.70		180
Total Dais Structure at Full Strongth (Thousands) f/		ē			S (cc)				E v
Army					7 000		1 213	1 021	1 211
Division Forces	1,152	1,324	1,348	1,350	1,213	1,211	1,211	1,211	1,211
Special Mission Forces General Support Forces	156- 274	245 324	332	327				1,669	1,669
Total Army	1,582	1,893	1,923	1,917	1,673	1,671	1,669	1,669	1,669
Marina Corps	9			100			***	. 74	176
Division/Wing Forces	170	206	207	207	176	176	176 17	176 17	170
Special Mission Forces	15	19	18	. 18	17 37	17 38	38	38	38
General Support Forces	34 219	<del>-48</del> <del>273</del>	<del></del>	275	230	231	231	231	231
Total Marine Corps	219	413	613	413	200		000000	408.6	

a/ Includes separate brigades which are part of independent brigade forces and are counted as one-third division force each, as follows: one in FT 55 and FT 72-78: five in FT 59-71.
b/ Some of the support units needed to round out the active forces are in the reserve components.



cf Includes one unammed division force set in FT 72-78.
df Includes Programs 1, 2, 5, and 8 air defense batteries.
ef Includes reimbursables.
ff Includes ective, reserve, and unammed compenents.

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		Total Obligational Authority (TOA) (In \$ Sillions)						1	Procurement Chinational Authority (In 3 hillions)					
	<u>FT. 70</u>	nn	PT 72	PL 13	PX 74	27.22	Total FX 71-75	<u>PT_70</u>	<u>n n</u>	пп	PT. 73	FX 74	77 75	Total PY 71-75
Providency Approved Division Fortus Special Number Forces Ceneral Support Forces Individuals Baseach and Development Total Previously Approved	10.3 3.8 7.7 3.3 1.9 25.0	6.8 2.7 5.4 .5 2.1 17.5	6.2 2.0 3.4 .5 1.9 / 16.0	5.3 1.8 5.5 .6 1.6	\$.2 1.7 5.4 .6 1.4	5.2 1.7 5.4 .6 1.4	28.7 9.9 27.1 2.8 8.4 76.9	3.7 1.4 .5 -	2.7 1.1 .5	2,2 ;4 ;6	1.4 .3 .5 -	1.1 .2 .6	1.1 .2 .4 .5	8.5 2.2 2.8 33.3
Sectof Notomerated Division Porces Sportal Mission Porces General Support Porces Individuals Essearch and Davalopment Total Sectof Recommended	10.3 3.6 7.7 1.3 <u>1.9</u> 23.0	10.3 4.1 7.9 1.2 23.5	6.5 2.0 5.3 .5 1.9 16.2	5.6 1.6 5.5 .6 1.6 15.1	3.3 1.7 5.4 .5 1.4	5.3 1.7 5.4 .6 1.4	32.9 13.3 29.5 3.3 8.4 85.6	3.7 1.4 .5 	3.1 1.7 .5	2.2 .4 .6 -	1.5 .3 .5 -	1.I .2 .6 	1.1 .2 .6 	9.0 2.8 2.8
JCS Proposed Division Forces Special Mission Forces General Support Forces Individuals Research and Davelopment Tocal JCS Proposed	10.3 3.8 7.7 1.3 1.9 25.0	12.3 6.1 10.0 1.4 2.1 31.9	7.4 3.7 7.3 .9 2.0 Z1.3	7.1 3.7 7.8 1.2 1.8 21.6	7.0 3.2 7.9 1.3 1.5 20.9	6.7 2.3 7.9 1.3 1.4 19.6	40.5 19.0 40.9 6.1 8.8 213.3	3.7 1.4 .5 -	5.0 2.6 .8 -	2.7 1.5 .7 - 4.9	2.2 1.5 .6 -4.3	1.5 1.2 .7 	1.1 .3 .6 -	12.5 7.3 3.4 
MARINE COMPS  Proviously Approved Division Forces Wing Proces Special Mission Porces General Support Porces Individuals Total Previously Approved	1.6 .7 .2 .8 .7 4.0	.9 .7 .1 .6 .3	.8 .7 .1 .5 .3	.7 .7 .1 .6 .3 2.4	.7 .6 .1 .6 .3 2.3	.7 .6 .1 .6 .3	3.8 3.3 .5 2.9 1.5 12.0	.8	3.01	.4 .4 4 	.3	.3 .3 		3.3
Secial Recommended Vivision Forces Wing Forces Special Mission Forces General Report Forces Individuals Total Secial Recommended	1.6 .7 .2 .8 .7 4.9	1.5 .7 .2 .8 .7 3.9	.9 .7 .1 .5 .1 2.5	.8 .7 .1 .6 .3 2.5	.7 .6 .1 .6 <u>.3</u> 2.3	.7 .6 .1 .6 .3 2.3	4.6 3.3 .6 3.1 1.9 13.5	.8 .5 .1 -	.7 .5 .1	.5	-4	.3	.2 .3 - .3 <sub>9</sub> /	2.0
ICS Proposed Division Forces Ming Forces Special Mission Forces General Support Forces Individuals Total JCS Proposed	1.6 .7 .2 .8 .7	2.5 1.7 .2 .8 <u>.8</u> 6.0	1.7 2.1 .1 .6 .5	1.8 2.2 .1 .6 .5	1.8 2.0 .1 .6 .5	1.9 2.0 .1 .6 .5	9.7 16.0 .6 3.2 2.8 26.3	.8 .5 .2 	1.5 1.2 .1 .4	1.0	1.0	1.0 1.5 .2 2.7	1.2 1.5 - .2 - 2.9	5.7 7.6 1.3 1.3
TOTAL AMES AND MARING CORPS Fraviously Approved- Soulds Recommended JUS Proposed	29.0 29.0 29.0		18.4 18.7 26.3	17.2 17.6 26.8	16.6 16.7, 25.9	16.6 16.7 24.7	88.9 99.1 141.6	7.0 7.0 7.0	5.3 6.6 11.6	4.0 4.1 7.8	2.9 3.1 7.3	2.4 6.1	2.4 2.4 5.1	17.0 18.6 37.9





