

TITLE IV

RESEARCH, DEVELOPMENT, TEST AND EVALUATION

The fiscal year 2016 Department of Defense research, development, test and evaluation budget request totals \$69,784,963,000. The Committee recommendation provides \$66,150,652,000 for the research, development, test and evaluation accounts. The table below summarizes the Committee recommendations:

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(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

RECAPITULATION			
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY.....	6,924,959	7,372,047	+447,088
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY.....	17,885,916	17,237,724	-648,192
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE...	26,473,669	23,163,152	-3,310,517
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE-WIDE.....	18,329,861	18,207,171	-122,690
OPERATIONAL TEST AND EVALUATION, DEFENSE.....	170,558	170,558	---
GRAND TOTAL, RDT&E.....	69,784,963	66,150,652	-3,634,311
	=====	=====	=====

RESEARCH, DEVELOPMENT, TEST AND EVALUATION 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 special 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 Department of Defense Appropriations bill, 2008 (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.

Also, 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. Reports for titles III and IV shall comply with the guidance specified in the explanatory statement accompanying the Department of Defense Appropriations Act, 2006. The Department 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.

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.

SMALL BUSINESS

The Committee is extremely supportive of the contributions made by the nation’s small businesses to the defense industrial base and research and development communities. Small businesses are frequently on the cutting edge of new technologies that are

vital for the nation to maintain a technological advantage over adversaries. In particular, the Department of the Navy has benefited from using small business innovations to improve the reliability of various components and weapon systems, reduce acquisition costs, and provide new capabilities to the warfighter. The Committee encourages the Secretary of Defense to consider small business suppliers for the manufacture of equipment and the development of new technologies.

AIRCRAFT EROSION PROTECTION

Aircraft corrosion and erosion present serious safety-of-flight concerns for military aircraft. The Committee encourages the Secretary of Defense to continue development and use of technologies, including protective tapes for composite and aluminum exterior surfaces where appropriate, to protect aircraft surfaces and mission equipment that are susceptible to erosion from the impact of rain, sand, and airborne particles.

FUTURE AIR DOMINANCE

The fiscal year 2016 budget request includes \$5,000,000 in the Research, Development, Test and Evaluation, Navy account for the Next Generation Fighter and \$8,830,000 in the Research, Development, Test and Evaluation, Air Force account for the Next Generation Air Dominance program. With the submission of the budget request, the Department of Defense also announced the Aerospace Innovation Initiative (AII), described by the Under Secretary of Defense (Acquisition, Technology, and Logistics) as a new Defense Advanced Research Projects Agency-led program, in partnership with the Navy and Air Force, intended to develop technologies and address the risks associated with the air dominance platforms that will follow the F-35. While these efforts have been described publicly as “F-X”, “F/A-XX”, “sixth generation fighter”, or “X-plane”, the Committee understands these efforts not as a single-minded focus on acquisition of the next fighter aircraft, but as a consideration of the broader range of capabilities necessary to ensure air dominance in future conflicts, and supports these efforts as such.

The Committee understands that the Department will complete an AII technology transition plan by July 2015. The Committee directs the Under Secretary of Defense (Acquisition, Technology, and Logistics) to submit the transition plan to the congressional defense committees not later than September 30, 2015.

IMPROVED CAMOUFLAGE SYSTEMS

The Committee is concerned that currently fielded camouflage netting systems do not afford adequate concealment against current battlefield threats, particularly by short-wave infrared sensors. The Committee understands that the Department of Defense is currently reviewing the requirements for improved camouflage net systems. The Committee supports this effort and encourages the Secretary of Defense to expedite the fielding of an advanced camouflage net system to defeat a broad spectrum of threats.

CYBER SECURITY

Cyber security across the total military enterprise remains a significant concern of the Committee. The Committee is encouraged by the efforts of Cyber Command (CYBERCOM) and the Chief Information Officers (CIO) of the Services and the Department of Defense to identify cyber threats and mitigations. However, the Committee is concerned about the scope of the cyber threats and the efforts to address them. For example, the Services currently use legacy weapon systems that were developed before cyber activities were identified. While these systems are mission capable, they may have cyber vulnerabilities that were not anticipated during development. The Committee believes that these vulnerabilities have not been identified and directs the CIO of the Department of Defense, in coordination with the CIOs of the Services, to include an assessment of the potential cyber vulnerabilities and mitigation plans of legacy weapon system capabilities with the fiscal year 2017 budget submission. If necessary, this assessment can include a separate classified portion.

The Committee is also concerned with cyber vulnerabilities associated with systems currently under development. The dynamic nature of the cyber threat environment presents a significant challenge during the development process. The Committee believes that without greater insight, it will be impossible to have confidence in the Department's commitment to addressing cyber vulnerabilities. Therefore, the Committee directs the CIO of the Department of Defense, in coordination with the CIOs of the Services and the Director of Operational Test and Evaluation, to develop a standardized cyber vulnerability/mitigation report that will be included with the acquisition program baseline of all current and future Major Defense Acquisition Programs and Major Automated Information System as defined by Department of Defense Instruction 5000.02.

The Committee is also concerned about the concept of operations and the coordination of capabilities employed by the Department against a cyber-event. The Committee directs the CIO of the Department of Defense, in coordination with the CIOs of the Services and the Commander of CYBERCOM, to submit a report to the congressional defense committees not later than 45 days after the enactment of this Act, that details the concept of operations for responses to cyber-events.

Finally, the Committee is interested in the resourcing that the Department and the Services are allocating to cyber activities. The Committee commends the CIO of the Department of Defense for delivering the information technology justification book with the annual budget request. Further, the Committee is pleased with the adoption of the cyber taxonomy utilized by the Office of Management and Budget. However, the Committee finds it difficult to track cyber related efforts as they pertain to programmatic capabilities. Therefore, the Committee directs the Secretary of Defense to include with the annual budget submission, starting with fiscal year 2017, the funding levels for cyber investment at the sub-activity group, program element, and line item levels, respectively, in the standard O-1, R-1, and P-1 documents. The funding data provided shall conform to the cyber taxonomy as it is presented in the

information technology justification book and identified under those categories.

JOINT STRIKE FIGHTER DECONTAMINATION SYSTEM

The Committee is aware that the Department of Defense continues to plan for a full system-level chemical-biological decontamination test for the F-35 Joint Strike Fighter (JSF) in fiscal year 2016 and that the Director of Operational Test and Evaluation has recommended that the program demonstrate decontamination system effectiveness in a range of operationally realistic environments. The Committee is concerned whether the existing test plan sufficiently includes decontamination of pilot equipment such as protective ensembles, masks, helmets, and helmet-mounted devices. The Committee encourages the Director of the Joint Program Office for the JSF to test technologies that would allow for such equipment to be rapidly decontaminated within several hours of exposure to chemical-biological materials while protecting sensitive components from degradation. The Committee directs the Under Secretary of Defense (Acquisition, Technology and Logistics) to submit a report to the congressional defense committees not later than 30 days after the enactment of this Act that describes how F-35 testing will incorporate pilot equipment decontamination, the technologies being considered for decontamination, and the funds allocated for this purpose. The Committee further directs the Director of Operational Test and Evaluation to include in its annual report an evaluation of the adequacy of the decontamination test plan.

GROUND BASED STRATEGIC DETERRENT

The Committee directs that not later than 120 days after the enactment of this Act the Secretary of Defense shall submit to the congressional defense committees a report on the ground based strategic deterrent. The report shall include the planned number of missiles; an estimate of the annual and total cost for research, development, test, and evaluation and procurement for the total number of planned missiles; and an estimate of the proportional annual cost of the missiles as compared to the annual cost of the nuclear triad and annual defense spending.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY

Fiscal year 2015 appropriation	\$6,675,565,000
Fiscal year 2016 budget request	6,924,959,000
Committee recommendation	7,372,047,000
Change from budget request	+447,088,000

The Committee recommends an appropriation of \$7,372,047,000 for Research, Development, Test and Evaluation, Army which will provide the following program in fiscal year 2016:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY				
BASIC RESEARCH				
1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH.....	13,018	13,018	---
2	DEFENSE RESEARCH SCIENCES.....	239,118	239,118	---
3	UNIVERSITY RESEARCH INITIATIVES.....	72,603	72,603	---
4	UNIVERSITY AND INDUSTRY RESEARCH CENTERS.....	100,340	100,340	---
	TOTAL, BASIC RESEARCH.....	425,079	425,079	---
APPLIED RESEARCH				
5	MATERIALS TECHNOLOGY.....	28,314	43,314	+15,000
6	SENSORS AND ELECTRONIC SURVIVABILITY.....	38,374	48,374	+10,000
7	TRACTOR HIP.....	6,879	6,879	---
8	AVIATION TECHNOLOGY.....	56,884	56,884	---
9	ELECTRONIC WARFARE TECHNOLOGY.....	19,243	19,243	---
10	MISSILE TECHNOLOGY.....	45,053	45,053	---
11	ADVANCED WEAPONS TECHNOLOGY.....	29,428	29,428	---
12	ADVANCED CONCEPTS AND SIMULATION.....	27,862	27,862	---
13	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY.....	68,839	73,839	+5,000
14	BALLISTICS TECHNOLOGY.....	92,801	97,801	+5,000
15	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY.....	3,866	3,866	---
16	JOINT SERVICE SMALL ARMS PROGRAM.....	5,487	5,487	---
17	WEAPONS AND MUNITIONS TECHNOLOGY.....	48,340	83,340	+35,000
18	ELECTRONICS AND ELECTRONIC DEVICES.....	55,301	60,301	+5,000
19	NIGHT VISION TECHNOLOGY.....	33,807	38,807	+5,000
20	COUNTERMINE SYSTEMS.....	25,068	25,068	---
21	HUMAN FACTORS ENGINEERING TECHNOLOGY.....	23,681	23,681	---
22	ENVIRONMENTAL QUALITY TECHNOLOGY.....	20,850	20,850	---
23	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY.....	36,160	36,160	---
24	COMPUTER AND SOFTWARE TECHNOLOGY.....	12,656	12,656	---
25	MILITARY ENGINEERING TECHNOLOGY.....	63,409	68,409	+5,000
26	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY.....	24,735	24,735	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
27 WARFIGHTER TECHNOLOGY.....	35,795	35,795	---
28 MEDICAL TECHNOLOGY.....	76,853	76,853	---
TOTAL, APPLIED RESEARCH.....	879,685	964,685	+85,000
ADVANCED TECHNOLOGY DEVELOPMENT			
29 WARFIGHTER ADVANCED TECHNOLOGY.....	46,973	46,973	---
30 MEDICAL ADVANCED TECHNOLOGY.....	69,584	100,584	+31,000
31 AVIATION ADVANCED TECHNOLOGY.....	89,736	103,136	+13,400
32 WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY.....	57,663	72,663	+15,000
33 COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY.....	113,071	128,071	+15,000
34 SPACE APPLICATION ADVANCED TECHNOLOGY.....	5,554	5,554	---
35 MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY....	12,636	12,636	---
37 TRACTOR HIKE.....	7,502	7,502	---
38 NEXT GENERATION TRAINING & SIMULATION SYSTEMS.....	17,425	17,425	---
39 TRACTOR ROSE.....	11,912	11,912	---
40 COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT.....	27,520	27,520	---
41 TRACTOR NAIL.....	2,381	2,381	---
42 TRACTOR EGGS.....	2,431	2,431	---
43 ELECTRONIC WARFARE TECHNOLOGY.....	26,874	26,874	---
44 MISSILE AND ROCKET ADVANCED TECHNOLOGY.....	49,449	59,449	+10,000
45 TRACTOR CAGE.....	10,999	10,999	---
46 HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM.....	177,159	217,159	+40,000
47 LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY.....	13,993	13,993	---
48 JOINT SERVICE SMALL ARMS PROGRAM.....	5,105	5,105	---
49 NIGHT VISION ADVANCED TECHNOLOGY.....	40,929	40,929	---
50 ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS.....	10,727	10,727	---
51 MILITARY ENGINEERING ADVANCED TECHNOLOGY.....	20,145	20,145	---
52 ADVANCED TACTICAL COMPUTER SCIENCE & SENSOR TECHNOLOGY..	38,163	38,163	---
53 COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY....	37,816	37,816	---
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	895,747	1,020,147	+124,400

