

TITLE IV

RESEARCH, DEVELOPMENT, TEST AND EVALUATION

The fiscal year 2014 Department of Defense research, development, test and evaluation budget request totals \$67,520,236,000. The Committee recommendation provides \$66,409,530,000 for the research, development, test and evaluation accounts. The table below summarizes the Committee recommendations:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

RECAPITULATION			
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY.....	7,989,102	7,961,486	-27,616
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY.....	15,974,780	15,368,352	-606,428
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE.	25,702,946	24,947,354	-755,592
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE-WIDE.....	17,667,108	17,885,538	+218,430
OPERATIONAL TEST AND EVALUATION, DEFENSE.....	186,300	246,800	+60,500
GRAND TOTAL, RDT&E.....	67,520,236	66,409,530	-1,110,706
	=====	=====	=====

SPECIAL INTEREST ITEMS

Items for which additional funds have been provided as shown in the project level tables or in paragraphs using the phrase “only for” or “only to” in this report are congressional interest items for the purpose of the Base for Reprogramming (DD Form 1414). Each of these items must be carried on the DD Form 1414 at the stated amount specifically addressed in the committee report. These items remain special interest items whether or not they are repeated in a subsequent conference report.

REPROGRAMMING GUIDANCE FOR ACQUISITION ACCOUNTS

The Committee directs the Secretary of Defense to continue to follow the reprogramming guidance as specified in the report accompanying the House version of the fiscal year 2008 Department of Defense Appropriations bill (House Report 110–279). Specifically, the dollar threshold for reprogramming funds will remain at \$20,000,000 for procurement and \$10,000,000 for research, development, test and evaluation.

The Secretary shall continue to follow the limitation that prior approval reprogrammings are set at either the specified dollar threshold or 20 percent of the procurement or research, development, test and evaluation line, whichever is less. These thresholds are cumulative from the base for reprogramming value as modified by any adjustments. Therefore, if the combined value of transfers into or out of a procurement (P–1) or research, development, test and evaluation (R–1) line exceeds the identified threshold, the Secretary of Defense must submit a prior approval reprogramming to the congressional defense committees. In addition, guidelines on the application of prior approval reprogramming procedures for congressional special interest items are established elsewhere in this report.

REPROGRAMMING REPORTING REQUIREMENTS

The Committee directs the Under Secretary of Defense (Comptroller) to continue to provide the congressional defense committees quarterly, spreadsheet-based DD Form 1416 reports for Service and defense-wide accounts in titles III and IV of this Act as required in the explanatory statement accompanying the Department of Defense Appropriations Act, 2006.

FUNDING INCREASES

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

CLASSIFIED ANNEX

Adjustments to the classified programs are addressed in a classified annex accompanying this report.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY

Fiscal year 2013 appropriation*	\$8,676,627,000
Fiscal year 2014 budget request	7,989,102,000
Committee recommendation	7,961,486,000
Change from budget request	- 27,616,000

*FY13 Enacted level does not include the 251A sequester or Sec. 3004 OMB ATB.

This appropriation provides funds for the research, development, test and evaluation activities of the Department of the Army. The total amount recommended in the bill will provide the following program in fiscal year 2014:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY				
BASIC RESEARCH				
1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH.....	21,803	21,803	---
2	DEFENSE RESEARCH SCIENCES.....	221,901	221,901	---
3	UNIVERSITY RESEARCH INITIATIVES.....	79,359	79,359	---
4	UNIVERSITY AND INDUSTRY RESEARCH CENTERS.....	113,662	113,662	---
	TOTAL, BASIC RESEARCH.....	436,725	436,725	---
APPLIED RESEARCH				
5	MATERIALS TECHNOLOGY.....	26,585	26,585	---
6	SENSORS AND ELECTRONIC SURVIVABILITY.....	43,170	43,170	---
7	TRACTOR HIP.....	36,293	36,293	---
8	AVIATION TECHNOLOGY.....	55,615	55,615	---
9	ELECTRONIC WARFARE TECHNOLOGY.....	17,585	17,585	---
10	MISSILE TECHNOLOGY.....	51,528	61,528	+10,000
11	ADVANCED WEAPONS TECHNOLOGY.....	26,162	26,162	---
12	ADVANCED CONCEPTS AND SIMULATION.....	24,063	24,063	---
13	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY.....	64,589	64,589	---
14	BALLISTICS TECHNOLOGY.....	68,300	68,300	---
15	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY....	4,490	4,490	---
16	JOINT SERVICE SMALL ARMS PROGRAM.....	7,818	7,818	---
17	WEAPONS AND MUNITIONS TECHNOLOGY.....	37,798	52,798	+15,000
18	ELECTRONICS AND ELECTRONIC DEVICES.....	59,021	59,021	---
19	NIGHT VISION TECHNOLOGY.....	43,426	43,426	---
20	COUNTERMINE SYSTEMS.....	20,574	20,574	---
21	HUMAN FACTORS ENGINEERING TECHNOLOGY.....	21,339	21,339	---
22	ENVIRONMENTAL QUALITY TECHNOLOGY.....	20,316	20,316	---
23	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY.....	34,209	34,209	---
24	COMPUTER AND SOFTWARE TECHNOLOGY.....	10,439	10,439	---
25	MILITARY ENGINEERING TECHNOLOGY.....	70,064	70,064	---
26	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY.....	17,654	17,654	---
27	WARFIGHTER TECHNOLOGY.....	31,546	31,546	---
28	MEDICAL TECHNOLOGY.....	93,340	93,340	---
	TOTAL, APPLIED RESEARCH.....	885,924	910,924	+25,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
29	ADVANCED TECHNOLOGY DEVELOPMENT WARFIGHTER ADVANCED TECHNOLOGY.....	56,056	56,056	---
30	MEDICAL ADVANCED TECHNOLOGY.....	62,032	93,032	+31,000
31	AVIATION ADVANCED TECHNOLOGY.....	81,080	81,080	---
32	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY.....	63,919	73,919	+10,000
33	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY.....	97,043	107,043	+10,000
34	COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY..	5,866	5,866	---
35	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY..	7,800	7,800	---
36	ELECTRONIC WARFARE ADVANCED TECHNOLOGY.....	40,416	40,416	---
37	TRACTOR HIKE.....	9,166	9,166	---
38	NEXT GENERATION TRAINING & SIMULATION SYSTEMS.....	13,627	13,627	---
39	TRACTOR ROSE.....	10,667	10,667	---
40	MILITARY HIV RESEARCH.....	---	---	---
41	COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT.....	15,054	15,054	---
42	TRACTOR NAIL.....	3,194	3,194	---
43	TRACTOR EGGS.....	2,367	2,367	---
44	ELECTRONIC WARFARE TECHNOLOGY.....	25,348	25,348	---
45	MISSILE AND ROCKET ADVANCED TECHNOLOGY.....	64,009	72,009	+8,000
46	TRACTOR CAGE.....	11,083	11,083	---
47	HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM.....	180,662	180,662	---
48	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY.....	22,806	22,806	---
49	JOINT SERVICE SMALL ARMS PROGRAM.....	5,030	5,030	---
50	NIGHT VISION ADVANCED TECHNOLOGY.....	36,407	46,407	+10,000
51	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS.....	11,745	11,745	---
52	MILITARY ENGINEERING ADVANCED TECHNOLOGY.....	23,717	23,717	---
53	ADVANCED TACTICAL COMPUTER SCIENCE & SENSOR TECHNOLOGY	33,012	33,012	---
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	882,106	951,106	+69,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

DEMONSTRATION & VALIDATION			
54 ARMY MISSILE DEFENSE SYSTEMS INTEGRATION.....	15,301	15,301	---
55 ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (SPACE).....	13,592	13,592	---
56 LANDMINE WARFARE AND BARRIER - ADV DEV.....	10,625	---	-10,625
57 SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV.....	---	---	---
58 TANK AND MEDIUM CALIBER AMMUNITION.....	30,612	30,612	---
59 ADVANCED TANK ARMAMENT SYSTEM (ATAS).....	49,989	49,989	---
60 SOLDIER SUPPORT AND SURVIVABILITY.....	6,703	6,703	---
61 TACTICAL ELECTRONIC SURVEILLANCE SYSTEM - AD.....	6,894	6,894	---
62 NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT.....	9,066	9,066	---
63 ENVIRONMENTAL QUALITY TECHNOLOGY.....	2,633	2,633	---
64 WARFIGHTER INFORMATION NETWORK-TACTICAL.....	272,384	235,384	-37,000
65 NATO RESEARCH AND DEVELOPMENT.....	3,874	3,874	---
66 AVIATION - ADV DEV.....	5,018	5,018	---
67 LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV.....	11,556	11,556	---
69 MEDICAL SYSTEMS - ADV DEV.....	15,603	15,603	---
70 SOLDIER SYSTEMS - ADVANCED DEVELOPMENT.....	14,159	14,159	---
71 INTEGRATED BROADCAST SERVICE.....	79	79	---
72 TECHNOLOGY MATURATION INITIATIVES.....	55,605	55,605	---
74 INDIRECT FIRE PROTECTION CAPABILITY INCREMENT 2-INTERC	79,232	79,232	---
75 INTEGRATED BASE DEFENSE.....	4,476	4,476	---
76 ENDURANCE UAVS.....	28,991	---	-28,991

TOTAL, DEMONSTRATION & VALIDATION.....	636,392	559,776	-76,616

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

77			
ENGINEERING & MANUFACTURING DEVELOPMENT			
AIRCRAFT AVIONICS.....	76,588	76,588	---
78			
ARMED, DEPLOYABLE OH-58D.....	73,309	73,309	---
79			
ELECTRONIC WARFARE DEVELOPMENT.....	154,621	154,621	---
80			
JOINT TACTICAL RADIO.....	31,826	31,826	---
81			
MID-TIER NETWORKING VEHICULAR RADIO.....	23,341	23,341	---
82			
ALL SOURCE ANALYSIS SYSTEM.....	4,839	4,839	---
83			
TRACTOR CAGE.....	23,841	23,841	---
84			
INFANTRY SUPPORT WEAPONS.....	79,855	79,855	---
85			
MEDIUM TACTICAL VEHICLES.....	2,140	2,140	---
86			
JAVELIN.....	5,002	5,002	---
87			
FAMILY OF HEAVY TACTICAL VEHICLES.....	21,321	21,321	---
88			
AIR TRAFFIC CONTROL.....	514	514	---
93			
NIGHT VISION SYSTEMS - SDD.....	43,405	43,405	---
94			
COMBAT FEEDING, CLOTHING, AND EQUIPMENT.....	1,939	1,939	---
95			
NON-SYSTEM TRAINING DEVICES - SDD.....	18,980	18,980	---
97			
AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE -SDD....	18,294	18,294	---
98			
CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT.....	17,013	17,013	---
99			
AUTOMATIC TEST EQUIPMENT DEVELOPMENT.....	6,701	6,701	---
100			
DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS) - SDD.....	14,575	14,575	---
101			
COMBINED ARMS TACTICAL TRAINER (CATT) CORE.....	27,634	27,634	---
102			
BRIGADE ANALYSIS, INTEGRATION AND EVALUATION.....	193,748	193,748	---
103			
WEAPONS AND MUNITIONS - SDD.....	15,721	15,721	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
104 LOGISTICS AND ENGINEER EQUIPMENT - SDD.....	41,703	41,703	---
105 COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - SDD.....	7,379	7,379	---
106 MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT.	39,468	39,468	---
107 LANDMINE WARFARE/BARRIER - SDD.....	92,285	92,285	---
108 ARTILLERY MUNITIONS.....	8,209	8,209	---
109 ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE...	22,958	22,958	---
110 RADAR DEVELOPMENT.....	1,549	1,549	---
111 GENERAL FUND ENTERPRISE BUSINESS SYSTEM (GFEBS).....	17,342	17,342	---
112 FIREFINDER.....	47,221	47,221	---
113 SOLDIER SYSTEMS - WARRIOR DEM/VAL.....	48,477	48,477	---
114 ARTILLERY SYSTEMS.....	80,613	80,613	---
117 INFORMATION TECHNOLOGY DEVELOPMENT.....	68,814	68,814	---
118 ARMY INTEGRATED MILITARY HUMAN RESOURCES SYSTEM (A-IMH	137,290	137,290	---
119 ARMORED MULTI-PURPOSE VEHICLE.....	116,298	86,298	-30,000
120 JOINT TACTICAL NETWORK CENTER.....	68,148	68,148	---
121 AMF JOINT TACTICAL RADIO SYSTEM.....	33,219	33,219	---
122 JOINT AIR-TO-GROUND MISSILE (JAGM).....	15,127	15,127	---
124 PAC-2/MSE MISSILE.....	68,843	68,843	---
125 ARMY INTEGRATED AIR AND MISSILE DEFENSE (AIAMD).....	364,649	364,649	---
126 MANNED GROUND VEHICLE.....	592,201	592,201	---
127 AERIAL COMMON SENSOR.....	10,382	10,382	---
128 NATIONAL CAPABILITIES INTEGRATION.....	21,143	21,143	---
129 JOINT LIGHT TACTICAL VEHICLE ENG AND MANUFACTURING....	84,230	84,230	---
130 TROJAN - RH12.....	3,465	3,465	---
131 ELECTRONIC WARFARE DEVELOPMENT.....	10,806	10,806	---
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	2,857,026	2,827,026	-30,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

RD&E MANAGEMENT SUPPORT			
132 THREAT SIMULATOR DEVELOPMENT.....	16,934	16,934	---
133 TARGET SYSTEMS DEVELOPMENT.....	13,488	13,488	---
134 MAJOR T&E INVESTMENT.....	46,672	46,672	---
135 RAND ARROYO CENTER.....	11,919	11,919	---
136 ARMY KWAJALEIN ATOLL.....	193,658	193,658	---
137 CONCEPTS EXPERIMENTATION PROGRAM.....	37,158	37,158	---
139 ARMY TEST RANGES AND FACILITIES.....	340,659	340,659	---
140 ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS.....	66,061	66,061	---
141 SURVIVABILITY/LETHALITY ANALYSIS.....	43,280	43,280	---
143 AIRCRAFT CERTIFICATION.....	6,025	6,025	---
144 METEOROLOGICAL SUPPORT TO RD&E ACTIVITIES.....	7,349	7,349	---
145 MATERIEL SYSTEMS ANALYSIS.....	19,809	19,809	---
146 EXPLOITATION OF FOREIGN ITEMS.....	5,941	5,941	---
147 SUPPORT OF OPERATIONAL TESTING.....	55,504	55,504	---
148 ARMY EVALUATION CENTER.....	65,274	65,274	---
149 SIMULATION & MODELING FOR ACQ, RQTS, & TNG (SMART)....	1,283	1,283	---
150 PROGRAMWIDE ACTIVITIES.....	82,035	82,035	---
151 TECHNICAL INFORMATION ACTIVITIES.....	33,853	33,853	---
152 MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY...	53,340	53,340	---
153 ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT.....	5,193	5,193	---
154 MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT)....	54,175	54,175	---