In peacatime, most combat units are authorized about 90% of the manpower they need for wartime. Units which must be at full efficiency and readiness from day-to-day are authorized 100%. Unit manpower needs for wartime are listed in Tables of Organization (TOs) for standard units and in Tables of Distribution (TDs) for one-of-a-kind units. The full wartime manning amounts are called TO/TD structure spaces. This memorandum and the attached PCM set wartime "sizes" for the major force categories and selected force packages in terms of TO/TD structure spaces. The Army and Marine Corps then decide how to maintain the most effective possible organization within these totals.

The average Army division force outside Southeast Asia has about 48,000 TO/TD structure spaces. The average Army division force in Southeast Asia has about 41,000 TO/TD structure spaces. The division force consists of a division, an Initial Support Increment (ISI) containing the units needed to support the division from the start of combat, and a Sustaining Support Increment (SSI) containing the additional units needed to support the division in combat after about the first 60 days. The non-Southeast Asia (SEA) division, ISI, and SSI are all about the same size: 16,000 TO/TD structure spaces. In peacetime, most ISIs for active divisions are in the active forces, because ISIs usually must be just as deployable as the divisions they support. About two-thirds of the SSIs for our active divisions are kept in the Reserves, however, because we have adequate time to prepare them for deployment.

The Marine Corps division/wing team consists of about 42,000 TO/TD structure spaces and is manned at about 93% in peacetime. Because of SEA manpower rotation, however, 100% manning is authorized for all division/wing units.

Special Mission Forces are groups of units tailored to perform particular missions, such as the Army brigade in Berlin; they are not likely to be available to meet other needs. The General Support Forces, located mostly in CONUS, are those units needed to train and support indirectly our Division Forces and Special Mission Forces. Since the number of spaces in most of these units is based on their peacetime missions, they usually are authorized 100% manning.

In addition to men in units, there are large numbers of "Individuals" -- men in training, in transit between assignments, in hospitals, and in prisons. The Army and Marine Corps are authorized enough total manpower to cover these Individuals so that actual unit strengths are kept at their "Authorized" levels. The Individuals are an important source of quickly available manpower for wartime needs, since in an emergency the number of people in transit and in schools can be reduced.

Currently, about 70% of the Army's 1.9 million TO/TD structure spaces (active and reserve) are in division forces, but only 25% are in the divisions



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themselves. (A datailed allocation of TO/TD structure spaces for the three major force categories is shown on page 11.) These proportions are roughly matched by the distribution of costs between Division Forces and Special Mission Forces indicated in the cost table on page 5.

### B. Division Forces

#### 1. Distribution of ISIs and SSIs

The approved division force levels are shown in the following table. Equipment procurement is authorized for all of these forces except as noted.

1		d-FY 70-7		THE OWNER WHEN PERSON NAMED IN	letnam Bas	
Army Active	Div	ISI	SSI	Div	<u>isi</u>	SSI
Deployed a/ Non-deployed b/ Subtotal Active	14% 5 19%	14% 5 19%	$\frac{10\%}{2}$	6½ 10 16½	6% 9 15%	2½ 3½ 6
Reserve Unnanned	8	. 8	15	8	. 9 1	18% 1 25%
Total Army Marine Corps	27%	27%	27% c/	25%	25%	25%
Active Vietnam Other d/ Subtotal Active	2½ 1½ 4	2½ 13/2 4	-	3	3	=
Reserve Total Marine Corps	1 5	1 5	=	4	1 4	-

a/ Europe, Korea, and Southeast Asia.

b/ CONUS and Hawaii. Includes Reforger units assigned to the U.S. Commander-in-Chief, Europe (USCINCEUR).

c/ SSI equipment procurement is authorized for the equivalent of  $26\frac{2}{3}$  SSIs in FY 70-71.

d/ CONUS, Caribbean, Mediterranean, Hawaii, and Okinawa.

