TITLE IV

RESEARCH, DEVELOPMENT, TEST AND EVALUATION

Funds appropriated under this title provide the resources required to conduct a program of research, development, test and evaluation, including research in basic science, applied research, advanced technology development, demonstration and validation, engineering and manufacturing development, and operational systems development.

The President's fiscal year 2012 budget requests a total of $75,325,082,000 for research, development, test and evaluation appropriations.

SUMMARY OF COMMITTEE ACTION

The Committee recommends research, development, test and evaluation appropriations totaling $71,033,956,000 for fiscal year 2012. This is $4,291,126,000 below the budget estimate.

Committee recommended research, development, test and evaluation appropriations for fiscal year 2012 are summarized below:

SUMMARY OF RESEARCH, DEVELOPMENT, TEST AND EVALUATION APPROPRIATIONS

[In thousands of dollars]

Account	2012 budget estimate	Committee recommendation	Change from budget estimate
Research, Development, Test and Evaluation:			
Research, Development, Test and Evaluation, Army	9,683,980	8,311,011	−1,372,969
Research, Development, Test and Evaluation, Navy	17,956,431	17,406,689	−549,742
Research, Development, Test and Evaluation, Air Force	27,737,701	26,007,694	−1,730,007
Research, Development, Test and Evaluation, Defense-Wide	19,755,678	19,117,270	−638,408
Operational Test and Evaluation, Defense	191,292	191,292	.....
Total	75,325,082	71,033,956	−4,291,126

COMMITTEE RECOMMENDATIONS

The Committee has displayed recommended adjustments in tables presented under each appropriation account.

These adjustments reflect the following Committee actions: elimination of funds requested for programs which are lower priority, duplicative, or not supported by firm requirements in out-year development or procurement appropriations; deletion of excess funds based on program delays or slow execution; addition of funds to reflect congressional priorities and to rectify shortfalls in the budget estimate; and implementation of recommendations in S. 1253, the National Defense Authorization Act for Fiscal Year 2012, as reported.

The Committee directs that the funding increases outlined in these tables shall be provided only for the specific purposes indicated in the table.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION OVERVIEW

Joint Light Tactical Vehicle [JLTV].—The fiscal year 2012 budget request includes $172,093,000 in Research, Development, Test and Evaluation, Army and $71,847,000,000 in Research, Development, Test and Evaluation, Navy to continue the Joint Light Tactical Vehicle's Engineering and Manufacturing Development Phase [EMD]. The Committee notes that as a result of increasing requirements, the scheduled EMD phase has doubled from 24 months to 48 months, and projected EMD costs have more than doubled to $669,600,000, which are not currently fully budgeted. The Committee further notes the Services' limited acquisition objectives for JLTV: the Army intends to procure 50,000 vehicles to replace only one-third of its High Mobility Multipurpose Wheeled Vehicle [HMMWV] fleet, and the Marine Corps intends to procure 5,000 JLTVs, roughly one-quarter of its future tactical vehicle fleet.

Furthermore, the JLTV program, which was initially launched as a model for a revised acquisition approach, has already had significant changes in requirements and cost growth. The JLTV was originally intended to replace the Services' entire HMMWV fleet, yet the Services have decided to retain significant portions of their respective HMMWV fleets and have launched comprehensive HMMWV reset and competitive recapitalization programs. Consequently, the JLTV would now replace only a fraction of HMMWVs, thus adding instead of reducing the Services' logistics burden. Moreover, the inability to keep program requirements stable has resulted in significant cost growth early in the program's development phase, and projected acquisition costs will make the program unaffordable in this challenging economic environment.

In addition, the Committee understands that the first vehicles would not be produced until 2017 at the earliest, while it appears that several industrial solutions that address most of the JLTV requirements currently exist. As such, the Committee sees no role for the JLTV in the Services' future programs and budgets and recommends its termination. The Committee recommends transferring $20,000,000 from the JLTV program to the competitive Modernized Expanded Capability Vehicle [MECV] program to fully fund its requirements and allow the Services to rapidly field light tactical vehicles with greater capabilities sooner and at a lower cost.

Joint Cooperative Target Identification [JCTI].—The fiscal year 2012 budget request includes $41,700,000 in Research, Development, Test and Evaluation, Army and $21,247,000 in Research, Development, Test and Evaluation, Navy to pursue development of devices that address dismount and air-to-ground fratricide. The Committee understands that following completion of the Analysis of Alternatives in June 2011, the Army and Marine Corps' acquisition strategy has changed. The Committee recommends full funding of this revised acquisition strategy. Further, the Committee directs the Army and Marine Corps to establish with the fiscal year 2013 budget submission separate Program Elements within their

respective Research, Development, Test and Evaluation accounts for the JCTI program.

Army Missile Defense Programs.—The Missile Defense Agency [MDA] and the Army recently signed a preliminary Memorandum of Agreement [MOA] that would transfer some elements of the Army's air and missile defense portfolio to MDA. The Committee notes that no Business Case Analysis has been completed, nor have details been defined about which programs or program components would be transferred. The Committee further notes that no funds have been appropriated in this or previous Department of Defense Appropriations Acts to fund a transfer of Army missile defense program responsibilities to MDA, or to fund the implementation of the Army's Program Executive Officer [PEO] for Missiles and Space serving as the Program Executive for Army missile defense systems within MDA. Therefore, the Committee does not support any such transfer at this time.

Ground Radar Technologies.—The Committee understands that the Air Force and Army are considering the procurement of new ground radar solutions. The Committee believes that the Department should consider minimizing program redundancy and maximizing platform commonality. Therefore, the Committee encourages the Under Secretary of Defense for Acquisition, Technology and Logistics to examine the services' ground-based radar procurement strategies to achieve commonality wherever possible in order to lower life-cycle costs and achieve better deployment schedules through common requirements.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY

Appropriations, 2011	$9,710,998,000
Budget estimate, 2012	9,683,980,000
House allowance	9,381,166,000
Committee recommendation	8,311,011,000

The Committee recommends an appropriation of $8,311,011,000. This is $1,372,969,000 below the budget estimate.

COMMITTEE RECOMMENDED PROGRAM

The following table summarizes the budget estimate for this appropriation, the Committee recommendation, and the Committee recommended adjustments to the budget estimate:

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY					
	BASIC RESEARCH					
1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	21,064	21,064	21,064	.....	.....
2	DEFENSE RESEARCH SCIENCES	213,942	213,942	213,942	.....	.....
3	UNIVERSITY RESEARCH INITIATIVES	80,977	80,977	80,977	.....	.....
4	UNIVERSITY AND INDUSTRY RESEARCH CENTERS	120,937	140,937	120,937	.....	−20,000
	TOTAL, BASIC RESEARCH	436,920	456,920	436,920	.....	−20,000
	APPLIED RESEARCH					
5	MATERIALS TECHNOLOGY	30,258	30,258	55,258	+25,000	+25,000
6	SENSORS AND ELECTRONIC SURVIVABILITY	43,521	43,521	43,521	.....	.....
7	TRACTOR HIP	14,230	14,230	14,230	.....	.....
8	AVIATION TECHNOLOGY	44,610	44,610	44,610	.....	.....
9	ELECTRONIC WARFARE TECHNOLOGY	15,790	15,790	15,790	.....	.....
10	MISSILE TECHNOLOGY	50,685	50,685	70,685	+20,000	+20,000
11	ADVANCED WEAPONS TECHNOLOGY	20,034	20,034	20,034	.....	.....
12	ADVANCED CONCEPTS AND SIMULATION	20,933	20,933	20,933	.....	.....
13	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY	64,306	64,306	64,306	.....	.....
14	BALLISTICS TECHNOLOGY	59,214	59,214	59,214	.....	.....
15	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY	4,877	4,877	4,877	.....	.....
16	JOINT SERVICE SMALL ARMS PROGRAM	8,244	8,244	8,244	.....	.....
17	WEAPONS AND MUNITIONS TECHNOLOGY	39,813	54,813	39,813	.....	−15,000
18	ELECTRONICS AND ELECTRONIC DEVICES	62,962	62,962	62,962	.....	.....
19	NIGHT VISION TECHNOLOGY	57,203	49,203	57,203	.....	+8,000
20	COUNTERMINE SYSTEMS	20,280	20,280	35,280	+15,000	+15,000
21	HUMAN FACTORS ENGINEERING TECHNOLOGY	21,801	21,801	21,801	.....	.....
22	ENVIRONMENTAL QUALITY TECHNOLOGY	20,837	20,837	20,837	.....	.....
23	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY	26,116	26,116	26,116	.....	.....
24	COMPUTER AND SOFTWARE TECHNOLOGY	8,591	8,591	8,591	.....	.....
25	MILITARY ENGINEERING TECHNOLOGY	80,317	80,317	80,317	.....	.....
26	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY	18,946	18,946	18,946	.....	.....
27	WARFIGHTER TECHNOLOGY	29,835	29,835	49,835	+20,000	+20,000
28	MEDICAL TECHNOLOGY	105,929	105,929	105,929	.....	.....

	TOTAL, APPLIED RESEARCH	869,332	876,332	949,332	+80,000	+73,000
	ADVANCED TECHNOLOGY DEVELOPMENT					
29	WARFIGHTER ADVANCED TECHNOLOGY	52,979	52,979	52,979		
30	MEDICAL ADVANCED TECHNOLOGY	68,171	96,971	74,171	+6,000	−22,800
31	AVIATION ADVANCED TECHNOLOGY	62,193	62,193	62,193		
32	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY	77,077	77,077	77,077		
33	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY	106,145	95,145	146,145	+40,000	+51,000
34	COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY	5,312	5,312	5,312		
35	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY	10,298	10,298	10,298		
36	ELECTRONIC WARFARE ADVANCED TECHNOLOGY	57,963	53,963	72,963	+15,000	+19,000
37	TRACTOR HIKE	8,155	8,155	8,155		
38	NEXT GENERATION TRAINING & SIMULATION SYSTEMS	17,936	17,936	17,936		
39	TRACTOR ROSE	12,597	12,597	12,597		
40	MILITARY HIV RESEARCH	6,796	22,796	6,796		−16,000
41	COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT	12,191	12,191	12,191		
42	TRACTOR NAIL	4,278	4,278	4,278		
43	TRACTOR EGGS	2,261	2,261	2,261		
44	ELECTRONIC WARFARE TECHNOLOGY	23,677	23,677	23,677		
45	MISSILE AND ROCKET ADVANCED TECHNOLOGY	90,602	90,602	90,602		
46	TRACTOR CAGE	10,315	5,315	10,315		+5,000
47	HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM	183,150	183,150	228,150	+45,000	+45,000
48	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY	31,541	31,541	31,541		
49	JOINT SERVICE SMALL ARMS PROGRAM	7,686	7,686	7,686		
50	NIGHT VISION ADVANCED TECHNOLOGY	42,414	42,414	42,414		
51	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS	15,959	15,959	15,959		
52	MILITARY ENGINEERING ADVANCED TECHNOLOGY	36,516	28,516	36,516		+8,000
53	ADVANCED TACTICAL COMPUTER SCIENCE & SENSOR TECHNOLOGY	30,600	30,600	30,600		
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	976,812	993,612	1,082,812	+106,000	+89,200
	DEMONSTRATION & VALIDATION					
55	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION	36,009	24,455	24,009	−12,000	−446
56	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (SPACE)	9,612	9,612	9,612		
58	LANDMINE WARFARE AND BARRIER—ADV DEV	35,383	35,383	19,293	−16,090	−16,090
59	SMOKE, OBSCURANT AND TARGET DEFEATING SYS—ADV DEV	9,501	4,501	5,265	−4,236	+764
60	TANK AND MEDIUM CALIBER AMMUNITION	39,693	39,693	39,693		
61	ADVANCED TANK ARMAMENT SYSTEM (ATAS)	101,408	64,408	101,408		+37,000
62	SOLDIER SUPPORT AND SURVIVABILITY	9,747	9,747	3,843	−5,904	−5,904
63	TACTICAL ELECTRONIC SURVEILLANCE SYSTEM—AD	5,766	5,766	5,766		
65	ENVIRONMENTAL QUALITY TECHNOLOGY	4,946	4,946	4,946		

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
66	WARFIGHTER INFORMATION NETWORK—TACTICAL	297,955	297,955	182,955	−115,000	−115,000
67	NATO RESEARCH AND DEVELOPMENT	4,765	4,765	4,765		
68	AVIATION—ADV DEV	7,107	7,107	7,107		
69	LOGISTICS AND ENGINEER EQUIPMENT—ADV DEV	19,509	19,509	12,509	−7,000	−7,000
70	COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION	5,258	5,258	5,258		
71	MEDICAL SYSTEMS—ADV DEV	34,997	34,997	34,997		
72	SOLDIER SYSTEMS—ADVANCED DEVELOPMENT	19,598	19,598	17,752	−1,846	−1,846
73	INTEGRATED BROADCAST SERVICE	1,496	1,496	1,496		
74	TECHNOLOGY MATURATION INITIATIVES	10,181	10,181	10,181		
75	TRACTOR JUTE	15,609	15,609	15,609		
76	JOINT COOPERATIVE TARGET IDENTIFICATION—GROUND (JCTI	41,652	41,652	15,052	−26,600	−26,600
77	ENDURANCE UAVS	42,892	42,892	42,892		
	TOTAL, DEMONSTRATION & VALIDATION	753,084	699,530	564,408	−188,676	−135,122
	ENGINEERING & MANUFACTURING DEVELOPMENT					
78	AIRCRAFT AVIONICS	144,687	144,687	119,687	−25,000	−25,000
79	ARMED, DEPLOYABLE OH–58D	166,132	131,132	75,203	−90,929	−55,929
80	ELECTRONIC WARFARE DEVELOPMENT	101,265	101,265	26,872	−74,393	−74,393
82	ALL SOURCE ANALYSIS SYSTEM	17,412	17,412	7,412	−10,000	−10,000
83	TRACTOR CAGE	26,577	26,577	26,577		
84	INFANTRY SUPPORT WEAPONS	73,728	91,474	67,428	−6,300	−24,046
85	MEDIUM TACTICAL VEHICLES	3,961	3,961	3,961		
87	JAVELIN	17,340	17,340	9,940	−7,400	−7,400
88	FAMILY OF HEAVY TACTICAL VEHICLES	5,478	5,478	5,478		
89	AIR TRAFFIC CONTROL	22,922	22,922	22,922		
90	LIGHT TACTICAL WHEELED VEHICLES		50,000	20,000	+20,000	−30,000
93	FCS SYSTEMS OF SYSTEMS ENGR & PROGRAM MGMT	383,872	311,872	283,872	−100,000	−28,000
95	FCS UNMANNED GROUND VEHICLES	143,840	143,840	26,840	−117,000	−117,000
96	FCS UNATTENDED GROUND SENSORS	499	499		−499	−499
97	FCS SUSTAINMENT & TRAINING R&D		52,693			−52,693
98	NIGHT VISION SYSTEMS—SDD	59,265	59,265	59,265		
99	COMBAT FEEDING, CLOTHING, AND EQUIPMENT	2,075	2,075	2,075		
100	NON-SYSTEM TRAINING DEVICES—SDD	30,021	30,021	30,021		
101	TERRAIN INFORMATION—SDD	1,596	1,596	1,596		
102	AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE—SDD	83,010	83,010	83,010		

103	CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT	28,305	28,305	28,305	.....	.....
104	AUTOMATIC TEST EQUIPMENT DEVELOPMENT	14,375	14,375	14,375	.....	.....
105	DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS)—SDD	15,803	15,803	15,803	.....	.....
107	COMBINED ARMS TACTICAL TRAINER (CATT) CORE	22,226	22,226	22,226	.....	.....
108	WEAPONS AND MUNITIONS—SDD	13,828	13,828	13,828	.....	.....
109	LOGISTICS AND ENGINEER EQUIPMENT—SDD	251,104	226,104	91,104	−160,000	−135,000
110	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS—SDD	137,811	137,811	81,811	−56,000	−56,000
111	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT	27,160	27,160	27,160	.....	.....
112	LANDMINE WARFARE/BARRIER—SDD	87,426	87,426	66,326	−21,100	−21,100
113	ARTILLERY MUNITIONS	42,627	35,627	42,627	.....	+7,000
115	ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE	123,935	123,935	93,935	−30,000	−30,000
116	RADAR DEVELOPMENT	2,890	2,890	2,890	.....	.....
117	GENERAL FUND ENTERPRISE BUSINESS SYSTEM (GFEBS)	794	794	794	.....	.....
118	FIREFINDER	10,358	10,358	10,358	.....	.....
119	SOLDIER SYSTEMS—WARRIOR DEM/VAL	48,309	40,709	55,909	+7,600	+15,200
120	ARTILLERY SYSTEMS	120,146	70,146	120,146	.....	+50,000
121	PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP)	406,605	257,105	406,605	.....	+149,500
122	NUCLEAR ARMS CONTROL MONITORING SENSOR NETWORK	7,398	7,398	7,398	.....	.....
123	INFORMATION TECHNOLOGY DEVELOPMENT	37,098	37,098	32,098	−5,000	−5,000
124	ARMY INTEGRATED MILITARY HUMAN RESOURCES SYSTEM (A–IMH	68,693	68,693	68,693	.....	.....
125	JOINT AIR-TO-GROUND MISSILE (JAGM)	127,095	127,095	127,095	.....	.....
126	SLAMRAAM	19,931	19,931	1,531	−18,400	−18,400
127	PAC–2/MSE MISSILE	88,993	88,993	88,993	.....	.....
128	ARMY INTEGRATED AIR AND MISSILE DEFENSE (AIAMD)	270,607	270,607	270,607	.....	.....
129	MANNED GROUND VEHICLE	884,387	768,053	240,387	−644,000	−527,666
130	AERIAL COMMON SENSOR	31,465	31,465	10,965	−20,500	−20,500
131	TROJAN—RH12	3,920	3,920	3,920	.....	.....
132	ELECTRONIC WARFARE DEVELOPMENT	13,819	13,819	13,819	.....	.....
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	4,190,788	3,848,793	2,831,867	−1,358,921	−1,016,926
	RDT&E MANAGEMENT SUPPORT					
133	THREAT SIMULATOR DEVELOPMENT	16,992	16,992	26,158	+9,166	+9,166
134	TARGET SYSTEMS DEVELOPMENT	11,247	11,247	11,247	.....	.....
135	MAJOR T&E INVESTMENT	49,437	49,437	49,437	.....	.....
136	RAND ARROYO CENTER	20,384	20,384	20,384	.....	.....
137	ARMY KWAJALEIN ATOLL	145,606	145,606	145,606	.....	.....
138	CONCEPTS EXPERIMENTATION PROGRAM	28,800	28,800	28,800	.....	.....
140	ARMY TEST RANGES AND FACILITIES	262,456	262,456	312,456	+50,000	+50,000
141	ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS	70,227	70,227	70,227	.....	.....
142	SURVIVABILITY/LETHALITY ANALYSIS	43,483	43,483	43,483	.....	.....