TOTAL, RD&E MANAGEMENT SUPPORT.....	1,159,610	1,159,610	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
OPERATIONAL SYSTEMS DEVELOPMENT			
156 MLRS PRODUCT IMPROVEMENT PROGRAM.....	110,576	110,576	---
157 LOGISTICS AUTOMATION.....	3,717	3,717	---
159 PATRIOT PRODUCT IMPROVEMENT.....	70,053	70,053	---
160 AEROSTAT JOINT PROJECT OFFICE.....	98,450	83,450	-15,000
161 ADV FIELD ARTILLERY TACTICAL DATA SYSTEM.....	30,940	30,940	---
162 COMBAT VEHICLE IMPROVEMENT PROGRAMS.....	177,532	177,532	---
163 MANEUVER CONTROL SYSTEM.....	36,495	36,495	---
164 AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS...	257,187	257,187	---
165 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM.....	315	315	---
166 DIGITIZATION.....	6,186	6,186	---
167 NETWORK INTEGRATED EVALUATION (NIE).....	---	---	---
168 MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM.....	1,578	1,578	---
169 OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS.....	62,100	62,100	---
171 TRACTOR CARD.....	18,778	18,778	---
JOINT TACTICAL GROUND SYSTEM.....	7,108	7,108	---
173 SECURITY AND INTELLIGENCE ACTIVITIES.....	7,600	7,600	---
174 INFORMATION SYSTEMS SECURITY PROGRAM.....	9,357	9,357	---
176 GLOBAL COMBAT SUPPORT SYSTEM.....	41,225	41,225	---
177 SATCOM GROUND ENVIRONMENT (SPACE).....	18,197	18,197	---
178 WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM.....	14,215	14,215	---
179 TACTICAL UNMANNED AERIAL VEHICLES.....	33,533	33,533	---
180 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	27,622	27,622	---
182 MQ-1 SKY WARRIOR A UAV.....	10,901	10,901	---
183 RQ-11 UAV.....	2,321	2,321	---
184 RQ-7 UAV.....	12,031	12,031	---
186 BIOMETRICS ENABLED INTELLIGENCE.....	12,449	12,449	---
187 END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES.....	56,136	56,136	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	1,126,602	1,111,602	-15,000
CLASSIFIED PROGRAMS.....	4,717	4,717	---
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY.....	7,989,102	7,961,486	-27,616

EXPLANATION OF PROJECT LEVEL TABLES
[In thousands of dollars]

R-1	Budget Request	Committee Recommended	Change from Request
10 MISSILE TECHNOLOGY Program increase	51,528	61,528 10,000	10,000
17 WEAPONS AND MUNITIONS TECHNOLOGY Program increase	37,798	52,798 15,000	15,000
30 MEDICAL ADVANCED TECHNOLOGY Peer-reviewed neurotoxin exposure treatment Parkinsons research program Peer-reviewed neurofibromatosis research program	62,032	93,032 16,000 15,000	31,000
WEAPONS AND MUNITIONS ADVANCED			
32 TECHNOLOGY Program increase	63,919	73,919 10,000	10,000
COMBAT VEHICLE AND AUTOMOTIVE ADVANCED			
33 TECHNOLOGY Alternative energy research	97,043	107,043 10,000	10,000
45 MISSILE AND ROCKET ADVANCED TECHNOLOGY Program increase	64,009	72,009 8,000	8,000
50 NIGHT VISION ADVANCED TECHNOLOGY Program increase	36,407	46,407 10,000	10,000
56 LANDMINE WARFARE AND BARRIER - ADV DEV Program deferred to fiscal year 2019	10,625	0 -10,625	-10,625
64 WARFIGHTER INFORMATION NETWORK-TACTICAL Excess program growth	272,384	235,384 -37,000	-37,000
76 ENDURANCE UAVS Program termination	28,991	0 -28,991	-28,991
119 ARMORED MULTI-PURPOSE VEHICLE Schedule slip	116,298	86,298 -30,000	-30,000
160 AEROSTAT JOINT PROJECT OFFICE Funding ahead of need	98,450	83,450 -15,000	-15,000

MUNITIONS STANDARDIZATION EFFECTIVENESS AND SAFETY

The budget request includes \$53,340,000 in the Munitions Standardization Effectiveness and Safety line. The Committee recommendation fully funds the request. The Committee is aware that multiple programs and projects are funded in this program element, including research and development of energetics technologies. The Committee recognizes the benefits of these technologies to the warfighter by creating munitions with greater performance and precision while also reducing adverse environmental impacts. The Committee commends the Army for its continuing work in energetics technology and strongly encourages that funding available in this line be allocated for research in energetics technologies.

WEAPONS AND MUNITIONS TECHNOLOGY

The budget request includes \$37,798,000 for the Weapons and Munitions Technology line. The Committee recommendation includes \$52,798,000, an increase of \$15,000,000 above the budget request. Under this program element, the Army invests in future technologies while seeking to spiral new technologies to warfighters, including light armament, multi-purpose munitions, specialty explosives and warheads, insensitive munitions, fire control sensors, and seekers for enemy neutralization. The Committee notes that the program funding will support a dedicated effort to mature and update prototypes and deliver armament and munitions technologies that will enhance lethality and survivability, as well as expanded manufacturing technologies for explosives and dual-use.

WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY

The budget request includes \$63,919,000 for the Weapons and Munitions Advanced Technology line. The Committee recommendation provides \$73,919,000, an increase of \$10,000,000 above the budget request, to support the demonstration of advanced lethal and non-lethal weapons and munitions technologies to increase battlefield lethality and security. The program supports the maturation and demonstration of enabling components and subsystems which provide scalable lethal and non-lethal effects, key subsystems that enable an electromagnetic gun weapons system demonstrator, and a tactical high energy laser weapons system demonstrator.

WARFIGHTER INFORMATION NETWORK—TACTICAL

The budget request includes \$272,384,000 for the continued development of Increment 3 of the Warfighter Information Network—Tactical (WIN—T). The Committee recommendation is \$235,384,000, a decrease of \$37,000,000 below the budget request. The Committee recommendation will support the Increment 3 effort and maintain the necessary pace in the overall WIN—T program.

MALARIA VACCINE DEVELOPMENT

The Committee recognizes the importance of finding a vaccine for preventing malaria and commends the Secretary of the Army for continuing to fund this significant research. A malaria vaccine will reduce or eliminate the need for anti-malarial drugs and will protect warfighters in austere, malaria-prone environments. Therefore, the Committee fully funds the request for \$9,600,000 for vaccines for the prevention of malaria.

SYSTEMS ENGINEERING RESEARCH CENTER

The Committee supports the funding included in the budget request for the Systems Engineering Research Center, a national resource that is a university affiliated research center. It is comprised of 23 collaborating universities, and provides a broad base of talent to conduct vital systems research. By doing so, it helps enhance the Department of Defense’s capability for the successful development, integration, testing, and sustainability of completed defense systems, services, and enterprises.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY

Fiscal year 2013 appropriation *	\$16,963,398,000
Fiscal year 2014 budget request	15,974,780,000
Committee recommendation	15,368,352,000
Change from budget request	-606,428,000

*FY13 Enacted level does not include the 251A sequester or Sec. 3004 OMB ATB.

This appropriation provides funds for the research, development, test and evaluation activities of the Department of the Navy, which includes the Marine Corps. The total amount recommended in the bill will provide the following program in fiscal year 2014:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY				
BASIC RESEARCH				
1	UNIVERSITY RESEARCH INITIATIVES.....	112,617	112,617	---
2	IN-HOUSE LABORATORY INDEPENDENT RESEARCH.....	18,230	18,230	---
3	DEFENSE RESEARCH SCIENCES.....	484,459	484,459	---
	TOTAL, BASIC RESEARCH.....	615,306	615,306	---
APPLIED RESEARCH				
4	POWER PROJECTION APPLIED RESEARCH.....	104,513	104,513	---
5	FORCE PROTECTION APPLIED RESEARCH.....	145,307	145,307	---
6	MARINE CORPS LANDING FORCE TECHNOLOGY.....	47,334	47,334	---
7	COMMON PICTURE APPLIED RESEARCH.....	34,163	34,163	---
8	WARFIGHTER SUSTAINMENT APPLIED RESEARCH.....	49,689	49,689	---
9	ELECTROMAGNETIC SYSTEMS APPLIED RESEARCH.....	97,701	97,701	---
10	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH.....	45,685	60,685	+15,000
11	JOINT NON-LETHAL WEAPONS APPLIED RESEARCH.....	6,060	6,060	---
12	UNDERSEA WARFARE APPLIED RESEARCH.....	103,050	103,050	---
13	FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV.....	169,710	169,710	---
14	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH.....	31,326	31,326	---
	TOTAL, APPLIED RESEARCH.....	834,538	849,538	+15,000
ADVANCED TECHNOLOGY DEVELOPMENT				
15	POWER PROJECTION ADVANCED TECHNOLOGY.....	48,201	48,201	---
16	FORCE PROTECTION ADVANCED TECHNOLOGY.....	28,328	28,328	---
19	ELECTROMAGNETIC SYSTEMS ADVANCED TECHNOLOGY.....	56,179	56,179	---
20	MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD) ..	132,400	132,400	---
21	JOINT NON-LETHAL WEAPONS TECHNOLOGY DEVELOPMENT.....	11,854	11,854	---
22	FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV.....	247,931	252,931	+5,000
23	WARFIGHTER PROTECTION ADVANCED TECHNOLOGY.....	4,760	40,460	+35,700
25	NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS.....	51,463	51,463	---
26	MINE AND EXPEDITIONARY WARFARE ADVANCED TECHNOLOGY....	2,000	2,000	---
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	583,116	623,816	+40,700

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
27 DEMONSTRATION & VALIDATION			
AIR/OCEAN TACTICAL APPLICATIONS.....	42,246	39,246	-3,000
28 AVIATION SURVIVABILITY.....	5,591	5,591	---
29 DEPLOYABLE JOINT COMMAND AND CONTROL.....	3,262	3,262	---
30 AIRCRAFT SYSTEMS.....	74	15,074	+15,000
31 ASW SYSTEMS DEVELOPMENT.....	7,964	6,964	-1,000
32 TACTICAL AIRBORNE RECONNAISSANCE.....	5,257	5,257	---
33 ADVANCED COMBAT SYSTEMS TECHNOLOGY.....	1,570	1,570	---
34 SURFACE AND SHALLOW WATER MINE COUNTERMEASURES.....	168,040	145,653	-22,387
35 SURFACE SHIP TORPEDO DEFENSE.....	88,649	75,649	-13,000
36 CARRIER SYSTEMS DEVELOPMENT.....	83,902	80,902	-3,000
37 PILOT FISH.....	108,713	108,713	---
38 RETRACT LARCH.....	9,316	9,316	---
39 RETRACT JUNIPER.....	77,108	77,108	---
40 RADIOLOGICAL CONTROL.....	762	762	---
41 SURFACE ASW.....	2,349	2,349	---
42 ADVANCED SUBMARINE SYSTEM DEVELOPMENT.....	852,977	850,182	-2,795
43 SUBMARINE TACTICAL WARFARE SYSTEMS.....	8,764	8,764	---
44 SHIP CONCEPT ADVANCED DESIGN.....	20,501	15,156	-5,345
45 SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES.....	27,052	22,052	-5,000
46 ADVANCED NUCLEAR POWER SYSTEMS.....	428,933	428,933	---
47 ADVANCED SURFACE MACHINERY SYSTEMS.....	27,154	18,144	-9,010
48 CHALK EAGLE.....	519,140	519,140	---
49 LITTORAL COMBAT SHIP (LCS).....	406,389	382,031	-24,358
50 COMBAT SYSTEM INTEGRATION.....	36,570	4,963	-31,607
51 CONVENTIONAL MUNITIONS.....	8,404	8,404	---
52 MARINE CORPS ASSAULT VEHICLES.....	136,967	122,967	-14,000
53 MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM.....	1,489	1,489	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
54 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT.....	38,422	35,023	-3,399
55 COOPERATIVE ENGAGEMENT.....	69,312	53,643	-15,669
56 OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT.....	9,196	9,196	---
57 ENVIRONMENTAL PROTECTION.....	18,850	18,850	---
58 NAVY ENERGY PROGRAM.....	45,618	29,636	-15,982
59 FACILITIES IMPROVEMENT.....	3,019	3,019	---
60 CHALK CORAL.....	144,951	144,951	---
61 NAVY LOGISTIC PRODUCTIVITY.....	5,797	3,847	-1,950
62 RETRACT MAPLE.....	308,131	308,131	---
63 LINK PLUMERIA.....	195,189	195,189	---
64 RETRACT ELM.....	56,358	56,358	---
65 LINK EVERGREEN.....	55,378	55,378	---
66 SPECIAL PROCESSES.....	48,842	48,842	---
67 NATO RESEARCH AND DEVELOPMENT.....	7,509	7,509	---
68 LAND ATTACK TECHNOLOGY.....	5,075	---	-5,075
69 NONLETHAL WEAPONS.....	51,178	49,278	-1,900
70 JOINT PRECISION APPROACH AND LANDING SYSTEMS.....	205,615	168,178	-37,437
72 TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES.....	37,227	33,906	-3,321
73 ASE SELF-PROTECTION OPTIMIZATION.....	169	169	---
74 JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE..	20,874	10,874	-10,000
75 PRECISION STRIKE WEAPONS DEVELOPMENT PROGRAM.....	2,257	2,257	---
76 SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE..	38,327	31,327	-7,000
77 OFFENSIVE ANTI-SURFACE WARFARE WEAPON DEVELOPMENT.....	135,985	48,985	-87,000
78 JOINT LIGHT TACTICAL VEHICLE ENGINEERING/MANUFACTURING	50,362	49,062	-1,300
79 ASW SYSTEMS DEVELOPMENT - MIP.....	8,448	4,908	-3,540
80 ELECTRONIC WARFARE DEVELOPMENT - MIP.....	153	153	---
TOTAL, DEMONSTRATION & VALIDATION.....	4,641,385	4,328,310	-313,075