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

DEMONSTRATION & VALIDATION			
54 ARMY MISSILE DEFENSE SYSTEMS INTEGRATION.....	10,347	15,347	+5,000
55 ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (SPACE).....	25,061	25,061	---
56 LANDMINE WARFARE AND BARRIER - ADV DEV.....	49,636	49,636	---
57 SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV.....	13,426	13,426	---
58 TANK AND MEDIUM CALIBER AMMUNITION.....	46,749	46,749	---
60 SOLDIER SUPPORT AND SURVIVABILITY.....	6,258	6,258	---
61 TACTICAL ELECTRONIC SURVEILLANCE SYSTEM - AD.....	13,472	13,472	---
62 NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT.....	7,292	7,292	---
63 ENVIRONMENTAL QUALITY TECHNOLOGY.....	8,813	8,813	---
65 NATO RESEARCH AND DEVELOPMENT.....	6,075	6,075	---
67 LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV.....	21,233	21,233	---
68 MEDICAL SYSTEMS - ADV DEV.....	31,962	31,962	---
69 SOLDIER SYSTEMS - ADVANCED DEVELOPMENT.....	22,194	22,194	---
71 ANALYSIS OF ALTERNATIVES.....	9,805	9,805	---
72 TECHNOLOGY MATURATION INITIATIVES.....	40,917	40,917	---
73 ASSURED POSITIONING, NAVIGATION AND TIMING (PNT).....	30,058	30,058	---
74 INDIRECT FIRE PROTECTION CAPABILITY INCREMENT 2-INTERC..	155,361	155,361	---

TOTAL, DEMONSTRATION & VALIDATION.....	498,659	503,659	+5,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
99 LOGISTICS AND ENGINEER EQUIPMENT - SDD.....	48,339	48,339	---
100 COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - SDD.....	2,726	2,726	---
101 MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT...	45,412	45,412	---
102 LANDMINE WARFARE/BARRIER - SDD.....	55,215	55,215	---
104 ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE.....	163,643	163,643	---
105 RADAR DEVELOPMENT.....	12,309	12,309	---
106 GENERAL FUND ENTERPRISE BUSINESS SYSTEM (GFEBS).....	15,700	15,700	---
107 FIREFINDER.....	6,243	6,243	---
108 SOLDIER SYSTEMS - WARRIOR DEM/VAL.....	18,776	18,776	---
109 ARTILLERY SYSTEMS.....	1,953	1,953	---
110 INFORMATION TECHNOLOGY DEVELOPMENT.....	67,358	67,358	---
111 ARMY INTEGRATED MILITARY HUMAN RESOURCES SYSTEM (A-IMH.....	136,011	136,011	---
112 ARMORED MULTI-PURPOSE VEHICLE.....	230,210	230,210	---
113 JOINT TACTICAL NETWORK CENTER (JTNC).....	13,357	13,357	---
114 JOINT TACTICAL NETWORK (JTN).....	18,055	18,055	---
115 TRACTOR TIRE.....	5,677	5,677	---
116 COMMON INFRARED COUNTERMEASURES (CIRCM).....	77,570	101,570	+24,000
117 AIRCRAFT SURVIVABILITY DEVELOPMENT.....	18,112	78,112	+60,000
118 WIN-T INCREMENT 3 - FULL NETWORKING.....	39,700	39,700	---
119 AMF JOINT TACTICAL RADIO SYSTEM.....	12,987	12,987	---
120 JOINT AIR-TO-GROUND MISSILE (JAGM).....	88,866	83,054	-5,812
121 PAC-2/MSE MISSILE.....	2,272	2,272	---
122 ARMY INTEGRATED AIR AND MISSILE DEFENSE (AIAMD).....	214,099	214,099	---
123 MANNED GROUND VEHICLE.....	49,247	39,247	-10,000
124 AERIAL COMMON SENSOR.....	2	2	---
125 NATIONAL CAPABILITIES INTEGRATION.....	10,599	10,599	---
126 JOINT LIGHT TACTICAL VEHICLE ENG AND MANUFACTURING.....	32,486	32,486	---
127 AVIATION GROUND SUPPORT EQUIPMENT.....	8,880	13,880	+5,000
128 PALADIN INTEGRATED MANAGEMENT (PIM).....	152,288	152,288	---
129 TROJAN - RH12.....	5,022	5,022	---
130 ELECTRONIC WARFARE DEVELOPMENT.....	12,686	12,686	---
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	2,068,950	2,167,138	+98,188

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

RD&E MANAGEMENT SUPPORT			
131 THREAT SIMULATOR DEVELOPMENT.....	20,035	20,035	---
132 TARGET SYSTEMS DEVELOPMENT.....	16,684	16,684	---
133 MAJOR T&E INVESTMENT.....	62,580	62,580	---
134 RAND ARROYO CENTER.....	20,853	20,853	---
135 ARMY KWAJALEIN ATOLL.....	205,145	205,145	---
136 CONCEPTS EXPERIMENTATION PROGRAM.....	19,430	19,430	---
138 ARMY TEST RANGES AND FACILITIES.....	277,646	277,646	---
139 ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS.....	51,550	51,550	---
140 SURVIVABILITY/LETHALITY ANALYSIS.....	33,246	33,246	---
141 AIRCRAFT CERTIFICATION.....	4,760	4,760	---
142 METEOROLOGICAL SUPPORT TO RD&E ACTIVITIES.....	8,303	8,303	---
143 MATERIEL SYSTEMS ANALYSIS.....	20,403	20,403	---
144 EXPLOITATION OF FOREIGN ITEMS.....	10,396	10,396	---
145 SUPPORT OF OPERATIONAL TESTING.....	49,337	49,337	---
146 ARMY EVALUATION CENTER.....	52,694	52,694	---
147 SIMULATION & MODELING FOR ACQ, ROTS, & TNG (SMART).....	938	938	---
148 PROGRAMWIDE ACTIVITIES.....	60,319	60,319	---
149 TECHNICAL INFORMATION ACTIVITIES.....	28,478	28,478	---
150 MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY.....	32,604	64,604	+32,000
151 ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT.....	3,186	3,186	---
152 MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT).....	48,955	48,955	---

TOTAL, RD&E MANAGEMENT SUPPORT.....	1,027,542	1,059,542	+32,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
OPERATIONAL SYSTEMS DEVELOPMENT			
154 MLRS PRODUCT IMPROVEMENT PROGRAM.....	18,397	18,397	---
155 TRACTOR PULL.....	9,461	9,461	---
156 WEAPONS AND MUNITIONS PRODUCT IMPROVEMENT PROGRAMS.....	4,945	4,945	---
157 TRACTOR SMOKE.....	7,569	7,569	---
158 APACHE BLOCK III.....	69,862	69,862	---
159 BLACKHAWK RECAP/MODERNIZATION.....	66,653	66,653	---
160 IMPROVED CARGO (CHINOOK) HELICOPTER.....	37,407	37,407	---
161 FIXED WING AIRCRAFT.....	1,151	1,151	---
162 IMPROVED TURBINE ENGINE PROGRAM.....	51,164	51,164	---
163 EMERGING TECHNOLOGIES FROM NIE.....	2,481	2,481	---
164 LOGISTICS AUTOMATION.....	1,673	1,673	---
166 FAMILY OF BIOMETRICS.....	13,237	13,237	---
167 PATRIOT PRODUCT IMPROVEMENT.....	105,816	105,816	---
169 AEROSTAT JOINT PROJECT OFFICE.....	40,565	40,565	---
171 JOINT AUTOMATED DEEP OPERATION COORDINATION SYSTEM.....	35,719	35,719	---
172 COMBAT VEHICLE IMPROVEMENT PROGRAMS.....	257,167	354,667	+97,500
173 MANEUVER CONTROL SYSTEM.....	15,445	15,445	---
175 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM.....	364	364	---
176 DIGITIZATION.....	4,361	4,361	---
177 MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM.....	3,154	3,154	---
178 OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS.....	35,951	35,951	---
179 TRACTOR CARD.....	34,686	34,686	---
180 INTEGRATED BASE DEFENSE - OPERATIONAL SYSTEM DEV.....	10,750	10,750	---
181 MATERIALS HANDLING EQUIPMENT.....	402	402	---
183 LOWER TIER AIR AND MISSILE DEFENSE (AMD) SYSTEM.....	64,159	64,159	---
184 GUIDED MULTIPLE-LAUNCH ROCKET SYSTEM (GMLRS).....	17,527	22,527	+5,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
185 JOINT TACTICAL GROUND SYSTEM.....	20,515	20,515	---
187 SECURITY AND INTELLIGENCE ACTIVITIES.....	12,368	12,368	---
188 INFORMATION SYSTEMS SECURITY PROGRAM.....	31,154	31,154	---
189 GLOBAL COMBAT SUPPORT SYSTEM.....	12,274	12,274	---
190 SATCOM GROUND ENVIRONMENT (SPACE).....	9,355	9,355	---
191 WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM.....	7,053	7,053	---
193 INTEGRATED BROADCAST SERVICE (IBS).....	750	750	---
194 TACTICAL UNMANNED AERIAL VEHICLES.....	13,225	13,225	---
195 AIRBORNE RECONNAISSANCE SYSTEMS.....	22,870	22,870	---
196 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	25,592	25,592	---
199 RQ-7 UAV.....	7,297	7,297	---
201 WIN-T INCREMENT 2 - INITIAL NETWORKING.....	3,800	3,800	---
202 END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES.....	48,442	48,442	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	1,124,761	1,227,261	+102,500
9999 CLASSIFIED PROGRAMS.....	4,536	4,536	---
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY.....	6,924,959	7,372,047	+447,088

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	Committee Recommended	Change from Request
5 MATERIALS TECHNOLOGY	28,314	43,314	15,000
Program increase		10,000	
High performance polymers research		5,000	
6 SENSORS AND ELECTRONIC SURVIVABILITY	38,374	48,374	10,000
Space and high altitude assesses survivability		10,000	
13 COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY	68,839	73,839	5,000
Program increase		5,000	
14 BALLISTICS TECHNOLOGY	92,801	97,801	5,000
Improved armor technologies		5,000	
17 WEAPONS AND MUNITIONS TECHNOLOGY	48,340	83,340	35,000
Program increase		35,000	
18 ELECTRONICS AND ELECTRONIC DEVICES	55,301	60,301	5,000
Program increase		5,000	
19 NIGHT VISION TECHNOLOGY	33,807	38,807	5,000
Program increase		5,000	
25 MILITARY ENGINEERING TECHNOLOGY	63,409	68,409	5,000
Program increase		5,000	
30 MEDICAL ADVANCED TECHNOLOGY	69,584	100,584	31,000
Peer-reviewed neurofibromatosis research		15,000	
Peer-reviewed neurotoxin exposure treatment			
Parkinsons research		16,000	
31 AVIATION ADVANCED TECHNOLOGY	89,736	103,136	13,400
Helicopter seat improvements		3,400	
Project 313 advanced rotary-wing technology future vertical lift		10,000	
32 WEAPONS AND MUNITIONS ADV TECHNOLOGY	57,663	72,663	15,000
Program increase		15,000	
33 ADVANCED TECHNOLOGY	113,071	128,071	15,000
Program increase		15,000	
44 MISSILE AND ROCKET ADVANCED TECHNOLOGY	49,449	59,449	10,000
Detection and mitigation of cyber and supply chain threats		10,000	
46 HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM	177,159	217,159	40,000
Program increase		40,000	