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
143	DOD HIGH ENERGY LASER TEST FACILITY	18	18	18	.....	.....
144	AIRCRAFT CERTIFICATION	5,630	5,630	5,630	.....	.....
145	METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES	7,182	7,182	7,182	.....	.....
146	MATERIEL SYSTEMS ANALYSIS	19,669	19,669	19,669	.....	.....
147	EXPLOITATION OF FOREIGN ITEMS	5,445	5,445	5,445	.....	.....
148	SUPPORT OF OPERATIONAL TESTING	68,786	68,786	68,786	.....	.....
149	ARMY EVALUATION CENTER	63,302	63,302	63,302	.....	.....
150	SIMULATION & MODELING FOR ACQ, RQTS, & TNG (SMART)	3,420	3,420	3,420	.....	.....
151	PROGRAMWIDE ACTIVITIES	83,054	83,054	83,054	.....	.....
152	TECHNICAL INFORMATION ACTIVITIES	63,872	54,872	54,872	−9,000	.....
152A	ANALYSIS OF ALTERNATIVE PILOT	.....	.....	500	+500	+500
153	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY	57,142	57,142	57,142	.....	.....
154	ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT	4,961	4,961	4,961	.....	.....
155	MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT)	17,558	17,558	17,558	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	1,048,671	1,039,671	1,099,337	+50,666	+59,666
	OPERATIONAL SYSTEMS DEVELOPMENT					
158	MLRS PRODUCT IMPROVEMENT PROGRAM	66,641	66,641	66,641	.....	.....
159	WEAPONS CAPABILITY MODIFICATIONS UAV	24,142	24,142	7,500	−16,642	−16,642
160	AEROSTAT JOINT PROJECT OFFICE	344,655	327,855	344,655	.....	+16,800
162	ADV FIELD ARTILLERY TACTICAL DATA SYSTEM	29,546	29,546	29,546	.....	.....
163	COMBAT VEHICLE IMPROVEMENT PROGRAMS	53,307	53,307	21,907	−31,400	−31,400
164	MANEUVER CONTROL SYSTEM	65,002	65,002	42,414	−22,588	−22,588
165	AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS	163,205	163,205	149,705	−13,500	−13,500
166	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	823	823	823	.....	.....
167	DIGITIZATION	8,029	8,029	8,029	.....	.....
169	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM	44,560	59,055	51,055	+6,495	−8,000
171	TRACTOR CARD	42,554	42,554	42,554	.....	.....
172	JOINT TACTICAL GROUND SYSTEM	27,630	27,630	27,630	.....	.....
173	JOINT HIGH SPEED VESSEL (JHSV)	3,044	3,044	.....	−3,044	−3,044
175	SECURITY AND INTELLIGENCE ACTIVITIES	2,854	2,854	2,854	.....	.....
176	INFORMATION SYSTEMS SECURITY PROGRAM	61,220	61,220	61,220	.....	.....
177	GLOBAL COMBAT SUPPORT SYSTEM	100,505	160,745	160,745	+60,240	.....
178	SATCOM GROUND ENVIRONMENT (SPACE)	12,104	12,104	12,104	.....	.....
179	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM	23,937	23,937	23,937	.....	.....

181	TACTICAL UNMANNED AERIAL VEHICLES	40,650	40,650	26,550	−14,100	−14,100
182	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	44,198	44,198	31,699	−12,499	−12,499
183	MQ–1 SKY WARRIOR A UAV	137,038	137,038	122,038	−15,000	−15,000
184	RQ–11 UAV	1,938	1,938	1,938	.....	.....
185	RQ–7 UAV	31,940	31,940	31,940	.....	.....
187	BIOMETRICS ENABLED INTELLIGENCE	15,018	15,018	15,018	.....	.....
188	END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES	59,297	59,297	59,297	.....	.....
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	1,403,837	1,461,772	1,341,799	−62,038	−119,973
999	CLASSIFIED PROGRAMS	4,536	4,536	4,536	.....	.....
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY	9,683,980	9,381,166	8,311,011	−1,372,969	−1,070,155

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Item	2012 budget estimate	Committee recommendation	Change from budget estimate
5	Materials Technology	30,258	55,258	+25,000
	Nanotechnology research			+10,000
	Silicon Carbide research			+15,000
10	Missile Technology	50,685	70,685	+20,000
	Restore unjustified reductions for missile lethality and precision research			+20,000
20	Countermine Systems	20,280	35,280	+15,000
	Unexploded ordnance and landmine detection research			+15,000
27	Warfighter Technology	29,835	49,835	+20,000
	Power generation research			+20,000
30	Medical Advanced Technology	68,171	74,171	+6,000
	Military Burn Research Program			+6,000
33	Combat Vehicle and Automotive Advanced Technology	106,145	146,145	+40,000
	Alternative energy research			+40,000
36	Electronic Warfare Advanced Technology	57,963	72,963	+15,000
	Cyber security/information assurance research			+15,000
47	High Performance Computing Modernization Program	183,150	228,150	+45,000
	Restore unjustified reduction			+45,000
55	Army Missile Defense Systems Integration (Non Space)	36,009	24,009	−12,000
	TR7: Schedule delays			−12,000
58	Landmine Warfare and Barrier—Adv Dev	35,383	19,293	−16,090
	Excess to Army requirement			−16,090
59	Smoke, Obscurant and Target Defeating Sys-Adv Dev	9,501	5,265	−4,236
	PGOC lack of full funding			−4,236
62	Soldier Support and Survivability	9,747	3,843	−5,904
	Rapid Equipping Force: Lack of baseline requirement			−5,904
66	Warfighter Information Network-Tactical	297,955	182,955	−115,000
	Increment III program acceleration			−115,000
69	Logistics and Engineer Equipment—Adv Dev	19,509	12,509	−7,000
	G11: LAMPS Transfer to Line 109 at request of the Army			−7,000
72	Soldier Systems—Advanced Development	19,598	17,752	−1,846
	S53 efforts transferred to VS4			−1,846
76	Joint Cooperative Target Identification—Ground (JCTI–G)/ Technology Developme	41,652	15,052	−26,600
	Army identified excess to requirement			−26,600
78	Aircraft Avionics	144,687	119,687	−25,000
	JTRS AMF integration delays			−15,000
	JPALS excessive growth			−10,000
79	Armed, Deployable Helos	166,132	75,203	−90,929
	Project 53Z: Technology Development funding requested ahead of need			−73,929
	OH–58D support for continued service			−17,000
80	Electronic Warfare Development	101,265	26,872	−74,393
	VS6: Ahead of need			−7,393
	CIRCM program delays			−67,000
82	All Source Analysis System	17,412	7,412	−10,000
	MFLTS EMD contract award delay			−10,000
84	Infantry Support Weapons	73,728	67,428	−6,300
	S61: High concurrency of incremental efforts			−8,000
	Army requested transfer for re-testing of Lightweight .50 caliber machine gun from WTCV line 20			+1,700
87	JAVELIN	17,340	9,940	−7,400
	Excess to requirement			−7,400
90	Light Tactical Wheeled Vehicles		20,000	+20,000

[In thousands of dollars]

Line	Item	2012 budget estimate	Committee recommendation	Change from budget estimate
	Transfer from Line 109 for fiscal year 2012 HMMWV Competitive RECAP (MECV)—Army identified shortfall			+20,000
93	FCS Systems of Systems Engr & Program Mgmt	383,872	283,872	−100,000
	Unjustified requirement			−100,000
95	FCS Unmanned Ground Vehicles	143,840	26,840	−117,000
	Program adjustment			−117,000
96	FCS Unattended Ground Sensors	499		−499
	Program termination			−499
109	Logistics and Engineer Equipment—SDD	251,104	91,104	−160,000
	Project 194: LAMPS Transferred from line 69, project G11 at request of the Army			+7,000
	Project L50: JLTV termination			−147,000
	Project L50: Transfer to line 90 for Humvee Competitive RECAP (MECV) Army identified shortfall			−20,000
110	Command, Control, Communications Systems—SDD	137,811	81,811	−56,000
	JBC–P excessive growth			−56,000
112	Landmine Warfare/Barrier—SDD	87,426	66,326	−21,100
	EHP—contract award delay			−21,100
115	Army Tactical Command & Control Hardware & Software	123,935	93,935	−30,000
	Project 334: Excessive growth			−30,000
119	Soldier Systems—Warrior Dem/Val	48,309	55,909	+7,600
	Nett Warrior—Transfer from Other Procurement, Army, line 147 at request of the Army			+7,600
123	Information Technology Development	37,098	32,098	−5,000
	Unsustained growth			−5,000
126	SLAMRAAM	19,931	1,531	−18,400
	Excess to program close-out requirement			−18,400
129	Manned Ground Vehicle	884,387	240,387	−644,000
	Excessive TD ramp-up prior to completion of Analysis of Alternatives			−644,000
130	Aerial Common Sensor	31,465	10,965	−20,500
	Test delays			−20,500
133	Threat Simulator Development	16,992	26,158	+9,166
	Unfunded JFCOM mission transfer			+9,166
140	Army Test Ranges and Facilities	262,456	312,456	+50,000
	Authorization increase			+50,000
152	Technical Information Activities	63,872	54,872	−9,000
	Project 733: Analysis of Alternatives Pilot—Transfer to Line 152A			−9,000
152A	Analysis of Alternatives Pilot		500	+500
	Transfer from Line 152			+500
159	Weapons Capability Modifications UAV	24,142	7,500	−16,642
	Funding excess to only the Analysis of Alternatives			−16,642
163	Combat Vehicle Improvement Programs	53,307	21,907	−31,400
	AMPV			−31,400
164	Maneuver Control System	65,002	42,414	−22,588
	Unexplained growth			−22,588
165	Aircraft Modifications/Product Improvement Programs	163,205	149,705	−13,500
	Project 504: Excess to Army Analysis of Alternatives requirement			−13,500
169	Missile/Air Defense Product Improvement Program	44,560	51,055	+6,495
	Stinger SLEP—Transfer from Missile Procurement, Army, at request of the Army			+6,495
173	Joint High Speed Vessel (JHSV)	3,044		−3,044
	Program transferred to Navy			−3,044
177	Global Combat Support System	100,505	160,745	+60,240
	Army Requested Transfer for GCSS–A from Other Procurement, Army Line 115			+47,240
	Army Requested Transfer for AESIP from Other Procurement, Army Line 115			+13,000
181	Tactical Unmanned Aerial Vehicles	40,650	26,550	−14,100
	TSP contract award delays and change to acquisition strategy			−14,100

[In thousands of dollars]

Line	Item	2012 budget estimate	Committee recommendation	Change from budget estimate
182	Distributed Common Ground/Surface Systems	44,198	31,699	−12,499
	Requirements increase			−12,499
183	MQ–1 Sky Warrior A UAV	137,038	122,038	−15,000
	Excessive growth			−15,000

Research, Development, Test and Evaluation, Army [RDTE&A] Budget Justification Materials.—The Committee notes the much improved quality of the RDTE&A budget justification materials compared to previous years. However, critical information remains lacking from the R-forms, such as contract award information on the R–3, and specific event details on the R–4. The Committee encourages the Army to continue improving the quality and detail of its budget justification materials.

Army Acquisition Failures and the Decker-Wagner Army Acquisition Review.—In May 2010, the Army commissioned an unprecedented review of its acquisition processes, commonly referred to as the "Decker-Wagner" study. It identified more than 20 Army Major Defense Acquisition Programs [MDAPs] that were terminated in the last 20 years and notes that in the last 7 years, the Army has spent roughly $3,500,000,000 in research and development per year on programs that were ultimately cancelled. The Committee finds this unacceptable at any time, but even more so in times of fiscal austerity. The Army has provided an implementation plan regarding the 76 recommendations made in the "Decker-Wagner" study. The Committee expects the Army to continue to provide regular updates on the status of actions taken regarding recommendations made by the "Decker-Wagner" study.

Research and Development Command Enterprise Management.—The "Decker-Wagner" Army Acquisition Review made 76 recommendations to address shortfalls in the Army's acquisition process. This includes a recommendation to disestablish the Research, Development and Engineering Command [RDECOM]. The Committee understands that the Army will not implement this recommendation and is studying RDECOM's role in an ongoing Material Development and Sustainment study. The Committee continues to view the level of oversight and discipline that RDECOM brings to the Army acquisition enterprise as a necessary component of reform. Therefore, the Committee strongly urges the Army to refrain from any effort to disestablish, relocate or devolve any RDECOM functions. The Committee notes that no funds have been appropriated in this or previous Department of Defense Appropriations Acts that would support any such effort.

Combat Feeding Technology.—The fiscal year 2012 budget request includes $52,979,000 for Warfighter Advanced Technology research, to include $2,413,000 for improved combat feeding systems and combat rations. The Committee commends the Department's Combat Feeding Directorate on its continued improvements of the Meals-Ready-to-Eat [MRE] ration and understands that new processing and packaging technologies are being developed to further enhance the variety and nutritional value of this combat ration staple. To ensure that our Warfighters continue to receive nutritionally superior combat rations, the Committee recommends the De-

partment continue its investment for continued, state-of-the-art processing and packaging research.

Silicon Carbide Research and Development.—The Committee understands that increasing electric power loads for military systems requires high-temperature and high-efficiency power electronics to reduce weight, increase energy efficiency and to improve system performance. The Committee further understands that Silicon Carbide-based power semiconductors have been identified as an enabling technology that meets Army requirements for power distribution and management. The Committee notes that Manufacturing Readiness Levels lag behind Technology Readiness Levels for this critical area and that the successful development and deployment of silicon carbide power electronics requires maturation of a domestic supply chain. Therefore, the Committee recommends an additional $15,000,000, to be fully competed for Silicon Carbide research and development.

Health and Usage Monitoring System.—The Committee notes with concern the absence of a validated Army requirement and associated budget request for the development and integration of a health and usage monitoring system for the Light Utility Helicopter [LUH]. The Committee understands that this is based on a desire to achieve near-term savings based on an existing service contract for the Army's fleet of LUH; however, the Committee believes a near-term investment in this area could drive long-term sizeable savings in the area of LUH maintenance. For example, the Committee understands that investment in a health and usage monitoring system for the Army's Blackhawk helicopters has yielded maintenance savings that have offset the initial investment. The Committee encourages the Army to consider the long-term costs and benefits of integrating a health and usage monitoring system on the LUH and to consider that new analysis as the basis for its fiscal year 2013 budget request.

Indirect Fire Protection Capability [IFPC].—The Army is transitioning the Counter Rocket Artillery Mortar [C–RAM] program, which was rapidly fielded to meet an urgent need in theater, to the Indirect Fire Protection Capability [IFPC] Program of Record. The IFPC Program of Record consists of three distinct increments: Increment 0, Increment I and Increment II. The Committee notes that the schedule for Increment II is delayed by no less than 9 months and that the Army did not adjust its fiscal year 2012 budget request accordingly. Therefore, the Committee recommends a reduction of those fiscal year 2012 funds that are ahead of need due to the schedule delay. Further, the Committee directs the Army to establish with the fiscal year 2013 budget submission a separate Program Element for IFPC Increment II. The Committee notes that requirements for Increments 0 and I are fully funded.

Warfighter Information Network—Tactical [WIN–T] Increment III.—The fiscal year 2012 budget request includes $287,808,000 for further development of WIN–T Increment III, an increase of $115,000,000 over the prior year's budget, to accelerate fielding by 1 year from fiscal year 2016 to fiscal year 2015. The Committee notes that WIN–T recently emerged from a comprehensive Nunn-McCurdy restructure and subsequent Acquisition Program Baseline

[APB] revision following significant cost growth and that the previous budget funded the program to that APB. Further, the Committee notes that the proposed accelerated schedule significantly compresses the design and development timeline for a key component of Increment III and allows little time for the manufacturing, integration and testing of prototypes in support of an accelerated fielding decision. Finally, the Committee understands that the Army has identified a $23,000,000 fiscal year 2012 shortfall to its proposed 1-year acceleration that the Army would address via an Above Threshold Reprogramming during fiscal year 2012. The Committee notes that the proposed acceleration is high-risk with respect to technical effort and schedule, and is not rooted in a firm requirement. Therefore, the Committee recommendation denies funds added in support of the proposed acceleration, and recommends retaining the current program schedule.

Aircraft Avionics.—The fiscal year 2012 budget request includes $144,700,000 in Program Element 0604201A for no less than seven aircraft avionics programs. This program element is programmed to increase to over $200,000,000 in fiscal year 2014. Yet the programs funded within this program element are not identified or funded as distinct and separate projects, hampering programmatic oversight and making tracking of financial execution difficult. The Committee directs the Army to establish with the fiscal year 2013 budget submission separate project codes for each project in this program element.

Armed Scout Helicopter [ASH] and OH–58 Kiowa Warrior Upgrades.—The fiscal year 2012 budget request includes $78,690,000 for the Armed Scout Helicopter, of which $73,929,000 is for a Technology Development contract award. The Committee notes that despite completing the Analysis of Alternatives in early fiscal year 2011, the Army does not intend to award the Technology Development contract until fiscal year 2013. Therefore, the Committee recommends denying the funds requested for the Technology Development contract as early to need. The fiscal year 2012 budget request also includes $70,400,000 in Research, Development, Test and Evaluation, Army to continue upgrading the OH–58 Kiowa Warrior, an increase of $17,000,000 over amounts appropriated for that purpose in fiscal year 2011. The Committee recognizes that as a result of the termination of the Comanche in 2004 and the subsequent termination of its successor program in 2008, the Armed Reconnaissance Helicopter, the Kiowa will remain in the fleet longer than previously planned. As such, the Committee has supported Kiowa modernization initiatives in recent years. However, the Committee understands that the cumulative costs of various OH–58 Kiowa Warrior upgrade initiatives such as the Cockpit and Sensor Upgrade Program [CASUP] and multiple Engineering Change Proposals are close to or exceed the costs of buying new aircraft. The Committee questions whether this is a prudent investment in 40-year-old airframes. Therefore, the Committee recommends funding Kiowa Warrior upgrades at a steady state until the Army defines the way ahead for its Armed Scout requirement.

Integrated Electronic Warfare Systems [IEWS].—The fiscal year 2012 budget request includes $7,393,000 to initiate the Integrated Electronic Warfare Systems program. The Committee notes that

the Army has programmed more than $516,000,000 for this program in the next 5 years. The Committee also notes that the Navy is the Department's Executive Agent and single manager for Counter Radio-Controlled Improvised Explosive Device Electronic Warfare [JCREW] and that a recent Department of Defense Inspector General report documented a significant disconnect between the Army's and the Department's JCREW programs. The Committee does not believe it is prudent to initiate a new program of this magnitude that has such significant overlap with the Department's program of record and recommends denying the requested funds.

Common Infrared Countermeasures [CIRCM].—The fiscal year 2012 budget request includes $67,200,000 for CIRCM. The Committee notes that the program is delayed by 1 year and that the Army intends to carry over $73,000,000 of fiscal year 2011 CIRCM funding into fiscal year 2012. Therefore, the Committee recommends denying the fiscal year 2012 request.

Competitive High Mobility Multipurpose Wheeled Vehicle [HMMWV] Recapitalization [RECAP].—The fiscal year 2012 budget request includes no funds in Research, Development, Test and Evaluation, Army for the Competitive HMMWV recap program, formally known as the Modernized Expanded Capability Vehicle [MECV], despite the fact that this requirement was identified and validated as early as February 2010, well in time before the fiscal year 2012 budget submission. The purpose of the MECV program is to provide the Army with production-ready options to modernize and sustain the Up-armored HMMWV fleet beyond current capabilities. The congressional defense committees have approved multiple Above Threshold Reprogrammings in support of this program, which will take a non-developmental approach and enter production in fiscal year 2013. The Committee understands that the Army's current unfunded requirement is $20,000,000 and recommends redirecting funds from other, longer-term programs to this immediate, near-term need. The Committee notes that the MECV is a joint Army-Marine Corps program with synchronized schedules. The Marine Corps requirement of the program, the HMMWV Survivability Initiative, is fully funded elsewhere in this act.

Medium Extended Air Defense System [MEADS].—The fiscal year 2012 budget request includes $406,605,000 for MEADS, a tri-national cooperative air defense development program originally intended to replace the Army's Patriot System. With the submission of the fiscal year 2012 budget request, the Department of Defense announced that contrary to initial intent, the United States would not procure and field MEADS due to budget constraints. Instead, the Department is proposing to conduct a 2-year "Proof of Concept" of MEADS at a cost of $406,605,000 in fiscal year 2012 and $397,053,000 in fiscal year 2013. This "Proof of Concept" would culminate in two flight tests of the system. The Committee has been informed by the Department and the Army that conducting this "Proof of Concept" provides opportunities for the Army to harvest technologies for a competition of the much-needed modernization of its Patriot system. It would also allow our Allies to subsequently procure this system to address their capability gaps, thus reducing the burden on U.S. Forces.