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

ENGINEERING & MANUFACTURING DEVELOPMENT			
81 OTHER HELO DEVELOPMENT.....	40,558	33,671	-6,887
82 AV-8B AIRCRAFT - ENG DEV.....	35,825	33,325	-2,500
83 STANDARDS DEVELOPMENT.....	99,891	68,530	-31,361
84 MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT.....	17,565	17,565	---
85 AIR/OCEAN EQUIPMENT ENGINEERING.....	4,026	4,026	---
86 P-3 MODERNIZATION PROGRAM.....	1,791	1,791	---
87 WARFARE SUPPORT SYSTEM.....	11,725	8,523	-3,202
88 TACTICAL COMMAND SYSTEM.....	68,463	63,463	-5,000
89 ADVANCED HAWKEYE.....	152,041	147,041	-5,000
90 H-1 UPGRADES.....	47,123	47,123	---
91 ACOUSTIC SEARCH SENSORS.....	30,208	29,208	-1,000
92 V-22A.....	43,084	43,084	---
93 AIR CREW SYSTEMS DEVELOPMENT.....	11,401	6,901	-4,500
94 EA-18.....	11,138	11,138	---
95 ELECTRONIC WARFARE DEVELOPMENT.....	34,964	34,964	---
96 VH-71A EXECUTIVE HELO DEVELOPMENT.....	94,238	83,609	-10,629
97 NEXT GENERATION JAMMER (NGJ).....	257,796	157,937	-99,859
98 JOINT TACTICAL RADIO SYSTEM - NAVY (JTRS-NAVY).....	3,302	3,302	---
99 SURFACE COMBATANT COMBAT SYSTEM ENGINEERING.....	240,298	320,298	+80,000
100 LPD-17 CLASS SYSTEMS INTEGRATION.....	1,214	1,214	---
101 SMALL DIAMETER BOMB (SDB).....	46,007	37,925	-8,082
102 STANDARD MISSILE IMPROVEMENTS.....	75,592	58,592	-17,000
103 AIRBORNE MCM.....	117,854	105,264	-12,590
104 MARINE AIR GROUND TASK FORCE ELECTRONIC WARFARE.....	10,080	10,080	---
105 NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR SYSTEMS ENG.....	21,413	21,413	---
106 FUTURE UNMANNED CARRIER-BASED STRIKE SYSTEM.....	146,683	96,887	-49,796
107 ADVANCED ABOVE WATER SENSORS.....	275,871	193,071	-82,800
108 SSN-688 AND TRIDENT MODERNIZATION.....	89,672	85,735	-3,937
109 AIR CONTROL.....	13,754	10,754	-3,000
110 SHIPBOARD AVIATION SYSTEMS.....	69,615	69,615	---
112 NEW DESIGN SSN.....	121,566	131,566	+10,000
113 SUBMARINE TACTICAL WARFARE SYSTEM.....	49,143	49,143	---
114 SHIP CONTRACT DESIGN/LIVE FIRE T&E.....	155,254	137,421	-17,833
115 NAVY TACTICAL COMPUTER RESOURCES.....	3,689	3,689	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
116 MINE DEVELOPMENT.....	5,041	5,041	---
117 LIGHTWEIGHT TORPEDO DEVELOPMENT.....	26,444	36,444	+10,000
118 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT.....	8,897	8,897	---
119 PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS.....	6,233	6,233	---
120 JOINT STANDOFF WEAPON SYSTEMS.....	442	442	---
121 SHIP SELF DEFENSE (DETECT & CONTROL).....	130,360	111,360	-19,000
122 SHIP SELF DEFENSE (ENGAGE: HARD KILL).....	50,209	43,309	-6,900
123 SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW).....	164,799	114,799	-50,000
124 INTELLIGENCE ENGINEERING.....	1,984	1,984	---
125 MEDICAL DEVELOPMENT.....	9,458	28,458	+19,000
126 NAVIGATION/ID SYSTEM.....	51,430	47,430	-4,000
127 JOINT STRIKE FIGHTER (JSF) - EMD.....	512,631	497,727	-14,904
128 JOINT STRIKE FIGHTER (JSF).....	534,187	522,745	-11,442
129 INFORMATION TECHNOLOGY DEVELOPMENT.....	5,564	5,564	---
130 INFORMATION TECHNOLOGY DEVELOPMENT.....	69,659	62,823	-6,836
132 CH-53K.....	503,180	494,180	-9,000
133 JOINT AIR-TO-GROUND MISSILE (JAGM).....	5,500	---	-5,500
134 MULTI-MISSION MARITIME AIRCRAFT (MMA).....	317,358	302,358	-15,000
135 DDG-1000.....	187,910	187,910	---
136 TACTICAL COMMAND SYSTEM - MIP.....	2,140	2,140	---
137 TACTICAL CRYPTOLOGIC SYSTEMS.....	9,406	9,406	---
138 SPECIAL APPLICATIONS PROGRAM.....	22,800	22,800	---
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	5,028,476	4,639,918	-388,558

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

RDT&E MANAGEMENT SUPPORT			
139 THREAT SIMULATOR DEVELOPMENT.....	43,261	43,261	---
140 TARGET SYSTEMS DEVELOPMENT.....	71,872	71,872	---
141 MAJOR T&E INVESTMENT.....	38,033	38,033	---
142 JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION....	1,352	1,352	---
143 STUDIES AND ANALYSIS SUPPORT - NAVY.....	5,566	5,566	---
144 CENTER FOR NAVAL ANALYSES.....	48,345	48,345	---
146 TECHNICAL INFORMATION SERVICES.....	637	637	---
147 MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT.....	76,585	76,585	---
148 STRATEGIC TECHNICAL SUPPORT.....	3,221	3,221	---
149 RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT.....	72,725	72,725	---
150 RDT&E SHIP AND AIRCRAFT SUPPORT.....	141,778	141,778	---
151 TEST AND EVALUATION SUPPORT.....	331,219	331,219	---
152 OPERATIONAL TEST AND EVALUATION CAPABILITY.....	16,565	16,565	---
153 NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT.....	3,265	3,265	---
154 SEW SURVEILLANCE/RECONNAISSANCE SUPPORT.....	7,134	7,134	---
155 MARINE CORPS PROGRAM WIDE SUPPORT.....	24,082	24,082	---
156 TACTICAL CRYPTOLOGIC ACTIVITIES.....	497	497	---
TOTAL, RDT&E MANAGEMENT SUPPORT.....	886,137	886,137	---

OPERATIONAL SYSTEMS DEVELOPMENT			
159 HARPOON MODIFICATIONS.....	699	699	---
160 UNMANNED COMBAT AIR VEHICLE (UCAV) ADVANCED COMPONENT.	20,961	20,961	---
162 MARINE CORPS DATA SYSTEMS.....	35	35	---
163 CARRIER ONBOARD DELIVERY FOLLOW ON.....	2,460	1,230	-1,230
164 STRIKE WEAPONS DEVELOPMENT.....	9,757	9,757	---
165 STRATEGIC SUB & WEAPONS SYSTEM SUPPORT.....	98,057	98,057	---
166 SSBN SECURITY TECHNOLOGY PROGRAM.....	31,768	31,768	---
167 SUBMARINE ACOUSTIC WARFARE DEVELOPMENT.....	1,464	1,464	---
168 NAVY STRATEGIC COMMUNICATIONS.....	21,729	21,729	---
169 RAPID TECHNOLOGY TRANSITION (RTT).....	13,561	8,561	-5,000
170 F/A-18 SQUADRONS.....	131,118	124,618	-6,500
171 E-2 SQUADRONS.....	1,971	1,971	---
172 FLEET TELECOMMUNICATIONS (TACTICAL).....	46,155	23,439	-22,716
173 SURFACE SUPPORT.....	2,374	2,374	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
174 TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC) ..	12,407	12,407	---
175 INTEGRATED SURVEILLANCE SYSTEM.....	41,609	41,609	---
176 AMPHIBIOUS TACTICAL SUPPORT UNITS.....	7,240	6,940	-300
177 GROUND/AIR TASK ORIENTED RADAR.....	78,208	75,208	-3,000
178 CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT.....	45,124	39,124	-6,000
179 CRYPTOLOGIC DIRECT SUPPORT.....	2,703	2,703	---
180 ELECTRONIC WARFARE (EW) READINESS SUPPORT.....	19,563	19,563	---
181 HARM IMPROVEMENT.....	13,586	13,586	---
182 TACTICAL DATA LINKS.....	197,538	189,886	-7,652
183 SURFACE ASW COMBAT SYSTEM INTEGRATION.....	31,863	31,863	---
184 MK-48 ADCAP.....	12,806	12,806	---
185 AVIATION IMPROVEMENTS.....	88,607	78,608	-9,999
187 OPERATIONAL NUCLEAR POWER SYSTEMS.....	116,928	116,928	---
188 MARINE CORPS COMMUNICATIONS SYSTEMS.....	178,753	177,153	-1,600
189 MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS....	139,594	113,814	-25,780
190 MARINE CORPS COMBAT SERVICES SUPPORT.....	42,647	37,034	-5,613
191 USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP)....	34,394	33,394	-1,000
192 TACTICAL AIM MISSILES.....	39,159	15,453	-23,706
193 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM).....	2,613	2,613	---
194 JOINT HIGH SPEED VESSEL (JHSV).....	986	986	---
199 SATELLITE COMMUNICATIONS (SPACE).....	66,231	66,231	---
200 CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES.....	24,476	24,476	---
201 INFORMATION SYSTEMS SECURITY PROGRAM.....	23,531	23,531	---
206 NAVY METEOROLOGICAL AND OCEAN SENSORS-SPACE (METOC)...	742	742	---
207 JOINT MILITARY INTELLIGENCE PROGRAMS.....	4,804	4,804	---
208 TACTICAL UNMANNED AERIAL VEHICLES.....	8,381	8,381	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
211 DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS.....	5,535	5,535	---
212 DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS.....	19,718	15,718	-4,000
213 RQ-4 UAV.....	375,235	375,235	---
214 MQ-8 UAV.....	48,713	12,523	-36,190
215 RQ-11 UAV.....	102	102	---
216 RQ-7 UAV.....	710	710	---
217 SMALL (LEVEL 0) TACTICAL UAS (STUASLO).....	5,013	5,013	---
219 RQ-21A.....	11,122	11,122	---
220 MULTI-INTELLIGENCE SENSOR DEVELOPMENT.....	28,851	28,851	---
221 MODELING AND SIMULATION SUPPORT.....	5,116	5,116	---
222 DEPOT MAINTENANCE (NON-IF).....	28,042	28,042	---
223 INDUSTRIAL PREPAREDNESS.....	50,933	50,933	---
224 MARITIME TECHNOLOGY (MARITECH).....	4,998	4,998	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	2,200,690	2,040,404	-160,286
CLASSIFIED PROGRAMS.....	1,185,132	1,384,923	+199,791
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY.....	15,974,780	15,368,352	-606,428

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[in thousands of dollars]

R-1	Budget Request	Committee Recommended	Change from Request
OCEAN WARFIGHTING ENVIRONMENT APPLIED			
10 RESEARCH	45,685	60,685	15,000
Program increase - AGOR mid-life refit		15,000	
FUTURE NAVAL CAPABILITIES ADVANCED			
22 TECHNOLOGY DEV	247,931	252,931	5,000
Program increase - ASW research		5,000	
WARFIGHTER PROTECTION ADVANCED TECHNOLOGY			
23	4,760	40,460	35,700
Program increase - bone marrow registry program		31,500	
Program increase - tactical athlete program		4,200	
AIR/OCEAN TACTICAL APPLICATIONS			
27	42,246	39,246	-3,000
Precision time and astrometry program excess growth		-3,000	
AIRCRAFT SYSTEMS			
30	74	15,074	15,000
Program increase		15,000	
ASW SYSTEMS DEVELOPMENT			
31	7,964	6,964	-1,000
Excess government engineering support		-1,000	
SURFACE AND SHALLOW WATER MINE			
34 COUNTERMEASURES	168,040	145,653	-22,387
Unmanned surface vehicle milestone slip		-4,000	
Fiscal year 2013 delayed new start for large displacement unmanned undersea vehicle		-18,387	
SURFACE SHIP TORPEDO DEFENSE			
35	88,649	75,649	-13,000
Countermeasure anti-torpedo program delay		-10,000	
Combat rapid attack weapon unfunded outyear requirement		-3,000	
CARRIER SYSTEMS DEVELOPMENT			
36	83,902	80,902	-3,000
Unjustified classified effort		-3,000	
ADVANCED SUBMARINE SYSTEM DEVELOPMENT			
42	852,977	850,182	-2,795
Test and evaluation support funding ahead of need		-2,795	
SHIP CONCEPT ADVANCED DESIGN			
44	20,501	15,156	-5,345
Program execution		-5,345	
SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES			
45	27,052	22,052	-5,000
LX(R) program growth		-5,000	
ADVANCED SURFACE MACHINERY SYSTEMS			
47	27,154	18,144	-9,010
Program execution		-9,010	
LITTORAL COMBAT SHIP (LCS)			
49	406,389	382,031	-24,358
Program increase - small business technology insertion		10,000	
Program execution for project 3096		-34,358	
COMBAT SYSTEM INTEGRATION			
50	36,570	4,963	-31,607
Warfare systems certification effort forward financed		-5,042	
Late level of effort contract awards for project 0164		-18,040	
Late level of effort contract awards for project 3312		-8,525	

R-1		Budget Request	Committee Recommended	Change from Request
52	MARINE CORPS ASSAULT VEHICLES Program delay	136,967	122,967 -14,000	-14,000
54	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT Program execution for project 0377	38,422	35,023 -3,399	-3,399
55	COOPERATIVE ENGAGEMENT Air and missile defense radar integration E-2C backfit Test and evaluation support growth Common array block antenna contract delay	69,312	53,643 -2,750 -5,419 -2,200 -5,300	-15,669
58	NAVY ENERGY PROGRAM Aircraft energy conservation program growth Program execution	45,618	29,636 -5,000 -10,982	-15,982
61	NAVY LOGISTIC PRODUCTIVITY Navy Pal payment system unjustified request	5,797	3,847 -1,950	-1,950
68	LAND ATTACK TECHNOLOGY Fiscal year 2013 delayed new start for advanced minor caliber gun	5,075	0 -5,075	-5,075
69	NONLETHAL WEAPONS Program management growth	51,178	49,278 -1,900	-1,900
70	JOINT PRECISION APPROACH AND LANDING SYSTEMS JPALS 1B lead platform integration delay JPALS 1B follow-on platform integration delay JPALS increment 2 test and evaluation ahead of need	205,615	168,178 -20,000 -10,000 -7,437	-37,437
72	TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES Fiscal year 2013 delayed new start for common infrared countermeasure	37,227	33,906 -3,321	-3,321
74	JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE Milestone C delay	20,874	10,874 -10,000	-10,000
76	SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE CNO rapid innovation cell program growth	38,327	31,327 -7,000	-7,000
77	OFFENSIVE ANTI-SURFACE WARFARE WEAPON DEVELOPMENT Excess development program growth	135,985	48,985 -87,000	-87,000
78	JOINT LIGHT TACTICAL VEHICLE ENGINEERING/MANUFACTURING Program management growth	50,362	49,062 -1,300	-1,300
79	ASW SYSTEMS DEVELOPMENT - MIP Fiscal year 2013 delayed new start for navy underwater acoustic multiple sonobouy	8,448	4,908 -3,540	-3,540

