

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 2013 budget requests a total of \$69,407,767,000 for research, development, test and evaluation appropriations.

SUMMARY OF COMMITTEE ACTION

The Committee recommends research, development, test and evaluation appropriations totaling \$69,091,078,000 for fiscal year 2013. This is \$316,689,000 below the budget estimate.

Committee recommended research, development, test and evaluation appropriations for fiscal year 2013 are summarized below:

SUMMARY OF RESEARCH, DEVELOPMENT, TEST AND EVALUATION APPROPRIATIONS

[In thousands of dollars]

Account	2013 budget estimate	Committee recommendation	Change from budget estimate
Research, Development, Test and Evaluation:			
Research, Development, Test and Evaluation, Army	8,929,415	8,427,588	- 501,827
Research, Development, Test and Evaluation, Navy	16,882,877	16,646,307	- 236,570
Research, Development, Test and Evaluation, Air Force	25,428,046	25,374,286	- 53,760
Research, Development, Test and Evaluation, Defense-Wide	17,982,161	18,419,129	+ 436,968
Operational Test and Evaluation, Defense	185,268	223,768	+ 38,500
Total	69,407,767	69,091,078	- 316,689

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. 3254, the National Defense Authorization Act for Fiscal Year 2013, 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

Research, Development, Test and Evaluation [RDT&E] Budget Exhibits.—The Committee appreciates the efforts of the Under Secretary of Defense, Comptroller, to standardize the RDT&E budget exhibits. However, the Committee notes the absence of R–3 exhibits for many programs resulting from the Financial Management Regulation change that now only requires R–3 exhibits for acquisition category 1D programs. The congressional defense committees rely on these justification exhibits regardless of acquisition category level. Therefore, for the fiscal year 2014 budget submission, the Under Secretary of Defense, Comptroller is directed to provide R–3 exhibits for all programs funded in Budget Activities 4, 5, and 7 regardless of acquisition category or funding amount.

Joint Strike Fighter [JSF] Modernization.—The fiscal year 2013 Navy and Marine Corps' budget request includes \$16,834,000 for modernization, an increase of over \$7,000,000 above the fiscal year 2012 enacted amount. The Committee is concerned that the Department plans to begin modernization when the baseline development program is not scheduled to complete until fiscal year 2018. Beginning modernization in fiscal year 2013 creates a 6-year overlap of baseline development and modernization, adding to existing concurrency risk in the program. Prior to beginning the modernization effort, the Committee directs the Secretary of Defense to create a Joint Requirement Oversight Council and warfighter validated joint modernization roadmap, spanning the unclassified and classified programs, that prioritizes the future capability improvements for each aircraft variant. The Committee denies the fiscal year 2013 request of \$16,834,000 and expects the program office to utilize fiscal year 2012 funding to create this modernization roadmap. In addition, the Committee recommends the program office budget for modernization efforts in a separate program element in future budget submissions.

Joint Strike Fighter [JSF] Configuration Management.—The Committee notes that during the low rate initial production aircraft lots one through five, there is one hardware configuration and five software configurations. Beginning in low rate initial production lot six, the hardware and software configuration differ when compared to earlier lots of aircraft. The Committee is concerned with establishing multiple hardware and software configurations across the fleet, especially because these aircraft deliver to multiple locations worldwide. The Committee recommends the program office establish a hardware and software management strategy to maximize technology insertion without hampering affordability.

Army Missile Defense Programs.—The Committee understands that the Army has initiated a business case analysis [BCA] to determine the costs, benefits and risks associated with a potential transfer of certain missile defense activities and elements from the Army to the Missile Defense Agency [MDA]. The Committee understands that the BCA is still in progress and will review it following its submission to the congressional defense committees. The Com-

mittee further understands that no assets or activities will be transferred during fiscal years 2012 or 2013, consistent with the fact that no funds have been appropriated in this or prior 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.

Foreign Object Debris Detection Systems.—The Committee is concerned that the Department of Defense is not adequately taking advantage of technologies that would reduce foreign object debris-related aircraft engine replacement or repair costs across the services. Accordingly, the Committee encourages the Secretary of Defense to develop a plan to begin the use of high technology debris detection systems to reduce both the hazards and maintenance costs associated with foreign object debris, while improving aviation safety in both ground and air operations.

Technology Transfer.—The Committee recognizes the importance of transitioning technology between the Federal Government and non-Federal organizations, academia, the nonprofit sector, and state and local governments. Technology transfer ensures that taxpayer investments in research and development are used to significantly benefit the economy and the general public, along with promoting commercialization for small businesses. Further, in fulfilling its responsibility to ensure the full use of the results of the Nation's Federal investment in research and development, the Committee encourages the Department of Defense to place an increased focus on transferring technologies to these entities.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY

Appropriations, 2012	\$8,745,492,000
Budget estimate, 2013	8,929,415,000
House allowance	8,593,055,000
Committee recommendation	8,427,588,000

The Committee recommends an appropriation of \$8,427,588,000. This is \$501,827,000 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	2013 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	20,860	20,860	20,860	.....	.....
2	DEFENSE RESEARCH SCIENCES	219,180	219,180	219,180	.....	.....
3	UNIVERSITY RESEARCH INITIATIVES	80,986	80,986	80,986	.....	.....
4	UNIVERSITY AND INDUSTRY RESEARCH CENTERS	123,045	107,446	123,045	.....	+ 15,599
	TOTAL, BASIC RESEARCH	444,071	428,472	444,071	.....	+ 15,599
	APPLIED RESEARCH					
5	MATERIALS TECHNOLOGY	29,041	39,041	69,041	+ 40,000	+ 30,000
6	SENSORS AND ELECTRONIC SURVIVABILITY	45,260	45,260	45,260	.....	.....
7	TRACTOR HIP	22,439	22,439	22,439	.....	.....
8	AVIATION TECHNOLOGY	51,607	51,607	51,607	.....	.....
9	ELECTRONIC WARFARE TECHNOLOGY	15,068	15,068	15,068	.....	.....
10	MISSILE TECHNOLOGY	49,383	49,383	49,383	.....	.....
11	ADVANCED WEAPONS TECHNOLOGY	25,999	25,999	25,999	.....	.....
12	ADVANCED CONCEPTS AND SIMULATION	23,507	23,507	23,507	.....	.....
13	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY	69,062	69,062	69,062	.....	.....
14	BALLISTICS TECHNOLOGY	60,823	60,823	60,823	.....	.....
15	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY	4,465	4,465	4,465	.....	.....
16	JOINT SERVICE SMALL ARMS PROGRAM	7,169	7,169	7,169	.....	.....
17	WEAPONS AND MUNITIONS TECHNOLOGY	35,218	50,218	35,218	.....	- 15,000
18	ELECTRONICS AND ELECTRONIC DEVICES	60,300	80,300	60,300	.....	- 20,000
19	NIGHT VISION TECHNOLOGY	53,244	53,244	53,244	.....	.....
20	COUNTERMINE SYSTEMS	18,850	18,850	33,850	+ 15,000	+ 15,000
21	HUMAN FACTORS ENGINEERING TECHNOLOGY	19,872	19,872	19,872	.....	.....
22	ENVIRONMENTAL QUALITY TECHNOLOGY	20,095	20,095	20,095	.....	.....
23	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY	28,852	28,852	28,852	.....	.....
24	COMPUTER AND SOFTWARE TECHNOLOGY	9,830	9,830	9,830	.....	.....
25	MILITARY ENGINEERING TECHNOLOGY	70,693	70,693	77,693	+ 7,000	+ 7,000
26	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY	17,781	17,781	17,781	.....	.....
27	WARFIGHTER TECHNOLOGY	28,281	28,281	58,281	+ 30,000	+ 30,000
28	MEDICAL TECHNOLOGY	107,891	107,891	107,891	.....	.....

	TOTAL, APPLIED RESEARCH	874,730	919,730	966,730	+ 92,000	+ 47,000
	ADVANCED TECHNOLOGY DEVELOPMENT					
29	WARFIGHTER ADVANCED TECHNOLOGY	39,359	39,359	39,359		
30	MEDICAL ADVANCED TECHNOLOGY	69,580	100,580	77,580	+ 8,000	- 23,000
31	AVIATION ADVANCED TECHNOLOGY	64,215	64,215	76,015	+ 11,800	+ 11,800
32	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY	67,613	77,613	67,613		- 10,000
33	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY	104,359	104,359	144,359	+ 40,000	+ 40,000
34	COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY	4,157	4,157	4,157		
35	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY	9,856	9,856	9,856		
36	ELECTRONIC WARFARE ADVANCED TECHNOLOGY	50,661	50,661	50,661		
37	TRACTOR HIKE	9,126	9,126	9,126		
38	NEXT GENERATION TRAINING & SIMULATION SYSTEMS	17,257	17,257	17,257		
39	TRACTOR ROSE	9,925	9,925	9,925		
40	MILITARY HIV RESEARCH	6,984	22,984	6,984		- 16,000
41	COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT	9,716	9,716	9,716		
42	TRACTOR NAIL	3,487	3,487	3,487		
43	TRACTOR EGGS	2,323	2,323	2,323		
44	ELECTRONIC WARFARE TECHNOLOGY	21,683	21,683	21,683		
45	MISSILE AND ROCKET ADVANCED TECHNOLOGY	71,111	71,111	90,111	+ 19,000	+ 19,000
46	TRACTOR CAGE	10,902	10,902	10,902		
47	HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM	180,582	180,582	228,182	+ 47,600	+ 47,600
48	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY	27,204	27,204	27,204		
49	JOINT SERVICE SMALL ARMS PROGRAM	6,095	6,095	6,095		
50	NIGHT VISION ADVANCED TECHNOLOGY	37,217	37,217	37,217		
51	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS	13,626	13,626	13,626		
52	MILITARY ENGINEERING ADVANCED TECHNOLOGY	28,458	28,458	28,458		
53	ADVANCED TACTICAL COMPUTER SCIENCE & SENSOR TECHNOLOGY	25,226	25,226	25,226		
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	890,722	947,722	1,017,122	+ 126,400	+ 69,400
	DEMONSTRATION & VALIDATION					
54	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION	14,505	24,505	14,505		- 10,000
55	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (SPACE)	9,876	9,876	9,876		
56	LANDMINE WARFARE AND BARRIER—ADV DEV	5,054	5,054	5,054		
57	SMOKE, OBSCURANT AND TARGET DEFEATING SYS—ADV DEV	2,725	2,725	2,725		
58	TANK AND MEDIUM CALIBER AMMUNITION	30,560	30,560	30,560		
59	ADVANCED TANK ARMAMENT SYSTEM [ATAS]	14,347	14,347	14,347		
60	SOLDIER SUPPORT AND SURVIVABILITY	10,073	10,073	4,014	- 6,059	- 6,059
61	TACTICAL ELECTRONIC SURVEILLANCE SYSTEM—AD	8,660	8,660	8,660		
62	NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT	10,715	10,715	10,715		

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
63	ENVIRONMENTAL QUALITY TECHNOLOGY	4,631	4,631	4,631		
64	WARFIGHTER INFORMATION NETWORK-TACTICAL	278,018	278,018	171,418	- 106,600	- 106,600
65	NATO RESEARCH AND DEVELOPMENT	4,961	4,961	4,961		
66	AVIATION—ADV DEV	8,602	8,602	8,602		
67	LOGISTICS AND ENGINEER EQUIPMENT—ADV DEV	14,605	14,605	14,605		
68	COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION	5,054	5,054	5,054		
69	MEDICAL SYSTEMS—ADV DEV	24,384	24,384	24,384		
70	SOLDIER SYSTEMS—ADVANCED DEVELOPMENT	32,050	32,050	32,050		
71	INTEGRATED BROADCAST SERVICE	96	96	96		
72	TECHNOLOGY MATURATION INITIATIVES	24,868	24,868	2,197	- 22,671	- 22,671
72A	ANALYSIS OF ALTERNATIVES			10,871	+ 10,871	+ 10,871
73	TRACTOR JUTE	59	59	59		
75	INDIRECT FIRE PROTECTION CAPABILITY INCREMENT 2—INTERC	76,039	76,039	28,829	- 47,210	- 47,210
77	INTEGRATED BASE DEFENSE	4,043	4,043	4,043		
78	ENDURANCE UAVS	26,196	26,196		- 26,196	- 26,196
	TOTAL, DEMONSTRATION & VALIDATION	610,121	620,121	412,256	- 197,865	- 207,865
	ENGINEERING & MANUFACTURING DEVELOPMENT					
79	AIRCRAFT AVIONICS	78,538	78,538	50,038	- 28,500	- 28,500
80	ARMED, DEPLOYABLE OH—58D	90,494	90,494	90,494		
81	ELECTRONIC WARFARE DEVELOPMENT	181,347	181,347	128,247	- 53,100	- 53,100
83	MID-TIER NETWORKING VEHICULAR RADIO	12,636	12,636	2,636	- 10,000	- 10,000
84	ALL SOURCE ANALYSIS SYSTEM	5,694	5,694	5,694		
85	TRACTOR CAGE	32,095	32,095	5,095	- 27,000	- 27,000
86	INFANTRY SUPPORT WEAPONS	96,478	91,478	89,678	- 6,800	- 1,800
87	MEDIUM TACTICAL VEHICLES	3,006	3,006	3,006		
89	JAVELIN	5,040	5,040	5,040		
90	FAMILY OF HEAVY TACTICAL VEHICLES	3,077	3,077	3,077		
91	AIR TRAFFIC CONTROL	9,769	9,769	9,769		
92	TACTICAL UNMANNED GROUND VEHICLE	13,141	13,141		- 13,141	- 13,141
99	NIGHT VISION SYSTEMS—SDD	32,621		32,621		
100	COMBAT FEEDING, CLOTHING, AND EQUIPMENT	2,132	2,132	2,132		
101	NON-SYSTEM TRAINING DEVICES—SDD	44,787	44,787	44,787		
102	TERRAIN INFORMATION—SDD	1,008		1,008		
103	AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE—SDD	73,333	73,333	48,408	- 24,925	- 24,925

104	CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT	28,937	28,937	28,937	.....	.....
105	AUTOMATIC TEST EQUIPMENT DEVELOPMENT	10,815	10,815	10,815	.....	.....
106	DISTRIBUTIVE INTERACTIVE SIMULATIONS [DIS]—SDD	13,926	13,926	13,926	.....	.....
107	COMBINED ARMS TACTICAL TRAINER [CATT] CORE	17,797	17,797	17,797	.....	.....
108	BRIGADE ANALYSIS, INTEGRATION AND EVALUATION	214,270	214,270	214,270	.....	.....
109	WEAPONS AND MUNITIONS—SDD	14,581	14,581	14,581	.....	.....
110	LOGISTICS AND ENGINEER EQUIPMENT—SDD	43,706	43,706	43,706	.....	.....
111	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS—SDD	20,776	20,776	20,776	.....	.....
112	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT	43,395	43,395	43,395	.....	.....
113	LANDMINE WARFARE/BARRIER—SDD	104,983	104,983	44,483	- 60,500	- 60,500
114	ARTILLERY MUNITIONS	4,346	4,346	4,346	.....	.....
116	ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE	77,223	77,223	49,023	- 28,200	- 28,200
117	RADAR DEVELOPMENT	3,486	3,486	3,486	.....	.....
118	GENERAL FUND ENTERPRISE BUSINESS SYSTEM [GFEB]	9,963	27,163	9,963	.....	- 17,200
119	FIREFINDER	20,517	20,517	20,517	.....	.....
120	SOLDIER SYSTEMS—WARRIOR DEM/VAL	51,851	51,851	31,851	- 20,000	- 20,000
121	ARTILLERY SYSTEMS	167,797	167,797	167,797	.....	.....
122	PATRIOT/MEADS COMBINED AGGREGATE PROGRAM [CAP]	400,861	.....	380,861	- 20,000	+ 380,861
123	NUCLEAR ARMS CONTROL MONITORING SENSOR NETWORK	7,922	7,922	7,922	.....	.....
124	INFORMATION TECHNOLOGY DEVELOPMENT	51,463	51,463	51,463	.....	.....
125	ARMY INTEGRATED MILITARY HUMAN RESOURCES SYSTEM [A-IMH]	158,646	158,646	96,546	- 62,100	- 62,100
126	JOINT AIR-TO-GROUND MISSILE [JAGM]	10,000	10,000	10,000	.....	.....
128	PAC-2/MSE MISSILE	69,029	69,029	69,029	.....	.....
129	ARMY INTEGRATED AIR AND MISSILE DEFENSE [AIAMD]	277,374	277,374	277,374	.....	.....
130	MANNED GROUND VEHICLE	639,874	639,874	639,874	.....	.....
131	AERIAL COMMON SENSOR	47,426	47,426	118,026	+ 70,600	+ 70,600
132	JOINT LIGHT TACTICAL VEHICLE ENG AND MANUFACTURING	72,295	72,295	66,386	- 5,909	- 5,909
133	TROJAN—RH12	4,232	4,232	4,232	.....	.....
134	ELECTRONIC WARFARE DEVELOPMENT	13,942	13,942	13,942	.....	.....
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	3,286,629	2,897,968	2,997,054	- 289,575	+ 99,086
	RDT&E MANAGEMENT SUPPORT					
135	THREAT SIMULATOR DEVELOPMENT	18,090	18,090	18,090	.....	.....
136	TARGET SYSTEMS DEVELOPMENT	14,034	14,034	14,034	.....	.....
137	MAJOR T&E INVESTMENT	37,394	37,394	50,394	+ 13,000	+ 13,000
138	RAND ARROYO CENTER	21,026	21,026	21,026	.....	.....
139	ARMY KWAJALEIN ATOLL	176,816	176,816	176,816	.....	.....
140	CONCEPTS EXPERIMENTATION PROGRAM	27,902	27,902	27,902	.....	.....
142	ARMY TEST RANGES AND FACILITIES	369,900	369,900	369,900	.....	.....
143	ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS	69,183	69,183	69,183	.....	.....