In addition, the Committee has been informed by both the Department of Defense and the Army that unilaterally withdrawing from the MEADS Program would require the United States to pay a termination liability that is roughly equal to or greater than the cost of the proposed "Proof of Concept". According to the Department, the requirement for any one partner to pay the entire termination liability upon unilateral withdrawal was included in the 2004 Memorandum of Understanding [MOU] among the United States, Germany, and Italy that was submitted to Congress for approval in accordance with the Arms Export Control Act, and is habitually included in major international development programs, such as the F–16 Fighter or the Army's Excalibur programs, to protect U.S. interests in case our partners decide to unilaterally withdraw from joint programs. The Committee has further been informed that both Germany and Italy have officially stated that they will not negotiate a multi-lateral termination of MEADS.

The Committee is concerned with the historical management of the MEADS program and that it has taken the Department 3 years, following the 2008 program Preliminary Design Review, to conclude that with a production delay of at least 4 years and a U.S. investment of $1,160,000,000 required in addition to the $804,000,000 budgeted in fiscal years 2012 and 2013, the program was simply unaffordable. As such, the Committee echoes the concerns voiced in section 807 of S. 1253, the National Defense Authorization Act of Fiscal Year 2012, as reported. Nevertheless, the Committee understands that despite the U.S. decision to not procure the MEADS system, the United States must fulfill its contractual obligations, and notes further that completing the "Proof of Concept" is the only way that the United States, and the Army in particular, can harvest any technologies for future U.S. requirements. Therefore, the Committee recommends full funding for the MEADS "Proof of Concept", as requested.

Ground Combat Vehicle [GCV].—The fiscal year 2012 budget request includes $884,400,000 to continue Technology Development [TD] of the Ground Combat Vehicle. The Committee notes that following an Army review of the program's requirements, the GCV program was restructured in August 2010, and up to three TD contracts were scheduled for award in March 2011. Fully supporting the Army's revised acquisition strategy, Congress provided $461,100,000 for the restructured program in fiscal year 2011, as requested by the Army. Of those funds, $200,000,000 was awarded for two TD contracts in August 2011, 5 months behind schedule. The Committee notes that this schedule delay is further exacerbated by a protest of the TD contract awards, which will result in the fiscal year 2011 funds being carried over to fiscal year 2012. The Committee further notes that following a program review by the Office of Secretary of Defense in August 2011, the Army was directed to assess numerous existing alternative vehicles and to redo its Analysis of Alternatives. These two efforts would occur simultaneously with the TD phase of the program. According to the Department's acquisition regulations, an Analysis of Alternatives should be completed prior to a program achieving milestone A and entering TD to ensure that the TD phase incorporates the findings and outcomes of the Analysis of Alternatives. Initiating and signifi-

cantly ramping up the TD phase, as the Army proposes, while conducting another Analysis of Alternatives creates significant risk to requirements and costs by failing to ensure that the Analysis of Alternatives informs TD.

In addition, the Committee remains concerned with the program's current overall cost estimates relative to its small impact on the Army's combat vehicle fleet. The Army plans to procure only 1,874 GCVs to replace half of its Bradley fleet at a cost of nearly $13,000,000 per vehicle, with some estimates showing projected costs of $16,000,000–$17,000,000 per vehicle; however, the Army's combat vehicle fleet exceeds 25,000 vehicles, and the Army's combat vehicle modernization program has now been delayed for nearly 5 years, despite Congress providing full funding each year since its inception. Given the limited niche the GCV will fill within the Army's overall combat vehicle portfolio, the Committee is concerned over the affordability of the GCV program in this challenging fiscal environment. However, the Committee understands that this is an important program to the Army's modernization efforts, and therefore recommends a fiscal year 2012 appropriation that is consistent with prior year execution.

Army Test Ranges and Facilities.—The fiscal year 2012 budget request includes $262,456,000 for Army Test Ranges and Facilities in Program Element 0605601A, a decrease of $150,000,000 from amounts appropriated in fiscal year 2011. The Committee notes that the fiscal year 2012 budget request was not certified adequate as required by the fiscal year 2003 National Defense Authorization Act, and that the Army's fiscal year 2012 shortfall is $100,000,000. The Committee is greatly concerned by attempts to balance budgets through reductions to test assets. Therefore, the Committee recommends an additional $50,000,000, as authorized in S. 1253, National Defense Authorization Act for Fiscal Year 2012, as reported. Further, the Committee has included a General Provision directing the Army to transfer an additional $50,000,000 from within available funding to Army Test Ranges and Facilities. The Committee notes that this is not the first time that Army Test Ranges and Facilities have been underfunded and re-emphasizes the importance of fully funding test activities.

Weapons Capability Modifications Unmanned Aerial Vehicle [UAV].—The fiscal year 2012 budget request includes $24,142,000 to initiate a new start program in support of an emerging Army requirement for intelligence, surveillance and reconnaissance [ISR] platforms operating in and near unfriendly territories. The Committee notes that the justification materials are incomplete and are inconsistent with subsequently provided briefing materials. Further, the Committee notes that a joint Analysis of Alternatives being conducted with the Navy has been delayed. Therefore, the Committee recommends denying funds requested beyond those required to complete the Analysis of Alternatives.

Armored Multi Purpose Vehicle [AMPV].—The fiscal year 2012 budget request includes $31,400,000 to initiate the Armored Multi Purpose Vehicle, which is intended to replace the M 113 Family of Vehicles. The Army intends to spend close to $300,000,000 in research, development, test and evaluation over the next 5 years and to procure the first AMPV in fiscal year 2016. The Committee notes

that numerous studies have shown that material solutions currently exist to replace the aging M–113 and therefore questions the rationale for initiating another new development program at this time. Therefore, the Committee recommends denying the budget request for the AMPV.

Prototype Integration Facility.—The Army Prototype Integration Facility [PIF] is a key enterprise asset in supporting Overseas Contingency Operations. The Committee notes that since 2002, the PIF has executed in excess of $1,800,000,000 in rapid response, quick reaction and high priority weapons system hardware and services support to the warfighter. PIF operations have become more extensive, more sophisticated and are carried out at more locations since its inception. The Committee believes that this requires a better system of managing PIF operations and production. The PIF does not receive mission or program budget funds and relies on customer funding to execute specific weapon system program requirements. The Committee encourages the Army to support upgrades to the PIF, including an enterprise resource planning system that will increase productivity, reduce overall costs, improve schedules and tracking, enhance cost accountability and support multiple warfighter rapid response tasks.

Standardized, Light-Weight Power Sources.—The Committee notes that increasingly sophisticated weapon systems require troops to carry a heavy load of various types of batteries to power a multitude of electronic devices. The Committee further notes that the lack of uniform standards and the inability to switch out power supplies among devices necessitates additional batteries be carried during missions, which may ultimately limit the warfighter's effectiveness and survivability. The Committee believes that troops would benefit from a standardized, lightweight power source that can be used interchangeably among various commonly used devices. The Committee directs the Secretary of the Army to submit a report to the congressional defense committees no later than 180 days after enactment of this act on the batteries used in portable military electronic devices in the current and future Department of Defense inventory, with an emphasis on the AA and AAA form factor, and their potential configuration into multi-cell battery packs. Performance metrics and testing should include safety, specific energy and weight, operational capability in high and low temperature extremes, resistance to leakage in extreme operating conditions involving shocks, drops and vibration, battery shelf life, their life cycle cost, maintenance, disposal, and U.S. production availability.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY

Appropriations, 2011	$17,736,303,000
Budget estimate, 2012	17,956,431,000
House allowance	17,798,950,000
Committee recommendation	17,406,689,000

The Committee recommends an appropriation of $17,406,689,000. This is $549,742,000 below the budget estimate.

COMMITTEE RECOMMENDED PROGRAM

The following table summarizes the budget estimate for this appropriation, the Committee recommendation, and the Committee recommended adjustments to the budget estimate:

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY					
	BASIC RESEARCH					
1	UNIVERSITY RESEARCH INITIATIVES	113,157	133,157	113,157	.....	−20,000
2	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	18,092	18,092	18,092	.....	.....
3	DEFENSE RESEARCH SCIENCES	446,123	446,123	456,123	+10,000	+10,000
	TOTAL, BASIC RESEARCH	577,372	597,372	587,372	+10,000	−10,000
	APPLIED RESEARCH					
4	POWER PROJECTION APPLIED RESEARCH	104,804	104,804	104,804	.....	.....
5	FORCE PROTECTION APPLIED RESEARCH	156,901	156,901	196,901	+40,000	+40,000
6	MARINE CORPS LANDING FORCE TECHNOLOGY	44,845	44,845	44,845	.....	.....
8	COMMON PICTURE APPLIED RESEARCH	65,448	65,448	65,448	.....	.....
9	WARFIGHTER SUSTAINMENT APPLIED RESEARCH	101,205	101,205	101,205	.....	.....
10	RF SYSTEMS APPLIED RESEARCH	108,329	108,329	108,329	.....	.....
11	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH	50,076	50,076	50,076	.....	.....
12	JOINT NON-LETHAL WEAPONS APPLIED RESEARCH	5,937	5,937	5,937	.....	.....
13	UNDERSEA WARFARE APPLIED RESEARCH	108,666	108,666	108,666	.....	.....
14	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH	37,583	37,583	37,583	.....	.....
	TOTAL, APPLIED RESEARCH	783,794	783,794	823,794	+40,000	+40,000
	ADVANCED TECHNOLOGY DEVELOPMENT					
15	POWER PROJECTION ADVANCED TECHNOLOGY	114,270	114,270	114,270	.....	.....
16	FORCE PROTECTION ADVANCED TECHNOLOGY	64,057	45,234	45,234	−18,823	.....
17	COMMON PICTURE ADVANCED TECHNOLOGY	49,068	49,068	49,068	.....	.....
18	WARFIGHTER SUSTAINMENT ADVANCED TECHNOLOGY	71,232	71,232	71,232	.....	.....
19	ELECTROMAGNETIC SYSTEMS ADVANCED TECHNOLOGY	102,535	102,535	122,535	+20,000	+20,000
20	MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD)	124,324	124,324	124,324	.....	.....
21	JOINT NON-LETHAL WEAPONS TECHNOLOGY DEVELOPMENT	11,286	11,286	11,286	.....	.....
22	WARFIGHTER PROTECTION ADVANCED TECHNOLOGY	18,119	56,819	18,119	.....	−38,700
23	UNDERSEA WARFARE ADVANCED TECHNOLOGY	37,121	42,121	37,121	.....	−5,000
24	NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS	50,157	50,157	50,157	.....	.....
25	MINE AND EXPEDITIONARY WARFARE ADVANCED TECHNOLOGY	6,048	6,048	6,048	.....	.....
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	648,217	673,094	649,394	+1,177	−23,700

	DEMONSTRATION & VALIDATION					
26	AIR/OCEAN TACTICAL APPLICATIONS	94,972	84,972	73,672	−21,300	−11,300
27	AVIATION SURVIVABILITY	10,893	10,893	10,893		
28	DEPLOYABLE JOINT COMMAND AND CONTROL	3,702	3,702	3,702		
29	AIRCRAFT SYSTEMS	10,497	10,497	10,497		
30	ASW SYSTEMS DEVELOPMENT	7,915	7,915	7,915		
31	TACTICAL AIRBORNE RECONNAISSANCE	5,978	5,978	5,978		
32	ADVANCED COMBAT SYSTEMS TECHNOLOGY	1,418	1,418	1,418		
33	SURFACE AND SHALLOW WATER MINE COUNTERMEASURES	142,657	121,657	142,657		+21,000
34	SURFACE SHIP TORPEDO DEFENSE	118,764	118,764	118,764		
35	CARRIER SYSTEMS DEVELOPMENT	54,072	54,072	54,072		
37	PILOT FISH	96,012	96,012	96,012		
38	RETRACT LARCH	73,421	73,421	73,421		
39	RETRACT JUNIPER	130,267	130,267	130,267		
40	RADIOLOGICAL CONTROL	1,338	1,338	1,338		
41	SURFACE ASW	29,797	29,797	29,797		
42	ADVANCED SUBMARINE SYSTEM DEVELOPMENT	856,326	856,326	861,706	+5,380	+5,380
43	SUBMARINE TACTICAL WARFARE SYSTEMS	9,253	9,253	9,253		
44	SHIP CONCEPT ADVANCED DESIGN	14,308	14,308	14,308		
45	SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES	22,213	22,213	22,213		
46	ADVANCED NUCLEAR POWER SYSTEMS	463,683	463,683	463,683		
47	ADVANCED SURFACE MACHINERY SYSTEMS	18,249	18,249	18,249		
48	CHALK EAGLE	584,159	584,159	584,159		
49	LITTORAL COMBAT SHIP (LCS)	286,784	296,784	282,784	−4,000	−14,000
50	COMBAT SYSTEM INTEGRATION	34,157	34,157	34,157		
51	CONVENTIONAL MUNITIONS	4,753	4,753	4,753		
52	MARINE CORPS ASSAULT VEHICLES	12,000	12,000	37,000	+25,000	+25,000
53	MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM	79,858	79,858	8,011	−71,847	−71,847
54	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	33,654	33,654	33,654		
55	COOPERATIVE ENGAGEMENT	54,783	54,783	54,783		
56	OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT	9,996	9,996	9,996		
57	ENVIRONMENTAL PROTECTION	21,714	21,714	21,714		
58	NAVY ENERGY PROGRAM	70,538	70,538	70,538		
59	FACILITIES IMPROVEMENT	3,754	3,754	3,754		
60	CHALK CORAL	79,415	79,415	79,415		
61	NAVY LOGISTIC PRODUCTIVITY	4,137	4,137	4,137		
62	RETRACT MAPLE	276,383	276,383	276,383		
63	LINK PLUMERIA	52,721	52,721	52,721		
64	RETRACT ELM	160,964	160,964	148,964	−12,000	−12,000
66	LINK EVERGREEN	144,985	144,985	144,985		

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
67	SPECIAL PROCESSES	43,704	43,704	43,704	.....	.....
68	NATO RESEARCH AND DEVELOPMENT	9,140	9,140	9,140	.....	.....
69	LAND ATTACK TECHNOLOGY	421	421	421	.....	.....
70	NONLETHAL WEAPONS	40,992	40,992	40,992	.....	.....
71	JOINT PRECISION APPROACH AND LANDING SYSTEMS	121,455	118,255	121,455	.....	+3,200
75	TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES	64,107	64,107	64,107	.....	.....
76	ASE SELF-PROTECTION OPTIMIZATION	711	711	711	.....	.....
77	JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE	62,044	62,044	62,044	.....	.....
78	PRECISION STRIKE WEAPONS DEVELOPMENT PROGRAM	22,665	3,450	4,450	−18,215	+1,000
79	SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE	33,621	33,621	33,621	.....	.....
80	ASW SYSTEMS DEVELOPMENT—MIP	1,078	1,078	1,078	.....	.....
82	ELECTRONIC WARFARE DEVELOPMENT—MIP	625	625	625	.....	.....
	TOTAL, DEMONSTRATION & VALIDATION	4,481,053	4,437,638	4,384,071	−96,982	−53,567
	ENGINEERING & MANUFACTURING DEVELOPMENT					
83	OTHER HELO DEVELOPMENT	35,651	35,651	70,651	+35,000	+35,000
84	AV–8B AIRCRAFT—ENG DEV	30,676	30,676	30,676	.....	.....
85	STANDARDS DEVELOPMENT	51,191	49,491	51,191	.....	+1,700
86	MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT	17,673	17,673	17,673	.....	.....
87	AIR/OCEAN EQUIPMENT ENGINEERING	5,922	5,922	5,922	.....	.....
88	P–3 MODERNIZATION PROGRAM	3,417	3,417	3,417	.....	.....
89	WARFARE SUPPORT SYSTEM	9,944	9,944	9,944	.....	.....
90	TACTICAL COMMAND SYSTEM	81,257	81,257	77,257	−4,000	−4,000
91	ADVANCED HAWKEYE	110,994	110,994	130,994	+20,000	+20,000
92	H–1 UPGRADES	72,569	67,569	72,569	.....	+5,000
93	ACOUSTIC SEARCH SENSORS	56,509	48,898	56,509	.....	+7,611
94	V–22A	84,477	84,477	84,477	.....	.....
95	AIR CREW SYSTEMS DEVELOPMENT	3,249	3,249	3,249	.....	.....
96	EA–18	17,100	17,100	17,100	.....	.....
97	ELECTRONIC WARFARE DEVELOPMENT	89,418	89,418	89,418	.....	.....
98	VH–71A EXECUTIVE HELO DEVELOPMENT	180,070	160,070	60,770	−119,300	−99,300
99	NEXT GENERATION JAMMER (NGJ)	189,919	189,919	154,919	−35,000	−35,000
100	JOINT TACTICAL RADIO SYSTEM—NAVY (JTRS—NAVY)	688,146	635,146	619,146	−69,000	−16,000
101	SURFACE COMBATANT COMBAT SYSTEM ENGINEERING	223,283	223,283	223,283	.....	.....
102	LPD–17 CLASS SYSTEMS INTEGRATION	884	884	884	.....	.....

103	SMALL DIAMETER BOMB (SDB)	47,635	47,635	29,635	−18,000	−18,000
104	STANDARD MISSILE IMPROVEMENTS	46,705	46,705	46,705		
105	AIRBORNE MCM	41,142	41,142	41,142		
106	NAVAL INTEGRATED FIRE CONTROL—COUNTER AIR SYSTEMS ENG	24,898	24,898	24,898		
107	FUTURE UNMANNED CARRIER-BASED STRIKE SYSTEM	121,150	81,150	51,150	−70,000	−30,000
108	ADVANCED ABOVE WATER SENSORS	227,358	227,358	247,358	+20,000	+20,000
109	SSN–688 AND TRIDENT MODERNIZATION	100,591	100,591	90,291	−10,300	−10,300
110	AIR CONTROL	5,521	5,521	5,521		
111	SHIPBOARD AVIATION SYSTEMS	45,445	45,445	45,445		
112	COMBAT INFORMATION CENTER CONVERSION	3,400	3,400	3,400		
113	NEW DESIGN SSN	97,235	112,235	97,235		−15,000
114	SUBMARINE TACTICAL WARFARE SYSTEM	48,466	48,466	48,466		
115	SHIP CONTRACT DESIGN/LIVE FIRE T&E	161,099	121,099	98,099	−63,000	−23,000
116	NAVY TACTICAL COMPUTER RESOURCES	3,848	3,848	3,848		
117	MINE DEVELOPMENT	3,933	3,933	3,933		
118	LIGHTWEIGHT TORPEDO DEVELOPMENT	32,592	32,592	32,592		
119	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	9,960	9,960	9,960		
120	PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS	12,992	12,992	12,992		
121	JOINT STANDOFF WEAPON SYSTEMS	7,506	7,506	7,506		
122	SHIP SELF DEFENSE (DETECT & CONTROL)	71,222	71,222	71,222		
123	SHIP SELF DEFENSE (ENGAGE: HARD KILL)	6,631	6,631	6,631		
124	SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)	184,095	184,095	184,095		
125	INTELLIGENCE ENGINEERING	2,217	2,217	2,217		
126	MEDICAL DEVELOPMENT	12,984	31,084	12,984		−18,100
127	NAVIGATION/ID SYSTEM	50,178	35,178	50,178		+15,000
128	JOINT STRIKE FIGHTER (JSF)—EMD	670,723	651,786	651,786	−18,937	
129	JOINT STRIKE FIGHTER (JSF)	677,486	658,549	658,549	−18,937	
130	INFORMATION TECHNOLOGY DEVELOPMENT	27,461	27,461	19,461	−8,000	−8,000
131	INFORMATION TECHNOLOGY DEVELOPMENT	58,764	58,764	29,764	−29,000	−29,000
132	NAVY INTEGRATED MILITARY HUMAN RESOURCES SYSTEM	55,050	55,050	55,050		
133	CH–53K	629,461	624,461	629,461		+5,000
135	JOINT AIR-TO-GROUND MISSILE (JAGM)	118,395	108,395	118,395		+10,000
136	MULTI-MISSION MARITIME AIRCRAFT (MMA)	622,713	632,713	608,713	−14,000	−24,000
138	DDG–1000	261,604	257,604	261,604		+4,000
139	TACTICAL COMMAND SYSTEM—MIP	979	979	979		
141	TACTICAL CRYPTOLOGIC SYSTEMS	31,740	31,740	31,740		
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	6,475,528	6,279,443	6,073,054	−402,474	−206,389
	RDT&E MANAGEMENT SUPPORT					
142	THREAT SIMULATOR DEVELOPMENT	28,318	28,318	28,318		