The distribution of ISIs and SSIs for the Baseline Army reflects adjustments recommended by the Army to strengthen initial support for our NATO-oriented divisions. Compared to the previously approved program: (1) two active Strategic Reserve SSIs have been redesignated active Europe Reinforcement ISIs, and (2) another active Strategic Reserve SSI has been redesignated as an active Europe Reinforcement SSI. TO/TD structure spaces and authorized manpower totals are not changed by these



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adjustments. Thus, the new distribution of Baseline Army ISIs and SSIs by force package is as follows (note that the force package names are slightly modified from those previously used):

**		Active			Reserve a/				
Division Force Packages	Div	<u>ISI</u>	SSI	Div	ISI	SSI			
Europe-Deployed	4/2	4/6	21/3	-	-	2			
Korea-Deployed	2	2	-	-	-	2			
Asia Non-deployed b/	1%	1%	1	_	-	1/8			
Europe Reinforcement	3%	2/3	1%	-	1	2			
General Non-deployed	5	5	1			.4			
Reserve Europe	-	-	-	2	2	2			
Reserve Asia	_	-	-	4	4 .	4			
Reserve General	-	-	-	2	2_	2_			
Total Active and Reserve	16%	15%	6	8	9	18%			

<sup>&</sup>lt;u>a/</u> Reserve ISIs and SSIs in force packages that are mostly active units are called "reserve roundout" ISIs and SSIs.

These force package allocations of ISIs and SSIs are not rigid constraints. Our non-deployed ISIs and SSIs must be structured in detail as a pool of units from which a variety of ISI and SSI combinations can be drawn to meet different contingencies.

#### 2. Division Force Size

The approved totals of TO/TD structure spaces for Army division force packages, other than for Southeast Asia, are based on the "division force planning factor" concept. These totals are set by multiplying a standard planning factor by the number of divisions in each force package. (Until about a year ago, this planning factor was 48,000 TO/TD structure spaces.)

This planning factor concept requires the Army to organize and maintain the most effective possible forces within the approved force package totals. These totals should change only in the event of major force structure adjustments, such as the AH-56 Cheyenne trade-off (which reduced the active division force planning factor to about 47,400).

Because of the planned introduction of Lance and Chaparral/ Vulcan, we now need to make another change in the Army division force planning factor. Lance should be accounted for in the Special Mission Forces category (as is Pershing), and appropriate reductions should be made in Division Forces for the Sergeant and Honest John battalions phased out in favor of Lance. Chaparral/Vulcan, on the other hand, should

b/ This force package consists of a division in Hawaii, one-third of a division in Okinawa, and ISI and SSI units in Hawaii, Okinawa, and CONUS.

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be accounted for as an increase to the Division Forces, and appropriate reductions should be made for the Hawk, Hercules, and air defense guns being phased out. The net change to the division force planning factor is +315 TO/TD structure spaces; the net change to Special Mission Forces is -2,800.

Finally, we should review the entire division force size in light of our experience in Southeast Asia. Today the Army has 8% division forces in Southeast Asia with an average of about 41,000 TO/TD structure spaces each. However, the five of these division forces that are kept in the Baseline force after the war in Southeast Asia are each accounted for on the basis of the same 47,400 planning factor as all other Baseline division forces. This factor may be larger than necessary.

## 3. Near Term Readiness Objectives

The readiness of division force units in CONUS is expressed in terms of "deployability" — the number of weeks needed to be fully equipped, manned, trained for combat, packed, and otherwise fully prepared for deployment to combat overseas. Deployabilities of CONUS divisions currently range from less than one week to 32 weeks, depending on whether the division is active or reserve, trained, fully equipped, and so on.

In the attached PCM, we have set deployability objectives for each of our non-deployed divisions (from 0 to 4 weeks for active divisions and 14 weeks for reserve divisions). These objectives are based both on regional strategies and on actual capabilties to transport and support forces overseas. Wherever they can be foreseen, resource limitations and other restrictions have been taken into account in setting these objectives. We consider these objectives to be achievable at acceptable cost; thus, our future budgets and plans should be designed to meet them.

#### 4. New Force Structure and Manning Concepts

There is an important need for higher readiness reserve forces to fill the gap between our almost fully manned active divisions (at one to two weeks readiness) and our best reserve divisions (at 14 weeks readiness). Accordingly, our staff and the Army are examining new ways to increase the readiness of our reserve forces. Several concepts (described below) look promising, and we are asking the Army to prepare a plan to test some of them this year.

Before making major changes in reserve organization and activity, we need to find out how well we can do with what we have today. In relation to the 14-week division readiness projected by the Army under the current program for reserve forces, probably as much as six weeks can be eliminated from post-mobilization preparations for deployment through selective application of more resources in peacetime.

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The need for four weeks of battalion-level training after mobilization could be sliminated by raising unit team training from company to battalion level. This would require more training drills and more technician and active Army advisor support. The two additional weeks might be saved by increasing the level of unit administrative readiness in peacetime through over-manning, preparation of detailed alert and movement plans, and pre-packing equipment for overseas shipment.

In addition to improved versions of the current reserve organization, we are considering several "hybrid" organizations which combine active and reserve personnel into units with higher readiness than can be achieved with reserve organizations alone. One such hybrid would allow us to achieve 8-week division readiness without requiring reserve units to increase their level of training. This concept involves mobilizing reserve units no larger than companies and assigning them to larger organizations whose battalion and higher level commanders and staff are all active duty personnel. Carrying this concept one step further, 4-week division readiness might be attained by increasing the reserve unit training to battalion level and having an active brigade level and higher command and staff cadre to which these reserve battalions could be assigned after mobilization.