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
144	SURVIVABILITY/LETHALITY ANALYSIS	44,753	44,753	44,753	.....	.....
146	AIRCRAFT CERTIFICATION	5,762	5,762	5,762	.....	.....
147	METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES	7,402	7,402	7,402	.....	.....
148	MATERIEL SYSTEMS ANALYSIS	19,954	19,954	19,954	.....	.....
149	EXPLOITATION OF FOREIGN ITEMS	5,535	5,535	5,535	.....	.....
150	SUPPORT OF OPERATIONAL TESTING	67,789	67,789	70,789	+ 3,000	+ 3,000
151	ARMY EVALUATION CENTER	62,765	62,765	62,765	.....	.....
152	SIMULATION & MODELING FOR ACQ, RQTS, & TNG [SMART]	1,545	1,545	1,545	.....	.....
153	PROGRAMWIDE ACTIVITIES	83,422	83,422	83,422	.....	.....
154	TECHNICAL INFORMATION ACTIVITIES	50,820	50,820	50,820	.....	.....
155	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY	46,763	56,763	46,763	.....	- 10,000
156	ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT	4,601	4,601	4,601	.....	.....
157	MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT)	18,524	18,524	18,524	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	1,153,980	1,163,980	1,169,980	+ 16,000	+ 6,000
	OPERATIONAL SYSTEMS DEVELOPMENT					
159	MLRS PRODUCT IMPROVEMENT PROGRAM	143,005	143,005	118,005	- 25,000	- 25,000
161	PATRIOT PRODUCT IMPROVEMENT	109,978	109,978	39,978	- 70,000	- 70,000
162	AEROSTAT JOINT PROJECT OFFICE	190,422	190,422	159,922	- 30,500	- 30,500
164	ADV FIELD ARTILLERY TACTICAL DATA SYSTEM	32,556	32,556	32,556	.....	.....
165	COMBAT VEHICLE IMPROVEMENT PROGRAMS	253,959	253,959	196,859	- 57,100	- 57,100
166	MANEUVER CONTROL SYSTEM	68,325	68,325	68,325	.....	.....
167	AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS	280,247	226,147	216,047	- 64,200	- 10,100
168	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	898	898	898	.....	.....
169	DIGITIZATION	35,180	35,180	10,180	- 25,000	- 25,000
169A	NETWORK INTEGRATED EVALUATION [NIE] .....	.....	.....	28,200	+ 28,200	+ 28,200
171	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM	20,733	20,733	20,733	.....	.....
172	TRACTOR CARD	63,243	63,243	63,243	.....	.....
173	JOINT TACTICAL GROUND SYSTEM	31,738	31,738	31,738	.....	.....
174	JOINT HIGH SPEED VESSEL [JHSV]	35	35	35	.....	.....
176	SECURITY AND INTELLIGENCE ACTIVITIES	7,591	7,591	7,591	.....	.....
177	INFORMATION SYSTEMS SECURITY PROGRAM	15,961	15,961	15,961	.....	.....
178	GLOBAL COMBAT SUPPORT SYSTEM	120,927	120,927	120,927	.....	.....
179	SATCOM GROUND ENVIRONMENT (SPACE)	15,756	15,756	15,756
180	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM	14,443	14,443	14,443

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182	TACTICAL UNMANNED AERIAL VEHICLES	31,303	31,303	28,503	- 2,800	- 2,800
183	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	40,876	40,876	40,876
184	MQ-1 SKY WARRIOR A UAV	74,618	74,618	74,618	.....	.....
185	RQ-11 UAV	4,039	4,039	4,039	.....	.....
186	RQ-7 UAV	31,158	31,158	31,158	.....	.....
187	VERTICAL UAS	2,387	2,387	.....	- 2,387	- 2,387
188	BIOMETRICS ENABLED INTELLIGENCE	15,248	15,248	15,248	.....	.....
189	END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES	59,908	59,908	59,908	.....	.....
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	1,664,534	1,610,434	1,415,747	- 248,787	- 194,687
999	CLASSIFIED PROGRAMS	4,628	4,628	4,628	.....	.....
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY	8,929,415	8,593,055	8,427,588	- 501,827	- 165,467

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Item	2013 budget estimate	Committee recommendation	Change from budget estimate
5	Materials Technology	29,041	69,041	+ 40,000
	Materials research and technology			+ 15,000
	Nanotechnology research			+ 10,000
	Silicon carbide research			+ 15,000
20	Countermeasures Systems	18,850	33,850	+ 15,000
	Unexploded ordnance and landmine detection research			+ 15,000
25	Military Engineering Technology	70,693	77,693	+ 7,000
	U.S. Army Corps of Engineers research			+ 7,000
27	Warfighter Technology	28,281	58,281	+ 30,000
	Clothing and equipment technology			+ 15,000
	Power generation and storage research			+ 15,000
30	Medical Advanced Technology	69,580	77,580	+ 8,000
	Military Burn Research Program			+ 8,000
31	Aviation Advanced Technology	64,215	76,015	+ 11,800
	Transfer from line 72, only for fully funded 2nd JMR demonstrator in accordance with Army acquisition strategy			+ 11,800
33	Combat Vehicle and Automotive Advanced Technology	104,359	144,359	+ 40,000
	Alternative energy research			+ 40,000
45	Missile and Rocket Advanced Technology	71,111	90,111	+ 19,000
	Restore unjustified reduction			+ 19,000
47	High Performance Computing Modernization Program	180,582	228,182	+ 47,600
	Restore unjustified reduction			+ 47,600
60	Soldier Support and Survivability	10,073	4,014	- 6,059
	C08: unjustified request			- 6,059
64	Warfighter Information Network-Tactical—DEM/VAL	278,018	171,418	- 106,600
	Increment III excessive growth			- 100,000
	Management Services—excessive growth			- 6,600
72	Technology Maturation Initiatives	24,868	2,197	- 22,671
	Transfer to line 31			- 11,800
	Analysis of Alternatives—Transfer to line 72A			- 10,871
72A	Analysis of Alternatives		10,871	+ 10,871
	Analysis of Alternatives—Transfer from line 72			+ 10,871
75	Indirect Fire Protection Capability Increment 2-Intercept [IFPC2]	76,039	28,829	- 47,210
	Technology development contract award delays			- 47,210
78	Endurance UAVs	26,196		- 26,196
	Fielding delays			- 5,999
	Transfer to Title IX: LEMV military utility assessment in theater			- 20,197
79	Aircraft Avionics	78,538	50,038	- 28,500
	Transfer to Title IX: DVE ONS			- 28,500
81	Electronic Warfare Development	181,347	128,247	- 53,100
	CIRCM TD delays			- 53,100
83	Midtier Networking Vehicular Radio [MNVR]	12,636	2,636	- 10,000
	Funded via Prior Approval Above Threshold Re-programming Fiscal Year 12-14			- 10,000
85	TRACTOR CAGE	32,095	5,095	- 27,000
	Lack of requirements			- 27,000
86	Infantry Support Weapons	96,478	89,678	- 6,800
	S61—Increment 1b program adjustment			- 6,800
92	Tactical Unmanned Ground Vehicle [TUGV]	13,141		- 13,141
	Lack of competitive acquisition strategy			- 13,141
103	Air Defense Command, Control and Intelligence—Eng Dev Interceptor enhancements—program terminated by Army	73,333	48,408	- 24,925
113	Landmine Warfare/Barrier—Eng Dev	104,983	44,483	- 60,500

[In thousands of dollars]

Line	Item	2013 budget estimate	Committee recommendation	Change from budget estimate
	HMDS contract award delays and change to acquisition strategy			-40,000
	EHP—Army requested adjustment			-10,600
	RCIS program delays			-5,400
	AMDS contract award delays			-4,500
116	Army Tactical Command & Control Hardware and Software C34: Transfer to line 169A for NIE Technology Transition	77,223	49,023	-28,200
120	Soldier Systems—Warrior Dem/Val	51,851	31,851	-20,000
	S75—excessive new hardware and software development, integration, and evaluation			-20,000
122	Patriot/MEADS Combined Aggregate Program [CAP]	400,861	380,861	-20,000
	Program adjustment			-400,861
	Completion of Proof of Concept or termination liability required by paragraph 19.5.2 of Memorandum of Understanding if certified by the Secretary of Defense			+348,000
	US MEADS National Program Office			+52,861
	US MEADS National Program Office reduction			-20,000
125	Integrated Personnel and Pay System-Army [IPPS-A]	158,646	96,546	-62,100
	IPPS-A execution delays and Increment II concurrency			-62,100
131	Aerial Common Sensor	47,426	118,026	+70,600
	Transfer from Aircraft Procurement, Army, line 18 only to exercise option for two additional EMD aircraft, as requested by Army			+46,900
	Program increase—only to fully fund EMD			+23,700
132	Joint Light Tactical Vehicle [JLTV] Engineering and Manufacturing Development Ph	72,295	66,386	-5,909
	Two-month contract award delay			-5,909
137	Major T&E Investment	37,394	50,394	+13,000
	Program increase—restore unjustified reduction			+13,000
150	Support of Operational Testing	67,789	70,789	+3,000
	Program increase—restore unjustified reduction			+3,000
159	MLRS Product Improvement Program	143,005	118,005	-25,000
	Fire Control System—forward financing			-25,000
161	Patriot Product Improvement	109,978	39,978	-70,000
	Growth without acquisition strategy			-70,000
162	Aerostat Joint Project Office	190,422	159,922	-30,500
	COCOM exercise—funds requested early to need			-30,500
165	Combat Vehicle Improvement Programs	253,959	196,859	-57,100
	DS5: Funds requested prematurely for fiscal year 2014 contract award			-57,100
167	Aircraft Modifications/Product Improvement Programs	280,247	216,047	-64,200
	Project 504: ITEP ahead of need			-64,200
169	Digitization	35,180	10,180	-25,000
	Transfer to Other Procurement, Army for Non-Developmental Emerging Technologies, as requested by Army			-25,000
169A	Network Integrated Evaluation [NIE] Technology Transition		28,200	+28,200
	Transfer from line 116, C34, only for NIE Technology transition			+28,200
182	Tactical Unmanned Aerial Vehicles	31,303	28,503	-2,800
	11B: TSP Increment II funding ahead of need			-2,800
187	Vertical UAS	2,387		-2,387
	Lack of justification			-2,387

Joint Multi-Role Program [JMR].—The fiscal year 2013 budget request includes \$11,800,000 in the Aviation Advanced Technology line to initiate the development of a Joint Multi-Role [JMR] demonstrator. The Committee notes that the Army's acquisition strategy calls for funding two competitively awarded demonstrators; how-

ever, only one demonstrator is fully budgeted for in this line. The Committee understands that the Army intends to transfer the funds required for a second demonstrator to the Aviation Advanced Technology line in the year of execution. The Committee notes that this is an inappropriate and risky method to initiate and fund the Army's next major aviation acquisition program, and recommends funding both demonstrators in the same line by transferring the required fiscal year 2013 funds. Further, the Committee directs that no funds may be obligated or expended for a JMR demonstrator in fiscal year 2013 until the Deputy Assistant Secretary of the Army for Research and Technology certifies in writing to the congressional defense committees that the JMR demonstrator program is fully and appropriately budgeted for in accordance with the Army's acquisition strategy.

Combat Vehicle Modernization Affordability.—The fiscal year 2013 budget request includes \$893,900,000 in Research, Development, Test and Evaluation, Army, program elements 0603653A, 0605625A, and 0203735A, for the modernization of the Army's combat vehicles, to include Stryker, Bradley, Abrams, the Armored Multi-Purpose Vehicle [AMPV] and the Ground Combat Vehicle [GCV]. This includes \$639,900,000, over 70 percent, for the GCV. The Committee notes that programmatic and funding requirements for the remainder of the combat vehicle fleet have not been held stable. For example, the fiscal year 2013 budget request terminates the Stryker Modernization program after 5 years and an investment in excess of \$250,000,000. Instead, the Army intends to execute Stryker modernization through Engineering Change Proposals [ECPs]; however, the Committee notes that there is no funding programmed across the Future Years Defense Program [FYDP] for a Stryker ECP.

The Committee notes that the Army has programmed more than 80 percent of its combat vehicle modernization budget over the next 5 years for the ground combat vehicle, which will eventually make up roughly 10 percent of the Army's combat vehicle fleet. The Committee is concerned that the Army is not adequately budgeting for modernization efforts for a large portion of the fleet. The Committee understands that the Army is conducting a business case analysis on future improvements of its combat vehicle fleet and directs the Secretary of the Army to provide the findings of this analysis to the congressional defense committees with the fiscal year 2014 budget submission.

Warfighter Information Network—Tactical [WIN-T].—The fiscal year 2013 budget request includes \$275,232,000 for WIN-T Increment III, an increase of \$99,544,000 over amounts appropriated in fiscal year 2012. A proposal made by the Army to accelerate the program following a rebaselining necessitated by a previous Nunn-McCurdy breach was denied by the Congress in fiscal year 2012, and the Army subsequently restructured the program. In addition, the Army is exploring alternate programs at the Network Integration Evaluation [NIE] that could deliver the necessary WIN-T Increment III capabilities to the warfighter at a lower cost. Therefore, the Committee finds it premature to request such a significant budget increase and recommends a reduction of \$106,600,000 that includes a corresponding reduction of proposed program office

growth. This recommendation continues to fund WIN-T Increment III development at the current level.

Analyses of Alternatives [AoA].—The fiscal year 2013 budget request includes \$10,871,000 within program element 0604115A for Analyses of Alternatives. As previously stated in Senate Report 112-77, the Committee believes that these funds should be requested in a separate program element. Therefore, consistent with the recommendation contained in House Report 112-284, the Joint Explanatory Statement of the Committee of Conference to accompany Public Law 112-74, the Department of Defense Appropriations Act, 2012, the Committee again recommends transferring these funds to a separate line, and directs the Army to follow this approach in future budget submissions. Further, the Committee directs that none of these funds may be obligated or expended to initiate an Analysis of Alternatives without 30-day prior notification to the congressional defense committees identifying the purpose of the AoA and certifying its full funding.

Degraded Visual Environment [DVE].—The fiscal year 2013 budget request includes \$28,500,000 for a DVE capability in response to an operational need. The Committee notes that the capability developed in response to the operational need will not be fielded to an operational unit until fiscal year 2015. Therefore, the Committee questions the operational relevance of this development effort to the current war in Afghanistan. However, given the Department's long-standing concern with DVE, the Committee supports the operational need in the near term and recommends \$12,300,000 for this effort, the amount identified by the Army as required in fiscal year 2013.

In addition, the budget request includes \$15,000,000 to initiate a DVE program of record in fiscal year 2013. The Committee notes that the acquisition strategy for the program of record is pre-decisional; however, the Committee believes that this program should be developed and funded as an enduring capability instead of the ad hoc approach that the Department has undertaken to date. Therefore, the Committee recommends full funding for the program of record. Furthermore, the Committee understands that a capability to improve aviation safety and survivability by incorporating rotary wing performance mission planning tools is under consideration for inclusion in the program of record and encourages the Army to examine the benefits of these tools for increased survivability.

Modernized Expanded Capacity Vehicle [MECV].—Based on Army identified requirements, Congress provided \$20,000,000 in Public Law 112-74, the Department of Defense Appropriations Act, 2012, specifically to continue the MECV program. The Army subsequently terminated the program and requested no funding in the fiscal year 2013 budget. The Committee understands that with funds appropriated in fiscal year 2012, the Army intends to complete the initial phase of the MECV program to assess current light tactical vehicle survivability technologies through vehicle testing and modeling and simulation efforts only. The Committee believes the MECV test program as originally proposed would provide a more complete data set against which to assess the technologies and strongly urges the Army to conduct more extensive testing as

originally proposed to the Committee by the Army. The Committee directs the Army to provide the results of this testing in writing to the congressional defense committees within 60 days of its completion. Further, the Committee directs the Director of Operational Test and Evaluation to provide to the congressional defense committees in writing his observations and findings regarding the test parameters and test execution, as well as an assessment of these technologies in comparison to other light tactical vehicle survivability efforts.

Joint Land Attack Cruise Missile Defense Elevated Netted Sensor [JLENS].—The fiscal year 2013 budget request includes \$30,500,000 for a JLENS Combatant Command Exercise. The Committee notes that the congressional defense committees previously approved an above threshold reprogramming request of \$40,350,000 for this purpose at the end of fiscal year 2011. Subsequently, the Army determined that those funds were requested ahead of need for numerous reasons, and is seeking to again reprogram those funds for higher Army priorities.

In the fiscal year 2013 budget submission, the Army proposes to cancel its planned procurement of JLENS and to conclude the program of record following completion of the Engineering and Manufacturing Development [EMD] phase in fiscal year 2014. The Committee understands that any Combatant Command Exercise would not occur until after the orderly conclusion of the EMD phase in fiscal year 2014. Further, the Committee understands that many details of this exercise, to include the location, scope and a comprehensive cost estimate have yet to be determined. The Committee notes that no operation and maintenance or military construction funds have been budgeted for a Combatant Command Exercise, which, according to previous estimates, could cost in excess of \$250,000,000. Therefore, while the Committee maintains its strong support for Combatant Commanders' unfunded requirements, the Committee concludes that the funds requested in Research, Development, Test and Evaluation, Army for a Combatant Command Exercise in fiscal year 2013 are early to need and recommends no funds for that purpose.

Medium Extended Air Defense System [MEADS].—The fiscal year 2013 budget request includes \$400,861,000 for MEADS, a tri-national ground-based air and terminal ballistic missile defense program among the United States of America, Germany, and Italy. This request would fund the second and final year of a MEADS Proof of Concept and bring the MEADS development program to a close. Under the Proof of Concept, the program would complete verification and testing of the 360-degree multifunction fire control radar and would verify the ability of the PAC-3 Missile Segment Enhancement [MSE] missile to intercept targets from the light-weight, near-vertical launcher; document the specifications, performance characteristics, and capabilities of all system elements; and would conduct two intercept flight tests. The Committee notes that per the report submitted to Congress by the Under Secretary of Defense for Acquisition, Technology and Logistics in accordance with Section 235 of Public Law 112-81, the National Defense Authorization Act for Fiscal Year 2012, the fiscal year 2013 U.S. contribution to the MEADS Proof of Concept is \$348,000,000, and that

the balance of the fiscal year 2013 request is for program office activities.

As an alternative to completing the Proof of Concept, as requested in the fiscal year 2013 budget submission, the Committee understands that the U.S. could potentially seek to end its involvement in the MEADS program after fiscal year 2012. The Committee has been informed by the Department that should the United States decide to pursue this course of action, it would seek to enter a dispute settlement process with the MEADS partners to avoid having to pay termination liability for unilateral early withdrawal from the MEADS program per paragraph 19.5.2 of the MEADS Memorandum of Understanding [MOU]. The Committee notes that over the course of the past year, numerous attempts by the Department to renegotiate the MOU and to jointly conclude the MEADS program after fiscal year 2012 have been rebuffed by the partners. Further, the Committee has been informed that the partners would consider failure of the United States to contribute its fiscal year 2013 MEADS share as required under the MOU a unilateral withdrawal from the program, which would trigger a termination liability funding requirement. The Committee understands that the U.S. termination liability requirement would likely be equal to, but not greater than, the \$348,000,000 required to conclude the Proof of Concept.

The Committee notes that the payment of termination liability for terminated programs is standard practice and enables the Government to retain technical data rights and harvest technologies and end-items for future U.S. requirements, including Combatant Command needs. For example, to date, the Department of Defense has paid more than \$470,000,000 following termination of the Army's Future Combat Systems [FCS] program, which has enabled the transition of certain technologies developed under FCS to other programs. Similarly, the Secretary of Defense and the Chief of Staff of the Army have identified several technologies that the Department would seek to transition from the MEADS program to other U.S. air and missile defense programs upon conclusion of the Proof of Concept. The Committee has been informed, however, that access to these technologies is dependent on bringing the MEADS program to an orderly close by either completing the Proof of Concept as agreed to or by closing out the program following cessation of activities with the payment of termination liability.