R-1		Budget Request	Committee Recommended	Change from Request
54	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION Prototype design for field trials and operational test and evaluation	10,347	15,347 5,000	5,000
76	AIRCRAFT AVIONICS VU3 networking and mission planning	12,939	27,939 15,000	15,000
83	INFANTRY SUPPORT WEAPONS Program increase - project S58 soldier enhancement program	74,128	84,128 10,000	10,000
116	COMMON INFRARED COUNTERMEASURES (CIRCM) Apache upgrade	77,570	101,570 24,000	24,000
117	AIRCRAFT SURVIVABILITY DEVELOPMENT Apache upgrade	18,112	78,112 60,000	60,000
120	JOINT AIR-TO-GROUND MISSILE (JAGM) Contract award delay	88,866	83,054 -5,812	-5,812
123	MANNED GROUND VEHICLE Funding ahead of need	49,247	39,247 -10,000	-10,000
127	AVIATION GROUND SUPPORT EQUIPMENT Program increase	8,880	13,880 5,000	5,000
150	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY Program increase Hybrid projectile technology	32,604	64,604 17,000 15,000	32,000
172	COMBAT VEHICLE IMPROVEMENT PROGRAMS Stryker lethality upgrades	257,167	354,667 97,500	97,500
184	GUIDED MULTIPLE-LAUNCH ROCKET SYSTEM Program increase	17,527	22,527 5,000	5,000

DEGRADED VISUAL ENVIRONMENT

The Committee is aware of the emphasis that Army leadership is placing on the development of technical enhancements, which when combined with evolving tactics, techniques, and procedures will assist helicopter flight crews to operate safely in conditions of reduced visibility due to darkness, dust, snow, smoke, and other impediments. Therefore, the Committee recommends an additional \$15,000,000 for the development of enhancements to improve capabilities in a degraded visual environment. The Committee directs the Secretary of the Army to provide the congressional defense committees a plan for the use of these funds not later than 60 days after the enactment of this Act.

SOLDIER ENHANCEMENT PROGRAM

The Committee understands that the soldier enhancement program helps the Army evaluate, test, and type-classify prototype or commercially available items that will enhance soldiers' ability to execute combat missions. A robust soldier enhancement program facilitates small scale procurement, in-depth field evaluation opportunities, and the means to rapidly field validated technologies. Therefore, the Committee recommends an additional \$5,000,000 to accelerate the efforts of this program.

BODY ARMOR

The Committee recognizes the importance of body armor in protecting soldiers in combat. The Committee encourages the Secretary of the Army to ensure that the body armor industrial base is able to continue the development and manufacture of more advanced body armor by implementing the body armor modernization through replenishment program.

IMPROVED TURBINE ENGINE PROGRAM

The Committee continues to support the Army's Improved Turbine Engine Program (ITEP), which is a competitive acquisition program that is designed to develop a more fuel efficient and powerful engine for the current Black Hawk and Apache helicopter fleets. The Committee understands that this new engine is intended to increase operational capabilities in high altitude and high temperature environments while reducing operation and support costs. The Committee acknowledges the benefits of improved fuel efficiencies that the ITEP will bring to the battlefield and encourages the Secretary of the Army to prioritize maintenance and sustainment cost savings for ITEP to ensure the continued affordability of the program.

HELICOPTER SEATS

The Committee acknowledges the need to improve seating in the Army's rotary wing aircraft. The current seats lack modern ergonomics and are not sized to fit all aviators, including female pilots. Additionally, the stroking mechanism does not adequately protect pilots at the extreme ends of the size and weight spectrum. The Committee encourages the Secretary of the Army to continue

research and development and rapid deployment of improved seating for rotary wing aircraft.

SUBTERRANEAN HARD TARGET DEFEAT

The Committee is aware that the complex issue of subterranean hard target defeat goes well beyond wall breaching and bunker busters. New tactics, techniques, and doctrine are expected from Army leadership to deal with tunnels, sewers, caves, and bunkers as the environments in which soldiers operate become increasingly urban. The Army lead for the development of material solutions and systems integration is the Armaments Research Development Engineering Development Center (ARDEC). ARDEC provides subject matter expertise and technological solutions in support of emerging subterranean hard target defeat requirements and coordinates the technological responses across the Research Engineering Command (RDECOM). Additionally, ARDEC builds relationships across RDECOM to better serve the needs of the Training and Doctrine Command, the U.S. Special Forces Command, the Defense Threat Reduction Agency, and other government agencies. Therefore, the Committee encourages the Secretary of the Army to work with other government agencies to adapt solutions applicable to the Army's subterranean hard target defeat needs, and to support experimentation of technologies to disable and neutralize underground facilities and their associated components, including weapons of mass destruction.

EXPLOSIVE ORDNANCE DISPOSAL

The Committee understands that a need exists to develop environmentally sustainable, near 100 percent efficient, explosive ordnance disposal (EOD) technologies and techniques for unexploded ordnance containing highly insensitive energetic materials while minimizing the amount of energetic material required for successful EOD operations. The Committee encourages the Secretary of the Army to develop alternate EOD technologies and techniques to reduce the risk to personnel on the battlefield, to reduce the risk of increased range contamination with energetic materials, and to reduce the cost of range remediation.

DISABLING AND NEUTRALIZING WEAPONS OF MASS DESTRUCTION

The Committee recognizes the need to support the development and demonstration of weapons of mass destruction defeat technology solutions to mitigate current and anticipated threat capabilities in subterranean facilities. Therefore, the Committee recommends an additional \$15,000,000 for the Army to increase efforts to mature system technologies and develop defeat capability prototypes.

ARMY RESEARCH LAB OPEN CAMPUS INITIATIVE

The Army Research Laboratory's open campus concept program is an endeavor to encourage advances in basic and applied research. The Committee encourages the Secretary of the Army to establish a pilot program within the open campus concept program with the goal of creating a network of public-private ventures for

technology transfer, business incubation, and technology commercialization. Partners should be selected based on criteria including expertise in technology transfer, strength of business plans, and demonstrated capacity to identify, recruit, and mentor public-private venture participants.

ARMY NET ZERO INDUSTRIAL BASE

The Army's net zero installations policy establishes the management of resources to achieve a balance of resources consumed versus resources produced at installations. The net zero concept builds on longstanding practices and requires installations to reduce overall energy use, maximize efficiency, implement energy recovery and cogeneration opportunities, and offset the remaining demand with the production of renewable energy from onsite sources. In addition to energy, the concept also requires installations to reduce overall water use, use water more efficiently, and reduce, recycle, compost, or recover solid waste streams and convert them to resource values, resulting in zero landfill disposal. The Committee supports the Army's net zero policy, including efforts to enhance the sustainable operation of its industrial munitions base.

TRANSFORMATIVE TECHNOLOGIES FOR PROPULSION MANUFACTURING PROCESSES

The Committee is aware that the Army, in its role as the single manager for conventional ammunition for the Department of Defense, ensures effective life cycle management of conventional ammunition products. The Committee believes that the manufacture of conventional ammunition could be assisted by automating and optimizing ammunition propellant production processes such as solvent-less and spherical propellants, and integrating new materials such as energetic thermoplastic elastomers. Further, the Committee believes that these processes and materials play a crucial role in reducing cost, increasing ammunition performance, and enhancing soldier safety. The Committee encourages the Secretary of the Army to study the use of these new and emerging manufacturing processes and materials.

ADVANCED ENERGETIC MATERIALS

The Committee recognizes the need to rapidly advance the use of advanced energetic material technology for lightweight combustible ammunitions and high-energy binder systems to meet current and future combat readiness and effectiveness objectives. The Committee encourages the Secretary of the Army to explore the use of advanced energetic materials for lightweight combustible ammunitions and future high explosives to continue the progress being made to increase lethality and better protect the warfighter.

ENHANCED DENSE URBAN WARFARE EFFECTIVENESS

The Committee is aware that dense urban warfare presents a new set of challenges for the military. In dense urban terrain, command and control is difficult, engagements occur at short-range, and battles often rage without meaningful coordination or fire support. Urban terrain and obstacles create significant communication

and navigation difficulties that result in confusion identifying enemy forces and their capabilities. The Committee encourages the Secretary of the Army to support efforts to enhance dense urban warfare awareness, adeptness, and performance.

ARMY VEHICLE INTERCOMMUNICATIONS SYSTEMS

The Committee understands that the Army will soon review vehicle intercommunication system requirements for maneuver combat vehicles and the family of tactical wheeled vehicles. The Committee looks forward to receiving the Army's evaluation of these requirements and how they support future capability needs. The Committee directs the Secretary of the Army to submit a report detailing any changes to existing requirements to the congressional defense committees not later than 60 days after the completion of the review.

PROJECTILE ENHANCEMENT

The Committee is aware of the Army's effort to develop enhanced lethality and accuracy for dismounted soldiers. The Committee believes that emerging manufacturing technologies play a critical role in these efforts by enabling rapid flexible munitions production and cost savings for advanced projectile systems. The Committee encourages the Secretary of the Army to continue development of extended range hybrid and affordable precision gun launched projectiles to mitigate soldier risk.

SOLDIER-BORNE SENSORS

The Committee understands that the Army is developing a pocket-sized soldier-borne sensor that will provide soldiers with improved intelligence, situational awareness, and enhanced targeting capability. The Committee understands that the technology has been successfully demonstrated by allies during operations and believes that soldier-borne sensors have promising potential for Army operations. The Committee urges the Secretary of the Army to advance development of pocket intelligence, surveillance, and reconnaissance technologies to assist soldiers in maintaining a tactical advantage during conflict. The Committee directs the Secretary of the Army to submit a report to the congressional defense committees not later than 90 days after the enactment of this Act on the progress of soldier-borne sensors development.

CANNON LIFE EXTENSION PROGRAM

The Committee commends the Department of Defense for its efforts to minimize the use of Hexavalent Chromium from weapons systems to reduce harm to humans and the environment. The Committee commends the Department of the Army in particular for its work on the Cannon Life Extension Program researching and developing Hexavalent Chromium substitutes and approving the use of safe alternatives. The Committee is also encouraged by the potential decrease in lifecycle costs and other benefits to members of the military that this program may produce. Therefore, the Committee encourages the Department of the Army to continue sup-

porting the Cannon Life Extension Program and explore the benefits of incorporating this technology into other firearms.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY

Fiscal year 2015 appropriation	\$15,958,460,000
Fiscal year 2016 budget request	17,885,916,000
Committee recommendation	17,237,724,000
Change from budget request	-648,192,000