The following table compares these alternatives with current active and reserve division forces.

		Reserve !	Division Po		
		Improved	"Hyl	rids"	
		Current Program	Reserve Companies	Reserve Battalions	Current Active Division Force a/
Deployability (Weeks)	14 .	8 <u>b</u> /	8 <u>c</u> /	4 <u>b</u> /	1
Annual Cost Per Division (\$ Millions)	\$110	\$150	\$170	\$170	\$580
Manpower (Thousands) Active	_		4	2	30
Reserve	45	49	41	47	15

a/ Includes an active division and ISI and a reserve SSI.

Developing realistic plans for implementing improved reserve division readiness is one of our highest priority requirements. In addition to beginning tests this year, we must also begin to develop the detailed organizational, manpower, and material planning that will be needed to proceed as rapidly as possible once the tests are completed.

b/ This alternative depends mainly on units doing extra weekend drills.

c/ Extra drills are not required for this alternative.

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#### II. MANPOWER

The next table summarizes our end-FY 71 and Baseline programs for Army and Marine Corps manpower. These programs are direct extensions of the currently approved manpower except for miscellaneous minor adjustments and the Lance and Chaparral/Vulcan adjustments discussed on page 8.

## ARMY AND MARINE CORPS MANPOWER PROGRAMS — ACTIVE AND RESERVE (Strengths in Thousands)

		End Fi	71 a/		Baselina					
	Act		Rese	rve	Acti	ve	Reserve			
	TO/TD	Auth	TO/TD	Auth	TO/TD	Auth	TO/TD	Auth		
Army										
Division Forces	777	712	572	476	593	525	573	474		
Special Mission	184	178	57	49	156	147	57	48		
General Support	245	238	82	72	165	154	81	73		
Subtotal	1,206	1,128	711	597	914	826	711	595		
Individuals		370	- 40	74		154		65		
Total Army b/		1,498		671	•	980		660		
Marine Corps								×		
Division Forces	132	132	36	36	95	87	36	36		
Air Wings	30	30	9	9	30	28	9	9		
Special Mission	19	19	-	-	17	17	-	-		
General Support	49	49	400	-	37 179	37		_		
Subtotal	230	<del>49</del> <del>230</del>	45	45	179	169	45	45		
Individuals		85		3		31		3		
Total Marine Corps		315		48		200		48		

a/ Includes in division forces structure the equivalent of 90,000 Army and 5,000 Marine Corps TO/TD structure spaces not authorized equipment procurement.

High priority should be given to maintaining unit operating strengths at authorized levels in implementing these programs from month to month. Monthly enlistments and draft inductions should be determined on this basis. Similarly, the allowances for Individuals (Transients, Patients, Prisoners, Students, and Trainees) should be adjusted if necessary during the year to minimize the effect of variations in this population on unit operating strengths. These adjustments will automatically be part of the approved program as long as the approved funding remains adequate.

b/ Includes 725 reimbursables.

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#### III. WEAPONS AND SUPPORT EQUIPMENT

#### A. General

We are having numerous problems with several key systems now being developed and introduced into our land forces. Some of these problems are due to insufficient user testing and field experimentation before commitment to production (these problems are not limited to land forces programs). For example, the M551 Sheridan vehicle and the M60/Shillelagh (M60AlE2) tank programs both went into production without adequate user testing. As a result, we now face the possibility of extensive retrofits with the Sheridan and a near total loss with the M60/Shillelagh.

A closely related problem is uncertainty about the effectiveness of new weapons, even in cases where they function reliably in engineering and service tests. Better tests of effectiveness are needed; that is, they should simulate realistic wartime conditions for the total weapon system. For example, antitank systems should be tested in environments with smoke and dust as well as in clear air. Targets should be used which look and act like enemy tanks, and the tests should be conducted by typical user troops. When a new system is replacing an existing system, side-by-side tests should be made wherever possible to insure that the new system really provides the expected improvements in effectiveness.

These tests may be more expensive in the short run, but we believe they will be well worth the extra cost. Programs which start production before tests have validated operational reliability and effectiveness usually do not meet their original schedules, cost more, and often end up with a seriously compromised product.

Therefore, we will adhere strictly to the following principles in daciding on production of new systems:

- 1. Ordinarily, full production of a system will be approved only after operational tests and field experimentation have demonstrated acceptable effectiveness, compared to existing systems.
- 2. In very urgent circumstances, limited production may be approved without service tests, but only after: (a) all sub-systems have passed critical engineering tests, and (b) the specific circumstances have been reviewed and approved.

In addition, we will apply this policy as much as possible in our continuing review of new programs already in production.

#### B. Ground Weapons

#### 1. Tanks and Antitank Weapons

#### a. General

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During the past few years, our tank and antitank force planning has been based in large part on three new antitank missile systems we are developing and buying — the Shillelagh, TOW, and Dragon. According to this planning, we are to rely heavily on these missiles to counter the large Warsaw Pact tank threat. Moreover, our three new tank programs — the M60AlE2 tank, the Main Battle Tank, 1970 (MBT 70), and the M551 Sheridan armored reconnaissance vehicle (or light tank) — are all based on the Shillelagh.