Therefore, the Committee recommends sufficient funding to either conclude the MEADS Proof of Concept, as requested by the Department of Defense in the fiscal year 2013 budget submission, or to cover termination liability costs required by paragraph 19.5.2 of the MOU, if the Secretary of Defense certifies to the congressional defense committees that withdrawing from the MEADS MOU is in the national interest of the United States. The Committee directs that none of these funds may be obligated or expended for termination liability until 30 days after the Secretary of Defense notifies the congressional defense committees about the details of any such termination liability requirements.

Enhanced Medium Altitude Reconnaissance and Surveillance System [EMARSS].—The fiscal year 2013 budget request includes \$47,246,000 in Research, Development, Test and Evaluation, Army

to conclude the development of EMARSS during fiscal year 2013. The Committee notes that the Army has adjusted its acquisition strategy and no longer plans to procure the original acquisition objective of 36 aircraft. The Committee has been informed that the Army's revised acquisition strategy is underfunded, and recommends an additional \$70,600,000 in Research, Development, Test and Evaluation, Army for EMARSS. The Committee notes that this fully funds the Engineering and Manufacturing Development [EMD] phase, to include exercising the option for two additional aircraft, as requested by the Army.

Microtechnology Energy.—The Committee understands that the Department of Defense continues its focus on developing sustainable energy technologies that provide strategic effectiveness and energy security in the areas of energy supply, demand and assured distribution. The Committee believes that continued research into these technologies is necessary to develop a wide range of micro- and nanotechnology-enabled mobile military energy technologies. Therefore, the Committee encourages the Department to continue research related to micro technology energy.

Prototype Integration Facility [PIF].—The Army Prototype Integration Facility [PIF] remains a key, award-winning enterprise asset. The Committee notes that since 2002, the PIF has executed in excess of \$2,600,000,000 in rapid response, quick reaction, and high-priority weapons system hardware and services support to the warfighter. 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 continue 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.

Soldier-Worn Battery Technology.—The Committee encourages the Department to continue to develop and improve soldier-worn technology that reduces the weight a soldier carries while also integrating force protection equipment and electronics to reduce power consumption in combat situations.

Blast-Resistant Fuel Tanks.—The Committee understands that the Army has launched an occupant-centric survivability technology development program aimed at increasing survivability for all major vehicle systems, to include fuel systems. The Committee encourages the Army to develop blast-resistant fuel tank technologies leveraging fully modernized technologies for its combat vehicles modernization and reset.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY

Appropriations, 2012	\$17,753,940,000
Budget estimate, 2013	16,882,877,000
House allowance	16,987,768,000
Committee recommendation	16,646,307,000

The Committee recommends an appropriation of \$16,646,307,000. This is \$236,570,000 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	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY					
	BASIC RESEARCH					
1	UNIVERSITY RESEARCH INITIATIVES	113,690	133,690	113,690		- 20,000
2	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	18,261	18,261	18,261		
3	DEFENSE RESEARCH SCIENCES	473,070	473,070	483,070	+ 10,000	+ 10,000
	TOTAL, BASIC RESEARCH	605,021	625,021	615,021	+ 10,000	- 10,000
	APPLIED RESEARCH					
4	POWER PROJECTION APPLIED RESEARCH	89,189	89,189	99,189	+ 10,000	+ 10,000
5	FORCE PROTECTION APPLIED RESEARCH	143,301	143,301	213,301	+ 70,000	+ 70,000
6	MARINE CORPS LANDING FORCE TECHNOLOGY	46,528	46,528	46,528		
7	COMMON PICTURE APPLIED RESEARCH	41,696	41,696	41,696		
8	WARFIGHTER SUSTAINMENT APPLIED RESEARCH	44,127	44,127	44,127		
9	ELECTROMAGNETIC SYSTEMS APPLIED RESEARCH	78,228	78,228	78,228		
10	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH	49,635	64,635	49,635		- 15,000
11	JOINT NON-LETHAL WEAPONS APPLIED RESEARCH	5,973	5,973	5,973		
12	UNDERSEA WARFARE APPLIED RESEARCH	96,814	96,814	96,814		
13	FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV	162,417	162,417	162,417		
14	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH	32,394	32,394	32,394		
	TOTAL, APPLIED RESEARCH	790,302	805,302	870,302	+ 80,000	+ 65,000
	ADVANCED TECHNOLOGY DEVELOPMENT					
15	POWER PROJECTION ADVANCED TECHNOLOGY	56,543	56,543	56,543		
16	FORCE PROTECTION ADVANCED TECHNOLOGY	18,616	18,616	18,616		
19	ELECTROMAGNETIC SYSTEMS ADVANCED TECHNOLOGY	54,858	54,858	64,858	+ 10,000	+ 10,000
20	MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD)	130,598	130,598	130,598		
21	JOINT NON-LETHAL WEAPONS TECHNOLOGY DEVELOPMENT	11,706	11,706	11,706		
22	FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV	256,382	256,382	293,382	+ 37,000	+ 37,000
23	WARFIGHTER PROTECTION ADVANCED TECHNOLOGY	3,880	42,580	3,880		- 38,700
24	UNDERSEA WARFARE ADVANCED TECHNOLOGY		10,000			- 10,000
25	NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS	51,819	51,819	51,819		
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	584,402	633,102	631,402	+ 47,000	- 1,700

7	DEMONSTRATION & VALIDATION					
28	AIR/OCEAN TACTICAL APPLICATIONS	34,085	34,085	34,085		
29	AVIATION SURVIVABILITY	8,783	8,783	8,783		
30	DEPLOYABLE JOINT COMMAND AND CONTROL	3,773	3,773	3,773		
31	AIRCRAFT SYSTEMS	24,512	24,512	24,512		
32	ASW SYSTEMS DEVELOPMENT	8,090	8,090	8,090		
33	TACTICAL AIRBORNE RECONNAISSANCE	5,301	5,301	5,301		
34	ADVANCED COMBAT SYSTEMS TECHNOLOGY	1,506	1,506	1,506		
35	SURFACE AND SHALLOW WATER MINE COUNTERMEASURES	190,622	160,622	188,622	-2,000	+28,000
36	SURFACE SHIP TORPEDO DEFENSE	93,346	93,346	93,346		
37	CARRIER SYSTEMS DEVELOPMENT	108,871	108,871	108,871		
39	PILOT FISH	101,169	101,169	101,169		
40	RETRACT LARCH	74,312	74,312	74,312		
41	RETRACT JUNIPER	90,730	90,730	90,730		
42	RADIOLOGICAL CONTROL	777	777	777		
43	SURFACE ASW	6,704	2,495	6,704		+4,209
44	ADVANCED SUBMARINE SYSTEM DEVELOPMENT	555,123	555,123	77,028	-478,095	-478,095
44A	OHIO REPLACEMENT PROGRAM			483,095	+483,095	+483,095
45	SUBMARINE TACTICAL WARFARE SYSTEMS	9,368	9,368	9,368		
46	SHIP CONCEPT ADVANCED DESIGN	24,609	24,609	24,609		
47	SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES	13,710	9,810	43,710	+30,000	+33,900
48	ADVANCED NUCLEAR POWER SYSTEMS	249,748	249,748	249,748		
49	ADVANCED SURFACE MACHINERY SYSTEMS	29,897	29,897	29,897		
50	CHALK EAGLE	509,988	509,988	499,988	-10,000	-10,000
51	LITTORAL COMBAT SHIP [LCS]	429,420	401,620	416,920	-12,500	+15,300
52	COMBAT SYSTEM INTEGRATION	56,551	56,551	50,551	-6,000	-6,000
53	CONVENTIONAL MUNITIONS	7,342	7,342	7,342		
54	MARINE CORPS ASSAULT VEHICLES	95,182	95,182	83,182	-12,000	-12,000
55	MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM	10,496	10,496	10,496		
56	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	52,331	38,331	52,331		+14,000
57	COOPERATIVE ENGAGEMENT	56,512	56,512	56,512		
58	OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT	7,029	7,029	7,029		
59	ENVIRONMENTAL PROTECTION	21,080	21,080	21,080		
60	NAVY ENERGY PROGRAM	55,324	95,324	55,324		-40,000
61	FACILITIES IMPROVEMENT	3,401	3,401	3,401		
62	CHALK CORAL	45,966	45,966	45,966		
63	NAVY LOGISTIC PRODUCTIVITY	3,811	3,811	3,811		
64	RETRACT MAPLE	341,305	341,305	341,305		
65	LINK PLUMERIA	181,220	181,220	181,220		
66	RETRACT ELM	174,014	174,014	162,014	-12,000	-12,000

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
68	LINK EVERGREEN	68,654	68,654	68,654	.....	.....
69	SPECIAL PROCESSES	44,487	44,487	44,487	.....	.....
70	NATO RESEARCH AND DEVELOPMENT	9,389	9,389	9,389	.....	.....
71	LAND ATTACK TECHNOLOGY	16,132	16,132	16,132	.....	.....
72	NONLETHAL WEAPONS	44,994	44,994	44,994	.....	.....
73	JOINT PRECISION APPROACH AND LANDING SYSTEMS	137,369	137,369	135,454	- 1,915	- 1,915
76	TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES	73,934	73,934	73,934	.....	.....
77	ASE SELF-PROTECTION OPTIMIZATION	711	711	711	.....	.....
78	JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE.	71,300	51,300	51,426	- 19,874	+ 126
79	PRECISION STRIKE WEAPONS DEVELOPMENT PROGRAM	5,654	5,654	5,654	.....	.....
80	SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE	31,549	31,549	28,949	- 2,600	- 2,600
82	OFFENSIVE ANTI-SURFACE WARFARE WEAPON DEVELOPMENT	86,801	86,801	86,801	.....	.....
83	JOINT LIGHT TACTICAL VEHICLE ENGINEERING/MANUFACTURING	44,500	44,500	38,591	- 5,909	- 5,909
84	ASW SYSTEMS DEVELOPMENT—MIP	13,172	13,172	13,172	.....	.....
86	ELECTRONIC WARFARE DEVELOPMENT—MIP	643	643	643	.....	.....
	TOTAL, DEMONSTRATION & VALIDATION	4,335,297	4,275,388	4,285,499	- 49,798	+ 10,111
	ENGINEERING & MANUFACTURING DEVELOPMENT					
87	OTHER HELO DEVELOPMENT	33,978	24,978	33,978	.....	+ 9,000
88	AV-8B AIRCRAFT—ENG DEV	32,789	32,789	17,535	- 15,254	- 15,254
89	STANDARDS DEVELOPMENT	84,988	82,988	76,988	- 8,000	- 6,000
90	MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT	6,866	6,866	6,866	.....	.....
91	AIR/OCEAN EQUIPMENT ENGINEERING	4,060	4,060	4,060	.....	.....
92	P-3 MODERNIZATION PROGRAM	3,451	3,451	3,451	.....	.....
93	WARFARE SUPPORT SYSTEM	13,071	13,071	11,071	- 2,000	- 2,000
94	TACTICAL COMMAND SYSTEM	71,645	71,645	71,645	.....	.....
95	ADVANCED HAWKEYE	119,065	119,065	129,065	+ 10,000	+ 10,000
96	H-1 UPGRADES	31,105	31,105	31,105	.....	.....
97	ACOUSTIC SEARCH SENSORS	34,299	34,299	34,299	.....	.....
98	V-22A	54,412	45,412	54,412	.....	+ 9,000
99	AIR CREW SYSTEMS DEVELOPMENT	2,717	2,717	2,717	.....	.....
100	EA-18	13,009	13,009	13,009	.....	.....
101	ELECTRONIC WARFARE DEVELOPMENT	51,304	51,304	51,304	.....	.....
102	VH-71A EXECUTIVE HELO DEVELOPMENT	61,163	41,163	61,163	+ 20,000
103	NEXT GENERATION JAMMER (NGJ)	187,024	187,024	167,024	- 20,000	- 20,000

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104	JOINT TACTICAL RADIO SYSTEM—NAVY [JTRS—NAVY]	337,480	257,480	337,480	+ 80,000
105	SURFACE COMBATANT COMBAT SYSTEM ENGINEERING	260,616	260,616	260,616	.....	.....
106	LPD-17 CLASS SYSTEMS INTEGRATION	824	824	824	.....	.....
107	SMALL DIAMETER BOMB [SDB]	31,064	31,064	31,064	.....	.....
108	STANDARD MISSILE IMPROVEMENTS	63,891	58,391	43,891	- 20,000	- 14,500
109	AIRBORNE MCM	73,246	73,246	66,996	- 6,250	- 6,250
110	MARINE AIR GROUND TASK FORCE ELECTRONIC WARFARE	10,568	10,568	10,568	.....	.....
111	NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR SYSTEMS ENG	39,974	39,974	39,974	.....	.....
112	FUTURE UNMANNED CARRIER-BASED STRIKE SYSTEM	122,481	122,481	102,481	- 20,000	- 20,000
113	ADVANCED ABOVE WATER SENSORS	255,516	255,516	41,895	- 213,621	- 213,621
113A	AIR AND MISSILE DEFENSE RADAR .....	.....	.....	223,621	+ 223,621	+ 223,621
114	SSN-688 AND TRIDENT MODERNIZATION	82,620	82,620	82,620	.....	.....
115	AIR CONTROL	5,633	5,633	5,633	.....	.....
116	SHIPBOARD AVIATION SYSTEMS	55,826	55,826	55,826	.....	.....
117	COMBAT INFORMATION CENTER CONVERSION	918	918	918	.....	.....
118	NEW DESIGN SSN	165,230	180,230	75,230	- 90,000	- 105,000
119	SUBMARINE TACTICAL WARFARE SYSTEM	49,141	49,141	49,141	.....	.....
120	SHIP CONTRACT DESIGN/LIVE FIRE T&E	196,737	176,737	196,737	.....	+ 20,000
121	NAVY TACTICAL COMPUTER RESOURCES	3,889	3,889	3,889	.....	.....
122	MINE DEVELOPMENT	8,335	8,335	8,335	.....	.....
123	LIGHTWEIGHT TORPEDO DEVELOPMENT	49,818	59,818	36,452	- 13,366	- 23,366
124	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	10,099	10,099	8,099	- 2,000	- 2,000
125	PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS	7,348	7,348	5,348	- 2,000	- 2,000
126	JOINT STANDOFF WEAPON SYSTEMS	5,518	5,518	5,518	.....	.....
127	SHIP SELF DEFENSE (DETECT & CONTROL)	87,662	87,662	87,662	.....	.....
128	SHIP SELF DEFENSE (ENGAGE: HARD KILL)	64,079	64,079	64,079	.....	.....
129	SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)	151,489	151,489	139,489	- 12,000	- 12,000
131	MEDICAL DEVELOPMENT	12,707	41,707	12,707	.....	- 29,000
132	NAVIGATION/ID SYSTEM	47,764	47,764	41,764	- 6,000	- 6,000
133	JOINT STRIKE FIGHTER [JSF]—EMD	737,149	733,949	722,149	- 15,000	- 11,800
134	JOINT STRIKE FIGHTER [JSF]	743,926	740,726	720,209	- 23,717	- 20,517
135	INFORMATION TECHNOLOGY DEVELOPMENT	12,143	12,143	12,143	.....	.....
136	INFORMATION TECHNOLOGY DEVELOPMENT	72,209	72,209	72,209	.....	.....
138	CH-53K	606,204	606,204	606,204	.....	.....
140	MULTI-MISSION MARITIME AIRCRAFT [MMA]	421,102	436,102	394,102	- 27,000	- 42,000
141	DDG-1000	124,655	124,655	124,655	.....	.....
142	TACTICAL COMMAND SYSTEM—MIP	1,170	1,170	1,170	.....	.....
144	TACTICAL CRYPTOLOGIC SYSTEMS	23,255	23,255	23,255	.....	.....
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	5,747,232	5,664,332	5,484,645	- 262,587	- 179,687

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	RDT&E MANAGEMENT SUPPORT					
146	THREAT SIMULATOR DEVELOPMENT	30,790	30,790	30,790	.....	.....
147	TARGET SYSTEMS DEVELOPMENT	59,221	59,221	59,221	.....	.....
148	MAJOR T&E INVESTMENT	35,894	35,894	35,894	.....	.....
149	JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION	7,573	7,573	6,573	- 1,000	- 1,000
150	STUDIES AND ANALYSIS SUPPORT—NAVY	20,963	20,963	17,963	- 3,000	- 3,000
151	CENTER FOR NAVAL ANALYSES	46,856	46,856	46,856	.....	.....
153	TECHNICAL INFORMATION SERVICES	796	796	796	.....	.....
154	MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT	32,782	32,782	47,782	+ 15,000	+ 15,000
155	STRATEGIC TECHNICAL SUPPORT	3,306	3,306	3,306	.....	.....
156	RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT	70,302	70,302	70,302	.....	.....
157	RDT&E SHIP AND AIRCRAFT SUPPORT	144,033	144,033	144,033	.....	.....
158	TEST AND EVALUATION SUPPORT	342,298	372,298	342,298	.....	- 30,000
159	OPERATIONAL TEST AND EVALUATION CAPABILITY	16,399	16,399	16,399	.....	.....
160	NAVY SPACE AND ELECTRONIC WARFARE [SEW] SUPPORT	4,579	4,579	4,579	.....	.....
161	SEW SURVEILLANCE/RECONNAISSANCE SUPPORT	8,000	8,000	8,000	.....	.....
162	MARINE CORPS PROGRAM WIDE SUPPORT	18,490	18,490	18,490	.....	.....
163	TACTICAL CRYPTOLOGIC ACTIVITIES	2,795	2,795	2,795	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	845,077	875,077	856,077	+ 11,000	- 19,000
	OPERATIONAL SYSTEMS DEVELOPMENT					
167	UNMANNED COMBAT AIR VEHICLE [UCAV] ADVANCED COMPONENT	142,282	142,282	142,282	.....	.....
170	STRATEGIC SUB & WEAPONS SYSTEM SUPPORT	105,892	105,892	105,892	.....	.....
171	SSBN SECURITY TECHNOLOGY PROGRAM	34,729	34,729	34,729	.....	.....
172	SUBMARINE ACOUSTIC WARFARE DEVELOPMENT	1,434	1,434	1,434	.....	.....
173	NAVY STRATEGIC COMMUNICATIONS	19,208	19,208	19,208	.....	.....
174	RAPID TECHNOLOGY TRANSITION [RTT]	25,566	25,566	25,566	.....	.....
175	F/A—18 SQUADRONS	188,299	168,299	170,299	- 18,000	+ 2,000
176	E—2 SQUADRONS	8,610	8,610	8,610	.....	.....
177	FLEET TELECOMMUNICATIONS (TACTICAL)	15,695	15,695	15,695	.....	.....
178	SURFACE SUPPORT	4,171	4,171	3,371	- 800	- 800
179	TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER [TMPC]	11,265	11,265	11,265	.....	.....
180	INTEGRATED SURVEILLANCE SYSTEM	45,922	45,922	45,922	.....	.....
181	AMPHIBIOUS TACTICAL SUPPORT UNITS	8,435	8,435	8,435	.....	.....
182	GROUND/AIR TASK ORIENTED RADAR	75,088	75,088	75,088	.....	.....