R-1		Budget Request	Committee Recommended	Change from Request
81	OTHER HELO DEVELOPMENT	40,558	33,671	-6,887
	MH-60S avionics development and integration rephasing		-2,000	
	H-60 AMCM IOC slip		-3,000	
	MH-XX development engineering support ahead of need		-1,887	
82	AV-8B AIRCRAFT - ENG DEV	35,825	33,325	-2,500
	Readiness management plan ECP program growth		-2,500	
83	STANDARDS DEVELOPMENT	99,891	68,530	-31,361
	CNS/ATM development program growth		-10,000	
	Avionics component improvement program growth		-2,500	
	Mid-air collision avoidance capability		-9,861	
	Excess support for project 0572		-9,000	
87	WARFARE SUPPORT SYSTEM	11,725	8,523	-3,202
	Combatant craft replacement program growth		-1,000	
	Program execution		-2,202	
88	TACTICAL COMMAND SYSTEM	68,463	63,463	-5,000
	Maritime tactical command control program in-house growth		-5,000	
89	ADVANCED HAWKEYE	152,041	147,041	-5,000
	Government engineering support growth		-5,000	
91	ACOUSTIC SEARCH SENSORS	30,208	29,208	-1,000
	Management services growth		-1,000	
93	AIR CREW SYSTEMS DEVELOPMENT	11,401	6,901	-4,500
	Crew systems development growth		-2,000	
	Aircraft systems development growth		-2,500	
96	VH-71A EXECUTIVE HELO DEVELOPMENT	94,238	83,609	-10,629
	Excess program management and support		-10,629	
97	NEXT GENERATION JAMMER (NGJ)	257,796	157,937	-99,859
	Hardware development contract delay		-5,600	
	Program execution		-94,259	
99	SURFACE COMBATANT COMBAT SYSTEM ENGINEERING	240,298	320,298	80,000
	Support funding growth		-10,000	
	Excess future combat system development and integration funding		-10,000	
	Cruiser retention		100,000	
101	SMALL DIAMETER BOMB (SDB)	46,007	37,925	-8,082
	Small diameter bomb support funding growth		-4,000	
	Joint miniature munitions bomb rack government support funding carryover		-4,082	
102	STANDARD MISSILE IMPROVEMENTS	75,592	58,592	-17,000
	SM-6 future capability demonstration ramp		-17,000	
103	AIRBORNE MCM	117,854	105,264	-12,590
	AN/AQS-24 test and evaluation ahead of need		-7,090	
	AN/AQS-24 excess support funding		-2,000	
	Excess AMNS support		-3,500	

R-1	Budget Request	Committee Recommended	Change from Request
106 FUTURE UNMANNED CARRIER-BASED STRIKE SYSTEM Program execution	146,683	96,887 -49,796	-49,796
107 ADVANCED ABOVE WATER SENSORS Air and missile defense radar contract delay Dual band radar government engineering services growth	275,871	193,071 -79,800 -3,000	-82,800
108 SSN-688 AND TRIDENT MODERNIZATION Submarine HDR antenna delay	89,672	85,735 -3,937	-3,937
109 AIR CONTROL AN/SPN-43C delay	13,754	10,754 -3,000	-3,000
112 NEW DESIGN SSN Program increase - small business technology insertion	121,566	131,566 10,000	10,000
114 SHIP CONTRACT DESIGN/LIVE FIRE T&E Energy initiative program delay Excess ship to shore connector support funding	155,254	137,421 -15,333 -2,500	-17,833
117 LIGHTWEIGHT TORPEDO DEVELOPMENT Program increase - small business technology insertion	26,444	36,444 10,000	10,000
121 SHIP SELF DEFENSE (DETECT & CONTROL) Ship self defense MK-2 system development ACB/TI growth Non-lethal weapons development program growth	130,360	111,360 -15,000 -4,000	-19,000
122 SHIP SELF DEFENSE (ENGAGE: HARD KILL) NATO Seasparrow objective configuration delay	50,209	43,309 -6,900	-6,900
123 SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW) SEWIP block 3 program delay	164,799	114,799 -50,000	-50,000
125 MEDICAL DEVELOPMENT Program increase - wound care research Program increase - military dental research	9,458	28,458 13,000 6,000	19,000
126 NAVIGATION/ID SYSTEM ISIS and photonics development and obsolescence program carryover	51,430	47,430 -4,000	-4,000
127 JOINT STRIKE FIGHTER (JSF) - EMD F-35B follow-on development ahead of need	512,631	497,727 -14,904	-14,904
128 JOINT STRIKE FIGHTER (JSF) F-35B follow-on development ahead of need	534,187	522,745 -11,442	-11,442
130 INFORMATION TECHNOLOGY DEVELOPMENT Joint technical data integration software development/hardware integration program delay Fiscal year 2013 delayed new start for naval justice information system	69,659	62,823 -2,416 -4,420	-6,836
132 CH-53K Management support growth	503,180	494,180 -9,000	-9,000

R-1	Budget Request	Committee Recommended	Change from Request
133 JOINT AIR-TO-GROUND MISSILE (JAGM) Program uncertainty	5,500	0 -5,500	-5,500
134 MULTI-MISSION MARITIME AIRCRAFT (MMA) P-8A spiral 2 development milestone B slip Program increase - small business technology insertion Program increase - sensor development	317,358	302,358 -30,000 10,000 5,000	-15,000
163 CARRIER ONBOARD DELIVERY FOLLOW ON Fiscal year 2013 delayed new start for carrier onboard delivery follow-on	2,460	1,230 -1,230	-1,230
169 RAPID TECHNOLOGY TRANSITION (RTT) Program growth	13,561	8,561 -5,000	-5,000
170 F/A-18 SQUADRONS Excess small diameter bomb integration support	131,118	124,618 -6,500	-6,500
172 FLEET TELECOMMUNICATIONS (TACTICAL) Battle force tactical network ahead of need Joint aerial layer network - maritime program delay	46,155	23,439 -2,777 -19,939	-22,716
176 AMPHIBIOUS TACTICAL SUPPORT UNITS Technology investigation unfunded outyear requirement	7,240	6,940 -300	-300
177 GROUND/AIR TASK ORIENTED RADAR Support growth	78,208	75,208 -3,000	-3,000
178 CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT Tactical combat training system/large area tracking range replacement program delay	45,124	39,124 -6,000	-6,000
182 TACTICAL DATA LINKS ATDLS support funding growth Fiscal year 2013 delayed new start for network tactical common data link	197,538	189,886 -3,600 -4,052	-7,652
185 AVIATION IMPROVEMENTS F-135 engine improvement plan lack of definition Fiscal year 2013 delayed new start for carrier/amphibious assault ship crash crane	88,607	78,608 -9,104 -895	-9,999
188 MARINE CORPS COMMUNICATIONS SYSTEMS CREW program management growth	178,753	177,153 -1,600	-1,600
MARINE CORPS GROUND COMBAT/SUPPORTING			
189 ARMS SYSTEMS Fiscal year 2013 delayed new start for disable point target Marine Personnel Carrier program delay Assault Amphibious Vehicle schedule slip	139,594	113,814 -655 -20,875 -4,250	-25,780

R-1	Budget Request	Committee Recommended	Change from Request
190 MARINE CORPS COMBAT SERVICES SUPPORT	42,647	37,034	-5,613
Fiscal year 2013 delayed new start for MTRV trailers		-748	
Fiscal year 2013 delayed new start for family of tactical trailers		-175	
Fiscal year 2013 delayed new start for family of material handling equipment		-171	
Fiscal year 2013 delayed new start for enhanced environmental control unit		-992	
Fiscal year 2013 delayed new start for hybrid generator/next generation power distribution system		-1,779	
Fiscal year 2013 delayed new start for advanced power sources		-1,748	
USMC INTELLIGENCE/ELECTRONIC WARFARE			
191 SYSTEMS (MIP)	34,394	33,394	-1,000
CESAS program management support		-1,000	
192 TACTICAL AIM MISSILES	39,159	15,453	-23,706
Fiscal year 2013 delayed new start for AIM-9X block III		-23,706	
DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE			
212 SYSTEMS	19,718	15,718	-4,000
Excess support funding		-4,000	
214 MQ-8 UAV	48,713	12,523	-36,190
Program execution		-36,190	
CLASSIFIED PROGRAMS	1,185,132	1,384,923	199,791
Classified adjustment		199,791	

OCEAN ENERGY TECHNOLOGY

The Committee commends the Navy for its efforts in developing ocean energy technologies as defined in the Energy Independence and Security Act of 2007. These efforts will ultimately result in reducing the cost of energy and increasing energy security at Department of Defense facilities. The Committee encourages the Secretary of the Navy to coordinate its development efforts 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.

HIGHLY INTEGRATED PHOTONICS

The Committee is encouraged by the Navy's development of photonic technology to transmit and process information in wired and chip-level electronic components. Photonics can dramatically reduce platform size, weight, power requirements, and sustainment costs. This technology can also be used throughout the Department of Defense in various platforms. The Committee encourages the Secretary of the Navy to continue the development of this technology and looks forward to the incorporation of photonics in an operational platform.

AUTOMATED TEST AND RE-TEST

The Automated Test and Re-test (ATRT) project continues to achieve results. The reduced labor requirements and cost savings for programs that have utilized the tool are impressive. The Committee is concerned by reports that the Navy may not yet be fully supportive of the effort, may reduce the funding applied to the project in execution as well as in future budget years, and does not seem to have a plan to take full advantage of this tool. Therefore, the Secretary of the Navy is directed to provide a report to the congressional defense committees outlining the plan for the full implementation of ATRT. This report should include a funding plan and timeline for the continued development and technology transition of ATRT. This report shall be submitted not later than 90 days after the enactment of this Act.

BONE MARROW REGISTRY

The Committee recommendation includes \$31,500,000 for the Department of the Navy to be administered by the Bone Marrow Registry, also known as and referred to within the Naval Medical Research Center as the C.W. Bill Young Marrow Donor Recruitment and Research Program. Funds appropriated for the Bone Marrow Registry shall remain available only for the purposes for which they are appropriated, and may only be obligated for the Bone Marrow Registry. This Department of Defense donor center has recruited more than 750,000 Department of Defense volunteers, and provides more marrow donors per week than any other donor center in the Nation. More than 5,600 servicemembers and other Department volunteers from this donor center have provided marrow to save the lives of patients. The success of this national and international life-saving program for military and civilian patients, which now includes more than 11,000,000 potential volunteer do-

nors, is admirable. Further, the agencies involved in contingency planning are encouraged to continue to include the Bone Marrow Registry in the development and testing of their contingency plans. The Department of Defense form (DD Form 1414) shall show this as a congressional interest item. The Department is further directed to release all the funds appropriated for this purpose to the Bone Marrow Registry not later than 60 days after the enactment of this Act.

SHIPBOARD LIGHTING

The Committee is aware that the Navy is extremely active in energy initiatives to reduce the acquisition and operating cost of the fleet. With light emitting diode (LED) lighting technology rapidly advancing, the replacement of existing fluorescent shipboard lighting with LED lights would seem to be an idea well suited for the Navy to explore as an energy initiative. The Committee urges the Secretary of the Navy to study the concept of converting shipboard lighting to LED lights.

COASTAL ENVIRONMENT RESEARCH

The Committee understands the importance of the littoral region to the Navy. The Committee believes that additional research regarding the characteristics of the magnetic and electric fields in the coastal ocean regions and the development of predictive techniques to distinguish ships and submarines from naturally occurring background ocean features would pay dividends as the Navy shifts operations to the littoral regions. Therefore, the Committee urges the Secretary of the Navy to conduct additional research in this critical area.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE

Fiscal year 2013 appropriation*	\$25,432,738,000
Fiscal year 2014 budget request	25,702,946,000
Committee recommendation	24,947,354,000
Change from budget request	- 755,592,000

*FY13 Enacted level does not include the 251A sequester or Sec. 3004 OMB ATB.