The Committee recommends an appropriation of \$17,237,724,000 for Research, Development, Test and Evaluation, Navy which will provide the following program in fiscal year 2016:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY				
BASIC RESEARCH				
1	UNIVERSITY RESEARCH INITIATIVES.....	116,196	116,196	---
2	IN-HOUSE LABORATORY INDEPENDENT RESEARCH.....	19,126	19,126	---
3	DEFENSE RESEARCH SCIENCES.....	451,606	451,606	---
	TOTAL, BASIC RESEARCH.....	586,928	586,928	---
APPLIED RESEARCH				
4	POWER PROJECTION APPLIED RESEARCH.....	68,723	73,723	+5,000
5	FORCE PROTECTION APPLIED RESEARCH.....	154,963	154,963	---
6	MARINE CORPS LANDING FORCE TECHNOLOGY.....	49,001	45,708	-3,293
7	COMMON PICTURE APPLIED RESEARCH.....	42,551	42,551	---
8	WARFIGHTER SUSTAINMENT APPLIED RESEARCH.....	45,056	45,056	---
9	ELECTROMAGNETIC SYSTEMS APPLIED RESEARCH.....	115,051	115,051	---
10	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH.....	42,252	72,252	+30,000
11	JOINT NON-LETHAL WEAPONS APPLIED RESEARCH.....	6,119	6,119	---
12	UNDERSEA WARFARE APPLIED RESEARCH.....	123,750	123,750	---
13	FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV.....	179,686	179,686	---
14	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH.....	37,418	37,418	---
	TOTAL, APPLIED RESEARCH.....	864,570	896,277	+31,707
ADVANCED TECHNOLOGY DEVELOPMENT				
15	POWER PROJECTION ADVANCED TECHNOLOGY.....	37,093	37,093	---
16	FORCE PROTECTION ADVANCED TECHNOLOGY.....	38,044	38,044	---
17	ELECTROMAGNETIC SYSTEMS ADVANCED TECHNOLOGY.....	34,899	34,899	---
18	MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD)....	137,562	128,892	-8,670
19	JOINT NON-LETHAL WEAPONS TECHNOLOGY DEVELOPMENT.....	12,745	12,745	---
20	FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV.....	258,860	265,860	+7,000
21	MANUFACTURING TECHNOLOGY PROGRAM.....	57,074	57,074	---
22	WARFIGHTER PROTECTION ADVANCED TECHNOLOGY.....	4,807	36,307	+31,500
23	UNDERSEA WARFARE ADVANCED TECHNOLOGY.....	13,748	13,748	---
24	NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS.....	66,041	66,041	---
25	MINE AND EXPEDITIONARY WARFARE ADVANCED TECHNOLOGY.....	1,991	1,991	---
	TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	662,864	692,694	+29,830

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
DEMONSTRATION & VALIDATION			
26 AIR/OCEAN TACTICAL APPLICATIONS.....	41,832	37,832	-4,000
27 AVIATION SURVIVABILITY.....	5,404	10,904	+5,500
28 DEPLOYABLE JOINT COMMAND AND CONTROL.....	3,086	3,086	---
29 AIRCRAFT SYSTEMS.....	11,643	26,643	+15,000
30 ASW SYSTEMS DEVELOPMENT.....	5,555	5,555	---
31 TACTICAL AIRBORNE RECONNAISSANCE.....	3,087	3,087	---
32 ADVANCED COMBAT SYSTEMS TECHNOLOGY.....	1,636	1,636	---
33 SURFACE AND SHALLOW WATER MINE COUNTERMEASURES.....	118,588	93,384	-25,204
34 SURFACE SHIP TORPEDO DEFENSE.....	77,385	69,950	-7,435
35 CARRIER SYSTEMS DEVELOPMENT.....	8,348	8,348	---
36 PILOT FISH.....	123,246	123,246	---
37 RETRACT LARCH.....	28,819	28,819	---
38 RETRACT JUNIPER.....	112,678	112,678	---
39 RADIOLOGICAL CONTROL.....	710	710	---
40 SURFACE ASW.....	1,096	1,096	---
41 ADVANCED SUBMARINE SYSTEM DEVELOPMENT.....	87,160	85,906	-1,254
42 SUBMARINE TACTICAL WARFARE SYSTEMS.....	10,371	10,371	---
43 SHIP CONCEPT ADVANCED DESIGN.....	11,888	10,459	-1,429
44 SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES.....	4,332	2,559	-1,773
45 ADVANCED NUCLEAR POWER SYSTEMS.....	482,040	482,040	---
46 ADVANCED SURFACE MACHINERY SYSTEMS.....	25,904	23,258	-2,646
47 CHALK EAGLE.....	511,802	511,802	---
48 LITTORAL COMBAT SHIP (LCS).....	118,416	126,416	+8,000
49 COMBAT SYSTEM INTEGRATION.....	35,901	29,606	-6,295
50 OHIO REPLACEMENT PROGRAM.....	971,393	971,393	---
51 LITTORAL COMBAT SHIP (LCS) MISSION PACKAGES.....	206,149	166,249	-39,900
52 AUTOMATIC TEST AND RE-TEST.....	8,000	23,000	+15,000
53 CONVENTIONAL MUNITIONS.....	7,678	7,678	---
54 MARINE CORPS ASSAULT VEHICLES.....	219,082	150,685	-68,397
55 MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM.....	623	378	-245

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
56 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT.....	18,260	15,329	-2,931
57 COOPERATIVE ENGAGEMENT.....	76,247	73,793	-2,454
58 OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT.....	4,520	4,520	---
59 ENVIRONMENTAL PROTECTION.....	20,711	19,289	-1,422
60 NAVY ENERGY PROGRAM.....	47,761	41,455	-6,306
61 FACILITIES IMPROVEMENT.....	5,226	3,226	-2,000
62 CHALK CORAL.....	182,771	182,771	---
63 NAVY LOGISTIC PRODUCTIVITY.....	3,866	3,866	---
64 RETRACT MAPLE.....	360,065	360,065	---
65 LINK PLUMERIA.....	237,416	237,416	---
66 RETRACT ELM.....	37,944	37,944	---
67 LINK EVERGREEN.....	47,312	47,312	---
68 SPECIAL PROCESSES.....	17,408	17,408	---
69 NATO RESEARCH AND DEVELOPMENT.....	9,359	8,211	-1,148
70 LAND ATTACK TECHNOLOGY.....	887	887	---
71 JOINT NONLETHAL WEAPONS TESTING.....	29,448	26,858	-2,590
72 JOINT PRECISION APPROACH AND LANDING SYSTEMS.....	91,479	75,479	-16,000
73 DIRECTED ENERGY AND ELECTRIC WEAPON SYSTEMS.....	67,360	55,236	-12,124
74 GERALD R. FORD CLASS NUCLEAR AIRCRAFT CARRIER.....	48,105	48,105	---
75 REMOTE MINEHUNTING SYSTEM (RMS).....	20,089	17,589	-2,500
76 TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES.....	18,969	18,969	---
77 ASE SELF-PROTECTION OPTIMIZATION.....	7,874	7,874	---
78 MH-XX.....	5,298	2,243	-3,055
79 LX (R).....	46,486	40,851	-5,635
80 JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE...	3,817	3,817	---
81 PRECISION STRIKE WEAPONS DEVELOPMENT PROGRAM.....	9,595	9,595	---
82 SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE....	29,581	24,581	-5,000
83 OFFENSIVE ANTI-SURFACE WARFARE WEAPON DEVELOPMENT.....	285,849	276,128	-9,721
84 JOINT LIGHT TACTICAL VEHICLE ENGINEERING/MANUFACTURING...	36,656	27,479	-9,177
85 ASW SYSTEMS DEVELOPMENT - MIP.....	9,835	9,835	---
86 ELECTRONIC WARFARE DEVELOPMENT - MIP.....	580	580	---
TOTAL, DEMONSTRATION & VALIDATION.....	5,024,626	4,827,485	-197,141

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
ENGINEERING & MANUFACTURING DEVELOPMENT			
87 TRAINING SYSTEM AIRCRAFT.....	21,708	17,989	-3,719
88 OTHER HELO DEVELOPMENT.....	11,101	11,101	---
89 AV-8B AIRCRAFT - ENG DEV.....	39,878	34,878	-5,000
90 STANDARDS DEVELOPMENT.....	53,059	53,059	---
91 MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT.....	21,358	18,858	-2,500
92 AIR/OCEAN EQUIPMENT ENGINEERING.....	4,515	4,515	---
93 P-3 MODERNIZATION PROGRAM.....	1,514	1,514	---
94 WARFARE SUPPORT SYSTEM.....	5,875	5,875	---
95 TACTICAL COMMAND SYSTEM.....	81,553	78,201	-3,352
96 ADVANCED HAWKEYE.....	272,149	255,149	-17,000
97 H-1 UPGRADES.....	27,235	27,235	---
98 ACOUSTIC SEARCH SENSORS.....	35,763	31,263	-4,500
99 V-22A.....	87,918	76,483	-11,435
100 AIR CREW SYSTEMS DEVELOPMENT.....	12,679	12,679	---
101 EA-18.....	56,921	46,921	-10,000
102 ELECTRONIC WARFARE DEVELOPMENT.....	23,685	20,113	-3,572
103 VH-71A EXECUTIVE HELO DEVELOPMENT.....	507,093	507,093	---
104 NEXT GENERATION JAMMER (NGJ).....	411,767	393,770	-17,997
105 JOINT TACTICAL RADIO SYSTEM - NAVY (JTRS-NAVY).....	25,071	25,071	---
106 SURFACE COMBATANT COMBAT SYSTEM ENGINEERING.....	443,433	421,076	-22,357
107 LPD-17 CLASS SYSTEMS INTEGRATION.....	747	747	---
108 SMALL DIAMETER BOMB (SDB).....	97,002	84,644	-12,358
109 STANDARD MISSILE IMPROVEMENTS.....	129,649	115,649	-14,000
110 AIRBORNE MCM.....	11,647	7,301	-4,346
111 MARINE AIR GROUND TASK FORCE ELECTRONIC WARFARE.....	2,778	2,778	---
112 NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR SYSTEMS ENG...	23,695	23,695	---
113 FUTURE UNMANNED CARRIER-BASED STRIKE SYSTEM.....	134,708	129,708	-5,000
114 ADVANCED ABOVE WATER SENSORS.....	43,914	43,914	---
115 SSN-688 AND TRIDENT MODERNIZATION.....	109,908	104,507	-5,401
116 AIR CONTROL.....	57,928	57,928	---
117 SHIPBOARD AVIATION SYSTEMS.....	120,217	120,217	---
118 AIR AND MISSILE DEFENSE RADAR (AMDR) SYSTEM.....	241,754	223,719	-18,035
119 NEW DESIGN SSN.....	122,556	128,737	+6,181

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
120 SUBMARINE TACTICAL WARFARE SYSTEM.....	48,213	43,213	-5,000
121 SHIP CONTRACT DESIGN/LIVE FIRE T&E.....	49,712	45,885	-3,827
122 NAVY TACTICAL COMPUTER RESOURCES.....	4,096	4,096	---
123 VIRGINIA PAYLOAD MODULE (VPM).....	167,719	150,576	-17,143
124 MINE DEVELOPMENT.....	15,122	15,122	---
125 LIGHTWEIGHT TORPEDO DEVELOPMENT.....	33,738	43,738	+10,000
126 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT.....	8,123	8,123	---
127 PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS.....	7,686	7,686	---
128 JOINT STANDOFF WEAPON SYSTEMS.....	405	405	---
129 SHIP SELF DEFENSE (DETECT & CONTROL).....	153,836	153,836	---
130 SHIP SELF DEFENSE (ENGAGE: HARD KILL).....	99,619	78,146	-21,473
131 SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW).....	116,798	105,479	-11,319
132 INTELLIGENCE ENGINEERING.....	4,353	2,053	-2,300
133 MEDICAL DEVELOPMENT.....	9,443	25,291	+15,848
134 NAVIGATION/ID SYSTEM.....	32,469	32,469	---
135 JOINT STRIKE FIGHTER (JSF) - EMD.....	537,901	537,901	---
136 JOINT STRIKE FIGHTER (JSF).....	504,736	504,736	---
137 JSF FOLLOW ON DEVELOPMENT-MARINE CORPS.....	59,265	20,800	-38,465
138 JSF FOLLOW ON DEVELOPMENT-NAVY.....	47,579	21,200	-26,379
139 INFORMATION TECHNOLOGY DEVELOPMENT.....	5,914	4,824	-1,090
140 INFORMATION TECHNOLOGY DEVELOPMENT.....	89,711	81,816	-7,895
141 CH-53K.....	632,092	592,317	-39,775
142 SHIP TO SHORE CONNECTOR (SSC).....	7,778	7,778	---
143 JOINT AIR-TO-GROUND MISSILE (JAGM).....	25,898	15,898	-10,000
144 MULTI-MISSION MARITIME AIRCRAFT (MMA).....	247,929	247,929	---
145 DDG-1000.....	103,199	93,833	-9,366
146 TACTICAL COMMAND SYSTEM - MIP.....	998	998	---
147 TACTICAL CRYPTOLOGIC SYSTEMS.....	17,785	17,785	---
148 SPECIAL APPLICATIONS PROGRAM.....	35,905	35,905	---
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	6,308,800	5,986,225	-322,575