183	CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT	20,229	20,229	18,544	- 1,685	- 1,685
184	CRYPTOLOGIC DIRECT SUPPORT	1,756	1,756	1,756		
185	ELECTRONIC WARFARE [EW] READINESS SUPPORT	19,843	19,843	19,843		
186	HARM IMPROVEMENT	11,477	11,477	11,477		
187	TACTICAL DATA LINKS	118,818	118,818	90,618	- 28,200	- 28,200
188	SURFACE ASW COMBAT SYSTEM INTEGRATION	27,342	27,342	27,342		
189	MK-48 ADCAP	28,717	38,717	28,717		- 10,000
190	AVIATION IMPROVEMENTS	89,157	89,157	89,157		
191	NAVY SCIENCE ASSISTANCE PROGRAM	3,450	3,450	3,450		
192	OPERATIONAL NUCLEAR POWER SYSTEMS	86,435	86,435	86,435		
193	MARINE CORPS COMMUNICATIONS SYSTEMS	219,054	219,054	206,054	- 13,000	- 13,000
194	MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS	181,693	181,693	171,693	- 10,000	- 10,000
195	MARINE CORPS COMBAT SERVICES SUPPORT	58,393	58,393	54,393	- 4,000	- 4,000
196	USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP)	22,966	22,966	22,966		
197	TACTICAL AIM MISSILES	21,107	21,107	21,107		
198	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE [AMRAAM]	2,857	2,857	2,857		
199	JOINT HIGH SPEED VESSEL [JHSV]	1,932	1,932	1,932		
204	SATELLITE COMMUNICATIONS (SPACE)	188,482	188,482	188,482		
205	CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES	16,749	16,749	16,749		
206	INFORMATION SYSTEMS SECURITY PROGRAM	26,307	26,307	26,307		
207	WWMCCS/Global Command and Control System	500	500	500		
210	COBRA JUDY	17,091	17,091	17,091		
211	NAVY METEOROLOGICAL AND OCEAN SENSORS-SPACE [METOC]	810	810	810		
212	JOINT MILITARY INTELLIGENCE PROGRAMS	8,617	8,617	8,617		
213	TACTICAL UNMANNED AERIAL VEHICLES	9,066	9,066	7,566	- 1,500	- 1,500
215	MANNED RECONNAISSANCE SYSTEMS	30,654	30,654	30,654		
216	DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS	25,917	25,917	25,917		
217	DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS	14,676	14,676	14,676		
218	RQ-4 UAV	657,483	657,483	657,483		
219	MQ-8 UAV	99,600	33,600	99,600		+ 66,000
220	RQ-11 UAV	495	495	495		
221	RQ-7 UAV	863	863	863		
223	SMALL (LEVEL 0) TACTICAL UAS [STUASLO]	9,734	9,734	9,734		
225	RQ-21A	22,343	22,343	22,343		
226	MODELING AND SIMULATION SUPPORT	5,908	5,908	5,908		
227	DEPOT MAINTENANCE (NON-IF)	27,391	27,391	27,391		
229	INDUSTRIAL PREPAREDNESS	54,879	64,879	74,879	+ 20,000	+ 10,000
230	MARITIME TECHNOLOGY (MARITECH)	5,000	5,000	5,000		
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	2,824,387	2,758,387	2,767,202	- 57,185	+ 8,815

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
999	CLASSIFIED PROGRAMS	1,151,159	1,351,159	1,136,159	- 15,000	- 215,000
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY	16,882,877	16,987,768	16,646,307	- 236,570	- 341,461

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Item	2013 budget estimate	Committee recommendation	Change from budget estimate
3	Defense Research Sciences	473,070	483,070	+ 10,000
	Nanotechnology Research			+ 10,000
4	Power Projection Applied Research	89,189	99,189	+ 10,000
	Power Projection Applied Research—program increase			+ 10,000
5	Force Protection Applied Research	143,301	213,301	+ 70,000
	Alternative energy research			+ 40,000
	Materials research and technology			+ 15,000
	Power generation and storage research			+ 15,000
19	Electromagnetic Systems Advanced Technology	54,858	64,858	+ 10,000
	Advanced radar research			+ 10,000
22	Future Naval Capabilities Advanced Technology Development ...	256,382	293,382	+ 37,000
	Technology Transition—restore unjustified reduction			+ 37,000
35	Surface and Shallow Water Mine Countermeasures	190,622	188,622	- 2,000
	Excess to need			- 2,000
44	Advanced Submarine System Development	555,123	77,028	- 478,095
	Transfer to RDN Line 44X Ohio class replacement program			- 483,095
	Seawolf risk reduction efforts			+ 5,000
44X	Ohio class replacement program		483,095	+ 483,095
	Transfer from RDN Line 44 Advanced Submarine System Development			+ 483,095
47	Ship Preliminary Design and Feasibility Studies	13,710	43,710	+ 30,000
	TAO(X) Design			+ 30,000
50	CHALK EAGLE	509,988	499,988	- 10,000
	Unjustified cost growth			- 10,000
51	Littoral Combat Ship [LCS]	429,420	416,920	- 12,500
	Reduction to Training architecture			- 12,500
52	Combat System Integration	56,551	50,551	- 6,000
	Program behind in execution			- 6,000
54	Marine Corps Assault Vehicles	95,182	83,182	- 12,000
	Program behind in execution			- 12,000
66	RETRACT ELM	174,014	162,014	- 12,000
	Program behind in execution			- 12,000
73	Joint Precision Approach and Landing Systems—Dem/Val	137,369	135,454	- 1,915
	Program Management cost growth			- 1,915
78	Joint Counter Radio Controlled IED Electronic Warfare [JCREW]	71,300	51,426	- 19,874
	Unjustified miscellaneous contract			- 4,364
	Program Execution			- 15,510
80	Space and Electronic Warfare [SEW] Architecture/Engineering Support	31,549	28,949	- 2,600
	Program behind in execution			- 2,600
83	Joint Light Tactical Vehicle [JLTV] Engineering and Manufacturing Development Ph	44,500	38,591	- 5,909
	Contract award delay			- 5,909
88	AV-8B Aircraft—Eng Dev	32,789	17,535	- 15,254
	Excess functional control computer funding			- 15,254
89	Standards Development	84,988	76,988	- 8,000
	Program behind in execution			- 8,000
93	Warfare Support System	13,071	11,071	- 2,000
	Program behind in execution			- 2,000
95	Advanced Hawkeye	119,065	129,065	+ 10,000
	Advanced radar research			+ 10,000
103	Next Generation Jammer [NGJ]	187,024	167,024	- 20,000
	Milestone delay			- 20,000
108	Standard Missile Improvements	63,891	43,891	- 20,000
	Modernization program delay due to development issues			- 20,000
109	Airborne MCM	73,246	66,996	- 6,250
	Program not meeting key performance parameters			- 3,000
	Overall program behind in execution			- 3,250

[In thousands of dollars]

Line	Item	2013 budget estimate	Committee recommendation	Change from budget estimate
112	Unmanned Carrier Launched Airborne Surveillance and Strike [UCLASS] System	122,481	102,481	-20,000
	Milestone A slipped—program behind schedule			-20,000
113	Advanced Above Water Sensors	255,516	41,895	-213,621
	Transfer to RDN Line 113X Air and Missile Defense Radar			-223,621
	Advanced radar research			+10,000
113X	Air and Missile Defense Radar		223,621	+223,621
	Transfer from RDN Line 113 Advanced Above Water Sensors			+223,621
118	New Design SSN	165,230	75,230	-90,000
	Virginia Payload early to need			-90,000
123	Lightweight Torpedo Development	49,818	36,452	-13,366
	Program forward financed			-13,366
124	Joint Service Explosive Ordnance Development	10,099	8,099	-2,000
	Program behind in execution			-2,000
125	Personnel, Training, Simulation, and Human Factors	7,348	5,348	-2,000
	Program behind in execution			-2,000
129	Ship Self Defense (Engage: Soft Kill/EW)	151,489	139,489	-12,000
	Program behind in execution			-12,000
132	Navigation/ID System	47,764	41,764	-6,000
	Program behind in execution			-6,000
133	Joint Strike Fighter [JSF]—EMD	737,149	722,149	-15,000
	Development Support excess to need			-15,000
134	Joint Strike Fighter [JSF]—EMD	743,926	720,209	-23,717
	Block IV development ahead of need			-8,717
	Development Support excess to need			-15,000
140	Multi-Mission Maritime Aircraft [MMA]	421,102	394,102	-27,000
	Spiral 1 award development delay			-20,000
	Spiral 2 award development delay			-7,000
149	Joint Theater Air and Missile Defense Organization	7,573	6,573	-1,000
	Program behind in execution			-1,000
150	Studies and Analysis Support—Navy	20,963	17,963	-3,000
	Program behind in execution			-3,000
154	Management, Technical and International Support	32,782	47,782	+15,000
	Printed Circuit Board Executive Agent—Funds Previous NDAA mandate			+15,000
175	F/A-18 Squadrons	188,299	170,299	-18,000
	Program behind in execution			-18,000
178	Surface Support	4,171	3,371	-800
	Program behind in execution			-800
183	Consolidated Training Systems Development	20,229	18,544	-1,685
	Program behind in execution			-1,685
187	Tactical Data Links	118,818	90,618	-28,200
	Program behind in execution			-28,200
193	Marine Corps Communications Systems	219,054	206,054	-13,000
	Common aviation command and control system late contract award			-9,000
	Marine personnel carrier—excess program management ..			-4,000
194	Marine Corps Ground Combat/Supporting Arms Systems	181,693	171,693	-10,000
	Program behind in execution			-10,000
195	Marine Corps Combat Services Support	58,393	54,393	-4,000
	Program behind in execution			-4,000
213	Tactical Unmanned Aerial Vehicles	9,066	7,566	-1,500
	Contract award delay			-1,500
229	Industrial Preparedness	54,879	74,879	+20,000
	Industrial preparedness			+20,000
999	Classified Programs	1,151,159	1,136,159	-15,000
	Classified adjustment			-15,000

Ocean Renewable Energy.—The Committee commends the Navy's efforts to support ocean renewable energy testing, research, development, and deployment for maritime security systems, support at-sea surveillance and communications systems, and further opportu-

nities to reduce the cost of energy and increase energy security at coastal Department of Defense facilities. The Committee encourages the Navy to continue its investments in developing ocean renewable energy technologies and to coordinate with the Department of Energy and designated National Marine Renewable Energy Centers for ocean renewable energy demonstration activities at or near Department of Defense facilities. The Committee understands the Navy's goal is to produce 50 percent of its shore-based energy requirements from alternative sources by 2020 and notes that deepwater offshore wind and other renewable energy sources could offer advantages as an electricity source for Navy facilities. Not later than 90 days after enactment of this act, the Department shall provide a briefing to the congressional defense committees on current and future programs related to ocean renewable energy research and development activities and provide an analysis of the locations within the United States that such activities would be viable.

Automated Test and Re-Test.—The Navy's automated test and re-test [ATRT] program was initiated to focus on reducing test time, fielding higher-quality software and promoting the re-use of tests and software. The Committee is aware that application of ATRT has dramatically reduced system and subsystem test execution times and costs while conducting more thorough testing. Recognizing these benefits, the Navy's Program Executive Officer for Integrated Warfare Systems 1.0 directed each agency under his purview to integrate ATRT into their processes and standard operation procedures. These cost reductions and efficiencies should be implemented Navy-wide and the Committee expects to see the billions of dollars of savings reflected in the Department's fiscal year 2014 budget submission and the future years defense program.

Next Generation Jammer [NGJ] Development.—The fiscal year 2013 request includes \$187,024,000 for Research, Development, Test and Evaluation for the Navy NGJ program. Due to a delay in the technology development phase that was scheduled for fiscal year 2012 but has now moved to late fiscal year 2013, the Committee recommends a reduction of \$20,000,000. In addition, the Committee directs the Government Accountability Office to conduct a review of the program by May 2013 to determine if there are redundancies across the services and assess whether this effort should become a joint service solution.

New Design Submarine Development.—The fiscal year 2013 request includes \$165,230,000 for Research, Development, Test and Evaluation for the Navy's New Design Submarine program. Included in the request is \$99,868,000 to begin development of a new Virginia-class Payload Module [VPM]. The Committee is concerned that increasing the Virginia-class submarine size by one-third to accommodate a 93.7-foot module in the submarine's center will result in instability to proven submarine design, disruption to a stable production line, and add significant cost risk. Preliminary cost estimates indicate development alone will be \$800,000,000. The Committee is also concerned with the lack of defined requirements and cost estimate for an Acquisition Category [ACAT] I Major Defense Acquisition Programs [MDAPs] modification. For example, it is not yet clear what payloads would be carried, how many VPM's

are required, and how the VPM may alter the Virginia-class concept of operations. In addition, VPM will not go on contract until late fiscal year 2013. For these reasons, the Committee finds it is premature to invest nearly \$100,000,000 into this new program and recommends a reduction of \$90,000,000 to the request. The Committee directs the remaining funds to be used to validate the VPM requirement and cost estimate with the Joint Requirement Oversight Council, to ensure the VPM program is subject to the capability and acquisition rigor, typical of an ACAT I MDAP.

Ship Contract Design/Live Fire Test and Evaluation.—The fiscal year 2013 request includes \$196,737,000 for Research, Development, Test and Evaluation for Ship Contract Design/Live Fire Test and Evaluation. This program is experiencing delays in the development phase related to the Ship to Shore connector and is carrying large unobligated balances forward from fiscal year 2012 to fiscal year 2013. Therefore, the Committee encourages the Navy to apply these unobligated balances toward the alternative shock test program to bridge the alternative shock test program’s fiscal year 2013 funding gap. The Committee understands that the alternative shock trial testing is safer for the environment, more cost and time effective, and leverages commercial off-the-shelf technology.

Multimission Maritime Aircraft [MMA] Development Concurrency.—The fiscal year 2013 request includes \$421,102,000 for Research, Development, Test and Evaluation for the Navy MMA program. The MMA program is currently in the development phase scheduled to complete late fiscal year 2013. The Committee is concerned with concurrency in development since, in addition to the baseline development, the program is requesting to begin spiral one and spiral two post development programs. Therefore, the Committee recommends a reduction of \$27,000,000 to this program, and directs the Secretary of the Navy to create a Joint Requirement Oversight Council approved modernization roadmap to validate the additional capabilities required for MMA.

Industrial Preparedness.—The fiscal year 2013 budget request proposes \$54,879,000 for the Navy’s Industrial Preparedness effort. This program funds the development of manufacturing technologies intended to improve the productivity and responsiveness of the U.S. defense industrial base. The Committee recommends an additional \$20,000,000 above the request to accelerate shipbuilding affordability initiatives and expects the Navy to allocate overall program shipbuilding affordability funding proportionally to the following major shipbuilding categories: aircraft carriers, large surface combatants, small surface combatants, attack submarines, and amphibious warfare ships.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE

Appropriations, 2012	\$26,535,996,000
Budget estimate, 2013	25,428,046,000
House allowance	25,117,692,000
Committee recommendation	25,374,286,000

The Committee recommends an appropriation of \$25,374,286,000. This is \$53,760,000 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	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE					
	BASIC RESEARCH					
1	DEFENSE RESEARCH SCIENCES	361,787	361,787	361,787	.....	.....
2	UNIVERSITY RESEARCH INITIATIVES	141,153	141,153	141,153	.....	.....
3	HIGH ENERGY LASER RESEARCH INITIATIVES	13,094	13,094	13,094	.....	.....
	TOTAL, BASIC RESEARCH	516,034	516,034	516,034	.....	.....
	APPLIED RESEARCH					
4	MATERIALS	114,166	114,166	124,166	+ 10,000	+ 10,000
5	AEROSPACE VEHICLE TECHNOLOGIES	120,719	120,719	120,719	.....	.....
6	HUMAN EFFECTIVENESS APPLIED RESEARCH	89,319	89,319	89,319	.....	.....
7	AEROSPACE PROPULSION	232,547	232,547	232,547	.....	.....
8	AEROSPACE SENSORS	127,637	127,637	127,637	.....	.....
9	SPACE TECHNOLOGY	98,375	98,375	98,375	.....	.....
10	CONVENTIONAL MUNITIONS	77,175	77,175	77,175	.....	.....
11	DIRECTED ENERGY TECHNOLOGY	106,196	106,196	85,317	- 20,879	- 20,879
12	DOMINANT INFORMATION SCIENCES AND METHODS	104,362	104,362	104,362	.....	.....
13	HIGH ENERGY LASER RESEARCH	38,557	38,557	38,557	.....	.....
	TOTAL, APPLIED RESEARCH	1,109,053	1,109,053	1,098,174	- 10,879	- 10,879
	ADVANCED TECHNOLOGY DEVELOPMENT					
14	ADVANCED MATERIALS FOR WEAPON SYSTEMS	47,890	47,890	62,890	+ 15,000	+ 15,000
15	SUSTAINMENT SCIENCE AND TECHNOLOGY [S&T]	6,565	6,565	6,565	.....	.....
16	ADVANCED AEROSPACE SENSORS	37,657	37,657	37,657	.....	.....
17	AEROSPACE TECHNOLOGY DEV/DEMO	81,376	81,376	81,376	.....	.....
18	AEROSPACE PROPULSION AND POWER TECHNOLOGY	151,152	151,152	166,152	+ 15,000	+ 15,000
19	ELECTRONIC COMBAT TECHNOLOGY	32,941	32,941	26,941	- 6,000	- 6,000
20	ADVANCED SPACECRAFT TECHNOLOGY	64,557	64,557	64,557	.....	.....
21	MAUI SPACE SURVEILLANCE SYSTEM (MSSS)	29,256	29,256	29,256	.....	.....
22	HUMAN EFFECTIVENESS ADVANCED TECHNOLOGY DEVELOPMENT	21,523	21,523	21,523	.....	.....
23	CONVENTIONAL WEAPONS TECHNOLOGY	36,352	36,352	36,352	.....	.....
24	ADVANCED WEAPONS TECHNOLOGY	19,004	19,004	19,004	.....	.....
25	MANUFACTURING TECHNOLOGY PROGRAM	37,045	57,045	37,045	.....	- 20,000