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
143	TARGET SYSTEMS DEVELOPMENT	44,700	44,700	44,700	.....	.....
144	MAJOR T&E INVESTMENT	37,957	37,957	37,957	.....	.....
145	JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION	2,970	2,970	2,970	.....	.....
146	STUDIES AND ANALYSIS SUPPORT—NAVY	23,454	23,454	17,454	−6,000	−6,000
147	CENTER FOR NAVAL ANALYSES	47,127	47,127	47,127	.....	.....
148	SMALL BUSINESS INNOVATIVE RESEARCH	10	10	10	.....	.....
149	TECHNICAL INFORMATION SERVICES	571	571	571	.....	.....
150	MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT	68,301	68,301	58,301	−10,000	−10,000
151	STRATEGIC TECHNICAL SUPPORT	3,277	3,277	3,277	.....	.....
152	RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT	73,917	73,917	73,917	.....	.....
153	RDT&E SHIP AND AIRCRAFT SUPPORT	136,531	136,531	136,531	.....	.....
154	TEST AND EVALUATION SUPPORT	335,367	335,367	335,367	.....	.....
155	OPERATIONAL TEST AND EVALUATION CAPABILITY	16,634	16,634	16,634	.....	.....
156	NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT	4,228	4,228	4,228	.....	.....
157	SEW SURVEILLANCE/RECONNAISSANCE SUPPORT	7,642	7,642	7,642	.....	.....
158	MARINE CORPS PROGRAM WIDE SUPPORT	25,655	25,655	25,655	.....	.....
159	TACTICAL CRYPTOLOGIC ACTIVITIES	2,764	2,764	2,764	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	859,423	859,423	843,423	−16,000	−16,000
	OPERATIONAL SYSTEMS DEVELOPMENT					
164	UNMANNED COMBAT AIR VEHICLE (UCAV) ADVANCED COMPONENT	198,298	198,298	198,298	.....	.....
165	MARINE CORPS COMBAT SERVICES SUPPORT	400	400	400	.....	.....
166	MARINE CORPS DATA SYSTEMS	1,650	1,650	1,650	.....	.....
167	STRATEGIC SUB & WEAPONS SYSTEM SUPPORT	88,873	88,873	88,873	.....	.....
168	SSBN SECURITY TECHNOLOGY PROGRAM	33,553	33,553	33,553	.....	.....
169	SUBMARINE ACOUSTIC WARFARE DEVELOPMENT	6,360	6,360	6,360	.....	.....
170	NAVY STRATEGIC COMMUNICATIONS	23,208	23,208	23,208	.....	.....
171	RAPID TECHNOLOGY TRANSITION (RTT)	30,021	30,021	30,021	.....	.....
172	F/A–18 SQUADRONS	151,030	145,161	151,030	.....	+5,869
173	E–2 SQUADRONS	6,696	6,696	6,696	.....	.....
174	FLEET TELECOMMUNICATIONS (TACTICAL)	1,739	1,739	1,739	.....	.....
175	SURFACE SUPPORT	3,377	3,377	3,377	.....	.....
176	TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC)	8,819	8,819	8,819	.....	.....
177	INTEGRATED SURVEILLANCE SYSTEM	21,259	21,259	21,259	.....	.....
178	AMPHIBIOUS TACTICAL SUPPORT UNITS	5,214	5,214	5,214	.....	.....

179	CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT	42,244	42,244	42,244	.....	.....
180	CRYPTOLOGIC DIRECT SUPPORT	1,447	1,447	1,447	.....	.....
181	ELECTRONIC WARFARE (EW) READINESS SUPPORT	18,142	18,142	18,142	.....	.....
182	HARM IMPROVEMENT	11,147	11,147	11,147	.....	.....
183	TACTICAL DATA LINKS	69,224	69,224	69,224	.....	.....
184	SURFACE ASW COMBAT SYSTEM INTEGRATION	22,010	29,510	22,010	.....	−7,500
185	MK–48 ADCAP	39,288	46,788	39,288	.....	−7,500
186	AVIATION IMPROVEMENTS	123,012	100,423	123,012	.....	+22,589
187	NAVY SCIENCE ASSISTANCE PROGRAM	1,957	1,957	1,957	.....	.....
188	OPERATIONAL NUCLEAR POWER SYSTEMS	82,705	82,705	82,705	.....	.....
189	MARINE CORPS COMMUNICATIONS SYSTEMS	320,864	320,864	320,864	.....	.....
190	MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS	209,396	184,396	159,396	−50,000	−25,000
191	MARINE CORPS COMBAT SERVICES SUPPORT	45,172	27,072	35,172	−10,000	+8,100
192	USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP)	14,101	14,101	14,101	.....	.....
193	TACTICAL AIM MISSILES	8,765	8,765	8,765	.....	.....
194	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)	2,913	2,913	2,913	.....	.....
195	JOINT HIGH SPEED VESSEL (JHSV)	4,108	4,108	4,108	.....	.....
200	SATELLITE COMMUNICATIONS (SPACE)	263,712	263,712	298,712	+35,000	+35,000
201	CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES	12,906	12,906	24,906	+12,000	+12,000
202	INFORMATION SYSTEMS SECURITY PROGRAM	25,229	25,229	40,229	+15,000	+15,000
203	WWMCCS/Global Command and Control System	1,250	1,250	1,250	.....	.....
204	CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES (MIP)	6,602	6,602	6,602	.....	.....
206	COBRA JUDY	40,605	40,605	40,605	.....	.....
207	NAVY METEOROLOGICAL AND OCEAN SENSORS—SPACE (METOC)	904	904	904	.....	.....
208	JOINT MILITARY INTELLIGENCE PROGRAMS	4,099	4,099	4,099	.....	.....
209	TACTICAL UNMANNED AERIAL VEHICLES	9,353	9,353	9,353	.....	.....
212	DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS	23,785	23,785	23,785	.....	.....
213	DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS	25,487	25,487	25,487	.....	.....
214	RQ–4 UAV	548,482	548,482	548,482	.....	.....
215	MQ–8 UAV	108,248	108,248	3,648	−104,600	−104,600
216	RQ–11 UAV	979	979	979	.....	.....
217	RQ–7 UAV	872	872	872	.....	.....
219	SMALL (LEVEL 0) TACTICAL UAS (STUASL0)	22,698	21,398	22,698	.....	+1,300
220	MEDIUM RANGE MARITIME UAS	15,000	15,000	33,800	+18,800	+18,800
221	RQ–21A	26,301	21,301	26,301	.....	+5,000
223	MODELING AND SIMULATION SUPPORT	8,292	8,292	8,292	.....	.....
224	DEPOT MAINTENANCE (NON-IF)	21,609	21,609	21,609	.....	.....
226	INDUSTRIAL PREPAREDNESS	54,031	54,031	54,031	.....	.....
227	MARITIME TECHNOLOGY (MARITECH)	5,000	5,000	5,000	.....	.....

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	2,822,436	2,759,578	2,738,636	−83,800	−20,942
999	CLASSIFIED PROGRAMS	1,308,608	1,408,608	1,306,945	−1,663	−101,663
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY	17,956,431	17,798,950	17,406,689	−549,742	−392,261

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Item	2011 budget estimate	Committee recommendation	Change from budget estimate
3	Defense Research Sciences	446,123	456,123	+10,000
	Nanotechnology Research			+10,000
5	Force Protection Applied Research	156,901	196,901	+40,000
	Alternative Energy			+40,000
16	Force Protection Advanced Technology	64,057	45,234	−18,823
	Navy-requested transfer to line 220 for MRMUAS			−18,823
19	Electromagnetic Systems Advanced Technology	102,535	122,535	+20,000
	Advanced Radar Innovation Fund			+20,000
26	Air/Ocean Tactical Applications	94,972	73,672	−21,300
	JMAPS unjustified request			−21,300
42	Advanced Submarine System Development	856,326	861,706	+5,380
	Navy-requested transfer from line 109 for submarine battery development			+5,380
49	Littoral Combat Ship (LCS)	286,784	282,784	−4,000
	Defer development of Irregular Warfare mission package			−4,000
52	Marine Corps Assault Vehicles	12,000	37,000	+25,000
	Marine Corps-requested transfer from line 190			+25,000
53	Marine Corps Ground Combat/Support System	79,858	8,011	−71,847
	JLTV Termination			−71,847
64	RETRACT ELM	160,964	148,964	−12,000
	Classified Adjustment			−12,000
78	Precision Strike Weapons Development Program	22,665	4,450	−18,215
	FMU–164 fuze program termination			−18,215
83	Other Helo Development	35,651	70,651	+35,000
	Navy requested transfer from line 98 for VH–3/VH–60 sustainment			+35,000
90	Tactical Command System	81,257	77,257	−4,000
	NTCSS—reduce program growth			−4,000
91	Advanced Hawkeye	110,994	130,994	+20,000
	Advanced Radar Innovation Fund			+20,000
98	VH–71A Executive Helo Development	180,070	60,770	−119,300
	Navy requested transfer to line 83			−35,000
	Navy requested transfer to APN line 47			−35,000
	Early to need			−49,300
99	Next Generation Jammer (NGJ)	189,919	154,919	−35,000
	Technology Development late contract award			−35,000
100	Joint Tactical Radio System—Navy (JTRS-Navy)	688,146	619,146	−69,000
	Transfer from OPA, line 39 for GMR correction of deficiencies			+51,000
	Unjustified request: HMS capability enhancements			−120,000
103	Small Diameter Bomb (SDB)	47,635	29,635	−18,000
	Defer integration on Joint Strike Fighter			−18,000
107	Future Unmanned Carrier-based Strike System	121,150	51,150	−70,000
	Delay to Technology Development contract award			−70,000
108	Advanced Above Water Sensors	227,358	247,358	+20,000
	Advanced Radar Innovation Fund			+20,000
109	SSN–688 and Trident Modernization	100,591	90,291	−10,300
	TB–33 program cancellation			−4,920
	Navy-requested transfer to line 42 for submarine battery development			−5,380
115	Ship Contract Design/Live Fire T&E	161,099	98,099	−63,000
	Ship-to-Shore Connector—contract award delay			−63,000
128	Joint Strike Fighter (JSF)—EMD	670,723	651,786	−18,937
	Block IV development ahead of need			−18,937
129	Joint Strike Fighter (JSF)	677,486	658,549	−18,937
	Block IV development ahead of need			−18,937
130	Information Technology Development	27,461	19,461	−8,000
	Program underexecution			−8,000

[In thousands of dollars]

Line	Item	2011 budget estimate	Committee recommendation	Change from budget estimate
131	Information Technology Development	58,764	29,764	−29,000
	Reduction to fourth quarter contract awards			−29,000
136	Multi-mission Maritime Aircraft (MMA)	622,713	608,713	−14,000
	Increment 3—development ahead of need			−14,000
146	Studies and Analysis Support—Navy	23,454	17,454	−6,000
	Reduction to growth			−6,000
150	Management, Technical & International Support	68,301	58,301	−10,000
	OASUW—defer new start			−10,000
190	Marine Corps Ground Combat/Supporting Arms Systems	209,396	159,396	−50,000
	Marine Corps-requested transfer to line 52			−25,000
	AAV Upgrade Program—excess to need			−10,000
	Marine Personnel Carrier—ahead of need			−15,000
191	Marine Corps Combat Services Support	45,172	35,172	−10,000
	HMMWV Survivability Initiative—funding in excess of cost share with Army-led program			−10,000
200	Satellite Communications (SPACE)	263,712	298,712	+35,000
	Alternative protected SATCOM terminal development—transfer from RDTE, Air Force line 175			+35,000
201	Consolidated Afloat Network Enterprise Services (CANES)	12,906	24,906	+12,000
	Navy-requested transfer from OPN line 68			+12,000
202	Information Systems Security Program	25,229	40,229	+15,000
	Cyber Security Research			+15,000
215	MQ–8 UAV	108,248	3,648	−104,600
	ECP for SOCOM urgent needs statement—transfer to Title IX			−104,600
220	Medium Range Maritime UAS	15,000	33,800	+18,800
	Navy-requested transfer from line 16 for MRMUAS			+18,800
	CLASSIFIED	1,308,608	1,306,945	−1,663
	Program Adjustment			−1,663

Alternative Fuels and Service Craft.—The Committee commends the Department of the Navy for its commitment to deploy a carrier strike group by 2016 which would be powered entirely by alternative fuels. The Committee directs the Secretary of the Navy to submit a report to the congressional defense committees within 180 days of enactment of this act on plans to include the service craft fleet as part of this initiative, including a description of plans to test and certify alternative fuels on the service craft fleet.

Assessment of Data Archives.—The digitization, storage, security, and access to data archives is an important aspect of improving the efficiency of the Department of the Navy. The Committee urges the Secretary of the Navy to assess the state of data archives of such naval commands as he may direct, in order to establish an inventory of digitization, encryption, and retrieval services to guide future investment decisions.

Advanced Radar Innovation Fund.—The proliferation of advanced threats across all domains, including sub-surface, surface, air, and space, poses unique challenges for the future of the Navy. As one of the pillars of the Nation's expeditionary capabilities, our naval forces must be able to detect, track, classify, and counter a wide range of potential threats that challenge current sensors. The ability to detect threats as diverse as an adversary's periscope in the open ocean, small and slow-moving unmanned aerial vehicles, stealthy aircraft, and advanced missile threats are essential to the Navy's combat capabilities.

The Committee is aware of significant advances in radar capabilities in each of these areas but remains concerned about the

need to enhance current sensor platforms and prepare for future technological advances in a manner that is affordable and flexible. Therefore, the Committee recommends an increase of $60,000,000 for an Advanced Radar Innovation Fund to advance naval radar capabilities.

The fund includes $20,000,000 for the Office of Naval Research to accelerate future capabilities; $20,000,000 for surface ship radar improvements; and $20,000,000 for enhancements to airborne early warning capabilities. The Department of the Navy is directed to apply these funds to innovative technologies that show promise for capability enhancements and affordability through the use of open architectures and competition.

Directed Energy.—The Committee notes the proliferation of small boat, unmanned aerial vehicle, and missile threats to the fleet. Recent demonstrations have shown the promise of directed energy weapons to counter these threats. The Committee directs the Secretary of the Navy to report to the congressional defense committees within 180 days of enactment of this act on the possibility of near-term operational use of directed energy systems to counter these threats, a description of the various directed energy capabilities, and a roadmap for integrating such weapons on DDG–51 Flight III ships.

Joint Tactical Radio Systems.—The budget request includes $688,146,000 for the development of Joint Tactical Radio Systems, including $179,117,000 for development of Handheld, Manpack, and Small Form Fit Radio [HMS] programs. These funds are primarily to address deficiencies in the Manpack system as well as to integrate new capabilities on the radios. The Committee understands that the new capabilities were added to the fiscal year 2012 budget request, and the requirements documents were subsequently changed to adopt the new capabilities as part of the program baseline.

Virtually every recent review and study on how to improve the efficiency of acquisition programs has concluded that stability of requirements is a necessary component to mitigating risk, reducing concurrency, managing cost, and delivering success. The spiral of additional capabilities into the HMS program is not advisable until the baseline capabilities of each HMS system have been tested and validated.

The Committee attempted to ascertain how much of the fiscal year 2012 request is required to support the HMS program without the new requirements; however, the Army and the Joint Program Office were unable to provide an estimate of those costs. The recommendation therefore includes a reduction of $120,000,000 due to unjustified program growth. The remaining funds provide an increase of approximately 50 percent to the program in fiscal year 2012, as compared to the $40,689,000 appropriated in the Department of Defense Appropriations Act, 2011.

LHA 8 Amphibious Assault Ship.—The fiscal year 2012 budget request includes $26,702,000 for LHA 8 amphibious assault ship preliminary design efforts. The Committee is aware that the Department of the Navy plans to reintroduce a well deck and optimize the aviation capability of LHA 8, which is planned for procurement in fiscal year 2016. Considering growing fiscal pressure on the na-

tional defense budget and increasing amphibious assault ship demands from combatant commanders for contingency operations, theater security cooperation, humanitarian assistance, and conventional deterrence missions, the Committee believes it is essential that LHA 8 be introduced in the most cost effective manner. Therefore, the Committee directs the Department of the Navy to fully fund advance planning and design of LHA 8 and work with industry to identify affordability and producibility strategies that will lead to more efficient construction of a large deck amphibious assault ship to best meet combatant commander needs.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE

Appropriations, 2011	$26,517,405,000
Budget estimate, 2012	27,737,701,000
House allowance	26,313,196,000
Committee recommendation	26,007,694,000

The Committee recommends an appropriation of $26,007,694,000. This is $1,730,007,000 below the budget estimate.

COMMITTEE RECOMMENDED PROGRAM

The following table summarizes the budget estimate for this appropriation, the Committee recommendation, and the Committee recommended adjustments to the budget estimate:

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE					
	BASIC RESEARCH					
1	DEFENSE RESEARCH SCIENCES	364,328	364,328	364,328	.....	.....
2	UNIVERSITY RESEARCH INITIATIVES	140,273	140,273	155,273	+15,000	+15,000
3	HIGH ENERGY LASER RESEARCH INITIATIVES	14,258	14,258	14,258	.....	.....
	TOTAL, BASIC RESEARCH	518,859	518,859	533,859	+15,000	+15,000
	APPLIED RESEARCH					
4	MATERIALS	136,230	136,230	146,230	+10,000	+10,000
5	AEROSPACE VEHICLE TECHNOLOGIES	147,628	147,628	147,628	.....	.....
6	HUMAN EFFECTIVENESS APPLIED RESEARCH	86,663	86,663	86,663	.....	.....
7	AEROSPACE PROPULSION	207,508	207,508	207,508	.....	.....
8	AEROSPACE SENSORS	134,787	134,787	134,787	.....	.....
9	SPACE TECHNOLOGY	115,285	70,785	115,285	.....	+44,500
10	CONVENTIONAL MUNITIONS	60,692	60,692	60,692	.....	.....
11	DIRECTED ENERGY TECHNOLOGY	111,156	111,156	141,156	+30,000	+30,000
12	DOMINANT INFORMATION SCIENCES AND METHODS	127,866	127,866	127,866	.....	.....
13	HIGH ENERGY LASER RESEARCH	54,059	54,059	54,059	.....	.....
	TOTAL, APPLIED RESEARCH	1,181,874	1,137,374	1,221,874	+40,000	+84,500
	ADVANCED TECHNOLOGY DEVELOPMENT					
14	ADVANCED MATERIALS FOR WEAPON SYSTEMS	39,738	39,738	64,738	+25,000	+25,000
15	SUSTAINMENT SCIENCE AND TECHNOLOGY (S&T)	5,780	5,780	5,780	.....	.....
16	ADVANCED AEROSPACE SENSORS	53,075	63,075	53,075	.....	−10,000
17	AEROSPACE TECHNOLOGY DEV/DEMO	67,474	67,474	67,474	.....	.....
18	AEROSPACE PROPULSION AND POWER TECHNOLOGY	120,953	120,953	120,953	.....	.....
19	ELECTRONIC COMBAT TECHNOLOGY	22,268	22,268	22,268	.....	.....
20	ADVANCED SPACECRAFT TECHNOLOGY	74,636	39,236	74,636	.....	+35,400
21	MAUI SPACE SURVEILLANCE SYSTEM (MSSS)	13,555	13,555	13,555	.....	.....
22	HUMAN EFFECTIVENESS ADVANCED TECHNOLOGY DEVELOPMENT	25,319	25,319	25,319	.....	.....
23	CONVENTIONAL WEAPONS TECHNOLOGY	54,042	54,042	45,542	−8,500	−8,500
24	ADVANCED WEAPONS TECHNOLOGY	28,683	28,683	48,683	+20,000	+20,000
25	MANUFACTURING TECHNOLOGY PROGRAM	40,103	40,103	40,103	.....	.....
26	BATTLESPACE KNOWLEDGE DEVELOPMENT & DEMONSTRATION	38,656	38,656	38,656	.....	.....