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

RDT&E MANAGEMENT SUPPORT			
149 THREAT SIMULATOR DEVELOPMENT.....	30,769	30,769	---
150 TARGET SYSTEMS DEVELOPMENT.....	112,606	112,606	---
151 MAJOR T&E INVESTMENT.....	61,234	61,234	---
152 JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION.....	6,995	6,995	---
153 STUDIES AND ANALYSIS SUPPORT - NAVY.....	4,011	4,011	---
154 CENTER FOR NAVAL ANALYSES.....	48,563	48,563	---
155 NEXT GENERATION FIGHTER.....	5,000	5,000	---
157 TECHNICAL INFORMATION SERVICES.....	925	925	---
158 MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT.....	78,143	83,143	+5,000
159 STRATEGIC TECHNICAL SUPPORT.....	3,258	3,258	---
160 RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT.....	76,948	76,948	---
161 RDT&E SHIP AND AIRCRAFT SUPPORT.....	132,122	132,122	---
162 TEST AND EVALUATION SUPPORT.....	351,912	351,912	---
163 OPERATIONAL TEST AND EVALUATION CAPABILITY.....	17,985	17,985	---
164 NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT.....	5,316	5,316	---
165 SEW SURVEILLANCE/RECONNAISSANCE SUPPORT.....	6,519	6,519	---
166 MARINE CORPS PROGRAM WIDE SUPPORT.....	13,649	13,649	---
TOTAL, RDT&E MANAGEMENT SUPPORT.....	955,955	960,955	+5,000
OPERATIONAL SYSTEMS DEVELOPMENT			
174 STRATEGIC SUB & WEAPONS SYSTEM SUPPORT.....	107,039	96,757	-10,282
175 SSBN SECURITY TECHNOLOGY PROGRAM.....	46,506	46,506	---
176 SUBMARINE ACOUSTIC WARFARE DEVELOPMENT.....	3,900	3,900	---
177 NAVY STRATEGIC COMMUNICATIONS.....	16,569	16,569	---
178 RAPID TECHNOLOGY TRANSITION (RTT).....	18,632	8,632	-10,000
179 F/A-18 SQUADRONS.....	133,265	130,265	-3,000
179 FLEET TELECOMMUNICATIONS (TACTICAL).....	62,867	42,867	-20,000
180 SURFACE SUPPORT.....	36,045	36,045	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
181 TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC).....	25,228	25,228	---
182 INTEGRATED SURVEILLANCE SYSTEM.....	54,218	49,617	-4,601
183 AMPHIBIOUS TACTICAL SUPPORT UNITS.....	11,335	11,335	---
184 GROUND/AIR TASK ORIENTED RADAR.....	80,129	61,532	-18,597
185 CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT.....	39,087	39,087	---
186 CRYPTOLOGIC DIRECT SUPPORT.....	1,915	1,915	---
187 ELECTRONIC WARFARE (EW) READINESS SUPPORT.....	46,609	46,609	---
188 HARM IMPROVEMENT.....	52,708	34,708	-18,000
189 TACTICAL DATA LINKS.....	149,997	149,997	---
190 SURFACE ASW COMBAT SYSTEM INTEGRATION.....	24,460	24,460	---
191 MK-48 ADCAP.....	42,206	42,206	---
192 AVIATION IMPROVEMENTS.....	117,759	105,759	-12,000
194 OPERATIONAL NUCLEAR POWER SYSTEMS.....	101,323	101,323	---
195 MARINE CORPS COMMUNICATIONS SYSTEMS.....	67,763	62,824	-4,939
196 COMMON AVIATION COMMAND AND CONTROL SYSTEM.....	13,431	13,431	---
197 MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS.....	56,769	48,653	-8,116
199 MARINE CORPS COMBAT SERVICES SUPPORT.....	20,729	19,983	-746
200 USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP).....	13,152	12,701	-451
201 AMPHIBIOUS ASSAULT VEHICLE.....	48,535	45,110	-3,425
202 TACTICAL AIM MISSILES.....	76,016	76,016	---
203 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM).....	32,172	32,172	---
208 SATELLITE COMMUNICATIONS (SPACE).....	53,239	53,239	---
209 CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES.....	21,677	21,677	---
210 INFORMATION SYSTEMS SECURITY PROGRAM.....	28,102	28,102	---
211 WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM.....	294	---	-294
213 NAVY METEOROLOGICAL AND OCEAN SENSORS-SPACE (METOC).....	599	599	---
214 JOINT MILITARY INTELLIGENCE PROGRAMS.....	6,207	6,207	---
215 TACTICAL UNMANNED AERIAL VEHICLES.....	8,550	8,550	---
216 UAS INTEGRATION AND INTEROPERABILITY.....	41,831	41,831	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
217 DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS.....	1,105	1,105	---
218 DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS.....	33,149	33,149	---
219 RQ-4 UAV.....	227,188	178,710	-48,478
227 RQ-4 MODERNIZATION.....	150,854	150,854	---
220 MQ-8 UAV.....	52,770	52,770	---
221 RQ-11 UAV.....	635	635	---
222 RQ-7 UAV.....	688	688	---
223 SMALL (LEVEL 0) TACTICAL UAS (STUASLO).....	4,647	4,647	---
224 RQ-21A.....	6,435	6,251	-184
225 MULTI-INTELLIGENCE SENSOR DEVELOPMENT.....	49,145	49,145	---
226 UNMANNED AERIAL SYSTEMS (UAS) PAYLOADS (MIP).....	9,246	9,246	---
227 MODELING AND SIMULATION SUPPORT.....	4,757	4,757	---
228 DEPOT MAINTENANCE (NON-IF).....	24,185	24,185	---
231 MARITIME TECHNOLOGY (MARITECH).....	4,321	4,321	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	2,229,988	2,066,875	-163,113
9999 CLASSIFIED PROGRAMS.....	1,252,185	1,220,285	-31,900
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY.....	17,885,916	17,237,724	-648,192

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	Committee Recommended	Change from Request
4 POWER PROJECTION APPLIED RESEARCH	68,723	73,723	5,000
Program increase - force protection research		5,000	
6 MARINE CORPS LANDING FORCE TECHNOLOGY	49,001	45,708	-3,293
Littoral combat/power projection unjustified request		-2,000	
Maneuver unjustified growth		-1,293	
10 OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH	42,252	72,252	30,000
Program increase - AGOR mid life refit		30,000	
18 MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD)	137,562	128,892	-8,670
Littoral combat/power projection projects previously funded		-3,000	
Maneuver unjustified growth		-2,301	
C4 previously funded		-1,508	
Fires, targeting, and maneuver previously funded		-1,157	
ISR previously funded		-704	
20 FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEVELOPMENT	258,860	265,860	7,000
Program increase - ASW research		7,000	
22 WARFIGHTER PROTECTION ADVANCED TECHNOLOGY	4,807	36,307	31,500
Program increase - bone marrow registry program		31,500	
26 AIR/OCEAN TACTICAL APPLICATIONS	41,832	37,832	-4,000
NITES program growth		-4,000	
27 AVIATION SURVIVABILITY	5,404	10,904	5,500
Program increase - unmanned system integration to national airspace system		5,500	
29 AIRCRAFT SYSTEMS	11,643	26,643	15,000
Program increase - highly integrated photonics		15,000	
33 SURFACE AND SHALLOW WATER MINE COUNTERMEASURES	118,588	93,384	-25,204
SSQ-94 trainer development growth		-1,500	
Mine hunting SUV craft concurrency		-10,400	
MEDAL development growth		-1,304	
LDUUV development growth		-5,000	
SMCM UUV program delay		-7,000	
34 SURFACE SHIP TORPEDO DEFENSE	77,385	69,950	-7,435
In-house systems engineering growth		-3,585	
Systems development growth		-3,850	
41 ADVANCED SUBMARINE SYSTEM DEVELOPMENT	87,160	85,906	-1,254
APB development growth		-3,000	
Stealth growth		-4,454	
Universal launch and recovery module unfunded outyear tail		-3,800	
Program increase - advanced submarine control		10,000	

R-1		Budget Request	Committee Recommended	Change from Request
43	SHIP CONCEPT ADVANCED DESIGN	11,888	10,459	-1,429
	Program execution		-1,429	
44	SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES	4,332	2,559	-1,773
	Program execution		-1,773	
46	ADVANCED SURFACE MACHINERY SYSTEMS	25,904	23,258	-2,646
	Program execution		-2,646	
48	LITTORAL COMBAT SHIP (LCS)	118,416	126,416	8,000
	System of systems engineering development growth		-3,000	
	Test and evaluation delays		-6,000	
	Support growth		-8,000	
	Program increase - LCS training courseware		15,000	
	Program increase - small business technology insertion		10,000	
49	COMBAT SYSTEM INTEGRATION	35,901	29,606	-6,295
	Interoperability and assessment delays		-3,313	
	Warfare systems certification carryover		-2,982	
51	LITTORAL COMBAT SHIP (LCS) MISSION PACKAGES	206,149	166,249	-39,900
	Program execution		-39,900	
52	AUTOMATED TEST AND RE-TEST	8,000	23,000	15,000
	Program increase - automated test and re-test		15,000	
54	MARINE CORPS ASSAULT VEHICLES	219,082	150,685	-68,397
	Program support excess growth		-3,097	
	GFE funds carryover		-4,000	
	Program execution		-61,300	
55	MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM	623	378	-245
	SMAW follow-on unjustified request		-245	
56	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	18,260	15,329	-2,931
	Program execution		-2,931	
57	COOPERATIVE ENGAGEMENT	76,247	73,793	-2,454
	Program execution		-2,454	
59	ENVIRONMENTAL PROTECTION	20,711	19,289	-1,422
	Environmental sustainability development growth		-1,422	
60	NAVY ENERGY PROGRAM	47,761	41,455	-6,306
	Program execution		-4,806	
	Tactical fuels growth		-1,500	
61	FACILITIES IMPROVEMENT	5,226	3,226	-2,000
	Expeditionary Environmental Control Unit growth		-2,000	
69	NATO RESEARCH AND DEVELOPMENT	9,359	8,211	-1,148
	Program execution		-1,148	
71	JOINT NONLETHAL WEAPONS TESTING	29,448	26,858	-2,590
	Mission payload module unjustified growth		-2,590	

R-1		Budget Request	Committee Recommended	Change from Request
72	JOINT PRECISION APPROACH AND LANDING SYSTEMS	91,479	75,479	-16,000
	Program restructure		-16,000	
73	DIRECTED ENERGY AND ELECTRIC WEAPON SYSTEMS	67,360	55,236	-12,124
	Railgun excess support		-6,000	
	Program execution		-6,124	
75	REMOTE MINEHUNTING SYSTEM (RMS)	20,089	17,589	-2,500
	Excess support		-2,500	
78	MH-XX	5,298	2,243	-3,055
	Fiscal year 2015 new start delay		-3,055	
79	LX (R)	46,486	40,851	-5,635
	Program execution		-5,635	
82	SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE	29,581	24,581	-5,000
	Maritime concept generation and development growth		-5,000	
83	OFFENSIVE ANTI-SURFACE WARFARE WEAPON DEVELOPMENT	285,849	276,128	-9,721
	Program execution		-9,721	
84	JOINT LIGHT TACTICAL VEHICLE ENGINEERING/MANUFACTURING	36,656	27,479	-9,177
	Support engineering excess growth		-9,177	
87	TRAINING SYSTEM AIRCRAFT	21,708	17,989	-3,719
	Program execution		-3,719	
89	AV-8B AIRCRAFT - ENG DEV	39,878	34,878	-5,000
	OFP and avionics weapons system development growth		-5,000	
91	MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT	21,358	18,858	-2,500
	Program support growth		-2,500	
95	TACTICAL COMMAND SYSTEM	81,553	78,201	-3,352
	Program execution		-3,352	
96	ADVANCED HAWKEYE	272,149	255,149	-17,000
	NAWCAD engineering and test support growth		-6,000	
	SIPR chat growth		-6,000	
	Data fusion growth		-5,000	
98	ACOUSTIC SEARCH SENSORS	35,763	31,263	-4,500
	Support growth		-4,500	
99	V-22A	87,918	76,483	-11,435
	Software reprogrammable payload growth		-6,000	
	Program execution		-5,435	
101	EA-18	56,921	46,921	-10,000
	EA-18G flight plan growth		-10,000	