It is estimated that 30 days after mobilization, the Pact tank force would outnumber the NATO tank force by nearly three to one (17,000 to 20,000 versus 7,600). NATO forces, on the other hand, have the tactical advantage of being on defense most of the time, and they have a large number of infantry antitank weapons. Since this may not be enough, however, we have been counting on forthcoming Shillelaghs, TOWs, and Dragons to improve the balance.

These missiles are expensive; they cost up to \$6,000 each compared to gun ammunition at \$50 to \$100 per round. In theory, however, these missiles are much more accurate than guns and their costs with infantry-operated launchers are much less than the \$200,000 and up we pay for new tanks. For example, for the \$1.6 million 10-year system cost of one of our standard tanks, the M60Al, we can buy two TOW launcher sets plus at least 100 missiles.

However, there are unresolved questions about the reliability, performance, and general tactical utility of these missiles. These questions have raised serious doubt that we can depend on antitank missiles to the extant planned up to now. The combined Shillelegh/gun system best illustrates this problem.

Shillelagh missiles are half of the main armament for the M551 Sheridan, the M60AlE2, and the MBT 70. The other half is a gun that fires a 152mm conventional round. Both the missile and the conventional round are fired from the same tube. However, the conventional round for the Sheridan and M60AlE2 is much less accurate than our standard 105mm tank gun firing a high velocity round. If the missile were equal or superior to the standard gun against enemy tanks, the inferior capability of the conventional round would not be too serious. In fact, however, the Shillelagh missile has serious limitations. Shillelagh has a very long flight time (up to 14 seconds depending on the distance to the target). This makes the launching vehicle vulnerable, since it must



remain motionless while the missile is being guided in flight. Moreover, to keep the missile from hitting the ground in dips during flight, the launching vehicle sometimes must fire from a higher, more exposed position.

The problem is further compounded by difficulties with the conventional round for the 152mm gun. This round has a combustible cartridge case to svoid the problems of handling conventional metal cases after rounds have been fired. However, these cartridges are relatively fragile compared to conventional tank ammunition. In addition, moisture absorbed in humid climates can distort the cartridges so that they no longer fit the gun. Cartridge covers are used to prevent this, but they cause other problems.

In summary, our entire new tank capability rests on an armament system which not only costs more, but which may not be as effective as today's conventional 105mm gun. Since we are also having major difficulties with other parts of our new tanks, we have concluded that we must carefully re-evaluate our entire tank and antitank force program. Further details and specific program actions are discussed below.

#### b. The Shillelagh Missile/152mm Gun System

With FY 69 and prior funding, 55,000 Shillelagh missiles and 515,000 152mm rounds will have been produced. However, much more testing and analysis will be needed to clear up the uncertainties about these items. Moreover, because of problems with the M60AlE2 and MBT 70 tanks discussed below, it is not clear that we need more than the 42,000 Shillelaghs we have today. Therefore, Shillelagh production should be limited to a minimum sustaining rate of 3,000 per year starting with FT 70 funding until appropriate effectiveness and reliability data are available and the requirements for the M60AlE2 are determined. This will reduce the cost of the previously approved FY 70 program from \$50 million to \$20 million, since the earliest we can be sure of a successful solution to the M60AlE2 problems is FY 71. For FY 71, we are tentatively programming Shillelagh production at the minimum rate (3,000 missiles for \$20 million), since it is most likely that we will have enough from the earlier years.

#### c. TOW

Limited production of TOW has begun under a two-year contract for procurement of 25,000 missiles during FY 69-70. The Army has just awarded a contract for an additional 200 missiles to a second producer (who will develop capacity for 20,000 per year), since the Army estimates that over 200,000 TOWs are needed (at a cost of about \$1 billion, including launchers).

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Environmental and electronic countermeasures tests of the TOW have not yet started. Moreover, it is likely that our total needs will be far less than the Army's estimate of over 200,000 missiles. (In theory, 200,000 TOWs could twice destroy all of the Warsaw Pact tanks and armored personnel carriers without allowing for any contribution by our allies or our own tanks, tactical aircraft, and other weapons.) Therefore, second source production should not be begun, and the first producer should be limited to a minimum sustaining rate of 4,200 TOWs per year in existing facilities until user tests and field experimentation are completed satisfactorily. Production by a second source should be reconsidered when the issue of total needs is resolved. This will reduce the cost of the FT 70 TOW program (15,500 missiles previously approved) from \$156 million to about \$50 million. Pending further review, we are also planning to approve only 4,200 TOWs for FT 71.

#### d. Dragon

Dragon is a small, man-portable missile system similar to TOW. Its maximum range is 1,000 meters (TOW and Shillelagh have a 3,000-meter range). Dragon is still in development and has encountered significant technical difficulties. It will be a very valuable missile if it performs according to the design objectives. However, we are not yet confident of when Dragon can be made operational.