26	BATTLESPACE KNOWLEDGE DEVELOPMENT & DEMONSTRATION	31,419	31,419	31,419	.....	.....
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	596,737	616,737	620,737	+ 24,000	+ 4,000
	ADVANCED COMPONENT DEVELOPMENT					
28	INTELLIGENCE ADVANCED DEVELOPMENT	3,866	3,866	3,866	.....	.....
29	PHYSICAL SECURITY EQUIPMENT	3,704	3,704	3,704	.....	.....
30	ADVANCED EHF MILSATCOM (SPACE)	229,171	199,171	257,671	+ 28,500	+ 58,500
31	POLAR MILSATCOM (SPACE)	120,676	120,676	120,676	.....	.....
32	SPACE CONTROL TECHNOLOGY	25,144	25,144	23,144	- 2,000	- 2,000
33	COMBAT IDENTIFICATION TECHNOLOGY	32,243	29,243	32,243	.....	+ 3,000
34	NATO RESEARCH AND DEVELOPMENT	4,507	4,507	4,507	.....	.....
35	INTERNATIONAL SPACE COOPERATIVE R&D	652	652	652	.....	.....
36	SPACE PROTECTION PROGRAM [SPP]	10,429	10,429	10,429	.....	.....
37	INTEGRATED BROADCAST SERVICE	19,938	19,938	19,938	.....	.....
38	INTERCONTINENTAL BALLISTIC MISSILE	71,181	71,181	71,181	.....	.....
39	WIDEBAND GAPFILLER SYSTEM RDT&E (SPACE)	12,027	12,027	12,027	.....	.....
40	POLLUTION PREVENTION (DEM/VAL)	2,054	2,054	1,054	- 1,000	- 1,000
41	JOINT PRECISION APPROACH AND LANDING SYSTEMS	57,975	57,975	12,975	- 45,000	- 45,000
42	LONG RANGE STRIKE	291,742	291,742	291,742	.....	.....
43	BATTLE MGMT COM & CTRL SENSOR DEVELOPMENT	114,417	124,417	101,417	- 13,000	- 23,000
44	TECHNOLOGY TRANSFER	2,576	2,576	2,576	.....	.....
45	HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM	16,711	16,711	16,711	.....	.....
47	REQUIREMENTS ANALYSIS AND MATURATION	16,343	16,343	16,343	.....	.....
48	WEATHER SATELLITE FOLLOW-ON	2,000	2,000	.....	- 2,000	- 2,000
50	GROUND ATTACK WEAPONS FUZE DEVELOPMENT	9,423	9,423	9,423	.....	.....
54	OPERATIONALLY RESPONSIVE SPACE .....	.....	.....	110,000	+ 110,000	+ 110,000
55	TECH TRANSITION PROGRAM	37,558	3,058	34,558	- 3,000	+ 31,500
56	NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT)	96,840	86,840	76,840	- 20,000	- 10,000
	TOTAL, ADVANCED COMPONENT DEVELOPMENT	1,181,177	1,113,677	1,233,677	+ 52,500	+ 120,000
	ENGINEERING & MANUFACTURING DEVELOPMENT					
58	GLOBAL BROADCAST SERVICE [GBS]	14,652	14,652	14,652	.....	.....
59	NUCLEAR WEAPONS SUPPORT	25,713	25,713	.....	- 25,713	- 25,713
60	SPECIALIZED UNDERGRADUATE FLIGHT TRAINING	6,583	1,583	1,983	- 4,600	+ 400
61	ELECTRONIC WARFARE DEVELOPMENT	1,975	1,975	1,975	.....	.....
62	JOINT TACTICAL RADIO	2,594	2,594	.....	- 2,594	- 2,594
63	TACTICAL DATA NETWORKS ENTERPRISE	24,534	24,534	24,534	.....	.....
64	PHYSICAL SECURITY EQUIPMENT	51	51	51	.....	.....
65	SMALL DIAMETER BOMB [SDB]	143,000	143,000	138,000	- 5,000	- 5,000

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
66	COUNTERSPACE SYSTEMS	28,797	28,797	27,797	- 1,000	- 1,000
67	SPACE SITUATION AWARENESS SYSTEMS	267,252	230,152	267,252	.....	+ 37,100
68	AIRBORNE ELECTRONIC ATTACK	4,118	4,118	4,118	.....	.....
69	SPACE BASED INFRARED SYSTEM [SBIRS] HIGH EMD	448,594	516,594	466,594	+ 18,000	- 50,000
70	ARMAMENT/ORDNANCE DEVELOPMENT	9,951	9,951	9,951	.....	.....
71	SUBMUNITIONS	2,567	2,567	2,567	.....	.....
72	AGILE COMBAT SUPPORT	13,059	13,059	28,059	+ 15,000	+ 15,000
73	LIFE SUPPORT SYSTEMS	9,720	9,720	6,720	- 3,000	- 3,000
74	COMBAT TRAINING RANGES	9,222	9,222	9,222	.....	.....
76	INTELLIGENCE EQUIPMENT	803	803	803	.....	.....
77	JOINT STRIKE FIGHTER [JSF]	1,210,306	1,207,999	1,169,589	- 40,717	- 38,410
78	INTERCONTINENTAL BALLISTIC MISSILE	135,437	135,437	135,437	.....	.....
79	EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE)	7,980	32,980	7,980	.....	- 25,000
80	LONG RANGE STANDOFF WEAPON	2,004	2,004	2,004	.....	.....
81	ICBM FUZE MODERNIZATION	73,512	73,512	73,512	.....	.....
82	F-22 MODERNIZATION INCREMENT 3.2B	140,100	140,100	140,100	.....	.....
83	NEXT GENERATION AERIAL REFUELING AIRCRAFT	1,815,588	1,815,588	1,738,488	- 77,100	- 77,100
84	CSAR HH-60 RECAPITALIZATION	123,210	123,210	115,210	- 8,000	- 8,000
85	HC/MC-130 RECAP RDT&E	19,039	19,039	10,739	- 8,300	- 8,300
86	B-2 DEFENSIVE MANAGEMENT SYSTEM	281,056	281,056	248,056	- 33,000	- 33,000
87	NUCLEAR WEAPONS MODERNIZATION	80,200	80,200	80,200	.....	.....
89	READINESS TRAINING RANGES, OPERATIONS AND MAINTENANCE	310	310	310	.....	.....
90	FULL COMBAT MISSION TRAINING	14,861	14,861	14,861	.....	.....
91	MC-12	19,949	19,949	19,949	.....	.....
92	JOINT CARGO AIRCRAFT [JCA] .....	.....	25,000	6,500	+ 6,500	- 18,500
93	CV-22	28,027	28,027	28,027	.....	.....
94	AIRBORNE SENIOR LEADER C3 [SLC3S]	1,960	1,960	1,960	.....	.....
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	4,966,724	5,040,317	4,797,200	- 169,524	- 243,117
	RDT&E MANAGEMENT SUPPORT .....	.....	.....	.....	.....	.....
95	THREAT SIMULATOR DEVELOPMENT	22,812	22,812	22,812	.....	.....
96	MAJOR T&E INVESTMENT	42,236	42,236	42,236	.....	.....
97	RAND PROJECT AIR FORCE	25,579	25,579	25,579	.....	.....
99	INITIAL OPERATIONAL TEST & EVALUATION	16,197	16,197	16,197	.....	.....
100	TEST AND EVALUATION SUPPORT	722,071	722,071	722,071	.....	.....

101	ROCKET SYSTEMS LAUNCH PROGRAM (SPACE)	16,200	16,200	16,200	.....	.....
102	SPACE TEST PROGRAM (STP)	10,051	10,051	45,051	+ 35,000	+ 35,000
103	FACILITIES RESTORATION & MODERNIZATION—TEST & EVAL	42,597	42,597	42,597	.....	.....
104	FACILITIES SUSTAINMENT—TEST AND EVALUATION SUPPORT	27,301	27,301	27,301	.....	.....
105	MULTI-SERVICE SYSTEMS ENGINEERING INITIATIVE	13,964	13,964	13,964	.....	.....
106	SPACE AND MISSILE CENTER (SMC) CIVILIAN WORKFORCE	203,766	203,766	195,766	- 8,000	- 8,000
107	ACQUISITION AND MANAGEMENT SUPPORT	42,430	42,430	32,530	- 9,900	- 9,900
108	GENERAL SKILL TRAINING	1,294	1,294	.....	- 1,294	- 1,294
111	INTERNATIONAL ACTIVITIES	3,851	3,851	3,851	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	1,190,349	1,190,349	1,206,155	+ 15,806	+ 15,806
	OPERATIONAL SYSTEMS DEVELOPMENT					
112	GPS III—OPERATIONAL CONTROL SEGMENT	371,595	333,295	370,095	- 1,500	+ 36,800
114	AIR FORCE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM	91,697	91,697	45,697	- 46,000	- 46,000
115	ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY	17,037	37,037	17,037	.....	- 20,000
117	B-52 SQUADRONS	53,208	18,508	53,208	.....	+ 34,700
118	AIR-LAUNCHED CRUISE MISSILE (ALCM)	431	431	431	.....	.....
119	B-1B SQUADRONS	16,265	16,265	16,265	.....	.....
120	B-2 SQUADRONS	35,970	35,970	35,970	.....	.....
121	STRAT WAR PLANNING SYSTEM—USSTRATCOM	30,889	30,889	23,189	- 7,700	- 7,700
122	NIGHT FIST—USSTRATCOM	10	10	.....	- 10	- 10
124	REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION	5,609	5,609	5,609	.....	.....
126	WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRAN	15,098	15,098	5,098	- 10,000	- 10,000
127	MQ-9 UAV	147,971	147,971	135,171	- 12,800	- 12,800
128	MULTI-PLATFORM ELECTRONIC WARFARE EQUIPMENT	49,848	34,848	49,848	.....	+ 15,000
129	A-10 SQUADRONS	13,538	13,538	11,538	- 2,000	- 2,000
130	F-16 SQUADRONS	190,257	190,257	176,757	- 13,500	- 13,500
131	F-15E SQUADRONS	192,677	192,677	171,677	- 21,000	- 21,000
132	MANNED DESTRUCTIVE SUPPRESSION	13,683	13,683	13,683	.....	.....
133	F-22 SQUADRONS	371,667	371,667	342,667	- 29,000	- 29,000
134	F-35 SQUADRONS	8,117	.....	8,117	.....	+ 8,117
135	TACTICAL AIM MISSILES	8,234	8,234	6,634	- 1,600	- 1,600
136	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)	87,041	87,041	77,041	- 10,000	- 10,000
137	JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS)	1,472	1,472	1,472	.....	.....
138	COMBAT RESCUE AND RECOVERY	2,095	2,095	2,095	.....	.....
139	COMBAT RESCUE—PARARESCUE	1,119	1,119	1,119	.....	.....
140	AF TENCAP	63,853	63,853	63,853	.....	.....
141	PRECISION ATTACK SYSTEMS PROCUREMENT	1,063	1,063	1,063	.....	.....
142	COMPASS CALL	12,094	12,094	12,094	.....	.....
143	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	187,984	187,984	187,984	.....	.....

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
145	JOINT AIR-TO-SURFACE STANDOFF MISSILE [JASSM]	7,950	7,950	7,950	.....	.....
146	AIR AND SPACE OPERATIONS CENTER [AOC]	76,315	76,315	76,315	.....	.....
147	CONTROL AND REPORTING CENTER [CRC]	8,653	8,653	8,653	.....	.....
148	AIRBORNE WARNING AND CONTROL SYSTEM [AWACS]	65,200	48,900	65,200	.....	+ 16,300
149	TACTICAL AIRBORNE CONTROL SYSTEMS	5,767	5,767	5,767	.....	.....
152	COMBAT AIR INTELLIGENCE SYSTEM ACTIVITIES	5,756	5,756	5,756	.....	.....
154	TACTICAL AIR CONTROL PARTY—MOD	16,226	16,226	16,226	.....	.....
156	C2ISR TACTICAL DATA LINK	1,633	1,633	1,633	.....	.....
157	COMMAND AND CONTROL [C2] CONSTELLATION	18,086	18,086	15,786	- 2,300	- 2,300
158	DCAPES	15,690	15,690	15,690	.....	.....
159	JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM	24,241	24,241	24,241	.....	.....
160	SEEK EAGLE	22,654	22,654	22,654	.....	.....
161	USAF MODELING AND SIMULATION	15,501	15,501	15,501	.....	.....
162	WARGAMING AND SIMULATION CENTERS	5,699	5,699	5,699	.....	.....
163	DISTRIBUTED TRAINING AND EXERCISES	4,425	4,425	3,225	- 1,200	- 1,200
164	MISSION PLANNING SYSTEMS	69,377	69,377	69,377	.....	.....
165	INFORMATION WARFARE SUPPORT	7,159	7,159	7,159	.....	.....
166	CYBER COMMAND ACTIVITIES	66,888	66,888	66,888	.....	.....
174	SPACE SUPERIORITY INTELLIGENCE	12,056	12,056	12,056	.....	.....
175	E-4B NATIONAL AIRBORNE OPERATIONS CENTER [NAOC]	4,159	4,159	4,159	.....	.....
176	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK	20,124	20,124	20,124	.....	.....
177	INFORMATION SYSTEMS SECURITY PROGRAM	69,133	69,133	69,133	.....	.....
178	GLOBAL COMBAT SUPPORT SYSTEM	6,512	6,512	3,512	- 3,000	- 3,000
179	GLOBAL COMMAND AND CONTROL SYSTEM	4,316	2,316	2,316	- 2,000	.....
180	MILSATCOM TERMINALS	107,237	107,237	107,237	.....	.....
182	AIRBORNE SIGINT ENTERPRISE	129,106	129,106	109,106	- 20,000	- 20,000
185	GLOBAL AIR TRAFFIC MANAGEMENT [GATM]	4,461	4,461	4,461	.....	.....
186	CYBER SECURITY INITIATIVE	2,055	2,055	2,055	.....	.....
187	DOD CYBER CRIME CENTER	285	285	285	.....	.....
188	SATELLITE CONTROL NETWORK (SPACE)	33,773	33,773	33,773	.....	.....
189	WEATHER SERVICE	29,048	29,048	29,048	.....	.....
190	AIR TRAFFIC CONTROL, APPROACH, & LANDING SYSTEM [ATC]	43,187	43,187	39,687	- 3,500	- 3,500
191	AERIAL TARGETS	50,496	50,496	46,096	- 4,400	- 4,400
194	SECURITY AND INVESTIGATIVE ACTIVITIES	354	354	354	.....	.....
195	ARMS CONTROL IMPLEMENTATION	4,000	4,000	4,000	.....	.....

196	DEFENSE JOINT COUNTERINTELLIGENCE ACTIVITIES	342	342	.....	- 342	- 342
198	NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT)	29,621	29,621	29,621	.....	.....
199	NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE AND CONTROL)	14,335	14,335	14,335	.....	.....
201	SPACE AND MISSILE TEST AND EVALUATION CENTER	3,680	3,680	3,680	.....	.....
202	SPACE WARFARE CENTER	2,430	2,430	2,430	.....	.....
203	SPACELIFT RANGE SYSTEM (SPACE)	8,760	8,760	8,360	- 400	- 400
205	DRAGON U-2	23,644	23,644	23,644	.....	.....
206	ENDURANCE UNMANNED AERIAL VEHICLES	21,000	31,000	79,000	+ 58,000	+ 48,000
207	AIRBORNE RECONNAISSANCE SYSTEMS	96,735	96,735	76,735	- 20,000	- 20,000
208	MANNED RECONNAISSANCE SYSTEMS	13,316	13,316	13,316	.....	.....
209	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	63,501	63,501	48,501	- 15,000	- 15,000
210	PREDATOR UAV (JMIP)	9,122	9,122	9,122	.....	.....
211	RQ-4 UAV	236,265	252,265	236,265	.....	- 16,000
212	NETWORK-CENTRIC COLLABORATIVE TARGET (TIARA)	7,367	7,367	7,367	.....	.....
213	COMMON DATA LINK (CDL)	38,094	38,094	36,694	- 1,400	- 1,400
214	NATO AGS	210,109	210,109	210,109	.....	.....
215	SUPPORT TO DCGS ENTERPRISE	24,500	24,500	24,500	.....	.....
216	GPS III SPACE SEGMENT	318,992	318,992	318,992	.....	.....
217	JSPOC MISSION SYSTEM	54,645	54,645	53,045	- 1,600	- 1,600
218	RAPID CYBER ACQUISITION	4,007	4,007	2,007	- 2,000	- 2,000
219	INTELLIGENCE SUPPORT TO INFORMATION WARFARE	13,357	13,357	13,357	.....	.....
220	NUDET DETECTION SYSTEM (SPACE)	64,965	36,565	63,365	- 1,600	+ 26,800
221	SPACE SITUATION AWARENESS OPERATIONS	19,586	19,586	19,586	.....	.....
223	SHARED EARLY WARNING (SEW)	1,175	1,175	1,175	.....	.....
224	C-130 AIRLIFT SQUADRON	5,000	10,000	5,000	.....	- 5,000
225	C-5 AIRLIFT SQUADRONS	35,115	35,115	35,115	.....	.....
226	C-17 AIRCRAFT	99,225	99,225	86,225	- 13,000	- 13,000
227	C-130J PROGRAM	30,652	25,652	20,652	- 10,000	- 5,000
228	LARGE AIRCRAFT IR COUNTERMEASURES [LAIRCM]	7,758	7,758	7,758	.....	.....
229	LIGHT MOBILITY AIRCRAFT [LIMA]	100	.....	.....	- 100	.....
231	KC-10S	24,022	24,022	17,022	- 7,000	- 7,000
232	OPERATIONAL SUPPORT AIRLIFT	7,471	7,471	18,571	+ 11,100	+ 11,100
234	SPECIAL TACTICS/COMBAT CONTROL	4,984	4,984	4,984	.....	.....
235	DEPOT MAINTENANCE (NON-IF)	1,588	1,588	1,588	.....	.....
236	LOGISTICS SUPPORT ACTIVITIES	577	577	577	.....	.....
237	LOGISTICS INFORMATION TECHNOLOGY [LOGIT]	119,327	99,327	77,327	- 42,000	- 22,000
238	SUPPORT SYSTEMS DEVELOPMENT	15,873	15,873	55,873	+ 40,000	+ 40,000
240	OTHER FLIGHT TRAINING	349	349	349	.....	.....
242	OTHER PERSONNEL ACTIVITIES	117	117	.....	- 117	- 117
243	JOINT PERSONNEL RECOVERY AGENCY	2,018	2,018	2,018	.....	.....