R-1		Budget Request	Committee Recommended	Change from Request
102	ELECTRONIC WARFARE DEVELOPMENT	23,685	20,113	-3,572
	Jammer techniques optimization cost growth		-3,572	
104	NEXT GENERATION JAMMER (NGJ)	411,767	393,770	-17,997
	Software integration contract delay		-10,997	
	Increment II ahead of need		-7,000	
	SURFACE COMBATANT COMBAT SYSTEM ENGINEERING			
106	ENGINEERING	443,433	421,076	-22,357
	Aegis development support growth		-12,000	
	Program execution		-10,357	
108	SMALL DIAMETER BOMB (SDB)	97,002	84,644	-12,358
	F-18 integration contract delay		-12,358	
109	STANDARD MISSILE IMPROVEMENTS	129,649	115,649	-14,000
	Excess SM-6 design and analysis		-14,000	
110	AIRBORNE MCM	11,647	7,301	-4,346
	Program execution		-4,346	
113	UNMANNED CARRIER-BASED STRIKE SYSTEM	134,708	129,708	-5,000
	Excess management		-5,000	
115	SSN-688 AND TRIDENT MODERNIZATION	109,908	104,507	-5,401
	Program execution		-5,401	
118	AIR AND MISSILE DEFENSE RADAR (AMDR) SYSTEM	241,754	223,719	-18,035
	Program execution		-18,035	
119	NEW DESIGN SSN	122,556	128,737	6,181
	HM&E test and evaluation growth		-6,319	
	Program increase - small business technology insertion		12,500	
120	SUBMARINE TACTICAL WARFARE SYSTEM	48,213	43,213	-5,000
	Support growth		-5,000	
121	SHIP CONTRACT DESIGN/LIVE FIRE T&E	49,712	45,885	-3,827
	Program execution		-3,827	
123	VIRGINIA PAYLOAD MODULE (VPM)	167,719	150,576	-17,143
	Program execution		-17,143	
125	LIGHTWEIGHT TORPEDO DEVELOPMENT	33,738	43,738	10,000
	Program increase - small business technology insertion		10,000	
130	SHIP SELF DEFENSE (ENGAGE: HARD KILL)	99,619	78,146	-21,473
	Program execution		-10,173	
	Block II risk reduction		-15,000	
	Program increase - shield protection		3,700	
131	SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)	116,798	105,479	-11,319
	Program execution		-11,319	
132	INTELLIGENCE ENGINEERING	4,353	2,053	-2,300
	Program growth		-2,300	

R-1	Budget Request	Committee Recommended	Change from Request
133 MEDICAL DEVELOPMENT	9,443	25,291	15,848
Program increase - military dental research		6,000	
Program increase - wound care research		10,000	
Program support unjustified growth		-152	
137 JSF FOLLOW ON DEVELOPMENT-MARINE CORPS	59,265	20,800	-38,465
Program delay		-38,465	
138 JSF FOLLOW ON DEVELOPMENT-NAVY	47,579	21,200	-26,379
Program delay		-26,379	
139 INFORMATION TECHNOLOGY DEVELOPMENT	5,914	4,824	-1,090
Risk management initiative unjustified request		-790	
Paperless acquisition unjustified growth		-300	
140 INFORMATION TECHNOLOGY DEVELOPMENT	89,711	81,816	-7,895
Program execution		-7,895	
141 CH-53K	632,092	592,317	-39,775
Program execution		-39,775	
143 JOINT AIR-TO-GROUND MISSILE (JAGM)	25,898	15,898	-10,000
Program growth		-10,000	
144 MULTI-MISSION MARITIME AIRCRAFT (MMA)	247,929	247,929	
Contract delay		-12,500	
Program increase - small business technology insertion		12,500	
145 DDG-1000	103,199	93,833	-9,366
Program execution		-9,366	
MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT			
158 SUPPORT	78,143	83,143	5,000
Program increase - printed circuit board executive agent		5,000	
174 STRATEGIC SUB & WEAPONS SYSTEM SUPPORT	107,039	96,757	-10,282
Program execution		-10,282	
178 RAPID TECHNOLOGY TRANSITION (RTT)	18,632	8,632	-10,000
TIPS program growth		-10,000	
179 F/A-18 SQUADRONS	133,265	130,265	-3,000
Support growth		-13,000	
Program increase - dual mode brimstone integration		10,000	
181 FLEET TELECOMMUNICATIONS (TACTICAL)	62,867	42,867	-20,000
Joint aerial layer network growth		-20,000	
184 INTEGRATED SURVEILLANCE SYSTEM	54,218	49,617	-4,601
Program execution		-4,601	
186 GROUND/AIR TASK ORIENTED RADAR	80,129	61,532	-18,597
Test and evaluation delays		-18,597	
190 HARM IMPROVEMENT	52,708	34,708	-18,000
AARGM extended range program growth		-18,000	

R-1		Budget Request	Committee Recommended	Change from Request
194	AVIATION IMPROVEMENTS	117,759	105,759	-12,000
	F-135 program growth		-12,000	
196	MARINE CORPS COMMUNICATIONS SYSTEMS	67,763	62,824	-4,939
	Project 2270 unjustified growth		-2,036	
	Project 2274 unjustified growth		-1,217	
	Project 2275 previously funded		-1,351	
	Project 2276 unjustified growth		-335	
	MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS			
198	ARMS SYSTEMS	56,769	48,653	-8,116
	Project 2086 unjustified request		-1,000	
	Project 2112 unjustified request		-207	
	Project 2315 program delay		-2,718	
	Project 2503 unfunded outyear procurement tail		-2,809	
	Project 2928 excess growth		-1,382	
199	MARINE CORPS COMBAT SERVICES SUPPORT	20,729	19,983	-746
	Project 2509 unjustified growth		-746	
	USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP)			
200	SYSTEMS (MIP)	13,152	12,701	-451
	Project 2272 unjustified growth		-451	
201	AMPHIBIOUS ASSAULT VEHICLE	48,535	45,110	-3,425
	Excess support costs		-3,425	
211	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM	294	0	-294
	Program termination		-294	
219	RQ-4 UAV	227,188	178,710	-48,478
	Program execution		-48,478	
224	RQ-21A	6,435	6,251	-184
	Government engineering support unjustified growth		-184	
9999	CLASSIFIED PROGRAMS	1,252,185	1,220,285	-31,900
	Classified programs		-31,900	

AUTOMATED TEST AND RE-TEST

Although in an early stage, the Navy's Automated Test and Re-test (ATRT) program has performed extremely well. The Committee recommends an additional \$15,000,000 for this program and directs the Secretary of the Navy to expand its use to as many programs as possible to maximize the return on investment. Additionally, the Committee notes with concern the lower than normal funding execution of this program. The ATRT program has vast potential for saving time and funding across the spectrum of Navy acquisition programs. Due to this potential, the Committee is dismayed as to why the Navy is not taking maximum advantage of the program and allowing it to execute at a more rapid pace. The Committee strongly encourages the Secretary of the Navy to allow this program to execute at the fastest rate possible.

HIGHLY INTEGRATED PHOTONICS

The Committee is pleased with the Navy's development of highly integrated photonics technology to transmit and process information in wired and chip-level electronic components. This technology can dramatically reduce platform size, weight, and power requirements, all very attractive features for aircraft acquisition programs. Additionally, overall platform sustainment cost will likely be reduced as a result of using this technology. Although primarily employed on aircraft programs, this technology can be deployed across a wider range of platforms. The Committee encourages the Secretary of the Navy to continue the development of this technology and incorporate it into operational platforms and provides an additional \$15,000,000 to accelerate this effort.

SUBMARINE SONAR DOMES

The Committee understands the important role that a submarine bow dome plays in the success of the mission of nuclear powered submarines. The Committee is extremely supportive of the Navy's original plan to acquire the bow domes for the Ohio Class replacement program. This plan called for the development of domes fabricated from two different composite material systems. The Committee believed that this plan would reduce program risk while at the same time ensure competition to reduce the program's acquisition cost, an extremely important factor for a program whose potential cost was described by a former Secretary of Defense as "being capable to suck the life from the Navy's shipbuilding budget". Considering the many benefits of this plan, the Committee is confused as to why the Navy prematurely down-selected to a single material system last year. The selection was made before either system was fully qualified by the design yard for the Ohio replacement program. The Committee assumes that a cost benefit analysis was conducted and provided a convincing case for the early selection. Therefore, the Committee directs the Secretary of the Navy to provide the congressional defense committees the cost benefit analysis that led to the early selection of a single material system for the bow dome not later than 30 days after the enactment of this Act. If a cost benefit analysis was not conducted, the Committee directs the Secretary of the Navy to conduct a cost benefit analysis

and provide the results to the congressional defense committees not later than January 31, 2016.

SHIPBOARD WATER PURIFICATION

The Navy's legacy shipboard water purification systems use bromine as an anti-microbial agent, and while it is effective as an anti-microbial agent, it is toxic and requires hazardous material handling which can be time consuming and expensive. While the Navy has placed bromine-free water purification systems on most of the large deck surface ship classes, it has not yet removed bromine systems from the cruiser, destroyer, and frigate fleets. The Committee supports the Navy's efforts to remove bromine systems from the fleet and encourages the Secretary of the Navy to continue to explore alternate water purification systems technologies.

ENERGETICS RESEARCH

The Committee recognizes the potential value of advanced energetics capabilities and encourages the Secretary of the Navy to develop these capabilities for undersea weapons. The Committee also encourages the Secretary of the Navy to develop a database of global energetics materials activities as they apply to undersea warfare.

AIR MANIFOLD TEST FACILITY

The Committee understands that the Navy lacks an east coast test, production, and qualification facility for the highly specialized air manifolds used in the systems on nuclear powered submarines. These air manifolds and valves are critical in maintaining the acoustic advantage over adversaries. The submarine construction yards are located on the east coast, while the majority of air manifold testing is accomplished on the west coast. When items require testing they must be shipped to the west coast for testing and then returned to the east coast for installation in a ship system. This practice is cumbersome, expensive, and time consuming. The Committee believes that there is a better way to complete testing and certification. Therefore, the Committee directs the Secretary of the Navy to conduct a study to determine if the creation of an east coast test facility would be beneficial to the Navy's shipbuilding programs. The study should include, at a minimum, a cost benefit analysis of establishing an east coast facility and possible locations for the facility that are central to the submarine construction yards. The Secretary is directed to submit a report detailing the results of this study to the congressional defense committees not later than 90 days after the enactment of this Act.

TACTICAL COMBAT TRAINING SYSTEMS

The Committee supports the continuation of joint Air Force and Navy development of near-term encrypted air combat maneuvering instrumentation for tactical combat training systems. The Committee believes that a joint effort would reduce cost, address encryption vulnerabilities, add capability, and ensure all combat aircraft are interoperable with the existing architecture. The Committee encourages the Secretary of the Navy to ensure future in-

strumentation development is based on a comprehensive analysis of alternatives that considers both cost and interoperability with legacy and future combat aircraft.