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
27	HIGH ENERGY LASER ADVANCED TECHNOLOGY PROGRAM	1,122	1,122	1,122	.....	.....
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	585,404	560,004	621,904	+36,500	+61,900
	ADVANCED COMPONENT DEVELOPMENT					
28	INTELLIGENCE ADVANCED DEVELOPMENT	4,013	4,013	4,013	.....	.....
29	PHYSICAL SECURITY EQUIPMENT	3,586	3,586	3,586	.....	.....
31	ADVANCED EHF MILSATCOM (SPACE)	421,687	354,487	421,687	.....	+67,200
32	POLAR MILSATCOM (SPACE)	122,991	122,991	102,991	−20,000	−20,000
33	SPACE CONTROL TECHNOLOGY	45,755	45,755	45,755	.....	.....
34	COMBAT IDENTIFICATION TECHNOLOGY	38,496	28,496	38,496	.....	+10,000
35	NATO RESEARCH AND DEVELOPMENT	4,424	4,424	4,424	.....	.....
36	INTERNATIONAL SPACE COOPERATIVE R&D	642	642	642	.....	.....
37	SPACE PROTECTION PROGRAM (SPP)	9,819	4,819	9,819	.....	+5,000
38	INTEGRATED BROADCAST SERVICE	20,046	20,046	20,046	.....	.....
39	INTERCONTINENTAL BALLISTIC MISSILE	67,202	67,202	72,202	+5,000	+5,000
40	WIDEBAND GAPFILLER SYSTEM RDT&E (SPACE)	12,804	12,804	12,804	.....	.....
41	POLLUTION PREVENTION (DEM/VAL)	2,075	2,075	2,075	.....	.....
42	JOINT PRECISION APPROACH AND LANDING SYSTEMS	20,112	20,112	20,112	.....	.....
43	NEXT GENERATION BOMBER	197,023	297,023	197,023	.....	−100,000
44	BATTLE MGMT COM & CTRL SENSOR DEVELOPMENT	60,250	60,250	31,250	−29,000	−29,000
45	TECHNOLOGY TRANSFER	2,553	2,553	2,553	.....	.....
46	HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM	38,248	28,248	31,248	−7,000	+3,000
47	JOINT DUAL ROLE AIR DOMINANCE MISSILE	29,759	29,759	29,759	.....	.....
48	REQUIREMENTS ANALYSIS AND MATURATION	24,217	24,217	24,217	.....	.....
50	GROUND ATTACK WEAPONS FUZE DEVELOPMENT	24,467	24,467	24,467	.....	.....
53	OPERATIONALLY RESPONSIVE SPACE	86,543	29,543	111,543	+25,000	+82,000
54	TECH TRANSITION PROGRAM	2,773	2,773	2,773	.....	.....
55	NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SAT	444,900	225,000	150,000	−294,900	−75,000
55A	WEATHER SATELLITE FOLLOW-ON	.....	.....	250,000	+250,000	+250,000
	TOTAL, ADVANCED COMPONENT DEVELOPMENT	1,684,385	1,415,285	1,613,485	−70,900	+198,200
	ENGINEERING & MANUFACTURING DEVELOPMENT					
56	GLOBAL BROADCAST SERVICE (GBS)	5,680	5,680	5,680	.....	.....
57	NUCLEAR WEAPONS SUPPORT	18,538	18,538	18,538	.....	.....

58	SPECIALIZED UNDERGRADUATE FLIGHT TRAINING	21,780	21,780	21,780	.....	.....
59	ELECTRONIC WARFARE DEVELOPMENT	26,880	26,880	16,880	−10,000	−10,000
61	TACTICAL DATA NETWORKS ENTERPRISE	52,355	51,355	48,105	−4,250	−3,250
62	PHYSICAL SECURITY EQUIPMENT	51	51	51	.....	.....
63	SMALL DIAMETER BOMB (SDB)	132,891	132,891	132,891	.....	.....
64	COUNTERSPACE SYSTEMS	31,913	31,913	31,913	.....	.....
65	SPACE SITUATION AWARENESS SYSTEMS	273,689	221,089	261,089	−12,600	+40,000
66	AIRBORNE ELECTRONIC ATTACK	47,100	47,100	39,000	−8,100	−8,100
67	SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD	621,629	621,629	621,629	.....	.....
69	ARMAMENT/ORDNANCE DEVELOPMENT	10,055	10,055	6,055	−4,000	−4,000
70	SUBMUNITIONS	2,427	2,427	2,427	.....	.....
71	AGILE COMBAT SUPPORT	11,878	11,878	3,920	−7,958	−7,958
73	LIFE SUPPORT SYSTEMS	11,280	11,280	9,280	−2,000	−2,000
74	COMBAT TRAINING RANGES	28,106	28,106	8,106	−20,000	−20,000
75	INTEGRATED COMMAND & CONTROL APPLICATIONS (IC2A)	10	10	10	.....	.....
76	INTELLIGENCE EQUIPMENT	995	995	995	.....	.....
77	JOINT STRIKE FIGHTER (JSF)	1,387,926	1,387,926	1,387,926	.....	.....
78	INTERCONTINENTAL BALLISTIC MISSILE	158,477	158,477	148,477	−10,000	−10,000
79	EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE)	20,028	20,028	15,028	−5,000	−5,000
80	NEXT GENERATION AERIAL REFUELING AIRCRAFT	877,084	877,084	742,084	−135,000	−135,000
81	CSAR HH–60 RECAPITALIZATION	94,113	11,113	8,000	−86,113	−3,113
83	HC/MC–130 RECAP RDT&E	27,071	27,071	22,071	−5,000	−5,000
85	NUCLEAR WEAPONS MODERNIZATION	93,867	93,867	93,867	.....	.....
86	LIGHT ATTACK ARMED RECONNAISSANCE (LAAR) SQUADRONS	23,721	23,721	.....	−23,721	−23,721
88	FULL COMBAT MISSION TRAINING	39,826	39,826	25,826	−14,000	−14,000
89	JOINT CARGO AIRCRAFT (JCA)	27,089	27,089	27,089	.....	.....
90	CV–22	20,723	15,723	10,723	−10,000	−5,000
91	AIRBORNE SENIOR LEADER C3 (SLC3S)	12,535	34,435	.....	−12,535	−34,435
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	4,079,717	3,960,017	3,709,440	−370,277	−250,577
	RDT&E MANAGEMENT SUPPORT					
92	THREAT SIMULATOR DEVELOPMENT	22,420	22,420	22,420	.....	.....
93	MAJOR T&E INVESTMENT	62,206	62,206	62,206	.....	.....
94	RAND PROJECT AIR FORCE	27,579	27,579	27,579	.....	.....
96	INITIAL OPERATIONAL TEST & EVALUATION	17,767	17,767	17,767	.....	.....
97	TEST AND EVALUATION SUPPORT	654,475	654,475	704,475	+50,000	+50,000
98	ROCKET SYSTEMS LAUNCH PROGRAM (SPACE)	158,096	33,596	158,096	.....	+124,500
99	SPACE TEST PROGRAM (STP)	47,926	47,926	47,926	.....	.....
100	FACILITIES RESTORATION & MODERNIZATION—TEST & EVAL	44,547	44,547	44,547	.....	.....
101	FACILITIES SUSTAINMENT—TEST AND EVALUATION SUPPORT	27,953	27,953	27,953	.....	.....

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
102	MULTI-SERVICE SYSTEMS ENGINEERING INITIATIVE	13,953	13,953	13,953	.....	.....
103	ACQUISITION AND MANAGEMENT SUPPORT	31,966	31,966	31,966	.....	.....
104	GENERAL SKILL TRAINING	1,510	1,510	1,510	.....	.....
106	INTERNATIONAL ACTIVITIES	3,798	3,798	3,798	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	1,114,196	989,696	1,164,196	+50,000	+174,500
	OPERATIONAL SYSTEMS DEVELOPMENT					
107	GPS III—OPERATIONAL CONTROL SEGMENT	390,889	342,889	366,889	−24,000	+24,000
108	COMMON VERTICAL LIFT SUPPORT PLATFORM	5,365	5,365	5,365	.....	.....
109	AIR FORCE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM	91,866	91,866	91,866	.....	.....
110	ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY	35,467	35,467	35,467	.....	.....
112	B–52 SQUADRONS	133,261	133,261	87,996	−45,265	−45,265
113	AIR-LAUNCHED CRUISE MISSILE (ALCM)	803	803	803	.....	.....
114	B–1B SQUADRONS	33,011	33,011	33,011	.....	.....
115	B–2 SQUADRONS	340,819	362,819	236,319	−104,500	−126,500
116	STRAT WAR PLANNING SYSTEM—USSTRATCOM	23,072	23,072	23,072	.....	.....
117	NIGHT FIST—USSTRATCOM	5,421	5,421	.....	−5,421	−5,421
119	ATMOSPHERIC EARLY WARNING SYSTEM	4,485	4,485	.....	−4,485	−4,485
120	REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION	12,672	12,672	6,672	−6,000	−6,000
121	STRATEGIC AEROSPACE INTELLIGENCE SYSTEM ACTIVITIES	14	14	14	.....	.....
122	WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRAN	19,934	19,934	19,934	.....	.....
123	MQ–9 UAV	146,824	146,824	126,824	−20,000	−20,000
125	A–10 SQUADRONS	11,051	11,051	11,051	.....	.....
126	F–16 SQUADRONS	143,869	143,869	131,069	−12,800	−12,800
127	F–15E SQUADRONS	207,531	207,531	194,831	−12,700	−12,700
128	MANNED DESTRUCTIVE SUPPRESSION	13,253	13,253	13,253	.....	.....
129	F–22 SQUADRONS	718,432	658,432	511,432	−207,000	−147,000
130	F–35 SQUADRONS	47,841	9,967	.....	−47,841	−9,967
131	TACTICAL AIM MISSILES	8,023	8,023	8,023	.....	.....
132	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)	77,830	77,830	77,830	.....	.....
133	JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS)	1,436	1,436	1,436	.....	.....
134	COMBAT RESCUE AND RECOVERY	2,292	2,292	2,292	.....	.....
135	COMBAT RESCUE—PARARESCUE	927	927	927	.....	.....
136	AF TENCAP	20,727	20,727	20,727	.....	.....
137	PRECISION ATTACK SYSTEMS PROCUREMENT	3,128	3,128	3,128	.....	.....

138	COMPASS CALL	18,509	18,509	18,509	.....	.....
139	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	182,967	164,878	172,967	−10,000	+8,089
141	JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM)	5,796	5,796	5,796	.....	.....
142	AIR AND SPACE OPERATIONS CENTER (AOC)	121,880	121,880	121,880	.....	.....
143	CONTROL AND REPORTING CENTER (CRC)	3,954	3,954	3,954	.....	.....
144	AIRBORNE WARNING AND CONTROL SYSTEM (AWACS)	135,961	135,961	91,961	−44,000	−44,000
145	TACTICAL AIRBORNE CONTROL SYSTEMS	8,309	8,309	8,309	.....	.....
146	ADVANCED COMMUNICATIONS SYSTEMS	90,083	90,083	44,883	−45,200	−45,200
148	COMBAT AIR INTELLIGENCE SYSTEM ACTIVITIES	5,428	5,428	5,428	.....	.....
149	THEATER BATTLE MANAGEMENT (TBM) C4I	15,528	15,528	15,528	.....	.....
150	TACTICAL AIR CONTROL PARTY—MOD	15,978	15,978	9,678	−6,300	−6,300
152	C2ISR TACTICAL DATA LINK	1,536	1,536	1,536	.....	.....
153	COMMAND AND CONTROL (C2) CONSTELLATION	18,102	18,102	18,102	.....	.....
154	JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM	121,610	121,610	74,610	−47,000	−47,000
155	SEEK EAGLE	18,599	18,599	18,599	.....	.....
156	USAF MODELING AND SIMULATION	23,091	23,091	23,091	.....	.....
157	WARGAMING AND SIMULATION CENTERS	5,779	5,779	5,779	.....	.....
158	DISTRIBUTED TRAINING AND EXERCISES	5,264	5,264	3,264	−2,000	−2,000
159	MISSION PLANNING SYSTEMS	69,918	69,918	63,418	−6,500	−6,500
160	INFORMATION WARFARE SUPPORT	2,322	2,322	2,322	.....	.....
161	CYBER COMMAND ACTIVITIES	702	702	702	.....	.....
168	SPACE SUPERIORITY INTELLIGENCE	11,866	11,866	8,866	−3,000	−3,000
169	E–4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC)	5,845	5,845	4,845	−1,000	−1,000
170	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK	43,811	43,811	43,811	.....	.....
171	INFORMATION SYSTEMS SECURITY PROGRAM	101,788	101,788	92,788	−9,000	−9,000
172	GLOBAL COMBAT SUPPORT SYSTEM	449	449	449	.....	.....
173	GLOBAL COMMAND AND CONTROL SYSTEM	3,854	3,854	3,854	.....	.....
175	MILSATCOM TERMINALS	238,729	138,729	203,729	−35,000	+65,000
175A	FAB–T ALTERNATIVE	.....	50,000	.....	.....	−50,000
177	AIRBORNE SIGINT ENTERPRISE	121,748	121,748	108,248	−13,500	−13,500
180	GLOBAL AIR TRAFFIC MANAGEMENT (GATM)	4,604	4,604	4,604	.....	.....
181	CYBER SECURITY INITIATIVE	2,026	2,026	2,026	.....	.....
182	DOD CYBER CRIME CENTER	282	282	282	.....	.....
183	SATELLITE CONTROL NETWORK (SPACE)	18,337	18,337	18,337	.....	.....
184	WEATHER SERVICE	31,084	31,084	31,084	.....	.....
185	AIR TRAFFIC CONTROL, APPROACH, & LANDING SYSTEM (ATC)	63,367	21,367	9,867	−53,500	−11,500
186	AERIAL TARGETS	50,620	50,620	45,620	−5,000	−5,000
189	SECURITY AND INVESTIGATIVE ACTIVITIES	366	366	366	.....	.....
190	DEFENSE JOINT COUNTERINTELLIGENCE ACTIVITIES	39	39	39	.....	.....
192	NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT)	133,601	133,601	42,601	−91,000	−91,000

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
193	NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE AND CONTROL)	17,893	17,893	17,893	.....	.....
195	SPACE AND MISSILE TEST AND EVALUATION CENTER	196,254	171,254	196,254	.....	+25,000
196	SPACE WARFARE CENTER	2,961	2,961	2,961	.....	.....
197	SPACELIFT RANGE SYSTEM (SPACE)	9,940	9,940	9,940	.....	.....
198	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS	1,271	1,271	1,271	.....	.....
200	ENDURANCE UNMANNED AERIAL VEHICLES	52,425	52,425	45,925	−6,500	−6,500
201	AIRBORNE RECONNAISSANCE SYSTEMS	106,877	90,830	88,677	−18,200	−2,153
202	MANNED RECONNAISSANCE SYSTEMS	13,049	13,049	13,049	.....	.....
203	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	90,724	90,724	85,724	−5,000	−5,000
204	PREDATOR UAV (JMIP)	14,112	14,112	11,642	−2,470	−2,470
205	RQ–4 UAV	423,462	423,462	383,462	−40,000	−40,000
206	NETWORK-CENTRIC COLLABORATIVE TARGET (TIARA)	7,348	7,348	7,348	.....	.....
207	GPS III SPACE SEGMENT	463,081	413,081	463,081	.....	+50,000
208	JSPOC MISSION SYSTEM	118,950	78,950	83,950	−35,000	+5,000
209	INTELLIGENCE SUPPORT TO INFORMATION WARFARE	14,736	14,736	14,736	.....	.....
210	NUDET DETECTION SYSTEM (SPACE)	81,989	81,989	81,989	.....	.....
212	SPACE SITUATION AWARENESS OPERATIONS	31,956	31,956	31,956	.....	.....
213	INFORMATION OPS TECHNOLOGY INTEGRATION & TOOL DEVELOP	23,931	23,931	23,931	.....	.....
214	SHARED EARLY WARNING (SEW)	1,663	1,663	1,663	.....	.....
215	C–130 AIRLIFT SQUADRON	24,509	24,509	6,509	−18,000	−18,000
216	C–5 AIRLIFT SQUADRONS	24,941	24,941	12,941	−12,000	−12,000
217	C–17 AIRCRAFT	128,169	128,169	94,269	−33,900	−33,900
218	C–130J PROGRAM	39,537	39,537	39,537	.....	.....
219	LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM)	7,438	7,438	7,438	.....	.....
220	LIGHT MOBILITY AIRCRAFT (LiMA)	1,308	1,308	.....	−1,308	−1,308
221	KC–135S	6,161	6,161	6,161	.....	.....
222	KC–10S	30,868	30,868	30,868	.....	.....
223	OPERATIONAL SUPPORT AIRLIFT	82,591	82,591	37,591	−45,000	−45,000
225	SPECIAL TACTICS / COMBAT CONTROL	7,118	7,118	5,218	−1,900	−1,900
226	DEPOT MAINTENANCE (NON-IF)	1,531	1,531	1,531	.....	.....
228	LOGISTICS SUPPORT ACTIVITIES	944	944	944	.....	.....
229	LOGISTICS INFORMATION TECHNOLOGY (LOGIT)	140,284	140,284	140,284	.....	.....
230	SUPPORT SYSTEMS DEVELOPMENT	10,990	10,990	50,990	+40,000	+40,000
232	OTHER FLIGHT TRAINING	322	322	322	.....	.....
233	JOINT NATIONAL TRAINING CENTER	11	11	11	.....	.....