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
244	CIVILIAN COMPENSATION PROGRAM	1,561	1,561	1,561	.....	.....
245	PERSONNEL ADMINISTRATION	7,634	2,634	7,634	.....	+ 5,000
246	AIR FORCE STUDIES AND ANALYSIS AGENCY	1,175	1,175	675	- 500	- 500
247	FACILITIES OPERATION—ADMINISTRATION	3,491	3,491	3,491	.....	.....
248	FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT	100,160	100,160	100,160	.....	.....
	ELECTRONIC ACQUISITION SERVICES ENVIRONMENT .....	.....	.....	4,800	+ 4,800	+ 4,800
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	4,695,789	4,573,872	4,503,120	- 192,669	- 70,752
	CLASSIFIED PROGRAMS	11,172,183	10,957,653	11,399,189	+ 227,006	+ 441,536
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE	25,428,046	25,117,692	25,374,286	- 53,760	+ 256,594

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
4	Materials	114,166	124,166	+ 10,000
	Nanotechnology research			+ 10,000
11	Directed Energy Technology	106,196	85,317	- 20,879
	Space Situational Awareness			+ 10,000
	Delay electronic laser on a large aircraft			- 30,879
14	Advanced Materials for Weapon Systems	47,890	62,890	+ 15,000
	Materials research and technology			+ 15,000
18	Aerospace Propulsion and Power Technology	151,152	166,152	+ 15,000
	Silicon carbide research			+ 15,000
19	Electronic Combat Technology	32,941	26,941	- 6,000
	Protection concepts for 6th generation aircraft early to need			- 2,000
	Rapidly fieldable operational demonstrations—unjustified request			- 4,000
30	Advanced EHF MILSATCOM (SPACE)	229,171	257,671	+ 28,500
	Operationally Responsive Space—transfer to line 54			- 1,500
	Space modernization initiatives—program increase			+ 30,000
32	Space Control Technology	25,144	23,144	- 2,000
	Operationally Responsive Space—transfer to line 54			- 2,000
40	Pollution Prevention—Dem/Val	2,054	1,054	- 1,000
	Forward financing			- 1,000
41	Joint Precision Approach and Landing Systems—Dem/Val	57,975	12,975	- 45,000
	Development contract award delay			- 45,000
43	Battle Mgmt Com & Ctrl Sensor Development	114,417	101,417	- 13,000
	Excess to need			- 13,000
48	Weather Satellite Follow-on	2,000		- 2,000
	Carryover of Fiscal Year 2012 funds			- 2,000
54	Operationally Responsive Space		110,000	+ 110,000
	Authorized program increase			+ 100,000
	Transfer from line 30—Advanced EHF MILSATCOM			+ 1,500
	Transfer from line 32—Space Control Technology			+ 2,000
	Transfer from line 55—Tech Transition Program			+ 3,000
	Transfer from line 69—Space Based Infrared System (SBIRS) High EMD			+ 2,000
	Transfer from line 112—Global Positioning System III—Operational Control Segment			+ 1,500
55	Tech Transition Program	37,558	34,558	- 3,000
	Operationally Responsive Space—transfer to line 54			- 3,000
56	NAVSTAR Global Positioning System (User Equipment) (SPACE)	96,840	76,840	- 20,000
	Reduction to growth due to protracted pre-Engineering and Manufacturing Development phase			- 20,000
59	Nuclear Weapons Support	25,713		- 25,713
	Transfer to Operation and Maintenance, Air Force Line 12A—Global C3I and Early Warning			- 25,713
60	Specialized Undergraduate Flight Training	6,583	1,983	- 4,600
	T-X contract delay			- 1,600
	Joint Primary Aircraft Training System forward financing			- 3,000
62	Joint Tactical Radio	2,594		- 2,594
	Unjustified request			- 2,594
65	Small Diameter Bomb (SDB)—EMD	143,000	138,000	- 5,000
	Other Product Development cost growth			- 5,000
66	Counterspace Systems	28,797	27,797	- 1,000

[In thousands of dollars]

Line	Program element title	Fiscal year 2012 base	Committee recommendation	Change from budget estimate
	Historical excess from general reductions			- 1,000
69	Space Based Infrared System [SBIRS] High EMD	448,594	466,594	+ 18,000
	Space Modernization Initiatives—program increase			+ 20,000
	Operationally Responsive Space—transfer to line 54			- 2,000
72	Agile Combat Support	13,059	28,059	+ 15,000
	Power generation and storage research			+ 15,000
73	Life Support Systems	9,720	6,720	- 3,000
	Forward financing			- 3,000
77	F-35—EMD	1,210,306	1,169,589	- 40,717
	Block 4 follow-on development early to need			- 8,117
	Security contract unjustified growth			- 2,600
	Unjustified growth in Other			- 30,000
83	Next Generation Aerial Refueling Aircraft	1,815,588	1,738,488	- 77,100
	Air Force identified forward financing			- 77,100
84	CSAR HH-60 Recapitalization	123,210	115,210	- 8,000
	Unobligated prior year funds			- 8,000
85	HC/MC-130 Recap RDT&E	19,039	10,739	- 8,300
	Forward financing			- 8,300
86	B-2 Defensive Management System	281,056	248,056	- 33,000
	Program delay			- 33,000
92	C-27J Airlift Squadrons		6,500	+ 6,500
	Retain Air Force force structure			+ 6,500
102	Space Test Program [STP]	10,051	45,051	+ 35,000
	Authorized program increase			+ 35,000
106	Space and Missile Center [SMC] Civilian Workforce	203,766	195,766	- 8,000
	Excess to need			- 8,000
107	Acquisition and Management Support	42,430	32,530	- 9,900
	Recruiting and Development excessive growth			- 2,700
	Acquisition systems unjustified cost growth			- 2,400
	Transfer Electronic Acquisition Services Environment to new line item			- 4,800
108	General Skill Training	1,294		- 1,294
	Excess to need			- 1,294
112	Global Positioning System III—Operational Control Segment	371,595	370,095	- 1,500
	Operationally Responsive Space—transfer to line 54			- 1,500
114	AF Integrated Personnel and Pay System [AF-IPPS]	91,697	45,697	- 46,000
	Contract award delay			- 46,000
121	Strat War Planning System—USSTRATCOM	30,889	23,189	- 7,700
	SWPS Increment 3 excess to need			- 7,700
122	Night Fist—USSTRATCOM	10		- 10
	Unjustified request			- 10
126	Warfighter Rapid Acquisition Process [WRAP] Rapid Transition Fund	15,098	5,098	- 10,000
	Unobligated balances			- 10,000
127	MQ-9 UAV	147,971	135,171	- 12,800
	Technology Insertion forward financing			- 12,800
129	A-10 Squadrons	13,538	11,538	- 2,000
	Forward financing			- 2,000
130	F-16 Squadrons	190,257	176,757	- 13,500
	Flight Test unjustified increase			- 3,500
	Combat Avionics Programmed Extension Suite program delay			- 10,000
131	F-15E Squadrons	192,677	171,677	- 21,000
	Forward financing			- 21,000
133	F-22A Squadrons	371,667	342,667	- 29,000
	Should cost review savings			- 29,000
135	Tactical AIM Missiles	8,234	6,634	- 1,600
	Product Development cost growth			- 1,600
136	Advanced Medium Range Air-to-Air Missile [AMRAAM]	87,041	77,041	- 10,000
	Software Improvement unjustified growth			- 10,000

[In thousands of dollars]

Line	Program element title	Fiscal year 2012 base	Committee recommendation	Change from budget estimate
157	Command and Control [C2] Constellation	18,086	15,786	- 2,300
	Architecture and Systems Engineering unjustified increase			- 2,300
163	Distributed Training and Exercises	4,425	3,225	- 1,200
	Wargaming unjustified increase			- 1,200
178	Global Combat Support System	6,512	3,512	- 3,000
	Program restructure			- 3,000
179	Global Command and Control System	4,316	2,316	- 2,000
	Forward financing			- 2,000
182	Airborne SIGINT Enterprise	129,106	109,106	- 20,000
	Forward financing			- 20,000
190	Air Traffic Control, Approach, and Landing System [ATCALS]	43,187	39,687	- 3,500
	NextGen forward financing			- 3,500
191	Aerial Targets	50,496	46,096	- 4,400
	QF-16—late contract award			- 4,400
196	Defense Joint Counterintelligence Activities	342		- 342
	Unobligated balances			- 342
203	Spacelift Range System (SPACE)	8,760	8,360	- 400
	Historical excess from general reductions			- 400
206	Endurance Unmanned Aerial Vehicles	21,000	21,000	+ 58,000
	Long Dwell/Persistent ISR response for JUONs CC-0151 and CC-0302			+ 58,000
207	Airborne Reconnaissance Systems	96,735	76,735	- 20,000
	Dismount Detection Radar funds excess to contract award			- 20,000
209	Distributed Common Ground/Surface Systems	63,501	48,501	- 15,000
	Data Compression contract award delay			- 15,000
213	Common Data Link [CDL]	38,094	36,694	- 1,400
	Unjustified program growth			- 1,400
217	JSPOC Mission System	54,645	53,045	- 1,600
	Historical excess from general reductions			- 1,600
218	Rapid Cyber Acquisition	4,007	2,007	- 2,000
	Unsustained funding level			- 2,000
220	NUDET Detection System (SPACE)	64,965	63,365	- 1,600
	ICADS/UGNT execution delays			- 1,600
221	Space Situation Awareness Operations	19,586	19,586	
	Air Force requested internal realignment—U.S.-Australia C-Band Radar Project			[11,200]
226	C-17 Aircraft (IF)	99,225	86,225	- 13,000
	Unobligated balances			- 13,000
227	C-130J Program	30,652	20,652	- 10,000
	C130-J forward financing			- 10,000
229	Light Mobility Aircraft [LIMA]	100		- 100
	Program terminated			- 100
231	KC-10s	24,022	17,022	- 7,000
	Aircraft Modernization Program forward financing			- 7,000
232	Operational Support Airlift	7,471	18,571	+ 11,100
	Air Force identified shortfall—VC-25 Avionics Modernization Program			+ 11,100
237	Logistics Information Technology [LOGIT]	119,327	77,327	- 42,000
	Unobligated balances			- 42,000
238	Support Systems Development	15,873	55,873	+ 40,000
	Alternative energy research			+ 40,000
242	Other Personnel Activities	117		- 117
	Unobligated balances			- 117
246	Air Force Studies and Analysis Agency	1,175	675	- 500
	Unobligated balances			- 500
	Classified Programs	11,172,183	11,399,189	+ 227,006
	Classified Programs			+ 227,006
	Electronic Acquisition Services Environment		4,800	+ 4,800
	Transferred from Acquisition and Management Support for better transparency and control			+ 4,800

Air Force Application of Small Business Innovative Research [SBIR].—During the detailed review of the fiscal year 2013 budget submission, the Committee noted a questionably inconsistent sourcing of funds from line items within the Research, Development, Test and Evaluation, Air Force [RDT&E, AF] appropriation to fund SBIR. Review of the initial data revealed two trends: (1) space programs were heavily sourced to fund SBIR while other portfolios were not taxed, and (2) some programs were sourced higher than the standard 2.7 to 3.1 percent. SBIR should be calculated and applied evenly based on extramural percentages, but it appears the Air Force does not follow this standard calculation procedure.

After reviewing more detailed data provided by the Air Force, the Committee found 15 fiscal year 2012 programs were sourced to fund SBIR between 3.7 and 9.6 percent with one program actually sourced 100 percent. Space programs accounted for 53 percent of these programs. In the fiscal year 2011 appropriation, 17 programs were sourced between 3.5 and 15.3 percent with eight of these programs, or 47 percent, falling within the space portfolio. The Committee notes that space-related line items in the RDT&E, AF make up 15 percent of the total line items and is concerned that they are disproportionately taxed to fund SBIR.

The Committee is also concerned that the Air Force is using SBIR to circumvent the congressional reprogramming approval process. By sourcing funds through SBIR and below threshold reprogrammings, the Air Force has, in the cases of Joint National Training Center, Advanced Communication Systems, B-52 Squadrons, Aircraft Engine Component Improvement Program, and Information Systems Security Program, reduced the programs past the point that triggers congressional reprogramming approval.

The Committee directs the Assistant Secretary of the Air Force for Financial Management to review the current Air Force SBIR sourcing process, develop and implement corrective actions, and within 180 days of enactment of this act provide a report to the congressional defense committees describing the origin of the problem and the corrective actions the Air Force plans to implement to ensure these violations do not occur in the future.

Advanced Composite Research and Development.—The Committee encourages the Secretary of the Air Force to conduct a program for advanced composite research and development for aerospace vehicles to demonstrate the ability of advanced composite technology to expand the flight envelope and improve the performance and affordability of current and future aerospace platforms, including unmanned aerial vehicles.

Sensors Research by Air Force Minority Leaders Program.—The Committee encourages the Air Force Research Laboratory to carry out sensors research activities conducted by the Air Force Minority Leaders program for research in the disciplines of materials and processing, sensors, and related enabling academic specialties, and to meet critical defense capabilities, science and technology, future workforce, and technical program objectives for the United States Air Force.

Pilot Hearing Protection.—The Committee encourages the Air Force to leverage advances in active noise reduction devices devel-

oped by the Combating Terrorism Technology Support program to advance hearing protection for pilots using legacy helmet models.

Aerial Internet Protocol Networking.—The Committee is aware of the Air Force research and development efforts to help address complex problems in aerial Internet protocol [IP] networking, to include ensuring IP-based networks deliver rapid, reliable, real-time tactical information. The Committee believes standardization of the IP-based architecture could provide tangible benefit to the warfighter through enhanced tactical situational awareness, improved combat lethality and increased force protection. The Air Force is encouraged to expedite further operational testing of this new capability.

Nuclear Weapons Support.—In previous budget submissions, the Research, Development, Test and Evaluation, Air Force [RDT&E, AF] Nuclear Weapons Support line item contained a number of development weapon system programs. In fiscal year 2013, the Air Force transferred all development weapon system programs to more appropriate line items leaving only support funding in the Nuclear Weapons Support line item. The Committee notes that the planned fiscal year 2013 activities are very similar to activities performed by other command functions. Air Combat Command and Air Mobility Command perform the same acquisition insight and weapon system oversight role utilizing the Operation and Maintenance, Air Force account. The Committee believes the Air Force Nuclear Weapons Center should be normalized as part of the Air Force command structure and should be funded similar to other command units. Therefore, the Committee transfers \$25,713,000 from RDT&E, AF to Operation and Maintenance, Air Force.

Acquisition and Management Support.—With the Air Force's implementation of efficiencies and overall reduction to programs in the fiscal year 2013 budget request, the Committee notes a disproportionate growth in the Acquisition and Management Support line item. This line item, which mainly funds acquisition support and oversight, grows 32.5 percent over the fiscal year 2012 appropriated amount. After specifically questioning the growth of this program, the Air Force identified that \$4,800,000 was added for a new contract-writing information system called Electronic Acquisition Services Environment. To ensure future transparency and enable oversight of this new information system, the Committee transfers funding for the Electronic Acquisition Services Environment into a new line item. In addition, since the Air Force did not adequately justify the growth in support costs, the Committee recommends a reduction of \$5,100,000, which is consistent with the fiscal year 2012 appropriated level. At the Committee's request, the Air Force provided additional detail for the training and support costs funded under this program. The Committee believes that some of the training courses identified are more properly funded from the Operation and Maintenance, Air Force appropriation. The Committee notes that some of the justified efforts, for example cost estimating, are duplicative of efforts more properly performed by other Air Force organizations. Therefore, the Committee directs the Air Force Administrative Assistant to perform a comprehensive review of the activities performed under this line item to ensure they are properly funded within the Research, Development, Test and

Evaluation, Air Force appropriation, and to ensure they do not duplicate efforts more properly performed by other Air Force organizations to include Air Force Material Command and Air Force Financial Management. The Committee also directs the Air Force Administrative Assistant provide a report, within 180 days of enactment of this act, providing the outcome of the review and a summary of corrective actions taken.

B-52 Strategic Radar Replacement [SR2].—The Committee is aware the Air Force conducted a lengthy analysis of alternatives in 2011 to address a Strategic Radar Replacement [SR2] for the B-52H. The existing APQ-166 radar was produced in the 1960s, has a 20 to 30 hour mean-time between failure rate, and capability limitations. The Committee understands that the current APQ-166 radar is costly to operate and maintain. Therefore, the Committee encourages the Secretary of the Air Force to reconsider the decision to terminate the SR2 program.

Air Force Command, Control, Intelligence, Surveillance, and Reconnaissance [C2ISR] Fleet.—The Committee is aware that the Air Force's critical manned C2ISR aircraft are high-demand assets facing low availability rates, end-of-life issues, and growing sustainment costs. The Committee is also aware that the Air Force recently completed an analysis of alternatives for recapitalization of the ground moving target indicator capability currently met by the Joint Surveillance and Target Attack Radar System [JSTARS] and that the Air Force has deliberately chosen to delay recapitalization due to fiscal limitations. Recognizing that the entire C2ISR fleet will need to be recapitalized around the same time, the Committee encourages the Secretary of the Air Force to explore a holistic replacement approach and perform a cost benefit analysis that takes into account operational cost savings from a new, modern aircraft with a common logistics chain, and common training. The Committee believes that significant cost savings can be garnered by recapitalizing the fleet with a single, common platform.

Communication, Navigation and Surveillance/Air Traffic Management [CNS/ATM].—In the fiscal year 2013 budget request, the Air Force proposes to terminate the C-130H Avionics Modernization Program [AMP] and begin a modification program that addresses mainly compliance with international navigation standards for flying in civil airspace, which is the most pressing upgrade for these airframes. While the Committee supports the Air Force's decision to pursue a less costly solution, the Committee is concerned that the requirements for a CNS/ATM solution for the C-130H aircraft are not final and that the requirements may grow to create another costly modernization program. The Committee encourages the Air Force to find an affordable CNS/ATM solution that ensures near-term modernization of the C-130H aircraft.

Military Global Positioning System User Equipment.—The budget request contains \$96,840,000 for continued development of Military Global Positioning System [GPS] User Equipment [MGUE]. The MGUE program is necessary to allow the armed forces to take advantage of new signals and other capabilities, such as substantially greater resistance to jamming of GPS signals, that are integrated on the latest generations of GPS satellites.

The MGUE program is a follow-on to the Modernized User Equipment program begun in 2006, with three contractors performing risk-reduction activities. The budget request proposes to continue funding three contractors for technology development efforts while delaying a production decision until fiscal year 2017, as opposed to the previous plan to select the best two proposals for more advanced development activities.

The Committee believes that delaying a down-select in contractors is not justified under the current fiscal environment. Investments in this important technology should be prioritized to the best performers in a competitive environment. Therefore, the Committee recommends a reduction of \$20,000,000, which will sustain robust funding for continued development of the two most competitive proposals in fiscal year 2013.

Space Modernization Initiative.—Last year, the Air Force initiated the Evolutionary Acquisition for Space Efficiency [EASE] strategy to stabilize the industrial base, manage cost, and increase capabilities for selected satellite programs. One facet of the program is to maintain a steady investment in capability insertion programs, now known as the Space Modernization Initiative [SMI], to upgrade performance while avoiding obsolescence and diminishing manufacturing sources.

The fiscal year 2013 budget makes substantial reductions to SMI: from fiscal years 2013 through 2017, the budget request cuts SMI funding by more than \$820,000,000 from the Advanced Extremely High Frequency [AEHF] program and more than \$340,000,000 from the Space Based Infrared System [SBIRS].