TORPEDO TEST CRAFT

The development of effective and reliable torpedo systems is important to the Navy’s undersea warfare mission. Yard Test Torpedo (YTT) craft play an important role in torpedo development and underwater range maintenance. The Committee is aware that the Navy’s YTT craft have exceeded their expected service lives and encourages the Secretary of the Navy to conduct a service life extension program for these craft to minimize the impact on torpedo development and underwater range operations. Additionally, the Committee encourages the Secretary of the Navy to develop a plan for the eventual replacement of these craft.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE

Fiscal year 2015 appropriation	\$23,643,983,000
Fiscal year 2016 budget request	26,473,669,000
Committee recommendation	23,163,152,000
Change from budget request	-3,310,517,000

The Committee recommends an appropriation of \$23,163,152,000 for Research, Development, Test and Evaluation, Air Force which will provide the following program in fiscal year 2016:

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE				
BASIC RESEARCH				
1	DEFENSE RESEARCH SCIENCES.....	329,721	329,721	---
2	UNIVERSITY RESEARCH INITIATIVES.....	141,754	141,754	---
3	HIGH ENERGY LASER RESEARCH INITIATIVES.....	13,778	13,778	---
	TOTAL, BASIC RESEARCH.....	485,253	485,253	---
APPLIED RESEARCH				
4	MATERIALS.....	125,234	125,234	---
5	AEROSPACE VEHICLE TECHNOLOGIES.....	123,438	123,438	---
6	HUMAN EFFECTIVENESS APPLIED RESEARCH.....	100,530	110,530	+10,000
7	AEROSPACE PROPULSION.....	182,326	182,326	---
8	AEROSPACE SENSORS.....	147,291	152,291	+5,000
9	SPACE TECHNOLOGY.....	116,122	109,122	-7,000
10	CONVENTIONAL MUNITIONS.....	99,851	99,851	---
11	DIRECTED ENERGY TECHNOLOGY.....	115,604	115,604	---
12	DOMINANT INFORMATION SCIENCES AND METHODS.....	164,909	164,909	---
13	HIGH ENERGY LASER RESEARCH.....	42,037	42,037	---
	TOTAL, APPLIED RESEARCH.....	1,217,342	1,225,342	+8,000
ADVANCED TECHNOLOGY DEVELOPMENT				
14	ADVANCED MATERIALS FOR WEAPON SYSTEMS.....	37,665	45,665	+8,000
15	SUSTAINMENT SCIENCE AND TECHNOLOGY (S&T).....	18,378	18,378	---
16	ADVANCED AEROSPACE SENSORS.....	42,183	42,183	---
17	AEROSPACE TECHNOLOGY DEV/DEMO.....	100,733	100,733	---
18	AEROSPACE PROPULSION AND POWER TECHNOLOGY.....	168,821	168,821	---
19	ELECTRONIC COMBAT TECHNOLOGY.....	47,032	47,032	---
20	ADVANCED SPACECRAFT TECHNOLOGY.....	54,897	54,897	---
21	MAUI SPACE SURVEILLANCE SYSTEM (MSSS).....	12,853	12,853	---
22	HUMAN EFFECTIVENESS ADVANCED TECHNOLOGY DEVELOPMENT.....	25,448	25,448	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
23 CONVENTIONAL WEAPONS TECHNOLOGY.....	48,536	48,536	---
24 ADVANCED WEAPONS TECHNOLOGY.....	30,195	30,195	---
25 MANUFACTURING TECHNOLOGY PROGRAM.....	42,630	52,630	+10,000
26 BATTLESPACE KNOWLEDGE DEVELOPMENT & DEMONSTRATION.....	46,414	46,414	---
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	675,785	693,785	+18,000
ADVANCED COMPONENT DEVELOPMENT			
27 INTELLIGENCE ADVANCED DEVELOPMENT.....	5,032	5,032	---
29 SPACE CONTROL TECHNOLOGY.....	4,070	4,070	---
30 COMBAT IDENTIFICATION TECHNOLOGY.....	21,790	21,790	---
31 NATO RESEARCH AND DEVELOPMENT.....	4,736	4,736	---
INTERNATIONAL SPACE COOPERATIVE R&D.....	---	---	---
33 SPACE PROTECTION PROGRAM (SPP).....	30,771	30,771	---
34 INTERCONTINENTAL BALLISTIC MISSILE.....	39,765	39,765	---
36 LONG RANGE STRIKE.....	1,246,228	786,228	-460,000
37 TECHNOLOGY TRANSFER.....	3,512	3,512	---
38 HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM.....	54,637	---	-54,637
40 WEATHER SATELLITE FOLLOW-ON.....	76,108	56,108	-20,000
44 OPERATIONALLY RESPONSIVE SPACE.....	6,457	6,457	---
45 TECH TRANSITION PROGRAM.....	246,514	226,514	-20,000
46 GROUND BASED STRATEGIC DETERRENT.....	75,166	75,166	---
49 NEXT GENERATION AIR DOMINANCE.....	8,830	8,830	---
50 THREE DIMENSIONAL LONG-RANGE RADAR.....	14,939	14,939	---
51 NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT).....	142,288	142,288	---
52 CYBER OPERATIONS TECHNOLOGY DEVELOPMENT.....	81,732	81,732	---
TOTAL, ADVANCED COMPONENT DEVELOPMENT.....	2,062,575	1,507,938	-554,637

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
ENGINEERING & MANUFACTURING DEVELOPMENT			
55 ELECTRONIC WARFARE DEVELOPMENT.....	929	929	---
56 TACTICAL DATA NETWORKS ENTERPRISE.....	60,256	60,256	---
57 PHYSICAL SECURITY EQUIPMENT.....	5,973	5,973	---
58 SMALL DIAMETER BOMB (SDB).....	32,624	17,224	-15,400
59 COUNTERSPACE SYSTEMS.....	24,208	24,208	---
60 SPACE SITUATION AWARENESS SYSTEMS.....	32,374	29,374	-3,000
61 SPACE FENCE.....	243,909	238,909	-5,000
62 AIRBORNE ELECTRONIC ATTACK.....	8,358	8,358	---
63 SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD.....	292,235	---	-292,235
64 ARMAMENT/ORDNANCE DEVELOPMENT.....	40,154	37,654	-2,500
65 SUBMUNITIONS.....	2,506	2,506	---
66 AGILE COMBAT SUPPORT.....	57,678	57,678	---
67 LIFE SUPPORT SYSTEMS.....	8,187	8,187	---
68 COMBAT TRAINING RANGES.....	15,795	15,795	---
69 F-35 - EMD.....	589,441	589,441	---
71 EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE).....	84,438	84,438	---
72 LONG RANGE STANDOFF WEAPON.....	36,643	27,483	-9,160
73 ICBM FUZE MODERNIZATION.....	142,551	142,551	---
74 F-22 MODERNIZATION INCREMENT 3.2B.....	140,640	140,640	---
75 GROUND ATTACK WEAPONS FUZE DEVELOPMENT.....	3,598	3,598	---
76 NEXT GENERATION AERIAL REFUELING AIRCRAFT KC-46.....	602,364	327,364	-275,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
77 ADVANCED PILOT TRAINING.....	11,395	10,395	-1,000
78 CSAR HH-60 RECAPITALIZATION.....	156,085	156,085	---
80 ADVANCED EHF MILSATCOM (SPACE).....	228,230	88,230	-140,000
81 POLAR MILSATCOM (SPACE).....	72,084	72,084	---
82 WIDEBAND GLOBAL SATCOM (SPACE).....	56,343	52,343	-4,000
83 AIR AND SPACE OPS CENTER 10.2.....	47,629	47,629	---
84 B-2 DEFENSIVE MANAGEMENT SYSTEM.....	271,961	227,661	-44,300
85 NUCLEAR WEAPONS MODERNIZATION.....	212,121	212,121	---
86 F-15 EPAWSS.....	186,481	180,681	-5,800
87 FULL COMBAT MISSION TRAINING.....	18,082	18,082	---
88 COMBAT SURVIVOR EVADER LOCATOR.....	993	993	---
89 NEXTGEN JSTARS.....	44,343	44,343	---
91 PRESIDENTIAL AIRCRAFT REPLACEMENT.....	102,620	58,720	-43,900
92 AUTOMATED TEST SYSTEMS.....	14,563	14,563	---
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	3,847,791	3,006,496	-841,295

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

RD&E MANAGEMENT SUPPORT			
93 THREAT SIMULATOR DEVELOPMENT.....	23,844	23,844	---
94 MAJOR T&E INVESTMENT.....	68,302	73,302	+5,000
95 RAND PROJECT AIR FORCE.....	34,918	34,918	---
97 INITIAL OPERATIONAL TEST & EVALUATION.....	10,476	10,476	---
98 TEST AND EVALUATION SUPPORT.....	673,908	683,308	+9,400
99 ROCKET SYSTEMS LAUNCH PROGRAM (SPACE).....	21,858	21,858	---
100 SPACE TEST PROGRAM (STP).....	28,228	28,228	---
101 FACILITIES RESTORATION & MODERNIZATION - TEST & EVAL.....	40,518	40,518	---
102 FACILITIES SUSTAINMENT - TEST AND EVALUATION SUPPORT.....	27,895	27,895	---
103 REQUIREMENTS ANALYSIS AND MATURATION.....	16,507	16,507	---
104 SPACE TEST AND TRAINING RANGE DEVELOPMENT.....	18,997	18,997	---
106 SPACE AND MISSILE CENTER (SMC) CIVILIAN WORKFORCE.....	185,305	176,727	-8,578
107 ENTERPRISE INFORMATION SERVICES (EIS).....	4,841	4,841	---
108 ACQUISITION AND MANAGEMENT SUPPORT.....	15,357	15,357	---
109 GENERAL SKILL TRAINING.....	1,315	1,315	---
111 INTERNATIONAL ACTIVITIES.....	2,315	2,315	---