235	OTHER PERSONNEL ACTIVITIES	113	113	113	.....	.....
236	JOINT PERSONNEL RECOVERY AGENCY	2,483	2,483	2,483	.....	.....
237	CIVILIAN COMPENSATION PROGRAM	1,508	1,508	1,508	.....	.....
238	PERSONNEL ADMINISTRATION	8,041	8,041	1,041	−7,000	−7,000
239	AIR FORCE STUDIES AND ANALYSIS AGENCY	928	928	928	.....	.....
240	FACILITIES OPERATION—ADMINISTRATION	12,118	12,118	12,118	.....	.....
241	FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT	101,317	101,317	76,317	−25,000	−25,000
242	MANAGEMENT HQ—ADP SUPPORT (AF)	299	299	299	.....	.....
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	6,510,126	6,145,116	5,436,836	−1,073,290	−708,280
	CLASSIFIED PROGRAMS	12,063,140	11,586,845	11,706,100	−357,040	+119,255
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE	27,737,701	26,313,196	26,007,694	−1,730,007	−305,502

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Program element title	Fiscal year 2012 base	Committee recommendation	Change from budget estimate
2	University Research Initiatives	140,273	155,273	+15,000
	Cyber Security Research			+15,000
4	Materials	136,230	146,230	+10,000
	Nanotechnology Research			+10,000
11	Directed Energy Technology	111,156	141,156	+30,000
	Space Situational Awareness			+30,000
14	Advanced Materials for Weapon Systems	39,738	64,738	+25,000
	Silicon Carbide Research			+15,000
	Advanced Materials Research—Authorization Increase			+10,000
23	Conventional Weapons Technology	54,042	45,542	−8,500
	High Velocity Penetrating Weapon—Ahead of Need			−8,500
24	Advanced Weapons Technology	28,683	48,683	+20,000
	Space Situational Awareness			+20,000
32	Polar MILSATCOM (SPACE)	122,991	102,991	−20,000
	Development schedule delay			−20,000
39	Intercontinental Ballistic Missile	67,202	72,202	+5,000
	Authorization Increase			+5,000
44	Battle Mgmt Com & Ctrl Sensor Development	60,250	31,250	−29,000
	3DELRR Contract Delays			−29,000
46	Hard and Deeply Buried Target Defeat System (HDBTDS) Program	38,248	31,248	−7,000
	MOP—Contract Delay			−7,000
53	Operationally Responsive Space	86,543	111,543	+25,000
	Responsive Launch			+25,000
55	National Polar-Orbiting Operational Environmental Satellite System (NPOESS)	444,900	150,000	−294,900
	DWSS program termination			−444,900
	Termination liability			+150,000
55A	Weather Satellite Follow-On		250,000	+250,000
	Recompetition for new satellite and continued Government sensor development			+250,000
59	Electronic Warfare Development	26,880	16,880	−10,000
	MALD–J Increment 2—Technology Development Contract Delay			−10,000
61	Tactical Data Networks Enterprise	52,355	48,105	−4,250
	STRATCOM DNC2 Contract Delays			−3,000
	CLIP—Contract Delays			−1,250
65	Space Situation Awareness Systems	273,689	261,089	−12,600
	Space Based Space Surveillance			−12,600
66	Airborne Electronic Attack	47,100	39,000	−8,100
	Electronic Attack Pod—Delayed Start			−3,500
	AEA SoS—Contract Delays			−4,600
69	Armament/Ordnance Development	10,055	6,055	−4,000
	Universal Armament Interface Contract Delay			−4,000
71	Agile Combat Support	11,878	3,920	−7,958
	BEAR—Ahead of Need			−3,900
	Airfield Damage Repair—Ahead of Need			−4,058
73	Life Support Systems	11,280	9,280	−2,000
	Integrated Aircrew Ensemble—Contract Award Delays			−2,000
74	Combat Training Ranges	28,106	8,106	−20,000
	Joint Threat Emitter Increment 2—Rephased Program			−12,000
	Air Combat Training Systems (P5) Upgrades—Contract Delay			−8,000
78	Intercontinental Ballistic Missile	158,477	148,477	−10,000
	Support Equipment—Contract Delays			−10,000
79	Evolved Expendable Launch Vehicle Program (SPACE)	20,028	15,028	−5,000

[In thousands of dollars]

Line	Program element title	Fiscal year 2012 base	Committee recommendation	Change from budget estimate
	Program underexecution due to schedule delay			−5,000
80	Next Generation Aerial Refueling Aircraft	877,084	742,084	−135,000
	Excess to Requirement			−135,000
81	CSAR HH–60 Recapitalization	94,113	8,000	−86,113
	Ahead of Need			−86,113
83	HC/MC–130 Recap RDT&E	27,071	22,071	−5,000
	Contract Savings			−5,000
86	Light Attack Armed Reconnaissance (LAAR) Squadrons	23,721		−23,721
	Transfer to Research, Development, Test & Evaluation, Defense-Wide, Line 229, Combat Dragon II			−23,721
88	Full Combat Mission Training	39,826	25,826	−14,000
	Block 40/50 Mission Training Center—Excess to Need			−14,000
90	CV–22	20,723	10,723	−10,000
	Contract Delay			−10,000
91	Airborne Senior Leader C3 (SLC3S)	12,535		−12,535
	Program Termination			−12,535
97	Test and Evaluation Support	654,475	704,475	+50,000
	Authorization Increase			+50,000
107	Global Positioning System III—Operational Control Segment	390,889	366,889	−24,000
	Directorate support—reduction to growth			−24,000
112	B–52 Squadrons	133,261	87,996	−45,265
	SR2—Excess to Requirement			−11,265
	EHF—Contract Delays			−13,000
	1760 IWBU Contract Delays			−16,000
	IFF Mode S/5 Development Contract Delays			−5,000
115	B–2 Squadrons	340,819	236,319	−104,500
	EHF Increment 2—Contract Delay			−82,500
	Defensive Management System—Delay to Technology Development Contract Award			−22,000
117	Night Fist—USSTRATCOM	5,421		−5,421
	Program Terminated			−5,421
119	Atmospheric Early Warning System	4,485		−4,485
	Unjustified Request			−4,485
120	Region/Sector Operation Control Center Modernization Program	12,672	6,672	−6,000
	BCS–F Excess to Requirement			−6,000
123	MQ–9 UAV	146,824	126,824	−20,000
	KA Migration Contract Delays			−14,000
	SAR Contract Delays			−1,000
	EO/IR Sensor Development Contract Delays			−5,000
126	F–16 Squadrons	143,869	131,069	−12,800
	SLEP Contract Delay			−12,800
127	F–15E Squadrons	207,531	194,831	−12,700
	ADCP—Excess to Requirement			−12,700
129	F–22A Squadrons	718,432	511,432	−207,000
	Program Growth			−207,000
130	F–35 Squadrons	47,841		−47,841
	Block IV Development—Ahead of Need			−47,841
139	Aircraft Engine Component Improvement Program	182,967	172,967	−10,000
	Excess to Requirement			−10,000
144	Airborne Warning and Control System (AWACS)	135,961	91,961	−44,000
	NGIFF—Contract Delays			−20,000
	DRAGON—Contract Delays			−24,000
146	Advanced Communications Systems	90,083	44,883	−45,200
	JTRS Integration and Engineering Support—Schedule Delays			−5,200
	Common Processing Environment—Schedule Delays			−40,000
150	Tactical Air Control Party-Mod	15,978	9,678	−6,300
	VCS—Program Termination and Restructure			−4,300
	JETS Contract Delays			−2,000
154	Joint Surveillance/Target Attack Radar System (JSTARS)	121,610	74,610	−47,000

[In thousands of dollars]

Line	Program element title	Fiscal year 2012 base	Committee recommendation	Change from budget estimate
	PME–DMS—Contract Delays			−14,000
	Unjustified Request Based on Program Restructure			−33,000
158	Distributed Training and Exercises	5,264	3,264	−2,000
	Unjustified Growth			−2,000
159	Mission Planning Systems	69,918	63,418	−6,500
	CAF Increment IV—Critical Change Delay			−6,500
168	Space Superiority Intelligence	11,866	8,866	−3,000
	Program underexecution due to schedule delays			−3,000
169	E–4B National Airborne Operations Center (NAOC)	5,845	4,845	−1,000
	Secure, Survivable Communications—Delayed Program Start			−1,000
171	Information Systems Security Program	101,788	92,788	−9,000
	VACM Protest Delay			−9,000
175	MILSATCOM Terminals	238,729	203,729	−35,000
	Alternative protected SATCOM terminal development—transfer to RDTE, Navy line 200			−35,000
177	Airborne SIGINT Enterprise	121,748	108,248	−13,500
	ASIP 2C Contract Delays			−12,000
	RQ–4 Program Delays			−1,500
185	Air Traffic Control, Approach, and Landing System (ATCALS)	63,367	9,867	−53,500
	D–RAPCON Contract Delay			−53,500
186	Aerial Targets	50,620	45,620	−5,000
	QF–16—Excess to Need			−5,000
192	NAVSTAR Global Positioning System (User Equipment) (SPACE)	133,601	42,601	−91,000
	Defer fourth quarter contract awards			−91,000
200	Endurance Unmanned Aerial Vehicles	52,425	45,925	−6,500
	Funded in PA 11–14			−6,500
201	Airborne Reconnaissance Systems	106,877	88,677	−18,200
	Broad Area Surveillance Sensors—Unjustified Request			−18,200
203	Distributed Common Ground/Surface Systems	90,724	85,724	−5,000
	Contract Delays due to Program Reprioritization			−5,000
204	MQ–1 Predator UAV	14,112	11,642	−2,470
	Common Sensor Payload—Ahead of Need			−2,470
205	RQ–4 UAV	423,462	383,462	−40,000
	Alliance Ground System—Contract Delays			−40,000
208	JSpOC Mission System	118,950	83,950	−35,000
	JMS program restructure			−35,000
215	C–130 Airlift Squadron	24,509	6,509	−18,000
	Contract Delays			−18,000
216	C–5 Airlift Squadrons (IF)	24,941	12,941	−12,000
	RERP Program Rephased			−12,000
217	C–17 Aircraft (IF)	128,169	94,269	−33,900
	Contract Delays			−33,900
220	Light Mobility Aircraft (LiMA)	1,308		−1,308
	Funded in Public Law 112–10			−1,308
223	Operational Support Airlift	82,591	37,591	−45,000
	VC–25A—Funding Ahead of Need			−45,000
225	Special Tactics/Combat Control	7,118	5,218	−1,900
	Line of Sight—Contract Delay			−1,900
230	Support Systems Development	10,990	50,990	+40,000
	Alternative Energy Research			+40,000
238	Personnel Administration	8,041	1,041	−7,000
	Contract Delays			−7,000
241	Financial Management Information Systems Development	101,317	76,317	−25,000
	DEAMS—Excess to Requirement			−25,000
999	Classified Programs	12,063,140	11,706,100	−357,040
	Program Adjustment			+38,000
	Enterprise Query and Correlation/Authorization Increase			+10,000
	Classified Adjustment			−405,040

Family of Advanced Beyond-Line-of-Sight Terminals.—The budget request includes $238,729,000 for the development of the Family of Advanced Beyond-Line-of-Sight Terminals [FAB–T]. Due to various technology challenges, the FAB–T program continues to have serious cost and schedule growth. The Committee understands that the Department of Defense is currently examining options to pursue an alternative program to manage the risks still associated with FAB–T. Accordingly, the Committee recommendation includes sufficient funding to continue FAB–T development, and transfers $35,000,000 to Research, Development, Test and Evaluation, Navy, for the development of an alternative program. Furthermore, because neither FAB–T nor an alternative terminal will be ready for procurement in fiscal year 2012, the Committee recommends reductions of $47,100,000 from Aircraft Procurement, Air Force, and $68,150,000 from Other Procurement, Air Force.

Military GPS User Equipment.—The budget request includes $133,601,000 for the development of Military Global Positioning System [GPS] User Equipment. This family of products is intended to deliver advanced capabilities to aircraft, ships, vehicles, and hand-held equipment, including the ability to counter GPS jamming threats. The Air Force intends to award three competitive contracts to begin the technology demonstration phase in the fourth quarter of fiscal year 2012. The Committee supports the program and recognizes the need for these improvements to GPS user systems; however, due to the contract awards being scheduled late in the fiscal year, contracts are more appropriately funded in the fiscal year 2013 request. Therefore, the Committee recommends a reduction of $91,000,000, which will allow sufficient funds to proceed with Air Force source selection activities in fiscal year 2012.

On-orbit Servicing.—The Committee is aware of several proposals by commercial providers to augment on-orbit satellites with additional fuel or propulsion to increase their on-orbit life. While this capability has yet to be demonstrated, on-orbit servicing could hold significant promise for both Government and commercial satellites. The Committee urges the Secretary of the Air Force to examine the feasibility of on-orbit servicing, including the potential for life extension and satellite augmentation in future architecture and trade studies.

HH–60 Recapitalization.—The Committee is recommending $8,000,000 for the HH–60 Recapitalization program to allow the Air Force to begin development of an HH–60 replacement aircraft. As planned, this effort will require minimum development, moving into limited production within 2 years. The Committee supports this approach but is concerned that the scope of the development efforts will be expanded after the program is initiated. Given the significant cost of the other modernization and recapitalization efforts the Air Force is currently undertaking, the Air Force must ensure that the HH–60 recapitalization effort is completed at the lowest possible cost. The Committee expects the Air Force to establish a recapitalization program that fulfills the requirements of the combat search and rescue mission at the best value to the taxpayer.

Airborne Senior Leader C3 [SLC3S].—The Air Force has requested $12,535,000 to continue development of a standardized

communications suite for the use of senior military and civilian leaders when airborne. The Committee questions the wisdom of the acquisition strategy. Currently, aircraft are provided with the most up-to-date communications gear as it becomes available. The requested program will develop a common communications suite which will have the practical effect of providing standardized, but out-of-date equipment soon after completion of the effort. In addition, the program has recently encountered technical problems involving the weight of the communications suite which will significantly increase the cost to complete development. Given these concerns and the rising cost to complete the program, the Committee recommends that the program be terminated.

Broad Area Surveillance Sensors.—The Department has requested $18,200,000 to continue development of various wide area surveillance technologies for platforms such as Blue Devil and Gorgon Stare under the Broad Area Surveillance Sensors program. At the same time, $16,047,000 has been requested for follow-on wide area surveillance technology development efforts as part of the Gorgon Stare program. The Committee believes these efforts are duplicative and recommends eliminating funding for the Broad Area Surveillance Sensor program.

Turbine Engine Sensors.—The Committee is aware that innovative research is underway on dynamic sensors for turbine engines of military jets and helicopters that have the potential to increase safety and decrease costs. The Committee encourages the Department to continue to support innovative research on engine sensor technology with the goal of improving performance, safety, and fuel efficiency.

Air Force Minority Leaders Program.—The Air Force Minority Leaders program develops research capabilities at Historically Black Colleges and Universities and Minority Institutions [HBCU/MIs) by pairing them with mentor universities with strong research programs in nano-scale materials. The Committee believes this is a valuable program, funding research of interest to the United States Air Force, while providing educational opportunities to minority students in science and engineering. The Committee encourages the Air Force to continue supporting efforts of this kind.

Common Data Link.—The Common Data Link [CDL] serves as the multi-service standard for all Department of Defense line-of-sight wideband data links. These data links are essential to the operation of intelligence, surveillance, and reconnaissance platforms, allowing the dissemination of critical intelligence data. However, the Committee is concerned that proprietary interfaces are inhibiting competition in the CDL program, which could limit potential cost savings and capability improvements. The Committee urges the Department to utilize all available means of preserving options for competitive sourcing of CDL systems and to communicate the need for such competition to the system program offices responsible for CDL procurement.

Air Force Test Ranges and Facilities.—The fiscal year 2012 budget request includes $654,475,000 for Air Force Test Ranges and Facilities, a decrease of $105,393,000 from amounts appropriated in fiscal year 2011. The Committee notes that the fiscal year 2012

budget request was not certified adequate as required by the fiscal year 2003 National Defense Authorization Act, and that the Air Force's fiscal year 2012 shortfall is $84,000,000. The Committee is greatly concerned by attempts to balance budgets through reductions to test assets. Therefore, the Committee recommends an additional $50,000,000, as authorized in S. 1253, the National Defense Authorization Act for Fiscal Year 2012, as reported. Further, the Committee has included a General Provision directing the Air Force to transfer an additional $34,000,000 from within available funding to Air Force Test and Evaluation Support.

KC–46A.—The budget request includes $877,084,000 for the development of a next generation aerial refueling tanker. Replacing the aging tanker fleet is essential to the Air Force's modernization efforts, and the Committee remains very supportive of this program. However, after the budget was submitted, the Air Force conducted an Integrated Baseline Review [IBR] of the program, which changed the annual spending plan to complete the development effort of the program. As a result, the Air Force identified $135,000,000 that will not be required in fiscal year 2012. Therefore, the Committee recommends reducing the request by this amount to align the budget with the new IBR.

Defense Weather Satellite System.—The budget request includes $444,900,000 for development of the Defense Weather Satellite System [DWSS], the follow-on to the National Polar-Orbiting Operational Environmental Satellite System [NPOESS]. In 2010, the Executive Office of the President restructured NPOESS from a tri-agency program to two programs, one administered by the Air Force, and another administered by the National Oceanic and Atmospheric Administration and the National Aeronautics and Space Administration. The decision to restructure the program was due to the serious growth in cost and schedule, as well as multi-agency management problems.

The current program remains challenged by a difficult and confusing set of management issues. Rights over intellectual property from the NPOESS program have been subject to protracted and contentious negotiations. For DWSS, redesign efforts are being conducted simultaneously with efforts to examine capability trades. Options for capability trades result in billions of dollars of uncertainty in cost estimates, and may lead to significant redesigns. Each of these areas of risk indicate that DWSS is not on a sound acquisition footing, despite the restructure of the program more than a year and a half ago.

The Committee does not want to repeat the costly mistakes of the NPOESS program with DWSS. Therefore, the Committee recommends the termination of the DWSS program, and provides $250,000,000 for continued common sensor development, as well as requirements definition and source selection activities for a full and open competition for a follow-on program.

The Committee also provides $150,000,000 for the cost of termination of the current contract, and directs the Secretary of Defense to provide the congressional defense committees with a report within 30 days of enactment of this act to describe the Government's estimated liabilities under the current contract, the ability of the Government to leverage prior work within a new program, and a

schedule for requirements reviews, competition, and award of a new development contract.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE-WIDE

Appropriations, 2011	$20,797,412,000
Budget estimate, 2012	19,755,678,000
House allowance	19,298,865,000
Committee recommendation	19,117,270,000

The Committee recommends an appropriation of $19,117,270,000. This is $638,408,000 below the budget estimate.

COMMITTEE RECOMMENDED PROGRAM

The following table summarizes the budget estimate for this appropriation, the Committee recommendation, and the Committee recommended adjustments to the budget estimate:

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	RESEARCH, DEVELOPMENT, TEST & EVAL, DEFENSE-WIDE					
	BASIC RESEARCH					
1	DTRA UNIVERSITY STRATEGIC PARTNERSHIP BASIC RESEARCH	47,737	47,737	47,737	.....	.....
2	DEFENSE RESEARCH SCIENCES	290,773	290,773	290,773	.....	.....
3	BASIC RESEARCH INITIATIVES	14,731	9,731	7,731	−7,000	−2,000
5	BASIC OPERATIONAL MEDICAL RESEARCH SCIENCE	37,870	37,870	37,870	.....	.....
6	NATIONAL DEFENSE EDUCATION PROGRAM	101,591	86,591	86,591	−15,000	.....
7	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	52,617	52,617	52,617	.....	.....
	TOTAL, BASIC RESEARCH	545,319	525,319	523,319	−22,000	−2,000
	APPLIED RESEARCH					
8	JOINT MUNITIONS TECHNOLOGY	21,592	21,592	20,592	−1,000	−1,000
9	BIOMEDICAL TECHNOLOGY	110,000	110,000	95,000	−15,000	−15,000
11	LINCOLN LABORATORY RESEARCH PROGRAM	37,916	37,916	37,916	.....	.....
12	SYSTEMS 2020 APPLIED RESEARCH	4,381	4,381	.....	−4,381	−4,381
13	INFORMATION AND COMMUNICATIONS TECHNOLOGY	400,499	400,499	354,125	−46,374	−46,374
14	COGNITIVE COMPUTING SYSTEMS	49,365	49,365	49,365	.....	.....
15	MACHINE INTELLIGENCE	61,351	61,351	52,276	−9,075	−9,075
16	BIOLOGICAL WARFARE DEFENSE	30,421	30,421	30,421	.....	.....
17	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	219,873	219,873	219,873	.....	.....
18	JOINT DATA MANAGEMENT ADVANCED DEVELOPMENT	9,235	5,235	3,235	−6,000	−2,000
19	CYBER SECURITY RESEARCH	9,735	9,735	4,735	−5,000	−5,000
20	HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) APP	14,923	10,923	7,923	−7,000	−3,000
21	TACTICAL TECHNOLOGY	206,422	206,422	202,422	−4,000	−4,000
22	MATERIALS AND BIOLOGICAL TECHNOLOGY	237,837	237,837	222,837	−15,000	−15,000
23	ELECTRONICS TECHNOLOGY	215,178	215,178	215,178	.....	.....
24	WEAPONS OF MASS DESTRUCTION DEFEAT TECHNOLOGIES	196,954	196,954	196,954	.....	.....
25	SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT	26,591	41,591	26,591	.....	−15,000
	TOTAL, APPLIED RESEARCH	1,852,273	1,859,273	1,739,443	−112,830	−119,830
	ADVANCED TECHNOLOGY DEVELOPMENT					
27	JOINT MUNITIONS ADVANCED TECH INSENSITIVE MUNITIONS AD	24,771	24,771	15,771	−9,000	−9,000
28	SO/LIC ADVANCED DEVELOPMENT	45,028	45,028	45,028	.....	.....
29	COMBATING TERRORISM TECHNOLOGY SUPPORT	77,019	77,019	77,019	.....	.....