While the fiscal constraints that led to reductions in SMI are well understood, the Committee believes that limiting investment in this area increases the risk that the government will be locked into old technologies, suppliers, and concepts. Therefore, the Committee recommends an increase of \$30,000,000 for AEHF SMI, to be used for radiation hardened manufacturing, hosted payloads, “design for affordability,” and related efforts and an increase of \$20,000,000 for SBIRS SMI, to be used for alternative overhead persistent infrared technologies, hosted payloads, “design for affordability,” and related efforts.

The Committee directs the Secretary of the Air Force to provide the congressional defense committees with a report detailing how the additional SMI funds will be used not fewer than 30 days prior to the obligation of any of these funds.

Transfer of Civilian Pay.—In fiscal year 2012, the Air Force requested, and Congress approved, the transfer of civilian pay for the Space and Missile Systems Center [SMC] from the operation and maintenance appropriation to the Research, Development, Test and Evaluation [RDT&E] appropriation. The Committee understands that the Air Force may be evaluating this transfer as a model for other organizations.

The Committee directs the Government Accountability Office [GAO] to submit a report to the congressional defense committees on the impacts of transferring civilian salaries to the RDT&E appropriation. At a minimum, the report shall address the extent to which the use of RDT&E funds for SMC civilian pay provides advantages or disadvantages in the management of the civilian work-

force, the adequacy of financial controls to insure that RDT&E funds intended for civilian pay are not transferred to other purposes, and any areas of efficiency or risk that future transfers may entail.

The Secretary of the Air Force is directed not to transfer civilian pay for any organization with greater than 20 civilian billets from operation and maintenance to RDT&E funds until the GAO report is submitted to the congressional defense committees. The Secretary may waive this restriction upon certification to the congressional defense committees that such a transfer is necessary for the interests of national defense.

Space Launch.—The Committee remains concerned about the rising costs of space launch and recognizes and supports the Department's efforts to certify New Entrant space launch providers to enable competition and reduce program costs.

The Committee will continue to closely review the Department's upcoming acquisition of booster cores to ensure it enables competition and reduces costs. To meet these goals, the Committee reiterates its view expressed in Senate Report 112-77, which accompanied the Senate-reported version of the Defense Appropriations Act, 2012, which urged the Department "to retain flexibility with its block-buy acquisition strategy as opportunities for competition by new launch entrants become available." To achieve this flexibility, the Committee: (1) encourages the Department to provide the Committee within 90 days of enactment of this act with an estimated date by which one or more new entrants is expected to complete the new entrant certification process; and (2) encourages the department to see that any sole-source launch contract ensures that new entrants can fully compete for EELV missions once one or more new entrants complete the new entrant certification process.

The Committee also directs the Secretary of the Air Force to provide a written report to the congressional defense committees within 90 days of enactment of this act that describes the launch missions, beyond the Deep Space Climate Observatory mission and the Space Test Program, which will be open for competition by certified new launch entrants.

Space Launch System.—The Committee understands that National Aeronautics and Space Administration [NASA] is developing a Space Launch System with significantly greater lift capability than any rocket currently available on the world market, capable of carrying an extremely large fairing that could accommodate payloads of unprecedented weight and size. The Committee directs the Secretary of Defense, in consultation with the Director of the National Reconnaissance Office and the NASA Administrator, to provide a report to the congressional defense committee within 180 days of enactment of this act on the potential national security uses and associated launch costs of the Space Launch System. The study should address the utility of the system as currently envisioned, and any modifications or additions that would substantially increase that utility. The report shall be classified with an unclassified executive summary.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE-WIDE

Appropriations, 2012	\$19,193,955,000
Budget estimate, 2013	17,982,161,000
House allowance	19,100,362,000
Committee recommendation	18,419,129,000

The Committee recommends an appropriation of \$18,419,129,000.
This is \$436,968,000 above 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	2013 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	45,071	45,071	45,071	.....	.....
2	DEFENSE RESEARCH SCIENCES	309,051	309,051	309,051	.....	.....
3	BASIC RESEARCH INITIATIVES	19,405	15,005	19,405	.....	+ 4,400
4	BASIC OPERATIONAL MEDICAL RESEARCH SCIENCE	39,676	39,676	39,676	.....	.....
5	NATIONAL DEFENSE EDUCATION PROGRAM	87,979	87,979	87,979	.....	.....
6	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	50,566	50,566	50,566	.....	.....
	TOTAL, BASIC RESEARCH	551,748	547,348	551,748	.....	+ 4,400
	APPLIED RESEARCH					
7	JOINT MUNITIONS TECHNOLOGY	20,615	20,615	20,615	.....	.....
8	BIOMEDICAL TECHNOLOGY	110,900	110,900	100,900	- 10,000	- 10,000
9	HISTORICALLY BLACK COLLEGES & UNIV [HBCU] .....	.....	35,599	.....	.....	- 35,599
10	LINCOLN LABORATORY RESEARCH PROGRAM	36,826	36,826	36,826	.....	.....
11	SYSTEMS 2020 APPLIED RESEARCH	7,898	.....	7,898	.....	+ 7,898
12	INFORMATION AND COMMUNICATIONS TECHNOLOGY	392,421	402,421	372,421	- 20,000	- 30,000
13	COGNITIVE COMPUTING SYSTEMS	30,424	30,424	30,424	.....	.....
15	BIOLOGICAL WARFARE DEFENSE	19,236	19,236	19,236	.....	.....
16	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	223,269	223,269	223,269	.....	.....
17	JOINT DATA MANAGEMENT ADVANCED DEVELOPMENT	13,753	8,753	9,753	- 4,000	+ 1,000
18	CYBER SECURITY RESEARCH	18,985	11,485	12,985	- 6,000	+ 1,500
19	HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING [HSCB] APP	6,771	6,771	6,771	.....	.....
20	TACTICAL TECHNOLOGY	233,209	233,209	218,209	- 15,000	- 15,000
21	MATERIALS AND BIOLOGICAL TECHNOLOGY	166,067	166,067	176,067	+ 10,000	+ 10,000
22	ELECTRONICS TECHNOLOGY	222,416	222,416	214,416	- 8,000	- 8,000
23	WEAPONS OF MASS DESTRUCTION DEFEAT TECHNOLOGIES	172,352	172,352	172,352	.....	.....
24	SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT	28,739	28,739	41,591	+ 12,852	+ 12,852
	TOTAL, APPLIED RESEARCH	1,703,881	1,729,082	1,663,733	- 40,148	- 65,349
	ADVANCED TECHNOLOGY DEVELOPMENT					
25	JOINT MUNITIONS ADVANCED TECH INSENSITIVE MUNITIONS AD	25,612	20,012	21,612	- 4,000	+ 1,600
26	SO/LIC ADVANCED DEVELOPMENT	26,324	26,324	26,324	.....	.....
27	COMBATING TERRORISM TECHNOLOGY SUPPORT	77,144	77,144	127,144	+ 50,000	+ 50,000

28	COUNTERPROLIFERATION INITIATIVES—PROLIF PREV & DEFEAT	275,022	275,022	275,022		
29	BALLISTIC MISSILE DEFENSE TECHNOLOGY	79,975	75,975	79,975		+ 4,000
31	JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT	20,032	20,032	20,032		
32	AGILE TRANSPO FOR THE 21ST CENTURY [AT21]—THEATER CA	3,892	3,892	3,892		
33	SPECIAL PROGRAM—MDA TECHNOLOGY	36,685	36,685	36,685		
34	ADVANCED AEROSPACE SYSTEMS	174,316	174,316	166,816	- 7,500	- 7,500
35	SPACE PROGRAMS AND TECHNOLOGY	159,704	159,704	159,704		
36	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM—ADVANCED DEV	234,280	234,280	234,280		
37	JOINT ELECTRONIC ADVANCED TECHNOLOGY	6,983	6,983	6,983		
38	JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS	158,263	158,263	158,263		
39	NETWORKED COMMUNICATIONS CAPABILITIES	25,393	25,393	25,393		
40	DATA TO DECISIONS ADVANCED TECHNOLOGY	13,754	8,754	9,754	- 4,000	+ 1,000
42	CYBER SECURITY ADVANCED RESEARCH	19,935	12,435	13,935	- 6,000	+ 1,500
43	HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING [HSCB] ADV	8,235	8,235	8,235		
44	DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROG	21,966	21,966	51,966	+ 30,000	+ 30,000
45	EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT	24,662	24,662	24,662		
47	GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS	24,605	24,605	24,605		
48	DEPLOYMENT AND DISTRIBUTION ENTERPRISE TECHNOLOGY	30,678	30,678	30,678		
49	STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM	65,282	65,282	65,282		
50	MICROELECTRONIC TECHNOLOGY DEVELOPMENT AND SUPPORT	72,234	62,234	62,234	- 10,000	
51	JOINT WARFIGHTING PROGRAM	8,403	8,403	8,403		
52	ADVANCED ELECTRONICS TECHNOLOGIES	111,008	111,008	111,008		
54	COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS	237,859	237,859	229,859	- 8,000	- 8,000
55	CLASSIFIED DARPA PROGRAMS	3,000	3,000	3,000		
56	NETWORK-CENTRIC WARFARE TECHNOLOGY	236,883	236,883	239,383	+ 2,500	+ 2,500
57	SENSOR TECHNOLOGY	299,438	299,438	289,438	- 10,000	- 10,000
57XX	DEFENSE RAPID INNOVATION PROGRAM		250,000	200,000	+ 200,000	- 50,000
58	DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT	12,195	12,195	12,195		
59	SOFTWARE ENGINEERING INSTITUTE	30,036	30,036	30,036		
60	QUICK REACTION SPECIAL PROJECTS	107,002	82,002	92,002	- 15,000	+ 10,000
62	JOINT EXPERIMENTATION	21,230	21,230	21,230		
63	MODELING AND SIMULATION MANAGEMENT OFFICE	47,433	47,433	43,433	- 4,000	- 4,000
64	DIRECTED ENERGY RESEARCH	46,944	41,944	2,384	- 44,560	- 39,560
65	NEXT GENERATION AEGIS MISSILE	224,077	204,077	54,877	- 169,200	- 149,200
66	TEST & EVALUATION SCIENCE & TECHNOLOGY	92,602	92,602	92,602		
68	OPERATIONAL ENERGY CAPABILITY IMPROVEMENT	26,244	26,244	26,244		
69	CWMD SYSTEMS	53,946	23,946	38,946	- 15,000	+ 15,000
70	SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT	45,317	45,317	45,317		
71	AVIATION ENGINEERING ANALYSIS	861	861	861		

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
72	SOF INFORMATION AND BROADCAST SYSTEMS ADVANCED TECH	4,959	4,959	4,959	.....	.....
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	3,194,413	3,332,313	3,179,653	- 14,760	- 152,660
	DEMONSTRATION & VALIDATION					
73	NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT	33,234	33,234	33,234	.....	.....
74	RETRACT LARCH	21,023	21,023	21,023	.....	.....
75	WALKOFF	94,624	94,624	94,624	.....	.....
77	ADVANCE SENSOR APPLICATIONS PROGRAM	16,958	16,958	18,958	+ 2,000	+ 2,000
78	ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM	75,941	75,941	75,941	.....	.....
79	BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT	316,929	296,929	316,929	.....	+ 20,000
80	BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT	903,172	978,172	903,172	.....	- 75,000
81	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	179,023	179,023	179,023	.....	.....
82	BALLISTIC MISSILE DEFENSE SENSORS	347,012	347,012	347,012	.....	.....
84	BALLISTIC MISSILE DEFENSE ENABLING PROGRAMS	362,711	362,711	362,711	.....	.....
85	SPECIAL PROGRAMS—MDA	272,387	272,387	258,787	- 13,600	- 13,600
86	AEGIS BMD	992,407	992,407	992,407	.....	.....
87	SPACE SURVEILLANCE & TRACKING SYSTEM	51,313	51,313	51,313	.....	.....
88	BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS	6,912	6,912	6,912	.....	.....
89	BALLISTIC MISSILE DEFENSE C2BMC	366,552	341,552	366,552	.....	+ 25,000
90	BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT	55,550	55,550	55,550	.....	.....
91	BALLISTIC MISSILE DEFENSE INTERGRATION AND OPERATIONS CENTER (MDIOC)	63,043	63,043	63,043	.....	.....
92	REGARDING TRENCH	11,371	11,371	11,371	.....	.....
93	SEA BASED X-BAND RADAR (SBX)	9,730	9,730	29,730	+ 20,000	+ 20,000
94	ISRAELI COOPERATIVE PROGRAMS	99,836	948,736	268,736	+ 168,900	- 680,000
95	BALLISTIC MISSILE DEFENSE TEST	454,400	454,400	454,400	.....	.....
96	BALLISTIC MISSILE DEFENSE TARGETS	435,747	435,747	435,747	.....	.....
97	HUMANITARIAN DEMINING	13,231	13,231	13,231	.....	.....
98	COALITION WARFARE	11,398	11,398	11,398	.....	.....
99	DEPARTMENT OF DEFENSE CORROSION PROGRAM	3,283	3,283	33,283	+ 30,000	+ 30,000
100	DOD UNMANNED AIRCRAFT SYSTEM (UAS) COMMON DEVELOPMENT	12,368	12,368	12,368	.....	.....
101	HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING [HSCB] RES	5,131	5,131	5,131	.....	.....
104	JOINT SYSTEMS INTEGRATION	3,273	3,273	3,273	.....	.....
106	JOINT FIRES INTEGRATION & INTEROPERABILITY TEAM	7,364	7,364	7,364	.....	.....
107	LAND-BASED SM-3 [LBSM3]	276,338	266,338	276,338	.....	+ 10,000
108	AEGIS SM-3 BLOCK IIA CO-DEVELOPMENT	420,630	420,630	470,630	+ 50,000	+ 50,000

109	PRECISION TRACKING SPACE SYSTEM RDT&E	297,375	242,375	297,375	.....	+ 55,000
111	ADVANCED REMOTE SENSOR TECHNOLOGY [ARST]	58,742	33,742	2,982	- 55,760	- 30,760
113	JOINT ELECTROMAGNETIC TECHNOLOGY [JET] PROGRAM	3,158	3,158	3,158	.....	.....
115	NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT	6,817	6,817	6,817	.....	.....
116	PROMPT GLOBAL STRIKE CAPABILITY DEVELOPMENT	110,383	110,383	200,383	+ 90,000	+ 90,000
	TOTAL, DEMONSTRATION & VALIDATION	6,399,366	7,188,266	6,690,906	+ 291,540	- 497,360
	ENGINEERING & MANUFACTURING DEVELOPMENT					
117	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	311,071	311,071	311,071	.....	.....
119	ADVANCED IT SERVICES JOINT PROGRAM OFFICE [AITS-JPO]	25,787	25,787	25,787	.....	.....
120	JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM [JTIDS]	20,688	20,688	20,688	.....	.....
121	WEAPONS OF MASS DESTRUCTION DEFEAT CAPABILITIES	5,749	5,749	5,749	.....	.....
122	INFORMATION TECHNOLOGY DEVELOPMENT	12,699	12,699	12,699	.....	.....
125	HOMELAND PERSONNEL SECURITY INITIATIVE	387	387	387	.....	.....
126	DEFENSE EXPORTABILITY PROGRAM	1,859	1,859	1,859	.....	.....
127	OUSD(C) IT DEVELOPMENT INITIATIVES	7,010	7,010	7,010	.....	.....
128	DOD ENTERPRISE SYSTEMS DEVELOPMENT AND DEMONSTRATION	133,104	64,104	133,104	.....	+ 69,000
129	DCMO POLICY AND INTEGRATION	25,269	25,269	25,269	.....	.....
131	DEFENSE-WIDE ELECTRONIC PROCUREMENT CAPABILITY	10,238	10,238	10,238	.....	.....
132	GLOBAL COMBAT SUPPORT SYSTEM	19,670	19,670	19,670	.....	.....
133	DOD ENTERPRISE ENERGY INFORMATION MANAGEMENT [EEIM]	3,556	3,556	3,556	.....	.....
	TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT	577,087	508,087	577,087	.....	+ 69,000
	RDT&E MANAGEMENT SUPPORT					
135	DEFENSE READINESS REPORTING SYSTEM [DRRS]	6,383	6,383	6,383	.....	.....
136	JOINT SYSTEMS ARCHITECTURE DEVELOPMENT	3,845	3,845	3,845	.....	.....
137	CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT	144,109	144,109	156,109	+ 12,000	+ 12,000
138	ASSESSMENTS AND EVALUATIONS	2,419	2,419	2,419	.....	.....
139	THERMAL VICAR	8,214	8,214	8,214	.....	.....
140	JOINT MISSION ENVIRONMENT TEST CAPABILITY [JMETC]	19,380	19,380	19,380	.....	.....
141	TECHNICAL STUDIES, SUPPORT AND ANALYSIS	32,266	32,266	32,266	.....	.....
142	USD(A&T)—CRITICAL TECHNOLOGY SUPPORT	840	840	840	.....	.....
143	FOREIGN MATERIAL ACQUISITION AND EXPLOITATION	56,012	56,012	56,012	.....	.....
144	JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION	55,508	55,508	55,508	.....	.....
145	CLASSIFIED PROGRAM USD(P) .....	.....	100,000	100,000	+ 100,000	.....
146	FOREIGN COMPARATIVE TESTING	18,174	18,174	18,174	.....	.....
147	SYSTEMS ENGINEERING	43,195	43,195	43,195	.....	.....
148	STUDIES AND ANALYSIS SUPPORT	6,457	6,457	6,457	.....	.....
149	NUCLEAR MATTERS—PHYSICAL SECURITY	4,901	4,901	4,901	.....	.....