#### e. The M60Al Tank

The M60Al 105mm gum tank is our standard tank. At the end of FY 69 funded deliveries (early in 1971), we will have 4,100 M60s. Most of them will be in our eight active and three reserve armored and mechanized infantry divisions. In addition, we plan to produce 300 more per year with FY 70, 71, and 72 funds and 360 per year thereafter until: (1) a successor to the M60 is ready to be produced, or (2) all our old M48Al tanks now filling operational requirements are replaced. We will have 1,400 M48Als left to be replaced under FY 71 and later funding.

#### f. The M60AlE2 Tank

In order to get a better tank than the best current Soviet tank, the T-62, the Army began developing the M60AlE2 (the 152mm gun/Shillelagh version of the M60Al) in 1964. The design includes a capability for accurate gun fire while moving ("shoot-on-the-move"). Production began in 1966. The Army now has 300 complete tanks and 243 additional turrets. Over \$200 million has been spent on this program; however, because of serious reliability problems in the stabilization and control system, the tanks are not yet usable. As a result, further production was postponed indefinitely late in 1968. The Army now is concentrating solely on trying to solve the technical problems. No additional funds for hardware are being committed or programmed. If no acceptable solution can be found, we should use the chassis to form standard M60Al tanks.



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The MBT 70 design calls for major increases in speed, accuracy, armor protection, profile, firing rate, and range. The design also includes night vision and a very accurate shoot-on-the-move capability. However, the MBT 70 is still at least five years from operation; its already high cost is going still higher (at least \$700,000 per tank); and its reliability is of major concern. In fact, we may be able to have a better buy if we start over with a completely new system.

Thus, while continuing with today's design for the MBT 70, we must also begin a separate effort to define a simpler, less expansive system. Characteristics such as agility, small size, and high reliability should be emphasized as opposed to the fire control system and other complex features of the MBT 70% We want to review comparisons of the old MBT 70 design concept with the new one as soon as possible to determine whether we should redirect this program.

#### h. The M551 Sheridan

Most of the Sheridan armored reconnaissance vehicles will be used by armored cavalry units. These units typically operate as probes in front and along the sides of our divisions to determine where and what the enemy is. Ordinarily, they try to avoid engaging an enemy. They are able to defend themselves, however, and they can be used to delay an advancing enemy force if necessary. The Sheridan can also be used as a light tank to be parachuted along with airborne infantry. One hundred Sheridans are programmed for this purpose.

The Army started developing the Sheridan in 1960. Production began in 1966, and the Army is building toward an inventory of 1,479 Sheridans by the end of the FY 69 buy. (The FY 70 budget provides for an additional buy of 360.) In the meantime, the previously discussed uncertainties of the missile/gun main armament remain unresolved, and the chassis may also have some problems.

About 72 Sheridans have been deployed to Southeast Asia, but they do not have the missile and they are under operational restrictions. Other Sheridans are being troop tested in Korea, CONUS, and Europe (with the missile). The results of these tests and our SEA experience will be useful in determining whether we should go ahead with the FY 70 and later programmed production. We do not plan to go ahead with production unless these results are satisfactory.

#### 2. Rifles

The Army has recommended filling all of its rifle, grenade launcher, and submachine gun needs for the Baseline Force with M-16

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rifles and special adaptions of the M-16. Thus, in addition to the 1.2 million M-16s already in the approved program, the Army recommends: (1) replacing 530,000 existing M-14 rifles with the same number of M-16s; (2) replacing all M79 granade launchers with 99,000 M-16s (with XM-203 granade launcher attachments); and (3) replacing all carbines and .45 caliber submachine gums, and some rifles and .45 caliber pistols, with 414,000 XM-177s, a submachine gum version of the M-16. The added 10-year cost of these new weapons and ammunition would be \$300 million, including an initial investment of \$135 million.

In comparing the M-16 with the M-14, it is important to consider the combat soldier's needs separately from those of the noncombat soldier. The question of weight is particularly significant. The M-16 weighs only 6.87 pounds varsus 9.69 pounds for the M-14. Moreover, 2.3 rounds of M-16 ammunition weigh only as much as one round of M-14 ammunition. For the combat soldier, this weight advantage more than makes up for the slightly lower single shot effectiveness of the M-16; both the individual soldier and ammunition logistics vehicles can carry greater firepower if the M-16 is used. In addition, the M-16 is more accurate than the M-14 in automatic fire. Thus, the M-16 is superior to the M-14 for combat, and we want all of our combat and combat support troops (not just infantry) to have the M-16.

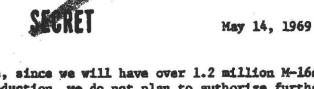
On the other hand, we believe that more analysis must be done to be confident that the M-16 would be better for our non-combat troops currently armed with the M-14. The lower weight of the M-16 may not be significant in this case. Moreover, the M-14 may actually be better than the M-16 for some troops, and should be just as good for others. For example, about 230,000 of the Army's proposed M-16 inventory would be for the Reserve Officers' Training Corps (180,000) and CONUS base operating, logistics, and administrative personnel who would not deploy to a combat theater. The M-14 probably would be adequate for these needs.

Substituting the combined M-16 rifle/XM-203 grenade launcher for the M-79 grenade launcher would subtract at least six grenades from each grenadier's basic load of 18 in order to accommodate the added weight of the rifle and its ammunition. However, the added rifle capability would probably more than make up for the reduction in grenades.