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
30	COUNTERPROLIFERATION INITIATIVES—PROLIF PREV & DEFEAT	283,073	283,073	283,073	.....	.....
31	BALLISTIC MISSILE DEFENSE TECHNOLOGY	75,003	75,003	75,003	.....	.....
32	JOINT ADVANCED CONCEPTS	7,903	7,903	6,803	−1,100	−1,100
33	JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT	20,372	20,372	20,372	.....	.....
34	SYSTEMS 202 ADVANCED TECHNOLOGY DEVELOPMENT	4,381	4,381	.....	−4,381	−4,381
35	AGILE TRANSPO FOR THE 21ST CENTURY (AT21)—THEATER CA	998	998	998	.....	.....
36	SPECIAL PROGRAM—MDA TECHNOLOGY	61,458	61,458	61,458	.....	.....
37	ADVANCED AEROSPACE SYSTEMS	98,878	98,878	98,878	.....	.....
38	SPACE PROGRAMS AND TECHNOLOGY	97,541	97,541	97,541	.....	.....
39	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM—ADVANCED DEV	229,235	229,235	229,235	.....	.....
40	JOINT ELECTRONIC ADVANCED TECHNOLOGY	7,287	7,287	7,287	.....	.....
41	JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS	187,707	175,707	177,707	−10,000	+2,000
42	NETWORKED COMMUNICATIONS CAPABILITIES	23,890	23,890	23,890	.....	.....
43	JOINT DATA MANAGEMENT RESEARCH	9,235	5,235	4,235	−5,000	−1,000
44	BIOMETRICS SCIENCE AND TECHNOLOGY	10,762	10,762	10,762	.....	.....
45	CYBER SECURITY ADVANCED RESEARCH	10,709	10,709	5,709	−5,000	−5,000
46	HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) ADV	18,179	14,179	12,179	−6,000	−2,000
47	DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROG	17,888	17,888	47,888	+30,000	+30,000
48	EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT	26,972	26,972	26,972	.....	.....
49	JOINT ROBOTICS PROGRAM/AUTONOMOUS SYSTEMS	9,756	9,756	9,756	.....	.....
50	GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS	23,887	23,887	23,887	.....	.....
51	DEPLOYMENT AND DISTRIBUTION ENTERPRISE TECHNOLOGY	41,976	41,976	29,976	−12,000	−12,000
52	STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM	66,409	56,409	66,409	.....	+10,000
53	MICROELECTRONIC TECHNOLOGY DEVELOPMENT AND SUPPORT	91,132	69,132	61,132	−30,000	−8,000
54	JOINT WARFIGHTING PROGRAM	10,547	10,547	10,547	.....	.....
55	ADVANCED ELECTRONICS TECHNOLOGIES	160,286	160,286	150,286	−10,000	−10,000
58	COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS	296,537	296,537	261,606	−34,931	−34,931
59	CLASSIFIED DARPA PROGRAMS	107,226	107,226	107,226	.....	.....
60	NETWORK-CENTRIC WARFARE TECHNOLOGY	235,245	235,245	208,503	−26,742	−26,742
61	SENSOR TECHNOLOGY	271,802	271,802	233,505	−38,297	−38,297
61A	DEFENSE RAPID INNOVATION PROGRAM	.....	.....	200,000	+200,000	+200,000
63	DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT	13,579	13,579	13,579	.....	.....
64	SOFTWARE ENGINEERING INSTITUTE	30,424	30,424	30,424	.....	.....
65	QUICK REACTION SPECIAL PROJECTS	89,925	89,925	50,765	−39,160	−39,160
66	JOINT EXPERIMENTATION	58,130	48,130	8,130	−50,000	−40,000

67	MODELING AND SIMULATION MANAGEMENT OFFICE	37,029	31,029	37,029	.....	+6,000
68	DIRECTED ENERGY RESEARCH	96,329	96,329	36,329	−60,000	−60,000
69	NEXT GENERATION AEGIS MISSILE	123,456	123,456	.....	−123,456	−123,456
70	TEST & EVALUATION SCIENCE & TECHNOLOGY	99,593	99,593	99,593	.....	.....
72	OPERATIONAL ENERGY CAPABILITY IMPROVEMENT	20,444	20,444	20,444	.....	.....
73	CWMD SYSTEMS	7,788	7,788	788	−7,000	−7,000
74	SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT	35,242	30,242	30,242	−5,000	.....
75	AVIATION ENGINEERING ANALYSIS	837	837	837	.....	.....
76	SOF INFORMATION AND BROADCAST SYSTEMS ADVANCED TECH	4,924	4,924	4,924	.....	.....
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	3,270,792	3,197,792	3,023,725	−247,067	−174,067
	DEMONSTRATION & VALIDATION					
77	NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT	36,798	36,798	28,798	−8,000	−8,000
78	RETRACT LARCH	21,040	21,040	21,040	.....	.....
79	WALKOFF	112,142	112,142	112,142	.....	.....
80	JOINT ROBOTICS PROGRAM	11,129	11,129	11,129	.....	.....
81	ADVANCE SENSOR APPLICATIONS PROGRAM	18,408	18,408	18,408	.....	.....
82	ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM	63,606	63,606	63,606	.....	.....
83	BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT	290,452	290,452	310,452	+20,000	+20,000
84	BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT	1,161,001	1,161,001	1,161,001	.....	.....
86	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	261,143	261,143	213,155	−47,988	−47,988
87	BALLISTIC MISSILE DEFENSE SENSORS	222,374	222,374	222,374	.....	.....
88	BALLISTIC MISSILE DEFENSE TEST & TARGETS	1,071,039	1,071,039	.....	−1,071,039	−1,071,039
88A	BMD TESTS	.....	.....	488,382	+488,382	+488,382
88B	BMD TARGETS	.....	.....	454,999	+454,999	+454,999
89	BALLISTIC MISSILE DEFENSE ENABLING PROGRAMS	373,563	373,563	415,531	+41,968	+41,968
90	SPECIAL PROGRAMS—MDA	296,554	296,554	296,554	.....	.....
91	AEGIS BMD	960,267	960,267	1,026,957	+66,690	+66,690
92	SPACE SURVEILLANCE & TRACKING SYSTEM	96,353	96,353	96,353	.....	.....
93	BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS	7,951	7,951	7,951	.....	.....
94	BALLISTIC MISSILE DEFENSE C2BMC	364,103	364,103	364,103	.....	.....
96	BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT	41,225	41,225	41,225	.....	.....
97	CENTER (MDIOC)	69,325	69,325	69,325	.....	.....
98	REGARDING TRENCH	15,797	15,797	15,797	.....	.....
99	SEA BASED X-BAND RADAR (SBX)	177,058	177,058	157,058	−20,000	−20,000
101	ISRAELI COOPERATIVE PROGRAMS	106,100	235,700	235,700	+129,600	.....
102	HUMANITARIAN DEMINING	14,996	14,996	14,996	.....	.....
103	COALITION WARFARE	12,743	12,743	12,743	.....	.....
104	DEPARTMENT OF DEFENSE CORROSION PROGRAM	3,221	3,221	35,321	+32,100	+32,100
105	DOD UNMANNED AIRCRAFT SYSTEM (UAS) COMMON DEVELOPMENT	25,120	25,120	25,120	.....	.....

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
107	HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) RES	10,309	10,309	7,509	−2,800	−2,800
108	JOINT SYSTEMS INTEGRATION COMMAND (JSIC)	13,024	5,024	13,024	.....	+8,000
109	JOINT FIRES INTEGRATION & INTEROPERABILITY TEAM	9,290	9,290	9,290	.....	.....
110	LAND-BASED SM–3 (LBSM3)	306,595	306,595	306,595	.....	.....
111	AEGIS SM–3 BLOCK IIA CO-DEVELOPMENT	424,454	424,454	474,454	+50,000	+50,000
112	PRECISION TRACKING SPACE SYSTEM RDT&E	160,818	.....	160,818	.....	+160,818
113	AIRBORNE INFRARED (ABIR)	46,877	46,877	.....	−46,877	−46,877
115	JOINT ELECTROMAGNETIC TECHNOLOGY (JET) PROGRAM	3,358	3,358	3,358	.....	.....
116	DEFENSE ACQUISITION CHALLENGE PROGRAM (DACP)	.....	.....	25,000	+25,000	+25,000
117	NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT	7,220	7,220	7,220	.....	.....
118	PROMPT GLOBAL STRIKE CAPABILITY DEVELOPMENT	204,824	104,824	204,824	.....	+100,000
	TOTAL, DEMONSTRATION & VALIDATION	7,020,277	6,881,059	7,132,312	+112,035	+251,253
	ENGINEERING & MANUFACTURING DEVELOPMENT					
119	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	400,608	400,608	214,938	−185,670	−185,670
120	JOINT ROBOTICS PROGRAM	2,782	2,782	2,782	.....	.....
121	ADVANCED IT SERVICES JOINT PROGRAM OFFICE (AITS–JPO)	49,198	24,198	43,824	−5,374	+19,626
122	JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)	17,395	17,395	17,395	.....	.....
123	WEAPONS OF MASS DESTRUCTION DEFEAT CAPABILITIES	5,888	5,888	5,888	.....	.....
124	INFORMATION TECHNOLOGY DEVELOPMENT	12,228	12,228	12,228	.....	.....
127	HOMELAND PERSONNEL SECURITY INITIATIVE	389	389	389	.....	.....
128	DEFENSE EXPORTABILITY PROGRAM	1,929	1,929	1,929	.....	.....
129	OUSD(C) IT DEVELOPMENT INITIATIVES	4,993	4,993	4,993	.....	.....
130	DOD ENTERPRISE SYSTEMS DEVELOPMENT AND DEMONSTRATION	134,285	134,285	54,285	−80,000	−80,000
131	DCMO POLICY AND INTEGRATION	41,808	41,808	21,808	−20,000	−20,000
133	DEFENSE-WIDE ELECTRONIC PROCUREMENT CAPABILITY	14,950	14,950	14,950	.....	.....
135	GLOBAL COMBAT SUPPORT SYSTEM	19,837	19,837	19,837	.....	.....
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	706,290	681,290	415,246	−291,044	−266,044
	RDT&E MANAGEMENT SUPPORT					
137	DEFENSE READINESS REPORTING SYSTEM (DRRS)	6,658	6,658	6,658	.....	.....
138	JOINT SYSTEMS ARCHITECTURE DEVELOPMENT	4,731	4,731	4,731	.....	.....
139	CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT	140,231	140,231	160,231	+20,000	+20,000
140	ASSESSMENTS AND EVALUATIONS	2,757	2,757	2,757	.....	.....

141	THERMAL VICAR	7,827	7,827	7,827	.....	.....
142	JOINT MISSION ENVIRONMENT TEST CAPABILITY (JMETC)	10,479	10,479	10,479	.....	.....
143	TECHNICAL STUDIES, SUPPORT AND ANALYSIS	34,213	34,213	34,213	.....	.....
144	USD(A&T)—CRITICAL TECHNOLOGY SUPPORT	1,486	.....	1,486	.....	+1,486
145	FOREIGN MATERIAL ACQUISITION AND EXPLOITATION	64,524	64,524	64,524	.....	.....
146	JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION	79,859	79,859	79,859	.....	.....
147	CLASSIFIED PROGRAM USD(P)	.....	106,000	100,000	+100,000	−6,000
148	FOREIGN COMPARATIVE TESTING	19,080	19,080	19,080	.....	.....
149	SYSTEMS ENGINEERING	41,884	41,884	41,884	.....	.....
150	NUCLEAR MATTERS—PHYSICAL SECURITY	4,261	4,261	4,261	.....	.....
151	SUPPORT TO NETWORKS AND INFORMATION INTEGRATION	9,437	9,437	9,437	.....	.....
152	GENERAL SUPPORT TO USD (INTELLIGENCE)	6,549	6,549	6,549	.....	.....
153	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	92,806	92,806	92,806	.....	.....
160	SMALL BUSINESS INNOVATION RESEARCH/CHALLENGE ADMINISTR	1,924	1,924	1,924	.....	.....
161	DEFENSE TECHNOLOGY ANALYSIS	16,135	16,135	16,135	.....	.....
163	DEFENSE TECHNICAL INFORMATION CENTER (DTIC)	56,269	56,269	56,269	.....	.....
164	R&D IN SUPPORT OF DOD ENLISTMENT, TESTING & EVALUATION	49,810	49,810	49,810	.....	.....
165	DEVELOPMENT TEST AND EVALUATION	15,805	15,805	20,805	+5,000	+5,000
166	DARPA AGENCY RELOCATION	1,000	1,000	1,000	.....	.....
167	MANAGEMENT HEADQUARTERS (RESEARCH & DEVELOPMENT)	66,689	66,689	66,689	.....	.....
168	BUDGET AND PROGRAM ASSESSMENTS	4,528	4,528	4,528	.....	.....
169	AVIATION SAFETY TECHNOLOGIES	6,925	6,925	6,925	.....	.....
170	OPERATIONS SECURITY (OPSEC)	1,777	1,777	1,777	.....	.....
171	JOINT STAFF ANALYTICAL SUPPORT	18	18	18	.....	.....
174	SUPPORT TO INFORMATION OPERATIONS (IO) CAPABILITIES	12,209	12,209	12,209	.....	.....
175	INFORMATION TECHNOLOGY RAPID ACQUISITION	4,288	4,288	4,288	.....	.....
176	CYBER SECURITY INITIATIVE	10,000	10,000	5,000	−5,000	−5,000
177	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)	15,002	15,002	15,002	.....	.....
179	WARFIGHTING AND INTELLIGENCE-RELATED SUPPORT	861	861	861	.....	.....
180	COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION	59,958	59,958	38,090	−21,868	−21,868
182	MANAGEMENT HEADQUARTERS—MDA	28,908	28,908	28,908	.....	.....
183	IT SOFTWARE DEV INITIATIVES	167	167	167	.....	.....
999	CLASSIFIED PROGRAMS	82,627	82,627	82,627	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	961,682	1,066,196	1,059,814	+98,132	−6,382
	OPERATIONAL SYSTEMS DEVELOPMENT					
185	DEFENSE INFORMATION SYSTEM FOR SECURITY (DISS)	8,706	8,706	3,706	−5,000	−5,000
186	REGIONAL INTERNATIONAL OUTREACH & PARTNERSHIP FOR PEAC	2,165	2,165	2,165	.....	.....
187	OVERSEAS HUMANITARIAN ASSISTANCE SHARED INFORMATION SY	288	288	288	.....	.....
188	CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS D	15,956	15,956	15,956	.....	.....

[In thousands of dollars]

	Item	2012 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
189	JOINT INTEGRATION AND INTEROPERABILITY	29,880	29,880	29,880	.....	.....
190	CLASSIFIED PROGRAMS	2,402	2,402	2,402	.....	.....
191	C4I INTEROPERABILITY	72,403	72,403	72,403	.....	.....
193	JOINT/ALLIED COALITION INFORMATION SHARING	7,093	7,093	7,093	.....	.....
200	NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT	481	481	481	.....	.....
201	DEFENSE INFO INFRASTRUCTURE ENGINEERING & INTEGRATION	8,366	8,366	18,366	+10,000	+10,000
202	LONG HAUL COMMUNICATIONS (DCS)	11,324	11,324	11,324	.....	.....
203	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK	12,514	12,514	12,514	.....	.....
204	PUBLIC KEY INFRASTRUCTURE (PKI)	6,548	6,548	6,548	.....	.....
205	KEY MANAGEMENT INFRASTRUCTURE (KMI)	33,751	33,751	33,751	.....	.....
206	INFORMATION SYSTEMS SECURITY PROGRAM	11,753	11,753	11,753	.....	.....
207	INFORMATION SYSTEMS SECURITY PROGRAM	348,593	348,593	348,593	.....	.....
208	INFORMATION SYSTEMS SECURITY PROGRAM	5,500	5,500	5,500	.....	.....
211	GLOBAL COMMAND AND CONTROL SYSTEM	54,739	54,739	54,739	.....	.....
212	JOINT SPECTRUM CENTER	29,154	29,154	29,154	.....	.....
213	NET-CENTRIC ENTERPRISE SERVICES (NCES)	1,830	1,830	1,830	.....	.....
214	JOINT MILITARY DECEPTION INITIATIVE	1,241	1,241	1,241	.....	.....
215	TELEPORT PROGRAM	6,418	6,418	6,418	.....	.....
217	SPECIAL APPLICATIONS FOR CONTINGENCIES	5,045	5,045	5,045	.....	.....
220	CYBER SECURITY INITIATIVE	411	411	411	.....	.....
222	CYBER SECURITY INITIATIVE	4,341	4,341	4,341	.....	.....
223	CRITICAL INFRASTRUCTURE PROTECTION (CIP)	13,008	13,008	13,008	.....	.....
227	POLICY R&D PROGRAMS	6,603	6,603	6,603	.....	.....
229	NET CENTRICITY	14,926	14,926	14,926	.....	.....
232	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	4,303	4,303	1,303	−3,000	−3,000
235	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	3,154	3,154	3,154	.....	.....
237	MQ–1 PREDATOR A UAV	2,499	2,499	2,499	.....	.....
239	HOMELAND DEFENSE TECHNOLOGY TRANSFER PROGRAM	2,660	2,660	2,660	.....	.....
240	INT'L INTELLIGENCE TECHNOLOGY ASSESSMENT, ADVANCEMENT	1,444	1,444	1,444	.....	.....
248	INDUSTRIAL PREPAREDNESS	23,103	23,103	23,103	.....	.....
249	LOGISTICS SUPPORT ACTIVITIES	2,466	2,466	2,466	.....	.....
250	MANAGEMENT HEADQUARTERS (JCS)	2,730	2,730	2,730	.....	.....
252	MQ–9 UAV	2,499	2,499	2,499	.....	.....
253	RQ–11 UAV	3,000	3,000	.....	−3,000	−3,000
254	RQ–7 UAV	450	450	450	.....	.....