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
150	SUPPORT TO NETWORKS AND INFORMATION INTEGRATION	6,307	6,307	6,307	.....	.....
151	GENERAL SUPPORT TO USD (INTELLIGENCE)	6,601	6,601	16,601	+ 10,000	+ 10,000
	DEFENSE-WIDE ELECTRONIC PROCUREMENT .....	.....	20,000	.....	.....	- 20,000
152	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	92,849	92,849	92,849	.....	.....
159	SMALL BUSINESS INNOVATION RESEARCH/CHALLENGE ADMINISTR	1,857	1,857	1,857	.....	.....
160	DEFENSE TECHNOLOGY ANALYSIS	12,056	12,056	12,056	.....	.....
162	DEFENSE TECHNICAL INFORMATION CENTER [DTIC]	55,454	55,454	55,454	.....	.....
163	R&D IN SUPPORT OF DOD ENLISTMENT, TESTING & EVALUATION	16,364	16,364	16,364	.....	.....
164	DEVELOPMENT TEST AND EVALUATION	15,110	15,110	20,110	+ 5,000	+ 5,000
166	MANAGEMENT HEADQUARTERS (RESEARCH & DEVELOPMENT)	69,767	69,767	69,767	.....	.....
167	BUDGET AND PROGRAM ASSESSMENTS	4,454	4,454	4,454	.....	.....
169	OPERATIONS SECURITY [OPSEC]	2,637	2,637	2,637	.....	.....
174	SUPPORT TO INFORMATION OPERATIONS [IO] CAPABILITIES	8,238	8,238	8,238	.....	.....
176	CYBER SECURITY INITIATIVE	1,801	1,801	1,801	.....	.....
177	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS [IO]	16,041	16,041	16,041	.....	.....
180	COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION	77,475	57,475	77,475	.....	+ 20,000
182	MANAGEMENT HEADQUARTERS—MDA	34,855	34,855	34,855	.....	.....
183	IT SOFTWARE DEV INITIATIVES	104	104	104	.....	.....
999	CLASSIFIED PROGRAMS	64,255	64,255	64,255	.....	.....
	TOTAL, RDT&E MANAGEMENT SUPPORT	887,928	987,928	1,014,928	+ 127,000	+ 27,000
	OPERATIONAL SYSTEMS DEVELOPMENT					
185	ENTERPRISE SECURITY SYSTEM [ESS]	8,866	8,866	8,866	.....	.....
186	REGIONAL INTERNATIONAL OUTREACH & PARTNERSHIP FOR PEAC	3,238	3,238	3,238	.....	.....
187	OVERSEAS HUMANITARIAN ASSISTANCE SHARED INFORMATION SY	288	288	288	.....	.....
188	CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS D	14,745	14,745	14,745	.....	.....
190	JOINT INTEGRATION AND INTEROPERABILITY	5,013	5,013	5,013	.....	.....
191	PLANNING AND DECISION AID SYSTEM	3,922	3,922	3,922	.....	.....
192	C4I INTEROPERABILITY	72,574	72,574	72,574	.....	.....
194	JOINT/ALLIED COALITION INFORMATION SHARING	6,214	6,214	6,214	.....	.....
201	NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT	499	499	499	.....	.....
202	DEFENSE INFO INFRASTRUCTURE ENGINEERING & INTEGRATION	14,498	14,498	14,498	.....	.....
203	LONG HAUL COMMUNICATIONS (DCS)	26,164	26,164	26,164	.....	.....
204	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK	12,931	12,931	12,931	.....	.....
205	PUBLIC KEY INFRASTRUCTURE [PKI]	6,296	6,296	6,296	.....	.....

206	KEY MANAGEMENT INFRASTRUCTURE [KMI]	30,948	30,948	30,948		
207	INFORMATION SYSTEMS SECURITY PROGRAM	11,780	11,780	11,780		
208	INFORMATION SYSTEMS SECURITY PROGRAM	191,452	191,452	191,452		
211	GLOBAL COMMAND AND CONTROL SYSTEM	36,575	36,575	36,575		
212	JOINT SPECTRUM CENTER	24,278	24,278	24,278		
213	NET-CENTRIC ENTERPRISE SERVICES [NCES]	2,924	2,924	2,924		
214	JOINT MILITARY DECEPTION INITIATIVE	1,294	1,294	1,294		
215	TELEPORT PROGRAM	6,050	6,050	6,050		
217	SPECIAL APPLICATIONS FOR CONTINGENCIES	17,058	17,058	17,058		
222	CYBER SECURITY INITIATIVE	4,189	4,189	4,189		
223	CRITICAL INFRASTRUCTURE PROTECTION [CIP]	10,462	10,462	10,462		
227	POLICY R&D PROGRAMS	6,360	6,360	6,360		
229	NET CENTRICITY	21,190	21,190	21,190		
232	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	7,114	7,714	7,114		- 600
235	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	3,247	3,247	3,247		
237	MQ-1 PREDATOR A UAV	1,355	1,355	1,355		
240	HOMELAND DEFENSE TECHNOLOGY TRANSFER PROGRAM	2,303	2,303	2,303		
241	INT'L INTELLIGENCE TECHNOLOGY ASSESSMENT, ADVANCEMENT	1,478	1,478	1,478		
249	INDUSTRIAL PREPAREDNESS	27,044	27,044	27,044		
250	LOGISTICS SUPPORT ACTIVITIES	4,711	4,711	4,711		
251	MANAGEMENT HEADQUARTERS (JCS)	4,100	4,100	4,100		
253	MQ-9 UAV	3,002	3,002	3,002		
257	SPECIAL OPERATIONS AVIATION SYSTEMS ADVANCED DEV	97,267	97,267	97,267		
258	SPECIAL OPERATIONS TACTICAL SYSTEMS DEVELOPMENT	821	821	821		
259	SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT	25,935	25,935	25,935		
260	SOF OPERATIONAL ENHANCEMENTS	51,700	65,700	47,700	- 4,000	- 18,000
261	SPECIAL OPERATIONS CV-22 DEVELOPMENT	1,822	1,822	1,822		
262	MISSION TRAINING AND PREPARATION SYSTEMS [MTPS]	10,131	10,131	8,807	- 1,324	- 1,324
263	MC130J SOF TANKER RECAPITALIZATION	19,647	19,647	19,647		
264	SOF COMMUNICATIONS EQUIPMENT AND ELECTRONICS SYSTEMS	2,225	2,225	2,225		
265	SOF TACTICAL RADIO SYSTEMS	3,036	3,036	3,036		
266	SOF WEAPONS SYSTEMS	1,511	1,511	1,511		
267	SOF SOLDIER PROTECTION AND SURVIVAL SYSTEMS	4,263	4,263	4,263		
268	SOF VISUAL AUGMENTATION, LASERS & SENSOR SYSTEMS	4,448	4,448	4,448		
269	SOF TACTICAL VEHICLES	11,325	11,325	11,325		
270	SOF MUNITIONS	1,515	1,515	1,515		
271	SOF ROTARY WING AVIATION	24,430	24,430	20,430	- 4,000	- 4,000
272	SOF UNDERWATER SYSTEMS	26,405	61,405	34,405	+ 8,000	- 27,000
273	SOF SURFACE CRAFT	8,573	8,573	8,573		
275	SOF GLOBAL VIDEO SURVEILLANCE ACTIVITIES	7,620	7,620	7,620		

[In thousands of dollars]

	Item	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
276	SOF OPERATIONAL ENHANCEMENTS INTELLIGENCE	16,386	16,386	13,386	- 3,000	- 3,000
	TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	913,222	962,822	908,898	- 4,324	- 53,924
	DARPA CLASSIFIED			- 25,000	- 25,000	- 25,000
999	CLASSIFIED PROGRAMS	3,754,516	3,844,516	3,857,176	+ 102,660	+ 12,660
	TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, DEF-WIDE	17,982,161	19,100,362	18,419,129	+ 436,968	- 681,233

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Item	2013 budget estimate	Committee recommendation	Change from budget estimate
8	Biomedical Technology	110,900	100,900	-10,000
	Reduction to new starts			-10,000
12	Information and Communications Technology	392,421	372,421	-20,000
	Excessive prior year funds			-10,000
	Reduction in program growth			-10,000
17	Data to Decisions Applied Research	13,753	9,753	-4,000
	Unexecutable growth			-4,000
18	Cyber Security Research	18,985	12,985	-6,000
	Excessive growth			-6,000
20	Tactical Technology	233,209	218,209	-15,000
	Reduction in program growth			-15,000
21	Materials and Biological Technology	166,067	176,067	+10,000
	Technology Transfer			+10,000
22	Electronics Technology	222,416	214,416	-8,000
	Reduction in program growth			-8,000
24	Special Operations Technology Development	28,739	41,591	+12,852
	Sensor development—restore unjustified reduction			+12,852
25	Joint Munitions Advanced Technology	25,612	21,612	-4,000
	Excessive growth			-4,000
27	Combating Terrorism Technology Support	77,144	127,144	+50,000
	Program increase			+50,000
34	Advanced Aerospace Systems	174,316	166,816	-7,500
	Reduction in program growth			-15,000
	Technology Transfer and Transition			+7,500
40	Data to Decisions Advanced Technology Development	13,754	9,754	-4,000
	Excessive growth			-4,000
42	Cyber Security Advanced Research	19,935	13,935	-6,000
	OSD identified excess need			-6,000
44	Defense-Wide Manufacturing Science and Technology Program	21,966	51,966	+30,000
	Authorization increase			+30,000
50	Microelectronics Technology Development and Support	72,234	62,234	-10,000
	90nm Next Generation Foundry—early to need			-10,000
54	Command, Control and Communications Systems	237,859	229,859	-8,000
	Reduction to new starts			-8,000
56	Network-Centric Warfare Technology	236,883	239,383	+2,500
	Reduction in program growth			-5,000
	Technology Transfer and Transition			+7,500
57	Sensor Technology	299,438	289,438	-10,000
	Reduction to new starts			-10,000
57XX	Defense Rapid Innovation Fund		200,000	+200,000
	Authorization increase			+200,000
60	Quick Reaction Special Projects	107,002	92,002	-15,000
	Excessive growth			-15,000
63	DOD Modeling and Simulation Management Office	47,433	43,433	-4,000
	Reduction to new starts			-4,000
64	Directed Energy Research	46,944	2,384	-44,560
	Program adjustment			-44,560
65	Next Generation Aegis Missile	224,077	54,877	-169,200
	MD70: Transfer to SM-3 IIA for test and development risk reduction			-162,700
	MD40: Excessive growth			-6,500
69	CWMD Systems	53,946	38,946	-15,000
	Unexecutable growth			-15,000
77	Advanced Sensor Applications Program	16,958	18,958	+2,000
	Authorization increase			+2,000
85	Special Programs—MDA	272,387	258,787	-13,600
	Program adjustment			-13,600
93	Sea Based X-Band Radar [SBX]	9,730	29,730	+20,000
	SBX software sustainment—unjustified reduction			+20,000

[In thousands of dollars]

Line	Item	2013 budget estimate	Committee recommendation	Change from budget estimate
94	Israeli Cooperative Programs	99,836	268,736	+ 168,900
	Arrow 3 Upper Tier Interceptor Program			+ 23,800
	Arrow System Improvement Program			+ 33,700
	David's Sling Weapon Program			+ 111,400
99	Department of Defense Corrosion Program	3,283	33,283	+ 30,000
	Authorization increase			+ 30,000
108	AEGIS SM-3 Block IIA Co-Development	420,630	470,630	+ 50,000
	Transfer from line 65 for test development risk reduction			+ 50,000
111	Advanced Remote Sensor Technology [ARST]	58,742	2,982	- 55,760
	Lack of acquisition strategy			- 55,760
116	Prompt Global Strike Capability Development	110,383	200,383	+ 90,000
	For Advanced Hypersonic Weapon			+ 90,000
137	Central Test and Evaluation Investment Development [CTEIP] ..	144,109	156,109	+ 12,000
	Restore unjustified reduction			+ 12,000
145	Classified Program USD(P)		100,000	+ 100,000
	Classified Program USD(P)			+ 100,000
151	General Support to USD (Intelligence)	6,601	16,601	+ 10,000
	Irregular Warfare Resource Intelligence Program for Emerging Technologies Collection, Exploitation and Research			+ 10,000
164	Development Test and Evaluation	15,110	20,110	+ 5,000
	Authorization increase			+ 5,000
260	SOF Operational Enhancements	51,700	47,700	- 4,000
	Excess prior year funds			- 4,000
262	Mission Training and Preparation Systems [MTPS]	10,131	8,807	- 1,324
	SOCOM requested transfer to Defense-Wide line 78			- 1,324
271	SOF Rotary Wing Aviation	24,430	20,430	- 4,000
	Excess of prior year funds			- 4,000
272	SOF Underwater Systems	26,405	34,405	+ 8,000
	SOCOM requested transfer from Defense-Wide line 64			+ 8,000
276	SOF Operational Enhancements Intelligence	16,386	13,386	- 3,000
	Excess of prior year funds			- 3,000
999	Classified Programs	3,754,516	3,832,176	+ 102,660
	Classified Adjustment			+ 102,660
	DARPA—Authorization adjustment for unjustified special access programs			- 25,000

Conventional Prompt Global Strike.—The fiscal year 2013 budget request includes \$110,383,000 to continue the Prompt Global Strike program, a decrease from \$174,830,000 in fiscal year 2012. The Committee recognizes the significance of the research and development of hypersonic technology for employment in a conventional prompt global strike weapon and notes the United States Army Space and Missile Defense Command/Army Forces Strategic Command's successful intermediate range test flight of the Advanced Hypersonic Weapon [AHW] conducted on November 17, 2011. The Army's successful flight test followed two failed test flights of the Defense Advanced Research Project Agency's Hypersonic Test Vehicle-2 [HTV-2]. The Committee also understands the Department of Defense plans to develop a new hypersonic vehicle design which includes the development of a new booster and payload delivery vehicle.

Considering the recent test outcomes and the fiscal constraints under which the Department is operating, the Committee believes the Department should focus efforts and resources on the initiative that achieved its flight test and data collection expectations. Therefore, the Committee recommends an increase of \$90,000,000 to con-

tinue planning for and completing a second, longer range flight test of AHW. The Committee also directs that no funds are to be used for design or development efforts which are intended to support a significant departure from HTV-2 or AHW payload delivery vehicle designs.

Data to Decisions Initiative.—The Committee supports the goals for the Data to Decisions Initiative but notes there is duplication with similar research on mission-driven data analysis and information management research funded by the Air Force and other services. The Committee provides a total of \$9,700,000 and encourages the program to incorporate data quality research supported by the Air Force Research Lab for managing large data sets resulting from persistent surveillance.

Software Coding.—The Committee encourages the Department of Defense to accelerate efforts under way to conduct secure software coding experiments and data analysis to determine which secure coding guidelines are practiced and effective and to develop a template for scalable cyber modeling and simulation. These experiments could improve the understanding of the cyber threat and mitigation of the threat, increase the military's ability to fight and survive during cyber attacks, measure the state of cyber security, and explore and exploit new ideas in cyber warfare.

Unmanned Aerial System Common Development.—The Committee notes the passage of recent legislation directing the Federal Aviation Administration [FAA] to assess the suitability of integrating unmanned aerial systems [UAS] into the national airspace through the establishment of test ranges for civil use. The Committee recognizes that the FAA managed test ranges will lead to policies and standards governing future domestic UAS operations, including Department of Defense [DOD] operations. The Committee fully funds the request for Unmanned Aerial System Common Development and expects DOD to share the benefit of their UAS research, testing and experience with the FAA and NASA to support the FAA's development and demonstration of common UAS standards, architecture and technologies to ensure a consistent, nationwide approach to airspace integration.

MISSILE DEFENSE AGENCY

Sea-Based X-Band Radar [SBX].—The fiscal year 2013 budget request includes no funds to develop and sustain the software necessary to maintain SBX operational capability for ballistic missile defense. The Committee has been informed by the Missile Defense Agency that while SBX will be placed in a limited test support status in fiscal year 2013, SBX remains a critical element of ballistic missile defense and is intended for recall to active operational status as needed, as was demonstrated when North Korea attempted to launch a satellite earlier this year. Therefore, the Committee does not believe it is prudent to neglect software development sustainment and recommends an additional \$20,000,000 in Research, Development, Test and Evaluation, Defense-Wide only for SBX software development and sustainment.

Justification of Classified Programs.—The Committee notes the poor briefing materials in support of classified programs despite requests made by the Committee for the inclusion of specific informa-

tion. Therefore, the Committee does not believe that the budget request for these programs was fully and appropriately justified and recommends an undistributed reduction of \$13,600,000. The Director of the Missile Defense Agency is directed to submit a list of classified projects against which this reduction is levied not later than 90 days after enactment of this act.

Directed Energy.—The fiscal year 2013 budget request includes \$44,560,000 for a new Directed Energy Research program following the termination of the Airborne Laser Test Bed [ALTB]. The Committee notes that there are currently no less than five separate directed energy science and technology programs ongoing in the Department of Defense, none of which have clearly defined and funded transition plans into programs of record. In addition, the Committee understands that the Missile Defense Agency intends to award a noncompetitive, sole-source contract for integration of the yet-to-be-developed directed energy capability onto a high altitude long endurance platform that itself is currently under development. The Committee questions both the operational relevance of this scientific program, as well as the overall acquisition strategy during times of fiscal constraint. Therefore, the Committee recommends no funding for the Directed Energy program.

Advanced Remote Sensor Technology [ARST].—The fiscal year 2013 budget request includes \$55,760,000 for ARST, a fiscal year 2013 new start initiative. The Committee notes the lack of an acquisition strategy and recommends no funding for this program.

Airborne Weapons Layer [AWL].—The Committee notes that the Air Force and MDA failed to submit the AWL cost benefit analysis [CBA] to the congressional defense committees with the fiscal year 2013 budget submission. The Committee understands that the analysis is partially complete. Therefore, the Committee directs the Secretary of the Air Force and the Director of the Missile Defense Agency to brief the congressional defense committees not later than 90 days after enactment of this act on their findings to date.

OPERATIONAL TEST AND EVALUATION, DEFENSE

Appropriations, 2012	\$191,292,000
Budget estimate, 2013	185,268,000
House allowance	185,268,000
Committee recommendation	223,768,000

The Committee recommends an appropriation of \$223,768,000. This is \$38,500,000 above 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	2013 budget estimate	House allowance	Committee recommendation	Change from	
					Budget estimate	House allowance
	OPERATIONAL TEST AND EVALUATION, DEFENSE					
	RDT&E MANAGEMENT SUPPORT					
1	OPERATIONAL TEST AND EVALUATION	72,501	72,501	91,501	+ 19,000	+ 19,000
2	LIVE FIRE TESTING	49,201	49,201	49,201	.....	.....
3	OPERATIONAL TEST ACTIVITIES AND ANALYSES	63,566	63,566	83,066	+ 19,500	+ 19,500
	TOTAL, RDT&E MANAGEMENT SUPPORT	185,268	185,268	223,768	+ 38,500	+ 38,500
	TOTAL, OPERATIONAL TEST AND EVALUATION, DEFENSE	185,268	185,268	223,768	+ 38,500	+ 38,500

COMMITTEE RECOMMENDED ADJUSTMENTS

The following table details the adjustments recommended by the Committee:

[In thousands of dollars]

Line	Item	2013 budget estimate	Committee recommendation	Change from budget estimate
1	Operational Test and Evaluation	72,501	91,501	+ 19,000
	National cyber range shortfall .....	.....	.....	+ 4,000
	Cyber testing shortfall .....	.....	.....	+ 15,000
3	Operational Test Activities and Analyses	63,566	83,066	+ 19,500
	Restore unjustified reductions .....	.....	.....	+ 19,500

Cyber Assessment Enhancements.—The fiscal year 2013 budget request includes funds to enhance cyber assessment and training and mission rehearsal capabilities under the auspices of the Director, Operational Test and Evaluation. The Committee is aware of additional unfunded requirements and recommends an increase of \$19,000,000 in fiscal year 2013 to fund improvements necessary for the development and evaluation of offensive and defensive cyber-warfighting capabilities in representative cyber-threat environments. The Committee notes that these enhancements will improve the cyber environment infrastructure and threat portrayal and allow for increased cyber assessments during exercises.