Finally, the value of the XM-177 submachine gun is questionable and needs further study. The XM-177 has failed to perform satisfactorily in two previous evaluations. This is not a critical issue now since the formal service test of the XM-177 will not be completed until early 1971.

About one million M-16s can equip all maneuver and combat support units, provide their combat consumption, and equip the training base. Another 100,000 cover the need for combination rifle/grenade launchers. Existing M-14s, pistols, and submachine guns can meet our

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remaining needs. Therefore, since we will have over 1.2 million M-16s at the end of FY 70 funded production, we do not plan to suthorize further M-16 procurement for the Army until at least one of the two remaining issues is resolved (that is, the M-16 versus the M-14 for non-combat soldiers and the desirability of the XM-177).

#### 3. Army Tactical Air Defense

Army tactical air defense systems include long-range Surface-to-Air Missiles (SAMs) and short-range guns and missiles. The long-range SAMs are Nike Hercules and Hawk. The short-range defenses include infrared homing missiles (Chaparral and Redeye) and guns (Vulcan, Duster, and other automatic weapons such as .50 caliber machine guns). These systems complement our other means of air defense, such as Air Force interceptors and passive measures.

The main objective of our tactical air defenses is to limit damage from enemy air attacks on our air bases, ports, supply depots, command and control centers, lines of communication, and front line troops. We can accomplish this objective in three ways: (1) by actual attrition of enemy air forces so that they are discouraged from repeated raids against our forces; (2) by "virtual attrition" of enemy payload (for example, short-range air defenses force enemy aircraft to deliver weapons at higher altitudes with lower accuracy); and (3) by passive measures, including camouflage and hardening of our forces.

The Warsaw Pact air threat includes about 3,400 fighters and 200 light bombers. In Korea, the Chinese and North Koreans together could muster a force of about 1,500 aircraft. However, most of these aircraft have been designed mainly for air defense; therefore, they have very limited offensive capability. The North Viatnamese Air Force has virtually no offensive capability.

We could still suffer major damage from enemy air attacks because of a number of major shortcomings in our theater air defense forces. For example, we have many SAMs, but very few short-range weapons. This gives us more than adequate coverage at higher altitudes (above 5,000 feet) and inadequate coverage at lower altitudes. We hope to correct this deficiency over the next few years by deploying Chaparral and Vulcan short-range defenses. Other shortcomings of our tactical air defenses include inadequately sheltered aircraft and large vulnerable supply depots.

In view of these shortcomings, we should take the following steps:

#### a. Short-Range Defenses

Continue with previously approved plans to form 21 Chaparral/Vulcan battalions, each consisting of 24 Chaparral and 24 Vulcan



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fire units. Before further production commitments are made, however, we must put special emphasis on Chaparral testing under realistic conditions to assure that this weapon will perform satisfactorily.

#### b. Surface-to-Air Missiles

Continue with plans to convert Basic Hawk batteries to the Improved Hawk configuration. Improved Hawk will have a bigger warhead, greater resistance to electronic countermeasures, and a longer range which will increase the area coverage of each battery by about 70%. Because of the increased coverage of Improved Hawk and the added low-altitude coverage which will be provided by Chaparral and Vulcan, we can further reduce the number of Hercules and Hawk batteries. The proposed reduction of eight Hawk batteries in Europe as part of the Reduction of Costs in Europe (REDCOSTE) program is a step in that direction.

#### c. Command and Control

Make tentative plans to replace our present Army command and control system with a TSQ-73 system because it will be less expensive and yet more effective over a period of six years. We need to better integrate Army and Air Force command and control, including the use of SAM radars for vectoring interceptors. We should also continue to examine ways to improve deficiencies in our Identification Friend or Foe (IFF) procedures.

#### d. Passive Measures

Continue with plans to shelter our aircraft and consider other passive measures for our supply depots, such as dispersal plans and rough roads to provide for rapid dispersal.

#### C. Tactical Vehicles

#### 1. Total Inventory Objectives

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The Army and Marine Corps use large numbers of a wide variety of tactical vehicles (military trucks and trailers). The Army has 30 different basic chassis types, ranging from the 1-ton "jeep" to the 222-ton tractor, and 25 different trailers and semi-trailers with capacities ranging from 1-ton to 552-tons. At end-FY 70, the Army will have 311,000 trucks and 222,000 trailers, representing an investment of over \$3.3 billion at current costs and an annual operating cost of about \$700 million (excluding the cost of drivers).

Army tactical vehicle procurement amounts to almost \$1.6 billion from FY 67 through FY 70. (About \$400 million of this has been for the South Vietnamese Army.) Moreover, the Army estimates that another \$1.4 to \$1.5 billion would have to be spent between FY 71 and FY 74 to fill their Baselins force inventory objectives just for \$-\text{ton}, 1\frac{1}{27}-\text{ton}, and 5-\text{ton trucks}.