This appropriation provides funds for the research, development, test and evaluation activities of the Department of the Air Force. The total amount recommended in the bill will provide the following program in fiscal year 2014:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE				
BASIC RESEARCH				
1	DEFENSE RESEARCH SCIENCES.....	373,151	373,151	---
2	UNIVERSITY RESEARCH INITIATIVES.....	138,333	138,333	---
3	HIGH ENERGY LASER RESEARCH INITIATIVES.....	13,286	13,286	---
	TOTAL, BASIC RESEARCH.....	524,770	524,770	---
APPLIED RESEARCH				
4	MATERIALS.....	116,846	116,846	---
5	AEROSPACE VEHICLE TECHNOLOGIES.....	119,672	119,672	---
6	HUMAN EFFECTIVENESS APPLIED RESEARCH.....	89,483	109,483	+20,000
7	AEROSPACE PROPULSION.....	197,546	197,546	---
8	AEROSPACE SENSORS.....	127,539	127,539	---
9	SPACE TECHNOLOGY.....	104,063	94,063	-10,000
10	CONVENTIONAL MUNITIONS.....	81,521	81,521	---
11	DIRECTED ENERGY TECHNOLOGY.....	112,845	112,845	---
12	DOMINANT INFORMATION SCIENCES AND METHODS.....	138,161	138,161	---
13	HIGH ENERGY LASER RESEARCH.....	40,217	40,217	---
	TOTAL, APPLIED RESEARCH.....	1,127,893	1,137,893	+10,000
ADVANCED TECHNOLOGY DEVELOPMENT				
14	ADVANCED MATERIALS FOR WEAPON SYSTEMS.....	39,572	39,572	---
15	SUSTAINMENT SCIENCE AND TECHNOLOGY (S&T).....	12,800	12,800	---
16	ADVANCED AEROSPACE SENSORS.....	30,579	30,579	---
17	AEROSPACE TECHNOLOGY DEV/DEMO.....	77,347	77,347	---
18	AEROSPACE PROPULSION AND POWER TECHNOLOGY.....	149,321	149,321	---
19	ELECTRONIC COMBAT TECHNOLOGY.....	49,128	49,128	---
20	ADVANCED SPACECRAFT TECHNOLOGY.....	68,071	60,071	-8,000
21	MAUI SPACE SURVEILLANCE SYSTEM (MSSS).....	26,299	26,299	---
22	HUMAN EFFECTIVENESS ADVANCED TECHNOLOGY DEVELOPMENT...	20,967	20,967	---
23	CONVENTIONAL WEAPONS TECHNOLOGY.....	33,996	33,996	---
24	ADVANCED WEAPONS TECHNOLOGY.....	19,000	19,000	---
25	MANUFACTURING TECHNOLOGY PROGRAM.....	41,353	41,353	---
26	BATTLESPACE KNOWLEDGE DEVELOPMENT & DEMONSTRATION.....	49,093	49,093	---
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	617,526	609,526	-8,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

ADVANCED COMPONENT DEVELOPMENT			
28 INTELLIGENCE ADVANCED DEVELOPMENT.....	3,983	3,983	---
29 PHYSICAL SECURITY EQUIPMENT.....	3,874	3,874	---
32 SPACE CONTROL TECHNOLOGY.....	27,024	23,024	-4,000
33 COMBAT IDENTIFICATION TECHNOLOGY.....	15,899	15,899	---
34 NATO RESEARCH AND DEVELOPMENT.....	4,568	4,568	---
35 INTERNATIONAL SPACE COOPERATIVE R&D.....	379	379	---
36 SPACE PROTECTION PROGRAM (SPP).....	28,764	10,364	-18,400
38 INTERCONTINENTAL BALLISTIC MISSILE.....	86,737	86,737	---
40 POLLUTION PREVENTION (DEM/VAL).....	953	953	---
42 NEXT GENERATION BOMBER.....	379,437	379,437	---
44 TECHNOLOGY TRANSFER.....	2,606	2,606	---
45 HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM.....	103	103	---
47 REQUIREMENTS ANALYSIS AND MATURATION.....	16,018	16,018	---
49 AIR AND SPACE OPS CENTER.....	58,861	58,861	---
50 JOINT DIRECT ATTACK MUNITION.....	2,500	2,500	---
51 GROUND ATTACK WEAPONS FUZE DEVELOPMENT.....	21,175	21,175	---
53 TECH TRANSITION PROGRAM.....	13,636	13,636	---
54 SERVICE SUPPORT TO STRATCOM - SPACE ACTIVITIES.....	2,799	2,799	---
55 THREE DIMENSIONAL LONG-RANGE RADAR.....	70,160	59,160	-11,000
56 NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT)....	137,233	127,233	-10,000

TOTAL, ADVANCED COMPONENT DEVELOPMENT.....	876,709	833,309	-43,400

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
ENGINEERING & MANUFACTURING DEVELOPMENT			
58 INTELLIGENCE ADVANCED DEVELOPMENT.....	977	977	---
61 SPECIALIZED UNDERGRADUATE FLIGHT TRAINING.....	3,601	3,601	---
62 ELECTRONIC WARFARE DEVELOPMENT.....	1,971	1,971	---
64 TACTICAL DATA NETWORKS ENTERPRISE.....	51,456	51,456	---
65 PHYSICAL SECURITY EQUIPMENT.....	50	50	---
66 SMALL DIAMETER BOMB (SDB).....	115,000	115,000	---
67 COUNTERSPACE SYSTEMS.....	23,930	23,930	---
68 SPACE SITUATION AWARENESS SYSTEMS.....	400,258	350,258	-50,000
69 AIRBORNE ELECTRONIC ATTACK.....	4,575	4,575	---
70 SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD.....	352,532	322,832	-29,700
71 ARMAMENT/ORDNANCE DEVELOPMENT.....	16,284	16,284	---
72 SUBMUNITIONS.....	2,564	2,564	---
73 AGILE COMBAT SUPPORT.....	17,036	17,036	---
74 LIFE SUPPORT SYSTEMS.....	7,273	7,273	---
75 COMBAT TRAINING RANGES.....	33,200	33,200	---
78 JOINT STRIKE FIGHTER (JSF).....	816,335	798,535	-17,800
79 INTERCONTINENTAL BALLISTIC MISSILE.....	145,442	140,442	-5,000
80 EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE).....	27,963	24,963	-3,000
81 LONG RANGE STANDOFF WEAPON.....	5,000	5,000	---
82 ICBM FUZE MODERNIZATION.....	129,411	129,411	---
83 F-22 MODERNIZATION INCREMENT 3.2B.....	131,100	118,000	-13,100
84 NEXT GENERATION AERIAL REFUELING AIRCRAFT.....	1,558,590	1,558,590	---
85 CSAR HH-60 RECAPITALIZATION.....	393,558	333,558	-60,000
86 HC/MC-130 RECAP RDT&E.....	6,242	6,242	---
87 ADVANCED EHF MILSATCOM (SPACE).....	272,872	258,872	-14,000
88 POLAR MILSATCOM (SPACE).....	124,805	124,805	---
89 WIDEBAND GLOBAL SATCOM (SPACE).....	13,948	13,948	---
90 B-2 DEFENSIVE MANAGEMENT SYSTEM.....	303,500	273,500	-30,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
91 NUCLEAR WEAPONS MODERNIZATION.....	67,874	55,874	-12,000
94 FULL COMBAT MISSION TRAINING.....	4,663	4,663	---
97 CV-22.....	46,705	46,705	---
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	5,078,715	4,844,115	-234,600
RDT&E MANAGEMENT SUPPORT			
99 THREAT SIMULATOR DEVELOPMENT.....	17,690	17,690	---
100 MAJOR T&E INVESTMENT.....	34,841	34,841	---
101 RAND PROJECT AIR FORCE.....	32,956	32,956	---
103 INITIAL OPERATIONAL TEST & EVALUATION.....	13,610	13,610	---
104 TEST AND EVALUATION SUPPORT.....	742,658	742,658	---
105 ROCKET SYSTEMS LAUNCH PROGRAM (SPACE).....	14,203	14,203	---
106 SPACE TEST PROGRAM (STP).....	13,000	13,000	---
107 FACILITIES RESTORATION & MODERNIZATION - TEST & EVAL..	44,160	44,160	---
108 FACILITIES SUSTAINMENT - TEST AND EVALUATION SUPPORT..	27,643	27,643	---
109 MULTI-SERVICE SYSTEMS ENGINEERING INITIATIVE.....	13,935	13,935	---
110 SPACE AND MISSILE CENTER (SMC) CIVILIAN WORKFORCE.....	192,348	182,348	-10,000
111 ACQUISITION AND MANAGEMENT SUPPORT.....	28,647	28,647	---
112 GENERAL SKILL TRAINING.....	315	315	---
114 INTERNATIONAL ACTIVITIES.....	3,785	3,785	---
TOTAL, RDT&E MANAGEMENT SUPPORT.....	1,179,791	1,169,791	-10,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
OPERATIONAL SYSTEMS DEVELOPMENT			
115 GPS III - OPERATIONAL CONTROL SEGMENT.....	383,500	365,500	-18,000
117 WIDE AREA SURVEILLANCE.....	5,000	5,000	---
118 AIR FORCE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM..	90,097	90,097	---
119 ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY.....	32,086	32,086	---
121 B-52 SQUADRONS.....	24,007	24,007	---
122 AIR-LAUNCHED CRUISE MISSILE (ALCM).....	450	450	---
123 B-1B SQUADRONS.....	19,589	19,589	---
124 B-2 SQUADRONS.....	100,194	87,810	-12,384
125 STRAT WAR PLANNING SYSTEM - USSTRATCOM.....	37,448	37,448	---
128 REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION..	1,700	1,700	---
130 WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRAN	3,844	3,844	---
131 MQ-9 UAV.....	128,328	128,328	---
133 A-10 SQUADRONS.....	9,614	9,614	---
134 F-16 SQUADRONS.....	177,298	167,298	-10,000
135 F-15E SQUADRONS.....	244,289	234,289	-10,000
136 MANNED DESTRUCTIVE SUPPRESSION.....	13,138	13,138	---
137 F-22 SQUADRONS.....	328,542	328,542	---
138 F-35 SQUADRONS.....	33,000	10,000	-23,000
139 TACTICAL AIM MISSILES.....	15,460	15,460	---
140 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM).....	84,172	84,172	---
142 COMBAT RESCUE AND RECOVERY.....	2,582	2,582	---
143 COMBAT RESCUE - PARARESCUE.....	542	542	---
144 AF TENCAP.....	89,816	89,816	---
145 PRECISION ATTACK SYSTEMS PROCUREMENT.....	1,075	1,075	---
146 COMPASS CALL.....	10,782	10,782	---
147 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM.....	139,369	108,239	-31,130
148 ISR INNOVATIONS FUND.....	---	3,000	+3,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
149 JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM).....	6,373	6,373	---
150 AIR AND SPACE OPERATIONS CENTER (AOC).....	22,820	22,820	---
151 CONTROL AND REPORTING CENTER (CRC).....	7,029	7,029	---
152 AIRBORNE WARNING AND CONTROL SYSTEM (AWACS).....	186,256	176,856	-9,400
153 TACTICAL AIRBORNE CONTROL SYSTEMS.....	743	743	---
156 COMBAT AIR INTELLIGENCE SYSTEM ACTIVITIES.....	4,471	4,471	---
158 TACTICAL AIR CONTROL PARTY--MOD.....	10,250	10,250	---
159 C2ISR TACTICAL DATA LINK.....	1,431	1,431	---
160 COMMAND AND CONTROL (C2) CONSTELLATION.....	7,329	7,329	---
161 DCAPEs.....	15,081	15,081	---
162 JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM.....	13,248	23,248	+10,000
163 SEEK EAGLE.....	24,342	24,342	---
164 USAF MODELING AND SIMULATION.....	10,448	10,448	---
165 WARGAMING AND SIMULATION CENTERS.....	5,512	5,512	---
166 DISTRIBUTED TRAINING AND EXERCISES.....	3,301	3,301	---
167 MISSION PLANNING SYSTEMS.....	62,605	62,605	---
169 CYBER COMMAND ACTIVITIES.....	68,099	68,099	---
170 AF OFFENSIVE CYBERSPACE OPERATIONS.....	14,047	14,047	---
171 AF DEFENSIVE CYBERSPACE OPERATIONS.....	5,853	5,853	---
179 SPACE SUPERIORITY INTELLIGENCE.....	12,197	10,697	-1,500
180 E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC).....	18,267	18,267	---
181 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK....	36,288	18,581	-17,707
182 INFORMATION SYSTEMS SECURITY PROGRAM.....	90,231	90,231	---
183 GLOBAL COMBAT SUPPORT SYSTEM.....	725	725	---
185 MILSATCOM TERMINALS.....	140,170	140,170	---
187 AIRBORNE SIGINT ENTERPRISE.....	117,110	117,110	---
190 GLOBAL AIR TRAFFIC MANAGEMENT (GATH).....	4,430	4,430	---
191 CYBER SECURITY INITIATIVE.....	2,048	2,048	---
192 DOD CYBER CRIME CENTER.....	288	288	---
193 SATELLITE CONTROL NETWORK (SPACE).....	35,698	35,698	---
194 WEATHER SERVICE.....	24,667	24,667	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
195 AIR TRAFFIC CONTROL, APPROACH, & LANDING SYSTEM (ATC)	35,674	29,674	-6,000
196 AERIAL TARGETS	21,186	21,186	---
199 SECURITY AND INVESTIGATIVE ACTIVITIES	195	195	---
200 ARMS CONTROL IMPLEMENTATION	1,430	1,430	---
201 DEFENSE JOINT COUNTERINTELLIGENCE ACTIVITIES	330	330	---
206 SPACE AND MISSILE TEST AND EVALUATION CENTER	3,696	3,696	---
207 SPACE WARFARE CENTER	2,469	2,469	---
208 INTEGRATED BROADCAST SERVICE	8,289	8,289	---
209 SPACELIFT RANGE SYSTEM (SPACE)	13,345	13,345	---
211 DRAGON U-2	18,700	13,700	-5,000
212 ENDURANCE UNMANNED AERIAL VEHICLES	3,000	3,000	---
213 AIRBORNE RECONNAISSANCE SYSTEMS	37,828	37,828	---
214 MANNED RECONNAISSANCE SYSTEMS	13,491	13,491	---
215 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	7,498	5,498	-2,000
216 PREDATOR UAV (JMIP)	3,326	3,326	---
217 RQ-4 UAV	134,406	164,406	+30,000
218 NETWORK-CENTRIC COLLABORATIVE TARGET (TIARA)	7,413	7,413	---
219 COMMON DATA LINK (CDL)	40,503	40,503	---
220 NATO AGS	264,134	264,134	---
221 SUPPORT TO DCGS ENTERPRISE	23,016	23,016	---
222 GPS III SPACE SEGMENT	221,276	206,276	-15,000
223 JSPOC MISSION SYSTEM	58,523	56,523	-2,000
224 RAPID CYBER ACQUISITION	2,218	2,218	---
226 NUDET DETECTION SYSTEM (SPACE)	50,547	50,547	---
227 SPACE SITUATION AWARENESS OPERATIONS	18,807	12,807	-6,000
229 SHARED EARLY WARNING (SEW)	1,079	1,079	---
230 C-130 AIRLIFT SQUADRON	400	26,400	+26,000
231 C-5 AIRLIFT SQUADRONS	61,492	61,492	---
232 C-17 AIRCRAFT	109,134	106,134	-3,000
233 C-130J PROGRAM	22,443	32,443	+10,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
234 LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCIM).....	4,116	4,116	---
238 OPERATIONAL SUPPORT AIRLIFT.....	44,553	44,553	---
239 SPECIAL TACTICS / COMBAT CONTROL.....	6,213	6,213	---
240 DEPOT MAINTENANCE (NON-IF).....	1,605	1,605	---
242 LOGISTICS INFORMATION TECHNOLOGY (LOGIT).....	95,238	65,238	-30,000
243 SUPPORT SYSTEMS DEVELOPMENT.....	10,925	20,925	+10,000
244 OTHER FLIGHT TRAINING.....	1,347	1,347	---
245 OTHER PERSONNEL ACTIVITIES.....	65	65	---
246 JOINT PERSONNEL RECOVERY AGENCY.....	1,083	1,083	---
247 CIVILIAN COMPENSATION PROGRAM.....	1,577	1,577	---
248 PERSONNEL ADMINISTRATION.....	5,990	5,990	---
249 AIR FORCE STUDIES AND ANALYSIS AGENCY.....	786	786	---
250 FACILITIES OPERATION--ADMINISTRATION.....	654	654	---
251 FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT..	135,735	135,735	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	4,423,014	4,309,893	-113,121
CLASSIFIED PROGRAMS.....	11,874,528	11,518,057	-356,471
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE	25,702,946	24,947,354	-755,592