256	SPECIAL OPERATIONS AVIATION SYSTEMS ADVANCED DEV	89,382	89,382	64,382	−25,000	−25,000
257	SPECIAL OPERATIONS TACTICAL SYSTEMS DEVELOPMENT	799	799	799		
258	SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT	27,916	27,916	27,916		
259	SOF OPERATIONAL ENHANCEMENTS	60,915	65,415	95,915	+35,000	+30,500
260	SPECIAL OPERATIONS CV–22 DEVELOPMENT	10,775	10,775	10,775		
263	MISSION TRAINING AND PREPARATION SYSTEMS (MTPS)	4,617	4,617	4,617		
265	MC130J SOF TANKER RECAPITALIZATION	18,571	18,571	18,571		
266	SOF COMMUNICATIONS EQUIPMENT AND ELECTRONICS SYSTEMS	1,392	1,392	1,392		
268	SOF WEAPONS SYSTEMS	2,610	2,610	2,610		
269	SOF SOLDIER PROTECTION AND SURVIVAL SYSTEMS	2,971	2,971	2,971		
270	SOF VISUAL AUGMENTATION, LASERS & SENSOR SYSTEMS	3,000	3,000	3,000		
271	SOF TACTICAL VEHICLES	3,522	3,522	3,522		
272	SOF MUNITIONS	1,500	1,500	1,500		
273	SOF ROTARY WING AVIATION	51,123	51,123	51,123		
274	SOF UNDERWATER SYSTEMS	92,424	92,424	57,424	−35,000	−35,000
275	SOF SURFACE CRAFT	14,475	14,475	14,475		
276	SOF PSYOP	2,990	2,990	2,990		
277	SOF GLOBAL VIDEO SURVEILLANCE ACTIVITIES	8,923	8,923	8,923		
278	SOF OPERATIONAL ENHANCEMENTS INTELLIGENCE	9,473	9,473	9,473		
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	1,171,125	1,175,625	1,145,125	−26,000	−30,500
	DARPA UNDISTRIBUTED REDUCTION		−100,000			+100,000
999	CLASSIFIED PROGRAMS	4,227,920	4,038,311	4,078,286	−149,634	+39,975
	UNDISTRIBUTED		−26,000			+26,000
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, DEF-WIDE	19,755,678	19,298,865	19,117,270	−638,408	−181,595

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Item	2012 budget estimate	Committee recommendation	Change from budget estimate
3	Basic Research Initiatives	14,731	7,731	−7,000
	Reduction to new starts			−7,000
6	National Defense Education Program	101,591	86,591	−15,000
	Unexecutable growth			−15,000
8	Joint Munitions Technology	21,592	20,592	−1,000
	Excessive growth			−1,000
9	Biomedical Technology	110,000	95,000	−15,000
	Unsustained funding			−15,000
12	Systems 2020 Applied Research	4,381		−4,381
	Duplication of effort			−4,381
13	Information & Communications Technology	400,499	354,125	−46,374
	IT–03 unsustained funding			−12,900
	IT–04 unsustained funding			−13,474
	Reduction to new starts			−20,000
15	Machine Intelligence	61,351	52,276	−9,075
	Unsustained growth			−9,075
18	Data to Decisions Applied Research	9,235	3,235	−6,000
	Delay of Fiscal Year 2011 new start			−6,000
19	Cyber Security Research	9,735	4,735	−5,000
	Authorization adjustment			−5,000
20	Human, Social and Culture Behavior Modeling (HSCB) Applied Research	14,923	7,923	−7,000
	Excessive growth			−7,000
21	Tactical Technology	206,422	202,422	−4,000
	Reduction to new starts			−4,000
22	Materials and Biological Technology	237,837	222,837	−15,000
	Reduction to new starts			−15,000
27	Joint Munitions Advanced Technology	24,771	15,771	−9,000
	Excessive growth			−9,000
32	Joint Advanced Concepts	7,903	6,803	−1,100
	Unsustained growth			−1,100
34	Systems 2020 Advanced Technology Development	4,381		−4,381
	Lack of transition plan			−4,381
41	Joint Capability Technology Demonstrations	187,707	177,707	−10,000
	Execution delays			−10,000
43	Data to Decisions Advanced Technology Development	9,235	4,235	−5,000
	Delay of Fiscal Year 2011 new start			−5,000
45	Cyber Security Advanced Research	10,709	5,709	−5,000
	Authorization adjustment			−5,000
46	Human, Social and Culture Behavior Modeling (HSCB) Advanced Development	18,179	12,179	−6,000
	Excessive growth			−6,000
47	Defense-Wide Manufacturing Science and Technology Program	17,888	47,888	+30,000
	Industrial Base Innovation Fund program—Authorization increase			+30,000
51	Deployment and Distribution Enterprise Technology	41,976	29,976	−12,000
	Excessive growth			−12,000
53	Microelectronics Technology Development and Support	91,132	61,132	−30,000
	90nm Next Generation Foundry			−30,000
55	Advanced Electronics Technologies	160,286	150,286	−10,000
	Reduction to new starts			−10,000
58	Command, Control and Communications Systems	296,537	261,606	−34,931
	CCC–01 unsustained growth			−7,490
	CCC–02 unsustained growth			−3,850
	CCC–CLS unsustained growth			−10,591
	Reduction to new starts			−13,000
60	Network-Centric Warfare Technology	235,245	208,503	−26,742
	NET–01 unsustained growth			−11,742

[In thousands of dollars]

Line	Item	2012 budget estimate	Committee recommendation	Change from budget estimate
	Reduction to new starts			−15,000
61	Sensor Technology	271,802	233,505	−38,297
	SEN–03 unsustained growth			−19,267
	SEN–CLS unsustained growth			−19,030
61A	Defense Rapid Innovation Program		200,000	+200,000
	Defense Rapid Innovation Program—Authorization increase			+200,000
65	Quick Reaction Special Projects	89,925	50,765	−39,160
	P832			−4,160
	P826/P828 Excessive growth			−35,000
66	Joint Experimentation	58,130	8,130	−50,000
	Program adjustment			−50,000
68	Directed Energy Research	96,329	36,329	−60,000
	Authorization Adjustment			−60,000
69	Next Generation Aegis Missile	123,456		−123,456
	Transfer to SM–3 IB and SM–3 IIA for authorization increases			−123,456
73	CWMD Systems	7,788	788	−7,000
	Program reduction			−7,000
74	Special Operations Advanced Technology Development	35,242	30,242	−5,000
	Excess to need			−5,000
77	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	36,798	28,798	−8,000
	Unexecutable growth			−8,000
83	Ballistic Missile Defense Terminal Defense Segment	290,452	310,452	+20,000
	THAAD production improvements—transfer from Procurement, Defense-Wide for authorization increase			+20,000
86	Chemical and Biological Defense Program	261,143	213,155	−47,988
	JPID program restructure			−13,988
	INATS schedule delays			−13,000
	VAC FILO execution delays			−9,000
	IBP schedule delay			−12,000
88	Ballistic Missile Defense Test & Targets	1,071,039		−1,071,039
	MRBM revised acquisition strategy—transfer to AEGIS program office			−36,690
	eMRBM contract cost savings			−49,000
	Transfer to lines 88a, 88b and 89			−985,349
88a	BMD Tests		488,382	+488,382
	Transfer from line 88			+488,382
88b	BMD Targets		454,999	+454,999
	Transfer from line 88			+454,999
89	BMD Enabling Programs	373,563	415,531	+41,968
	Transfer from line 88			+41,968
91	AEGIS BMD	960,267	1,026,957	+66,690
	Transfer from Next Generation Aegis Missile for SM–3 Block IB production improvements authorization increase			+30,000
	MRBM revised acquisition strategy—transfer from line 88 for execution			+36,690
99	Sea Based X–Band Radar (SBX)	177,058	157,058	−20,000
	Authorization Adjustment—Excess funds			−20,000
101	Israeli Cooperative Programs	106,100	235,700	+129,600
	David's Sling Weapons Program			+69,400
	Arrow System Improvement Program (ASIP)			+47,200
	Arrow 3 Upper Tier Interceptor Program			+13,000
104	Department of Defense Corrosion Program	3,221	35,321	+32,100
	Authorization increase			+32,100
107	Human, Social and Culture Behavior Modeling (HSCB) Research and Engineering	10,309	7,509	−2,800
	Excessive growth			−2,800
111	AEGIS SM–3 Block IIA Co-Development	424,454	474,454	+50,000
	Transfer from Next Generation Aegis Missile for Risk Reduction authorization increase			+50,000
113	Airborne Infrared (ABIR)	46,877		−46,877

[In thousands of dollars]

Line	Item	2012 budget estimate	Committee recommendation	Change from budget estimate
	Program adjustment			−46,877
116	Defense Acquisition Challenge Program (DACP)		25,000	+25,000
	Restore unjustified reduction			+25,000
119	Chemical and Biological Defense Program	400,608	214,938	−185,670
	Decontamination Family of Systems schedule delays			−10,000
	Bioscavenger program delays			−24,000
	MCMI: Duplication with other Government programs			−151,670
121	Advanced IT Services Joint Program Office (AITS–JPO)	49,198	43,824	−5,374
	Technology Innovation Fund			−25,374
	Cyber threat discovery—Authorization increase			+20,000
130	DOD Enterprise Systems Development and Demonstration	134,285	54,285	−80,000
	Program growth			−80,000
131	DCMO Policy and Integration	41,808	21,808	−20,000
	Program growth			−20,000
139	Central Test and Evaluation Investment Development (CTEIP)	140,231	160,231	+20,000
	Restore unjustified reduction			+20,000
147	Classified Program USD(P)		100,000	+100,000
	Classified Program USD(P)			+100,000
165	Development Test and Evaluation	15,805	20,805	+5,000
	Fiscal Year 2012 WSARA shortfall—Authorization increase			+5,000
174	Cyber Security Initiative	10,000	5,000	−5,000
	Execution delays			−5,000
177	COCOM Exercise Engagement and Training Transformation (CE2T2)	59,958	38,090	−21,868
	P754: Duplication with Service initiatives			−21,868
183	Enterprise Security System (ESS)	8,706	3,706	−5,000
	Excessive growth			−5,000
192	Defense Info Infrastructure Engineering and Integration	8,366	18,366	+10,000
	Cybersecurity pilots—Authorization increase			+10,000
213	Distributed Common Ground/Surface Systems	4,303	1,303	−3,000
	Unjustified increase			−3,000
223	RQ–11 UAV	3,000		−3,000
	Lack of full funding			−3,000
226	Special Operations Aviation Systems Advanced Development	89,382	64,382	−25,000
	Silent Knight radar test delays			−10,000
	MC–130 TF/TA radar contract award delay			−15,000
229	SOF Operational Enhancements	60,915	95,915	+35,000
	Combat Dragon II Limited Objective Experiment Unfunded JUON Requirement—Transfer from RDAF, Line 86			+35,000
244	SOF Underwater Systems	92,424	57,424	−35,000
	Excessive growth			−35,000
249	Classified Programs	4,227,920	4,078,286	−149,634
	File sanitization tool (FiST) Authorization increase			+3,000
	Program adjustment			−152,634

Minerva.—The fiscal year 2012 budget request includes $24,700,000 to continue the Minerva program, an increase of $6,700,000 over amounts appropriated in fiscal year 2011. The Committee recommends fully funding the proposed expansion of Minerva Chairs at Defense education institutions, as well as the continuation of ongoing studies; however, the Committee notes the limited value of long-term studies for the warfighter and recommends no funding to initiate new studies.

Joint Capability Technology Demonstrations [JCTDs].—The fiscal year 2012 budget request includes $187,707,000 for JCTDs, of which $33,690,000 is identified in the budget justification materials as being for "Additional fiscal year 2011 JCTD New Starts". The Committee notes that funding for fiscal year 2011 New Starts was previously appropriated in fiscal year 2011 and that New Starts

funded with fiscal year 2012 funds are considered fiscal year 2012 New Starts, subject to appropriate notification procedures.

90nm Next Generation Foundry.—The fiscal year 2012 budget request includes $30,000,000 to initiate the establishment of a 90nm Next Generation Foundry at the Defense Microelectronics Agency. While the total costs to stand up this new Foundry are not yet known, the Committee understands that commercial equivalents have cost in excess of $1,000,000,000. The Committee notes that to date, the requirement for assured chips has been met by commercial industry under a joint Trusted Foundry program managed by the Department of Defense and the National Security Agency. The Committee is not aware of any quality issues affecting that program. Accordingly, the Committee recommends no funding that allows the Department to establish its own Foundry. Further, the Committee recommends full funding to continue the Trusted Foundry program.

Department of Defense Corrosion Program.—The fiscal year 2012 budget request includes $3,221,000 for the Department of Defense Corrosion Program, a decrease of $36,200,000 from the amount appropriated in fiscal year 2011. The Committee remains concerned that the Department continues to underfund its corrosion program despite its well-known impact on mission readiness and safety. The Department of Defense estimates that corrosion costs the Department over $22,900,000,000 annually. The Committee notes that in its annual report to Congress on Department of Defense Corrosion programs, submitted on March 29, 2011, the Department has identified a fiscal year 2012 requirement of $43,000,000. According to the Government Accountability Office, failure to fund this budget shortfall could result in passing up additional cost avoidance of up to $721,400,000. Therefore, the Committee recommends additional funding of $32,100,000 for the Department of Defense Corrosion Program, as authorized, to mitigate this shortfall and urges the Department to fully fund the identified requirement.

Business Transformation Agency Program Transfers.—The fiscal year 2012 budget request includes $134,285,000 to continue several programs that were previously managed by the Business Transformation Agency [BTA], which was disestablished effective September 30, 2011. Beginning in fiscal year 2012, these programs are scheduled to transfer to the Defense Logistics Agency. Despite the disestablishment of the BTA, these programs grow by almost $95,000,000 over previously programmed amounts, although less than 50 percent of program personnel will be retained to conduct oversight over these programs. Therefore, the Committee recommends a corresponding reduction to the budget request.

Development Test and Evaluation [DT&E] Shortfall.—The fiscal year 2012 budget request includes $20,805,000 for Developmental Testing oversight. The Committee understands that this falls short of the requirement to fully execute responsibilities under the Weapons System Acquisition Reform Act of 2009. Therefore, the Committee recommends additional funding, as authorized in S. 1253, the National Defense Authorization Act of Fiscal Year 2012, as reported, to fully fund the Department's DT&E requirement. The Committee remains concerned with the Department's heavy reliance on contractors to exercise its oversight responsibilities and di-

rects that none of the additional funds recommended be applied towards quasi government organizations.

Special Operations Command [SOCOM] Undersea Mobility Concepts.—The fiscal year 2012 budget request includes $92,242,000 for several programs that are designed to collectively fill the capability gap that remains following termination of the Advanced Seal Delivery System [ASDS] and its successor, the Joint Multi-Mission Submersible [JMMS]. Combined with previously appropriated, but still unobligated funding of over $30,000,000, the funds provided in this act would allow SOCOM to award several commercial contracts to develop a Family of Systems to meet its requirement. The Committee notes that full cost estimates for these efforts were not available with the fiscal year 2012 budget submission. The Committee directs SOCOM to provide with the fiscal year 2013 budget submission separate cost estimates for the Technology Development and Engineering and Manufacturing Development phases for each of the projects in support of Undersea Mobility, as well as estimated procurement costs.

Defense Advanced Research Projects Agency [DARPA].—The fiscal year 2012 budget request includes approximately $3,000,000,000 for DARPA. The Committee notes that roughly 50 percent of the budget request is contained in only five Program Elements, of which one is greater than $400,000,000. The Committee is concerned by the level of resources requested in single Program Elements, particularly in light of DARPA's considerable financial flexibility. The Committee believes that transparency would be better served by reducing the size of DARPA's individual Program Elements.

Energy Security and Renewable Fuels.—The Committee notes that today's national security challenges are increasingly complex and require a wide range of military capabilities and a large and reliable supply of energy. According to the Department's Operational Energy Strategy, issued in May 2011, the Department of Defense consumed nearly 5 billion gallons of petroleum in military operations at a cost of $13,200,000,000 in 2010. The Committee supports the Department's efforts to develop and implement an energy security strategy that includes reducing energy consumption, transitioning to alternative energy sources, and building more fuel-efficient vehicles and weapons. The Committee is aware that promising research is underway on renewable energy technologies that do not displace food production, including deepwater offshore wind energy, and wood-to-jet fuel and waste-to-energy conversion, and encourages the Department to continue to support research on these innovative technologies.

Joint Department of Defense and Interagency Interoperable Net-Centric Enterprise.—The Committee recognizes the importance of interoperability among military and other government communications networks. In the Department's recently announced cybersecurity strategy, the Committee understands that the Department plans to work closely with the Department of Homeland Security, other interagency partners, and the private sector to develop new capabilities and improve interoperability between Federal agencies and public-private corporations to build a more robust cyber defense. The Committee encourages the Department of De-

fense to include input and expertise from academic institutions to address challenges that persist when incompatible tactical communications devices prevent communications among Government partners. This collaboration should enhance the creation of common test, evaluation, and/or certification capability for homeland defense, homeland security, and defense support of civil authorities accepted by Department of Defense and Department of Homeland Security support systems.

Rapid Innovation Program.—The Committee recommends $200,000,000 for the Rapid Innovation Program as authorized by S. 1253, the National Defense Authorization Act for Fiscal Year 2012, as reported. These funds shall be competitively awarded to merit-based projects and directed toward the science and technology thrust areas described in S. 1253. The Committee directs the Under Secretary of Defense for Acquisition, Technology and Logistics to provide the congressional defense committees with a description of the projects that will be funded through the Rapid Innovation Program 30 days prior to obligation of these funds.

MISSILE DEFENSE AGENCY [MDA]

Budget Justification Materials.—The fiscal year 2012 budget request includes $8,558,556,000 for the Missile Defense Agency's programs under the jurisdiction of the Defense Appropriations Subcommittee. The Committee has stated in the past its concerns with the poor quality and lack of detail of the corresponding budget justification materials and is pleased to note a signification improvement in the budget justification materials compared to prior years. However, the Committee believes that further improvement is warranted and looks forward to working with the Missile Defense Agency to continue improving its budget justification materials. In particular, the Committee is disturbed by the lack of programmatic detail contained in the budget justification materials, particularly as it relates to prior year accomplishments and scheduled events in the budget year. In addition, the Committee has noticed discrepancies between the budget request as detailed in the budget justification materials and funding requests identified in the corresponding Ballistic Missile Defense System Accountability Report [BAR]; as well as a lack of coordination between budget assembly and the Integrated Master Test Plan [IMTP]. While the Committee understands that evolving requirements can affect a budget request, the Committee believes that MDA and its suppliers would benefit from more coordinated strategic planning. For instance, updating the IMTP out of cycle from the budget submission creates a disconnect between resources requested and those required to conduct scheduled test events. Therefore, the Committee directs the MDA to synchronize its budget submission, BAR and IMTP beginning with the fiscal year 2013 budget submission.

Standard Missile-3 [SM–3] Block IB, Block IIA and Block IIB.—The fiscal year 2012 budget request includes $109,800,000 for SM–3 Block IB, $424,454,000 for SM–3 Block IIA, and $123,456,000 for SM–3 Block IIB in Research, Development, Test and Evaluation, Defense-Wide. Each of these missiles is successively more capable and technologically complex. The Committee is concerned about the high concurrency of these developmental efforts, particularly in

light of the development issues that have plagued the SM–3 Block IB missile. In particular, the Committee notes that MDA has programmed in excess of $1,700,000,000 for the SM–3 Block IIB missile over the next 5 years, while at the same time, the SM–3 Block IB is scheduled to enter production in fiscal year 2013, and the SM–3 Block IIA is in early development, with fielding expected in 2018. The Committee is concerned that near-term requirements are underappreciated in order to fund uncertain long-term efforts. In addition, the Committee notes that the requirements for the SM–3 Block IIB remain in flux, as does its acquisition strategy and the associated costs for integration into the Fleet. Finally, the Committee understands that in its current form, the SM–3 Block IIB missile is of limited mission value due to technical constraints. Therefore, the Committee recommends no funding for the SM–3 Block IIB missile and instead recommends transferring those funds to the SM–3 Block IB and IIA missiles for additional risk reduction activities in order to ensure timely fielding of these capabilities to the warfighter.

Targets.—The fiscal year 2012 budget request includes $1,071,039,000 in a single Program Element for both tests and targets. As previously stated in Senate Report 111–295, the Committee believes that funding should be aligned in accordance with program oversight. Therefore, the Committee recommends several transfers to ensure that funds are executed by the appropriate program offices and expects MDA to follow this guidance in preparation of its fiscal year 2013 budget submission. In addition, the Committee notes that subsequent to the fiscal year 2012 budget submission, MDA changed its acquisition strategy for Medium-Range Ballistic Missiles [MRBM] and now plans to modify an existing contract instead of conducting a full and open competition. While specific details have not been provided, the Committee believes that additional oversight for these test assets that are required for Phased Adaptive Approach [PAA] Phase III efforts is warranted, and therefore recommends transferring the funds for the MRBM target class to the Aegis Program Office. The Committee understands that MDA prefers to pool its targets assets in order to achieve efficiencies. However, few efficiencies have been achieved to date and in many instances costs have grown and targets have failed in flight tests, which calls into question whether combining targets into one program has been successful. The Committee is prepared to appropriate future funding for test assets to the corresponding program office if oversight procedures are not improved.

Israeli Cooperative Programs.—The fiscal year 2012 budget request includes $106,100,000 to continue Israeli Cooperative Programs, a decrease of over $100,000,000 from amounts appropriated in fiscal year 2011. The Committee finds this insufficient and recommends additional funds to address Israel's security requirements, as detailed elsewhere in this act, to include an additional $15,000,000 which shall be used only for the Low Rate Initial Production [LRIP] activities as included in the David Sling Weapon System Project Agreement between the two governments.

Airborne Infrared [ABIR].—The fiscal year 2012 budget request includes $46,877,000 to continue development of an airborne infra-

red sensor that would be integrated onto a Reaper unmanned aerial vehicle. The Committee notes the redundancy with other sensors, as well as the challenges associated with the proposed concept of operations which minimize the operational utility of this asset. Therefore, the Committee recommends no funding for this lower-priority project.

Airborne Weapon Layer [AWL].—The Committee understands that the Air Force and MDA are collaborating on an AWL cost benefit analysis to evaluate the suitability of AWL as an element of the Ballistic Missile Defense System. The Committee directs the Air Force and MDA to provide the congressional defense committees the results of the cost benefit analysis with the fiscal year 2013 budget submission.