The Army-recommended inventory objectives for the Baseline Force are higher than our actual inventories today. This leads us to believe that we should thoroughly re-examine these objectives, particularly in light of our experience in Southeast Asia. We recognize that our mobility and transportation needs in Southeast Asia are different from those in other major theaters. Nevertheless, these Baseline truck inventory objectives may be unnecessarily large because: (1) the Baseline force structure is not as large as today's and (2) some of the Baseline units are planned mainly for use in Southeast Asia, so their needs may be about what they are today.

We should also review key policies and criteria for determining: (1) rated capacities; (2) off-road capability needs; (3) river crossing capability; (4) the mix of trucks and trailers; (5) resource pooling for general transportation needs; (6) the maximum age allowable in the inventory and (7) driver requirements. Pending completion of these reviews, we do not plan to change the previously approved inventory objectives.

#### 2. New Programs

We have several "high mobility" candidates for introduction into the tactical vehicle fleet: the 1½-ton M561 "Gama Goat," the 5-ton M656, and the 8 to 10-ton GOER family (there are cargo, fuel, and wracker versions of GOER). We are now buying 13,000 M561s with initial deliveries scheduled for early FY 70. In addition, 500 M656s have been bought for the Pershing missile program, and 23 GOERs were built for trial use in Europe and Southeast Asia.

The Army recommends buying these new vehicles to replace current trucks and trailers used in units which operate forward of the brigade rear and in other highly mobile units such as self-propelled artillery units. With these vehicles, such units would be able to move rapidly over rough terrain and cross rivers with little or no bridging support.

The need for these kinds of vehicles depends partly on what our enemies have, and there are indications that Soviet forces are starting to get them. However, such vehicles cost over twice as much to buy per ton carried compared to today's trucks, and they are likely to have higher operating costs as well. Thus, their introduction would substantially increase the cost of our tactical vehicle fleet. There may be compensating reductions, such as in tactical bridging or engineer support. Comparative testing of units with current vehicles against units with the new vehicles might show this, and we intend to look into the possibility this year. However, we are deferring further procurement decisions on these new vehicles until we have a better understanding of their greater efficiency and/or tactical significance in relation to their much greater costs. If the Army wants to introduce more of these vehicles, they should identify an equal-cost trade-off of other equipment or units.



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### Aviation Programs

#### 1. General

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Aircraft are generally the most expensive equipment used by Army and Marine Corps Land forces. The Army has about 11,000 aircraft (80% helicopters) worth over \$3.3 billion. This inventory has been built largely to meet our needs in Southeast Asia. Requirements for our other forces are being filled only to the extent that total inventories can be kept within the quantities approved for the post-Vietnam Baseline Force.

The Army believes that major revisions (mostly increases) to these approved quantities are needed. In view of our generally satisfactory experience in Southeast Asia and current financial pressures, however, we are not approving any increases in Army or Marine Corps aircraft at this time.

#### 2. Mix of Army Trooplift Helicopters

A major issue is the mix of squad-size and platoon-size helicopters in the Army's trooplift force. Recent studies indicate that greater use of CH-47 helicopters, rather than UH-1s, for the tactical trooplift mission in Southeast Asia and other theaters would provide savings in lives and in dollars. Because one CH-47 can carry as many troops as six or seven UH-ls, a force mix which includes more CH-47s would also reduce the Army's need for pilots and extend the time between their second tours. Further study of this question is needed before a decision can be made. Therefore, we want our staff and the Army to review the matter jointly and provide their recommendations before final decisions on FY 70 and 71 helicopter procurements are made.

#### 3. The AH-56A Cheyenne Program

The Army is developing an advanced armed helicopter, the AH-56A Cheyenne. It is designed to carry about four times the payload of the AH-1, including 30mm high explosive anti-personnel rounds and TOW missiles (which should give it anti-armor capability). In addition, the Cheyenne is designed to cruise at over 200 knots and have advanced avionics, including a stabilized optical sight, a laser range-finder, night vision equipment, and a fire control and navigation computer.

In order to take advantage of performance warranties in the contract won by the Lockheed Aircraft Corporation, procurement of 375 Cheyennes and early production were approved without a demonstrated total system effectiveness. The decision to buy the Cheyenne was based in part on an equal-cost trade of other armed helicopters, tanks, artillery, and antitank weapons. The Army believed that the Cheyenne would provids more effectiveness per dollar; therefore, total force effectiveness would increase at no increase in cost.



The plan called for phasing out armed UH-ls and Cobras while Cheyennes were coming into the force, starting in late FY 70. The final Baseline Force objective was 408 Cobras and 285 AH-56As. Because of this Cobra phase-out, we are not buying Cobras in FY 69 or FY 70 to replace SEA losses. If the war continues into FY 71, the Army's plans call for deployment of AH-56A units to replace UH-l and AH-1 attrition.

Since these decisions and plans were made, however, serious problems have arisen in the AN-56A program. It now appears that unit cost will be much higher than the \$1.6 million estimate used for the decision. Also, the production schedule may slip significantly. Finally, in addition to the developmental difficulties, the validity of the basic system concept and the force trade-off decision are in doubt.

It is clear that a substantial adjustment will have to be made in the Cheyenne and related programs. This matter is under intensive review. We expect to deal with the existing trade-off plan well before any of the phase-outs scheduled for FY 70 are due to begin.

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