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1		Budget Request	Committee Recommended	Change from Request
6	HUMAN EFFECTIVENESS APPLIED RESEARCH Program increase	89,483	109,483 20,000	20,000
9	SPACE TECHNOLOGY Hold to fiscal year 2013 level	104,063	94,063 -10,000	-10,000
20	ADVANCED SPACECRAFT TECHNOLOGY Hold to fiscal year 2013 level	68,071	60,071 -8,000	-8,000
32	SPACE CONTROL TECHNOLOGY Hold to fiscal year 2013 level	27,024	23,024 -4,000	-4,000
36	SPACE PROTECTION PROGRAM (SPP) SATCOM resiliency new start / slow execution for threat mitigation	28,764	10,364 -18,400	-18,400
55	THREE DIMENSIONAL LONG RANGE RADAR (3DELRR) Program delay	70,160	59,160 -11,000	-11,000
56	NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT) (SPACE) Excessive growth in management services	137,233	127,233 -10,000	-10,000
68	SPACE SITUATION AWARENESS SYSTEMS One year schedule delay	400,258	350,258 -50,000	-50,000
70	SPACE BASED INFRARED SYSTEM (SBIRS) HIGH Modernization projects execution delays excluding exploitation efforts	352,532	322,832 -29,700	-29,700
78	F-35 Deployability and Suitability Enhancements delay	816,335	798,535 -17,800	-17,800
79	ICBM - EMD Transporter Erector Replacement excess funds	145,442	140,442 -5,000	-5,000
80	EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE) Hold support costs to fiscal year 2013 level, dual launch	27,963	24,963 -3,000	-3,000
83	F-22 MODERNIZATION INCREMENT 3.2B Execution delays	131,100	118,000 -13,100	-13,100
85	COMBAT RESCUE HELICOPTER Program delays / projected savings pending updated program estimate	393,558	333,558 -60,000	-60,000
87	ADVANCED EHF MILSATCOM (SPACE) Ahead of need / excess growth in hosted payload and business operations support	272,872	258,872 -14,000	-14,000
90	B-2 DEFENSIVE MANAGEMENT SYSTEM Rapid Acquisition Initiative savings	303,500	273,500 -30,000	-30,000

R-1		Budget Request	Committee Recommended	Change from Request
91	NUCLEAR WEAPONS MODERNIZATION B61 LEP engineering and manufacturing development phase 1 funds ahead of need	67,874	55,874 -12,000	-12,000
110	SPACE AND MISSILE CENTER CIVILIAN WORKFORCE Excess to need	192,348	182,348 -10,000	-10,000
	GLOBAL POSITIONING SYSTEM III - OPERATIONAL			
115	CONTROL SEGMENT Excessive growth in FFRDC support	383,500	365,500 -18,000	-18,000
124	B-2 SQUADRONS Common VLF receiver increment 1 contract delay	100,194	87,810 -12,384	-12,384
134	F-16 SQUADRONS CAPES execution delays	177,298	167,298 -10,000	-10,000
135	F-15E SQUADRONS EPAWSS contract delays	244,289	234,289 -10,000	-10,000
138	F-35 SQUADRONS Block 4 ahead of need	33,000	10,000 -23,000	-23,000
	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM			
147	PROGRAM F135 engine program delays	139,369	108,239 -31,130	-31,130
148	ISR INNOVATIONS Additional flight test funding	0	3,000 3,000	3,000
152	AIRBORNE WARNING AND CONTROL SYSTEM (AWACS) Electronic Protection delays	186,256	176,856 -9,400	-9,400
162	JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM T-3 test aircraft	13,248	23,248 10,000	10,000
179	SPACE SUPERIORITY INTELLIGENCE Hold to fiscal year 2013 level	12,197	10,697 -1,500	-1,500
	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEECN)			
181	NETWORK (MEECN) GASNT program delays	36,288	18,581 -17,707	-17,707
	AIR TRAFFIC CONTROL, APPROACH AND LANDING SYSTEM (ATCAL)			
195	SYSTEM (ATCAL) D-RAPCON engineering and manufacturing development contract delay	35,674	29,674 -6,000	-6,000
211	DRAGON U-2 Program excess	18,700	13,700 -5,000	-5,000
215	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS Inadequate justification	7,498	5,498 -2,000	-2,000
217	RQ-4 UAV Multiple execution delays Integrate and test U-2 sensors on Block 30	134,406	164,406 -20,000 50,000	30,000

R-1		Budget Request	Committee Recommended	Change from Request
222	GPS III SPACE SEGMENT Ahead of need	221,276	206,276 -15,000	-15,000
223	JSPOC MISSION SYSTEM Underexecution	58,523	56,523 -2,000	-2,000
227	SPACE SITUATION AWARENESS OPERATIONS One year schedule delay	18,807	12,807 -6,000	-6,000
230	C-130 AIRLIFT SQUADRON Propulsion system propeller upgrades	400	26,400 26,000	26,000
232	C-17 AIRCRAFT Program management administration growth	109,134	106,134 -3,000	-3,000
233	C-130J PROGRAM Block 8.1 shortfall	22,443	32,443 10,000	10,000
242	LOGISTICS INFORMATION TECHNOLOGY (LOGIT) Program excess	95,238	65,238 -30,000	-30,000
243	SUPPORT SYSTEMS DEVELOPMENT Alternate energy research	10,925	20,925 10,000	10,000
999	CLASSIFIED PROGRAMS Classified adjustment	11,874,528	11,518,057 -356,471	-356,471

GLOBAL HAWK BLOCK 30

The Committee continues to support retention of the Global Hawk Block 30 fleet and includes language in the Act directing the Air Force to execute funds previously appropriated for the procurement of three additional Block 30 aircraft, sensors (including the Enhanced Integrated Sensor Suite and Airborne Signals Intelligence Payload), and accompanying equipment and services. The Air Force recently reported to the Committee that the adoption of U-2 sensors to Block 30 aircraft is feasible and less costly than improvement of Block 30 sensors to the level of “parity” with the U-2. The Committee recommendation includes \$50,000,000 only for the integration, test, and demonstration of U-2 imagery sensors on a Block 30 aircraft. The Committee directs the Secretary of the Air Force to submit an execution plan for these additional funds to the congressional defense committees not later than 90 days after the enactment of this Act.

JSTARS TEST AIRCRAFT

The Committee is concerned by the Air Force’s proposal in the budget request to place the Joint Surveillance Target Attack Radar System (JSTARS) T-3 test aircraft in preservation storage. The Committee is concerned by the impact that this proposal will have on current integration and test efforts, especially those required by the National Guard. The Committee therefore recommends an additional \$10,000,000 to continue normal operations of the JSTARS test aircraft.

HARD TARGET NEW START EFFORTS

The budget request includes \$14,000,000 for two new starts related to hard targets, including \$2,500,000 for the 5,000-pound Joint Direct Attack Munitions (5K JDAM) demonstration under the JDAM program and \$11,500,000 for the advanced 2,000-pound penetrator (A2K) demonstration under Armament/Ordnance Development. The Committee notes that an analysis of alternatives (AoA) on hard target munitions is underway and is scheduled to complete in the first quarter of fiscal year 2014. The Committee recommendation includes full funding for these new start efforts but directs that no funds shall be obligated or expended for 5K JDAM or A2K until 15 days after the Secretary of the Air Force reports to the congressional defense committees on the results of the approved hard target munitions AoA and describes how these new start efforts are consistent with those results.

AIRBORNE SYNTHETIC APERTURE RADAR/MOVING TARGET INDICATOR

The Committee is concerned by the lack of funding in the budget request for efforts to further the airborne synthetic aperture radar/moving target indicator (SAR/MTI) mission, despite the completion of the airborne SAR/MTI and Joint STARS mission area analysis of alternatives (AoA) in June 2012. The Committee urges the Secretary of the Air Force to include all necessary funding required to initiate any acquisition effort pursuant to a material development decision for airborne SAR/MTI systems in its fiscal year 2015 budget request. The Committee also notes that \$10,000,000 was pro-

vided in the Consolidated and Further Continuing Appropriations Act, 2013, to initiate any such effort, and directs the Secretary of the Air Force to notify the congressional defense committees not later than September 30, 2013 of its intentions regarding the use of these funds.

F-22 OPEN SYSTEM ARCHITECTURE

The Committee is supportive of recent efforts by the Air Force to pursue an open system architecture for F-22 mission systems, which will allow the introduction of greater competition in the acquisition of existing and future upgrades to the only existing operational fifth-generation fighter aircraft possessed by the U.S. Armed Forces. The Committee encourages the Secretary of the Air Force to increase its exploitation of this open systems architecture and to subject a greater number of modernization and modification efforts to competitive procurement.

KC-46A

The Committee directs the Secretary of the Air Force to continue to submit quarterly reports on any KC-46A contract modifications with a cost greater than or equal to \$5,000,000, as directed by the explanatory statement accompanying the Consolidated Appropriations Act, 2012.

CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR SURVIVABILITY

The Committee continues to direct the Secretary of the Air Force to make high priority investments in technologies and systems that will ensure the safety of pilots in environments contaminated by chemical or biological agents as well as the timely decontamination of aircraft and equipment that may be affected by exposure to such environments, and to ensure that funding for such investments is adequately phased to support chemical, biological, radiological, and nuclear (CBRN) survivability for all systems designated as CBRN mission critical.

STRATEGIC AND CRITICAL METALS

The Committee recognizes the importance of strategic and critical metals such as aluminum, beryllium, nickel-based superalloys, and titanium. As these metals are used in aircraft, jet engines, and other critical weapon systems and defense products, the Committee emphasizes the important role that the availability and cost-efficiency of these metals play in the affordability of weapon systems. The public-private partnership between the Air Force Research Laboratory and the Metals Affordability Initiative Consortium aims to reduce the cost of these metals and the time needed to incorporate such metals into systems. The Committee encourages the Secretary of the Air Force and the Secretary of Defense to pursue both cooperative and competitive efforts to solve challenges related to affordability and implementation.

AIRCRAFT WINDOWS

As an alternative to replacing polycarbonate and acrylic windows on fixed-wing and rotary-wing aircraft, the Committee encourages

the Secretary of Defense to explore and utilize new technologies, where appropriate, that can improve aircrew and passenger survivability while reducing operating costs.

LASER-DRIVEN X-RAY TECHNOLOGY

The Committee continues to place a high priority on research that addresses the threats of nuclear proliferation and nuclear terrorism, as well as research that addresses efficient and cost-effective maintenance of heavy equipment and personnel safety. The Committee encourages the Secretary of Defense to conduct research in new, laser-driven x-ray technologies with a proven capability to detect nuclear weapons and investigate heavy equipment to identify potential equipment failures before they happen.

NATIONAL SECURITY SPACE PROGRAM PLANNING AND EXECUTION

The Committee continues to monitor the debate within the National Security Space community over how to most cost effectively design and manage space programs. The Committee is concerned that affinity for certain architecture concepts may be affecting program execution and putting at risk operations of some of the Nation's most important and critical national security space capabilities. To help inform the debate and assist in putting the nation's space programs on a sustainable plan for the future, the Director of Cost Assessment and Program Evaluation is directed to update the space industrial base study to quantitatively assess the consequences of the various acquisition approaches being advocated within the space community. The approaches reviewed should include, but not be limited to, new architectures of small satellites, evolution of legacy systems, and leveraging of commercial systems. The report should address the complete system, including the space segment, ground segment, and user terminals such that a complete cost to implement is understood. The results shall be provided to the congressional defense committees not later than December 31, 2013.

SPACE MODERNIZATION INITIATIVE

The Committee is concerned by the inability of the Air Force to define its Space Modernization Initiative (SMI), despite many questions by the Committee. Key to the discussion is the relevance of SMI-funded projects to the programs of record within which they are funded and the ability of those projects to have a significant and cost-effective contribution to those programs. The Committee directs the Secretary of the Air Force to submit a report to the congressional defense committees not later than 90 days after the enactment of this Act, which provides a definition of space modernization initiative (or initiatives, if it differs by program). The report should describe how projects or concepts are proposed; explain how concepts are evaluated for funding, including relevance to the program of record and if certain project types would be excluded from SMI; define who is responsible for decisions, if there is a review board, and if current industry participants or other stakeholders outside the Air Force are involved in proposing or evaluating con-

cepts; and define how effectiveness will be evaluated, both of individual projects and of SMI as a whole.

SPACE BASED INFRARED SYSTEM GROUND ENHANCEMENTS

In fiscal year 2013, the Air Force was provided \$40,000,000 for acceleration of the Space Based Infrared System (SBIRS) ground segment automated sensor tasking and an additional \$40,000,000 for ground enhancements. The Committee directs the Secretary of the Air Force to provide an update to the congressional defense committees not later than 60 days after the enactment of this Act regarding the progress of these SBIRS elements, the status of the funds, and the schedule adjustment for automated sensor tasking that resulted from the funding.

HUMAN PERFORMANCE SENSING

The Committee recognizes and supports the Air Force Research Laboratory’s (AFRL) research into human performance sensing, which is a key element of human-machine interface technology. Advances in nano-biomaterial technology hold the potential to greatly increase human performance sensing capability, thereby improving mission performance and personnel safety. The Committee encourages the AFRL to continue its research into the manufacture of nano-biomaterial sensors capable of detecting biomarkers and other substances which correlate to conditions such as stress, fatigue, and organ damage.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION,
DEFENSE-WIDE

Fiscal year 2013 appropriation*	\$18,631,946,000
Fiscal year 2014 budget request	17,667,108,000
Committee recommendation	17,885,538,000
Change from budget request	+218,430,000

*FY13 Enacted level does not include the 251A sequester or Sec. 3004 OMB ATB.

This appropriation provides funds for the research, development, test and evaluation activities of the Department of Defense for defense-wide activities. The total amount recommended in the bill will provide the following program in fiscal year 2014:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
RESEARCH, DEVELOPMENT, TEST & EVAL, DEFENSE-WIDE				
BASIC RESEARCH				
1	DTRA UNIVERSITY STRATEGIC PARTNERSHIP BASIC RESEARCH..	45,837	45,837	---
2	DEFENSE RESEARCH SCIENCES.....	315,033	315,033	---
3	BASIC RESEARCH INITIATIVES.....	11,171	11,171	---
4	BASIC OPERATIONAL MEDICAL RESEARCH SCIENCE.....	49,500	49,500	---
5	NATIONAL DEFENSE EDUCATION PROGRAM.....	84,271	84,271	---
6	HISTORICALLY BLACK COLLEGES & UNIV (HBCU).....	30,895	35,895	+5,000
7	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	51,426	51,426	---
	TOTAL, BASIC RESEARCH.....	588,133	593,133	+5,000
APPLIED RESEARCH				
8	JOINT MUNITIONS TECHNOLOGY.....	20,065	20,065	---
9	BIOMEDICAL TECHNOLOGY.....	114,790	114,790	---
11	LINCOLN LABORATORY RESEARCH PROGRAM.....	46,875	46,875	---
13	APPLIED RESEARCH FOR ADVANCEMENT S&T PRIORITIES.....	45,000	45,000	---
14	INFORMATION AND COMMUNICATIONS TECHNOLOGY.....	413,260	413,260	---
15	COGNITIVE COMPUTING SYSTEMS.....	16,330	16,330	---
17	BIOLOGICAL WARFARE DEFENSE.....	24,537	24,537	---
18	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	227,065	227,065	---
20	CYBER SECURITY RESEARCH.....	18,908	18,908	---
22	TACTICAL TECHNOLOGY.....	225,977	228,209	+2,232
23	MATERIALS AND BIOLOGICAL TECHNOLOGY.....	166,654	166,654	---
24	ELECTRONICS TECHNOLOGY.....	243,469	243,469	---
25	WEAPONS OF MASS DESTRUCTION DEFEAT TECHNOLOGIES.....	175,282	175,282	---
26	SOFTWARE ENGINEERING INSTITUTE.....	11,107	11,107	---
27	SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT.....	29,246	29,246	---
	TOTAL, APPLIED RESEARCH.....	1,778,565	1,780,797	+2,232

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
ADVANCED TECHNOLOGY DEVELOPMENT			
28 JOINT MUNITIONS ADVANCED TECH INSENSITIVE MUNITIONS AD	26,646	20,146	-6,500
29 SO/LIC ADVANCED DEVELOPMENT.....	19,420	19,420	---
30 COMBATING TERRORISM TECHNOLOGY SUPPORT.....	77,792	87,792	+10,000
31 COUNTERPROLIFERATION INITIATIVES--PROLIF PREV & DEFEAT	274,033	274,033	---
32 BALLISTIC MISSILE DEFENSE TECHNOLOGY.....	309,203	199,203	-110,000
32X COMMON KILL VEHICLE TECHNOLOGY.....	---	70,000	+70,000
34 JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT.....	19,305	19,305	---
35 AGILE TRANSPOR FOR THE 21ST CENTURY (AT21) - THEATER CA	7,565	7,565	---
36 SPECIAL PROGRAM--MDA TECHNOLOGY.....	40,426	40,426	---
37 ADVANCED AEROSPACE SYSTEMS.....	149,804	149,804	---
38 SPACE PROGRAMS AND TECHNOLOGY.....	172,546	172,546	---
39 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - ADVANCED DEV	170,847	170,847	---
40 JOINT ELECTRONIC ADVANCED TECHNOLOGY.....	9,009	9,009	---
41 JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS.....	174,428	167,428	-7,000
42 NETWORKED COMMUNICATIONS CAPABILITIES.....	20,000	20,000	---
45 CYBER SECURITY ADVANCED RESEARCH.....	19,668	14,668	-5,000
47 DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROG	34,041	34,041	---
48 EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT.....	61,971	53,971	-8,000
50 GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS.....	20,000	20,000	---
51 DEPLOYMENT AND DISTRIBUTION ENTERPRISE TECHNOLOGY.....	30,256	20,256	-10,000
52 STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM.....	72,324	72,324	---
53 MICROELECTRONIC TECHNOLOGY DEVELOPMENT AND SUPPORT....	82,700	82,700	---
54 JOINT WARFIGHTING PROGRAM.....	8,431	8,431	---
55 ADVANCED ELECTRONICS TECHNOLOGIES.....	117,080	117,080	---
57 COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS.....	239,078	239,078	---
59 NETWORK-CENTRIC WARFARE TECHNOLOGY.....	259,006	259,006	---
60 SENSOR TECHNOLOGY.....	286,364	286,364	---
DEFENSE RAPID INNOVATION PROGRAM.....	---	250,000	+250,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
61 DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT..	12,116	12,116	---
62 SOFTWARE ENGINEERING INSTITUTE.....	19,008	19,008	---
63 QUICK REACTION SPECIAL PROJECTS.....	78,532	78,532	---
65 JOINT EXPERIMENTATION.....	12,667	12,667	---
66 MODELING AND SIMULATION MANAGEMENT OFFICE.....	41,370	34,370	-7,000
69 TEST & EVALUATION SCIENCE & TECHNOLOGY.....	92,508	92,508	---
70 OPERATIONAL ENERGY CAPABILITY IMPROVEMENT.....	52,001	52,001	---
71 CWMD SYSTEMS.....	52,053	52,053	---
72 SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT....	46,809	44,309	-2,500
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	3,109,007	3,283,007	+174,000
DEMONSTRATION & VALIDATION			
75 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT..	63,641	63,641	---
76 RETRACT LARCH.....	19,152	19,152	---
77 WALKOFF.....	70,763	70,763	---
79 ADVANCE SENSOR APPLICATIONS PROGRAM.....	17,230	17,230	---
80 ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM	71,453	66,453	-5,000
81 BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT....	268,990	268,990	---
82 BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT...	1,033,903	1,104,103	+70,200
83 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	196,237	196,237	---
84 BALLISTIC MISSILE DEFENSE SENSORS.....	315,183	361,783	+46,600
86 BALLISTIC MISSILE DEFENSE ENABLING PROGRAMS.....	377,605	372,605	-5,000
87 SPECIAL PROGRAMS - MDA.....	286,613	266,613	-20,000
88 AEGIS BMD.....	937,056	937,056	---
89 SPACE SURVEILLANCE & TRACKING SYSTEM.....	44,947	44,947	---
90 BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS.....	6,515	6,515	---
91 BALLISTIC MISSILE DEFENSE C2BMC.....	418,355	418,355	---
92 BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT....	47,419	47,419	---
93 BALLISTIC MISSILE DEFENSE INTERGRATION AND OPERATIONS CENTER (MDIOC).....	52,131	52,131	---
94 REGARDING TRENCH.....	13,864	13,864	---
95 SEA BASED X-BAND RADAR (SBX).....	44,478	44,478	---
96 ISRAELI COOPERATIVE PROGRAMS.....	95,782	268,782	+173,000
97 BALLISTIC MISSILE DEFENSE TEST.....	375,866	375,866	---
98 BALLISTIC MISSILE DEFENSE TARGETS.....	495,257	491,432	-3,825
99 HUMANITARIAN DEMINING.....	11,704	11,704	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
100 COALITION WARFARE.....	9,842	9,842	---
101 DEPARTMENT OF DEFENSE CORROSION PROGRAM.....	3,312	13,312	+10,000
102 ADVANCED INNOVATIVE TECHNOLOGIES.....	130,000	15,000	-115,000
103 DOD UNMANNED AIRCRAFT SYSTEM (UAS) COMMON DEVELOPMENT..	8,300	8,300	---
104 WIDE AREA SURVEILLANCE.....	30,000	30,000	---
108 JOINT SYSTEMS INTEGRATION.....	7,402	7,402	---
110 JOINT FIRES INTEGRATION & INTEROPERABILITY TEAM.....	7,506	7,506	---
111 LAND-BASED SM-3 (LBSM3).....	129,374	129,374	---
112 AEGIS SM-3 BLOCK IIA CO-DEVELOPMENT.....	308,522	308,522	---
115 JOINT ELECTROMAGNETIC TECHNOLOGY (JET) PROGRAM.....	3,169	3,169	---
116 CYBER SECURITY INITIATIVE.....	946	946	---
TOTAL, DEMONSTRATION & VALIDATION.....	5,902,517	6,053,492	+150,975
ENGINEERING & MANUFACTURING DEVELOPMENT			
118 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT..	8,155	8,155	---
119 PROMPT GLOBAL STRIKE CAPABILITY DEVELOPMENT.....	65,440	65,440	---
120 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	451,306	451,306	---
122 ADVANCED IT SERVICES JOINT PROGRAM OFFICE (AITS-JPO)..	29,138	29,138	---
123 JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)	19,475	19,475	---
124 WEAPONS OF MASS DESTRUCTION DEFEAT CAPABILITIES.....	12,901	12,901	---
125 INFORMATION TECHNOLOGY DEVELOPMENT.....	13,812	13,812	---
126 HOMELAND PERSONNEL SECURITY INITIATIVE.....	386	386	---
127 DEFENSE EXPORTABILITY PROGRAM.....	3,763	3,763	---
128 OUSD(C) IT DEVELOPMENT INITIATIVES.....	6,788	6,788	---
129 DOD ENTERPRISE SYSTEMS DEVELOPMENT AND DEMONSTRATION..	27,917	27,917	---
130 DCMO POLICY AND INTEGRATION.....	22,297	22,297	---
131 DEFENSE AGENCY INITIATIVES FINANCIAL SYSTEM.....	51,689	51,689	---
132 DEFENSE-WIDE ELECTRONIC PROCUREMENT CAPABILITY.....	6,184	6,184	---
133 GLOBAL COMBAT SUPPORT SYSTEM.....	12,083	12,083	---
134 DOD ENTERPRISE ENERGY INFORMATION MANAGEMENT (EEIM)...	3,302	3,302	---
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	734,636	734,636	---
RDT&E MANAGEMENT SUPPORT			
135 DEFENSE READINESS REPORTING SYSTEM (DRRS).....	6,393	6,393	---
136 JOINT SYSTEMS ARCHITECTURE DEVELOPMENT.....	2,479	2,479	---
137 CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT....	240,213	179,713	-60,500
138 ASSESSMENTS AND EVALUATIONS.....	2,127	2,127	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
139 THERMAL VICAR.....	8,287	8,287	---
140 JOINT MISSION ENVIRONMENT TEST CAPABILITY (JMETC).....	31,000	31,000	---
141 TECHNICAL STUDIES, SUPPORT AND ANALYSIS.....	24,379	24,379	---
143 FOREIGN MATERIAL ACQUISITION AND EXPLOITATION.....	54,311	54,311	---
144 JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION....	47,462	47,462	---
145 CLASSIFIED PROGRAM USD(P).....	---	94,000	+94,000
146 FOREIGN COMPARATIVE TESTING.....	12,134	12,134	---
147 SYSTEMS ENGINEERING.....	44,237	44,237	---
148 STUDIES AND ANALYSIS SUPPORT.....	5,871	5,871	---
149 NUCLEAR MATTERS - PHYSICAL SECURITY.....	5,028	5,028	---
150 SUPPORT TO NETWORKS AND INFORMATION INTEGRATION.....	6,301	6,301	---
151 GENERAL SUPPORT TO USD (INTELLIGENCE).....	6,504	6,504	---
152 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	92,046	92,046	---
158 SMALL BUSINESS INNOVATION RESEARCH/CHALLENGE ADMINISTR	1,868	1,868	---
159 DEFENSE TECHNOLOGY ANALYSIS.....	8,362	8,362	---
160 DEFENSE TECHNICAL INFORMATION CENTER (DTIC).....	56,024	56,024	---
161 R&D IN SUPPORT OF DOD ENLISTMENT, TESTING & EVALUATION	6,908	6,908	---
162 DEVELOPMENT TEST AND EVALUATION.....	15,451	19,451	+4,000
164 MANAGEMENT HEADQUARTERS (RESEARCH & DEVELOPMENT).....	71,659	71,659	---
165 BUDGET AND PROGRAM ASSESSMENTS.....	4,083	4,083	---
167 OPERATIONS SECURITY (OPSEC).....	5,306	5,306	---
168 JOINT STAFF ANALYTICAL SUPPORT.....	2,097	2,097	---
172 SUPPORT TO INFORMATION OPERATIONS (IO) CAPABILITIES...	8,394	8,394	---
175 INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)...	7,624	7,624	---
178 COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION.	43,247	43,247	---
179 MANAGEMENT HEADQUARTERS - MDA.....	37,712	37,712	---
180 IT SOFTWARE DEV INITIATIVES.....	607	607	---
CLASSIFIED PROGRAMS.....	54,914	54,914	---
TOTAL, RDT&E MANAGEMENT SUPPORT.....	913,028	950,528	+37,500

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
OPERATIONAL SYSTEMS DEVELOPMENT			
182 ENTERPRISE SECURITY SYSTEM (ESS).....	7,552	7,552	---
183 REGIONAL INTERNATIONAL OUTREACH & PARTNERSHIP FOR PEAC	3,270	3,270	---
184 OVERSEAS HUMANITARIAN ASSISTANCE SHARED INFORMATION SY	287	287	---
185 INDUSTRIAL BASE ANALYSIS AND SUSTAINMENT SUPPORT.....	14,000	10,000	-4,000
186 OPERATIONAL SYSTEMS DEVELOPMENT.....	1,955	1,955	---
187 GLOBAL THEATER SECURITY COOPERATION MANAGEMENT.....	13,250	13,250	---
188 CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS D	13,026	13,026	---
190 JOINT INTEGRATION AND INTEROPERABILITY.....	12,652	12,652	---
191 PLANNING AND DECISION AID SYSTEM.....	3,061	3,061	---
192 C4I INTEROPERABILITY.....	72,726	72,726	---
194 JOINT/ALLIED COALITION INFORMATION SHARING.....	6,524	6,524	---
201 NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT.....	512	512	---
202 DEFENSE INFO INFRASTRUCTURE ENGINEERING & INTEGRATION.	12,867	12,867	---
203 LONG HAUL COMMUNICATIONS (DCS).....	36,565	36,565	---
204 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK....	13,144	13,144	---
205 PUBLIC KEY INFRASTRUCTURE (PKI).....	1,060	1,060	---
206 KEY MANAGEMENT INFRASTRUCTURE (KMI).....	33,279	33,279	---
207 INFORMATION SYSTEMS SECURITY PROGRAM.....	10,673	10,673	---
208 INFORMATION SYSTEMS SECURITY PROGRAM.....	181,567	181,567	---
210 GLOBAL COMMAND AND CONTROL SYSTEM.....	34,288	34,288	---
211 JOINT SPECTRUM CENTER.....	7,741	7,741	---
212 NET-CENTRIC ENTERPRISE SERVICES (NCES).....	3,325	3,325	---
213 JOINT MILITARY DECEPTION INITIATIVE.....	1,246	1,246	---
214 TELEPORT PROGRAM.....	5,147	5,147	---
216 SPECIAL APPLICATIONS FOR CONTINGENCIES.....	17,352	17,352	---
220 CYBER SECURITY INITIATIVE.....	3,658	3,658	---
221 CRITICAL INFRASTRUCTURE PROTECTION (CIP).....	9,752	9,752	---
225 POLICY R&D PROGRAMS.....	3,210	3,210	---
227 NET CENTRICITY.....	21,602	21,602	---
230 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	5,195	5,195	---
233 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	3,348	3,348	---
235 MQ-1 PREDATOR A UAV.....	641	641	---
238 HOMELAND DEFENSE TECHNOLOGY TRANSFER PROGRAM.....	2,338	2,338	---
239 INT'L INTELLIGENCE TECHNOLOGY ASSESSMENT, ADVANCEMENT.	4,372	4,372	---

260

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
247 INDUSTRIAL PREPAREDNESS.....	24,691	24,691	---
248 LOGISTICS SUPPORT ACTIVITIES.....	4,659	4,659	---
249 MANAGEMENT HEADQUARTERS (JCS).....	3,533	3,533	---
250 MQ-9 UAV.....	1,314	1,314	---
254 SPECIAL OPERATIONS AVIATION SYSTEMS ADVANCED DEV.....	156,561	142,868	-13,693
256 SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT...	7,705	7,705	---
257 SOF OPERATIONAL ENHANCEMENTS.....	42,620	42,620	---
261 WARRIOR SYSTEMS.....	17,970	17,970	---
262 SPECIAL PROGRAMS.....	7,424	7,424	---
268 SOF TACTICAL VEHICLES.....	2,206	2,206	---
271 SOF UNDERWATER SYSTEMS.....	18,325	19,481	+1,156
274 SOF GLOBAL VIDEO SURVEILLANCE ACTIVITIES.....	3,304	3,304	---
275 SOF OPERATIONAL ENHANCEMENTS INTELLIGENCE.....	16,021	16,021	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	867,518	850,981	-16,537
999 CLASSIFIED PROGRAMS.....	3,773,704	3,638,964	-134,740
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, DEF-WIDE.	17,667,108	17,885,538	+218,430

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	Committee Recommended	Change from Request
HISTORICALLY BLACK COLLEGES & UNIVERSITIES			
6 (HBCU)	30,895	35,895	5,000
Program adjustment		5,000	
TACTICAL TECHNOLOGY			
22	225,977	228,209	2,232
Program increase - return to fiscal year 2013 level		2,232	
JOINT MUNITIONS ADVANCED TECHNOLOGY			
28 INSENSITIVE MUNITIONS ADVANCED TECHNOLOGY	26,646	20,146	-6,500
Program adjustment		-6,500	
COMBATING TERRORISM TECHNOLOGY SUPPORT			
30	77,792	87,792	10,000
Unjustified reduction		10,000	
BALLISTIC MISSILE DEFENSE TECHNOLOGY			
32	309,203	199,203	-110,000
Directed energy research - unjustified growth		-20,000	
Advanced technology - unjustified growth		-20,000	
Common kill vehicle technology - transfer to line 32X		-70,000	
32X COMMON KILL VEHICLE TECHNOLOGY	0	70,000	70,000
Common kill vehicle technology - transfer from line 32		70,000	
JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS			
41	174,428	167,428	-7,000
Program adjustment to disruptive demonstration		-7,000	
CYBER SECURITY ADVANCED RESEARCH			
45	19,668	14,668	-5,000
Excess to need		-5,000	
EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT			
48	61,971	53,971	-8,000
Program adjustment to disruptive tech development		-8,000	
DEPLOYMENT AND DISTRIBUTION ENTERPRISE TECHNOLOGY			
51	30,256	20,256	-10,000
Poor execution		-10,000	
60XX DEFENSE RAPID INNOVATION FUND	0	250,000	250,000
Program increase		250,000	
MODELING AND SIMULATION MANAGEMENT OFFICE			
66	41,370	34,370	-7,000
Program adjustment to effects analysis cell		-7,000	
SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT			
72	46,809	44,309	-2,500
Special Comms Field Segment Enterprise - fiscal year 2013 delayed new start		-2,500	
ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM			
80	71,453	66,453	-5,000
Excess growth		-5,000	

R-1	Budget Request	Committee Recommended	Change from Request
BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT			
82	1,033,903	1,104,103	70,200
Acceleration of potential third site		70,200	
84	315,183	361,783	46,600
Sensors directorate operations - previously funded		-3,400	
Enhanced discrimination capability		50,000	
86	377,605	372,605	-5,000
Manufacturing and producibility - unjustified growth		-2,000	
Information assurance/computer network defense - unjustified growth		-3,000	
87	286,613	266,613	-20,000
SPECIAL PROGRAMS - MDA			
Program adjustment		-20,000	
96	95,782	268,782	173,000
ISRAELI COOPERATIVE PROGRAMS			
Israeli Upper tier		22,100	
Israeli Arrow program		33,700	
Short range ballistic missile defense		117,200	
98	495,257	491,432	-3,825
BMD Targets			
Program operations - unjustified growth		-3,825	
101	3,312	13,312	10,000
DEPARTMENT OF DEFENSE CORROSION PROGRAM			
Program increase		10,000	
102	130,000	15,000	-115,000
ADVANCED INNOVATIVE TECHNOLOGIES			
Program adjustment to special capabilities new start		-115,000	
CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT			
137	240,213	179,713	-60,500
Electronic Warfare Test Capability - transfer to OT&E, D line 3		-60,500	
145	0	94,000	94,000
CLASSIFIED PROGRAM USD(P)			
Classified adjustment		94,000	
162	15,451	19,451	4,000
DEVELOPMENT TEST AND EVALUATION			
Program adjustment		4,000	
INDUSTRIAL BASE ANALYSIS AND SUSTAINMENT SUPPORT			
185	14,000	10,000	-4,000
Program adjustment		-4,000	
SPECIAL OPERATIONS AVIATION SYSTEMS ADVANCED DEVELOPMENT			
254	156,561	142,868	-13,693
ESA for MC-130H - fiscal year 2013 delayed new start		-911	
C-130 TF radar system - early to need		-12,782	
271	18,325	19,481	1,156
SOF UNDERWATER SYSTEMS			
Transfer from P, DW line 69		1,156	
CLASSIFIED PROGRAMS			
3,773,704	3,638,964	-134,740	
Classified adjustment		-134,740	

HISTORICALLY BLACK COLLEGES AND UNIVERSITIES AND MINORITY-SERVING INSTITUTIONS

The Committee is encouraged that the Department of Defense is firmly committed to vigorous efforts with respect to Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI). The Committee is aware that the Assistant Secretary of Defense (Research and Engineering) issued guidance on December 2, 2011 calling for the reinvigoration of the relationship between the Department of Defense and the HBCU/MIs.

Further, the Committee is concerned about the long-term development of the Science, Technology, Engineering, and Mathematics (STEM) workforce pipeline for underrepresented minorities, and notes the National Academy of Sciences' recommendation that the federal government increase funding for undergraduate and graduate STEM programs focused on increasing the participation and success of minority students through engaged mentoring, enriching research experiences, and opportunities to publish, present, and network. Consistent with the report of the National Academy of Sciences "Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads," the Committee encourages the Department to emphasize STEM education improvement within the Historically Black Colleges and Universities and Minority Institutions program. Accordingly, the Committee encourages the Secretary of Defense to consider these factors when awarding competitive funding under this program, as well as ensuring that selected programs have a sufficiently large cohort of students to allow for effective peer-to-peer mentoring, which has proven to be an effective model for ensuring the success of underrepresented minority students in the sciences.

CONVENTIONAL PROMPT GLOBAL STRIKE

The Committee recognizes the significance of having a Prompt Global Strike capability, and is aware of the successful test of the Army's Advanced Hypersonic Weapon conducted on November 17, 2011. Further, the Committee is aware that the planned use of over \$200,000,000 of fiscal year 2013 funding is sufficient to conduct an additional test of the Conventional Prompt Global Strike capability. While the Committee understands the desire to have a possible sea-launched option, the Committee is also aware of the growing possibility of near-term threats. Therefore, the Committee encourages the Secretary of Defense to follow through on its stated intent regarding the fiscal year 2013 funding by expeditiously scheduling follow-on plans for a second flight test of the Army's Advanced Hypersonic Weapon.

CORROSION CONTROL

The Committee is encouraged by Department of Defense efforts to advance innovative, joint Service approaches to corrosion prevention and corrosion control, but remains concerned by the continued costs and impact of corrosion on military equipment and infrastructure. The Committee believes the use of a comprehensive, online repository consisting of advanced corrosion technical data, industry findings, and professional corrosion studies would strengthen exist-

ing Department of Defense corrosion efforts, prevent unnecessary and duplicative single Service research pursuits, and generate significant cost savings across the military Services. Therefore, the Committee encourages the Director of the Office of Corrosion Policy and Oversight to develop a comprehensive, online corrosion analysis database, in collaboration with leading professional societies with expertise in the effects of corrosion, to support the Department's Corrosion Prevention and Control Program.

SPECIALTY METALS

The Committee applauds the Department of Defense for its March 2013 Final Rule to revise the definition of "produce" as it applies to specialty metals. This rule helps maintain a strong domestic armor steel plate industry and strengthens the defense industrial base, as well as the overall economic strength of the United States. The Committee encourages the Secretary of Defense to continue to incentivize investment in the manufacturing capacity, process technology, research and development necessary to meet the needs of the U.S. military, thereby reducing the possibility of supply shortages.

HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM

The Committee recognizes the importance of the Department of Defense's ability to apply high performance computing to gain military superiority for the warfighter. The Committee also recognizes the importance of high performance computing in the broader defense scientific and technology community to enable faster and more capable processors designed to save energy and overcome speed barriers. Therefore, the Committee fully funds the fiscal year 2014 request, and recommends a sustained modernization program at a level not less than the amount enacted for fiscal year 2012.

MANUFACTURING EXPERIMENTATION AND OUTREACH

The Committee is encouraged by the progress of the Manufacturing Experimentation and Outreach program within the Defense Advanced Research Projects Agency's (DARPA) Tactical Technology Office. This program engages high school-age students in a series of collaborative design and distributed manufacturing experiments by deploying up to a thousand computer-numerically-controlled manufacturing machines to high schools nationwide. The goal is to encourage students across clusters of schools to collaborate via social networking media to jointly design and build systems of moderate complexity, such as mobile robots, in response to prize challenges. In order to allow the greatest number of students to receive access to the most advanced manufacturing technology, the Committee urges the Director of DARPA to place a greater emphasis on technology that allows students to remotely access advanced cyber-enabled additive manufacturing equipment.

COMMON KILL VEHICLE TECHNOLOGY PROGRAM

The Committee recognizes the importance of the Missile Defense Agency's new Common Kill Vehicle Technology program to consolidate the development of kill vehicles and to transition a discriminating kill vehicle to both Ground-based Interceptors and the Standard Missile-3.

Although the Committee recognizes that the announcement of this new initiative occurred shortly before the budget submission, it is concerned with the lack of detailed justification materials and future plans and budgets for the program.

Therefore, the Committee recommendation includes a transfer of \$70,000,000, the amount requested for the program, from the Ballistic Missile Defense Technology line to create a new line specifically for the Common Kill Vehicle Technology program. This will allow for greater visibility and oversight of the program.

The Committee also understands the importance of capitalizing on existing industrial base innovations, and urges the Director, Missile Defense Agency to fund risk reduction efforts for components such as the Divert and Attitude Control System.

GROUND-BASED INTERCEPTORS

The Committee is concerned by the increasing military threat posed by North Korea. Evidence of this threat is present in North Korea's three nuclear tests and, most recently, in the launch of several short range missiles. The Committee is aware that part of the response to this threat is to increase the number of Ground-based Interceptors (GBIs) fielded as part of the Ground-based Midcourse segment of the missile defense architecture.

Despite the threat, the Committee is also concerned about the state of development and potential reliability of the GBI missiles. The test record of the GBI and associated sensors has been mixed, including a failed test in December 2010, and a successful test in January 2013. The Committee supports the strategic hedge these missiles provide, but believes that fielded equipment needs to be effective. Accordingly, the Committee directs the Department of Defense Inspector General to provide a report not later than 90 days after the enactment of this Act to the congressional defense committees which reviews the planned testing of the GBI program from fiscal year 2014 through fiscal year 2017. The report should comment on the adequacy of testing to ensure that the GBI missiles are reliable and effective.

EMBEDDED DIAGNOSTICS

The Committee encourages the Secretary of Defense to fund joint government, university, and industry efforts to advance the technology and use of embedded diagnostics for unmanned aircraft. This improves safety by predicting future failures while simultaneously saving significant costs by eliminating the need for unnecessary overhaul and replacement of components.

SEMICONDUCTOR INDUSTRY

The Committee remains concerned about the state of defense microelectronics, with regard to both the availability of a trusted

supply chain, as well as the long-term health and vitality of the industrial base. The Committee believes that actively engaging all accredited suppliers is important to maintaining this industrial base in the Trusted Foundry Program, which will be important for ensuring dependable, continuous long-term access to trusted mission critical semiconductors. The Committee encourages the Secretary of Defense to employ measures to ensure competition within the Trusted Foundry Program.

OPERATIONAL TEST AND EVALUATION, DEFENSE

Fiscal year 2013 appropriation *	\$223,768,000
Fiscal year 2014 budget request	186,300,000
Committee recommendation	246,800,000
Change from budget request	+60,500,000

*FY13 Enacted level does not include the 251A sequester or Sec. 3004 OMB ATB.

This appropriation provides funds for the research, development, test and evaluation activities of the Department of Defense for defense-wide activities. The total amount recommended in the bill will provide the following program in fiscal year 2014:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	

OPERATIONAL TEST AND EVALUATION, DEFENSE				
RDT&E MANAGEMENT SUPPORT				
1	OPERATIONAL TEST AND EVALUATION.....	75,720	75,720	---
2	LIVE FIRE TESTING.....	48,423	48,423	---
3	OPERATIONAL TEST ACTIVITIES AND ANALYSES.....	62,157	122,657	+60,500
	TOTAL, RDT&E MANAGEMENT SUPPORT.....	186,300	246,800	+60,500
	TOTAL, OPERATIONAL TEST AND EVALUATION, DEFENSE.....	186,300	246,800	+60,500
	=====	=====	=====	

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	Committee Recommended	Change from Request
3 OPERATIONAL TEST ACTIVITIES AND ANALYSIS	62,157	122,657	60,500
Electronic Warfare Test Capability - transfer from RDTE, DW line 137		60,500	