TOTAL, RD&E MANAGEMENT SUPPORT.....	1,174,584	1,180,406	+5,822

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
OPERATIONAL SYSTEMS DEVELOPMENT			
112 GPS III - OPERATIONAL CONTROL SEGMENT.....	350,232	350,232	---
113 SPECIALIZED UNDERGRADUATE FLIGHT TRAINING.....	10,465	10,465	---
114 WIDE AREA SURVEILLANCE.....	24,577	22,577	-2,000
117 AIR FORCE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM....	69,694	39,694	-30,000
118 ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY.....	26,718	26,718	---
119 HC/MC-130 RECAP RDT&E.....	10,807	10,807	---
121 B-52 SQUADRONS.....	74,520	74,520	---
122 AIR-LAUNCHED CRUISE MISSILE (ALCM).....	451	451	---
123 B-1B SQUADRONS.....	2,245	2,245	---
124 B-2 SQUADRONS.....	108,183	108,183	---
125 MINUTEMAN SQUADRONS.....	178,929	178,929	---
126 STRAT WAR PLANNING SYSTEM - USSTRATCOM.....	28,481	28,481	---
127 NIGHT FIST - USSTRATCOM.....	87	87	---
128 WORLDWIDE JOINT STRATEGIC COMMUNICATIONS.....	5,315	5,315	---
131 SERVICE SUPPORT TO STRATCOM - SPACE ACTIVITIES.....	8,090	8,090	---
132 MQ-9 UAV.....	123,439	123,439	---
135 F-16 SQUADRONS.....	148,297	176,297	+28,000
136 F-15E SQUADRONS.....	179,283	173,632	-5,651
137 MANNED DESTRUCTIVE SUPPRESSION.....	14,860	14,860	---
138 F-22 SQUADRONS.....	262,552	262,552	---
139 F-35 SQUADRONS.....	115,395	53,921	-61,474
140 TACTICAL AIM MISSILES.....	43,360	43,360	---
141 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM).....	46,160	46,160	---
143 COMBAT RESCUE AND RECOVERY.....	412	412	---
144 COMBAT RESCUE - PARARESCUE.....	657	657	---
145 AF TENCAP.....	31,428	31,428	---
146 PRECISION ATTACK SYSTEMS PROCUREMENT.....	1,105	1,105	---
147 COMPASS CALL.....	14,249	14,249	---
148 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM.....	103,942	103,942	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
149 JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM).....	12,793	12,793	---
150 AIR AND SPACE OPERATIONS CENTER (AOC).....	21,193	21,193	---
151 CONTROL AND REPORTING CENTER (CRC).....	559	559	---
152 AIRBORNE WARNING AND CONTROL SYSTEM (AWACS).....	161,812	161,812	---
153 TACTICAL AIRBORNE CONTROL SYSTEMS.....	6,001	6,001	---
155 COMBAT AIR INTELLIGENCE SYSTEM ACTIVITIES.....	7,793	7,793	---
156 TACTICAL AIR CONTROL PARTY--MOD.....	12,465	12,465	---
157 C2ISR TACTICAL DATA LINK.....	1,681	1,681	---
159 DCAPEs.....	16,796	16,796	---
161 SEEK EAGLE.....	21,564	21,564	---
162 USAF MODELING AND SIMULATION.....	24,994	24,994	---
163 WARGAMING AND SIMULATION CENTERS.....	6,035	6,035	---
164 DISTRIBUTED TRAINING AND EXERCISES.....	4,358	4,358	---
165 MISSION PLANNING SYSTEMS.....	55,835	55,835	---
167 AF OFFENSIVE CYBERSPACE OPERATIONS.....	12,874	12,874	---
168 AF DEFENSIVE CYBERSPACE OPERATIONS.....	7,681	7,681	---
171 GLOBAL SENSOR INTEGRATED ON NETWORK (GSIN).....	5,974	5,974	---
177 SPACE SUPERIORITY INTELLIGENCE.....	13,815	10,815	-3,000
178 E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC).....	80,360	80,360	---
179 FAMILY OF ADVANCED BLoS TERMINALS (FAB-T).....	3,907	3,907	---
180 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK.....	75,062	75,062	---
181 INFORMATION SYSTEMS SECURITY PROGRAM.....	46,599	46,599	---
183 GLOBAL COMBAT SUPPORT SYSTEM.....	2,470	2,470	---
186 AIRBORNE SIGINT ENTERPRISE.....	112,775	112,775	---
189 GLOBAL AIR TRAFFIC MANAGEMENT (GATM).....	4,235	4,235	---
192 SATELLITE CONTROL NETWORK (SPACE).....	7,879	7,879	---
193 WEATHER SERVICE.....	29,955	29,955	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
194 AIR TRAFFIC CONTROL, APPROACH, & LANDING SYSTEM (ATC)...	21,485	21,485	---
195 AERIAL TARGETS.....	2,515	2,515	---
198 SECURITY AND INVESTIGATIVE ACTIVITIES.....	472	472	---
199 ARMS CONTROL IMPLEMENTATION.....	12,137	12,137	---
200 DEFENSE JOINT COUNTERINTELLIGENCE ACTIVITIES.....	361	361	---
203 SPACE AND MISSILE TEST AND EVALUATION CENTER.....	3,162	3,162	---
204 SPACE INNOVATION, INTEGRATION AND RAPID TECHNOLOGY DEVELOPMENT.....	1,543	1,543	---
205 INTEGRATED BROADCAST SERVICE.....	7,860	7,860	---
206 SPACELIFT RANGE SYSTEM (SPACE).....	6,902	6,902	---
207 DRAGON U-2.....	34,471	---	-34,471
209 AIRBORNE RECONNAISSANCE SYSTEMS.....	50,154	60,154	+10,000
210 MANNED RECONNAISSANCE SYSTEMS.....	13,245	13,245	---
211 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	22,784	22,784	---
212 PREDATOR UAV (JMIP).....	716	---	-716
213 RQ-4 UAV.....	208,053	111,453	-96,600
214 NETWORK-CENTRIC COLLABORATIVE TARGET (TIARA).....	21,587	21,587	---
215 COMMON DATA LINK (CDL).....	43,986	43,986	---
216 NATO AGS.....	197,486	138,400	-59,086
217 SUPPORT TO DCGS ENTERPRISE.....	28,434	28,434	---
218 GPS III SPACE SEGMENT.....	180,902	180,902	---
220 JSPOC MISSION SYSTEM.....	81,911	81,911	---
221 RAPID CYBER ACQUISITION.....	3,149	3,149	---
222 NUDET DETECTION SYSTEM (SPACE).....	14,447	14,447	---
223 SPACE SITUATION AWARENESS OPERATIONS.....	20,077	20,077	---
225 SHARED EARLY WARNING (SEW).....	853	853	---
226 C-130 AIRLIFT SQUADRON.....	33,962	33,962	---
227 C-5 AIRLIFT SQUADRONS.....	42,864	37,864	-5,000
228 C-17 AIRCRAFT.....	54,807	54,807	---
229 C-130J PROGRAM.....	31,010	31,010	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
230 LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM).....	6,802	6,802	---
231 KC-10S.....	1,799	1,799	---
232 OPERATIONAL SUPPORT AIRLIFT.....	48,453	48,453	---
233 CV-22.....	36,576	36,576	---
235 SPECIAL TACTICS / COMBAT CONTROL.....	7,963	7,963	---
236 DEPOT MAINTENANCE (NON-IF).....	1,525	1,525	---
237 LOGISTICS INFORMATION TECHNOLOGY (LOGIT).....	112,676	80,576	-32,100
238 SUPPORT SYSTEMS DEVELOPMENT.....	12,657	12,657	---
239 OTHER FLIGHT TRAINING.....	1,836	1,836	---
240 OTHER PERSONNEL ACTIVITIES.....	121	121	---
241 JOINT PERSONNEL RECOVERY AGENCY.....	5,911	5,911	---
242 CIVILIAN COMPENSATION PROGRAM.....	3,604	3,604	---
243 PERSONNEL ADMINISTRATION.....	4,598	4,598	---
244 AIR FORCE STUDIES AND ANALYSIS AGENCY.....	1,103	1,103	---
246 FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT....	101,840	101,840	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	4,230,197	3,938,099	-292,098
9999 CLASSIFIED PROGRAMS.....	12,780,142	11,125,833	-1,654,309
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE..	26,473,669	23,163,152	-3,310,517

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	100,530	110,530 10,000	10,000
8 AEROSPACE SENSORS Program increase	147,291	152,291 5,000	5,000
9 SPACE TECHNOLOGY Excess to need	116,122	109,122 -7,000	-7,000
14 ADVANCED MATERIALS FOR WEAPON SYSTEMS Program increase	37,665	45,665 8,000	8,000
25 MANUFACTURING TECHNOLOGY PROGRAM Program increase	42,630	52,630 10,000	10,000
36 LONG RANGE STRIKE Rephase funds to current schedule	1,246,228	786,228 -460,000	-460,000
38 HDBTDS Transfer to title IX	54,637	0 -54,637	-54,637
40 WEATHER SYSTEM FOLLOW-ON Ahead of need	76,108	56,108 -20,000	-20,000
45 TECH TRANSITION PROGRAM AETP program changes/delays	246,514	226,514 -20,000	-20,000
58 SMALL DIAMETER BOMB EMD funds excess to need	32,624	17,224 -15,400	-15,400
60 SPACE SITUATION AWARENESS SYSTEMS Excess to need	32,374	29,374 -3,000	-3,000
61 SPACE FENCE Unjustified increase	243,909	238,909 -5,000	-5,000
63 SBIRS HIGH SMI WFOV Transfer to title IX for enduring CT requirements	292,235	0 -51,000 -241,235	-292,235
64 ARMAMENT/ORDNANCE DEVELOPMENT Slow execution	40,154	37,654 -2,500	-2,500
72 LONG RANGE STANDOFF WEAPON Rephase funds for execution delays	36,643	27,483 -9,160	-9,160
76 KC-46 EMD funds excess to need	602,364	327,364 -275,000	-275,000
77 ADVANCED PILOT TRAINING T-X restrain growth in S&A and A&AS	11,395	10,395 -1,000	-1,000
80 ADVANCED EHF MILSATCOM (SPACE) SMI reduction	228,230	88,230 -140,000	-140,000
82 WIDEBAND GLOBAL SATCOM (SPACE) Excess to need	56,343	52,343 -4,000	-4,000

R-1		Budget Request	Committee Recommended	Change from Request
84	B-2 DEFENSIVE MANAGEMENT SYSTEM Reduce funding growth pending updated service cost position	271,961	227,661 -44,300	-44,300
86	F-15 EPAWSS Fund to current program office estimate pending updated service cost position	186,481	180,681 -5,800	-5,800
91	PRESIDENTIAL AIRCRAFT REPLACEMENT Defer commercial aircraft buy to fiscal year 2017	102,620	58,720 -43,900	-43,900
94	MAJOR T&E INVESTMENT Airborne sensor data correlation	68,302	73,302 5,000	5,000
98	TEST AND EVALUATION SUPPORT Projected shortfall	673,908	683,308 9,400	9,400
106	SPACE AND MISSILE CENTER CIVILIAN WORKFORCE Unjustified increase	185,305	176,727 -8,578	-8,578
114	WIDE AREA SURVEILLANCE Funds excess to need	24,577	22,577 -2,000	-2,000
117	AF-IPPS Funds excess to need	69,694	39,694 -30,000	-30,000
135	F-16 SQUADRONS OFP M8+ early to need AESA radar integration for the Air National Guard	148,297	176,297 -22,000 50,000	28,000
136	F-15E SQUADRONS IRST lack of clear plan, schedule, or cost estimate Air Force requested transfer from AP,AF line 22 for MIDS JTRS	179,283	173,632 -18,447 12,796	-5,651
139	F-35 SQUADRONS Restrain growth in Follow on Development	115,395	53,921 -61,474	-61,474
177	SPACE SUPERIORITY INTELLIGENCE Insufficient justification	13,815	10,815 -3,000	-3,000
207	U-2 Transfer to title IX	34,471	0 -34,471	-34,471
209	AIRBORNE RECONNAISSANCE SYSTEMS Wide area surveillance	50,154	60,154 10,000	10,000
212	MQ-1 Transfer to title IX	716	0 -716	-716
213	RQ-4 Program delays Payloads transfer to title IX Enhanced weather capability transfer to title IX	208,053	111,453 -10,000 -56,900 -30,700	-96,600
216	NATO AGS Air Force requested transfer to AP,AF line 79 for NATO AEW&C	197,486	138,400 -59,086	-59,086
227	C-5 AIRLIFT SQUADRONS Execution adjustment	42,864	37,864 -5,000	-5,000

R-1	Budget Request	Committee Recommended	Change from Request
237 LOGIT	112,676	80,576	-32,100
Prioritize FIAR projects		-32,100	
999 CLASSIFIED PROGRAMS	12,780,142	11,125,833	-1,654,309
Classified adjustment		-1,654,309	

LONG RANGE STRIKE-BOMBER

The Committee recommends \$786,228,000 for the Long Range Strike-Bomber program, a reduction of \$460,000,000 from the request. The reduction from the request aligns funds with the program's current schedule.

PRESIDENTIAL AIRCRAFT REPLACEMENT

The Committee recommends \$58,720,000 for the Presidential Aircraft Replacement program, a reduction of \$43,900,000 from the request. The Committee defers funding for initiating procurement of a commercial aircraft until the design for the aircraft's mission systems, which constitute a majority of the program's projected cost, benefits from further risk reduction activities, and the Air Force finalizes an acquisition strategy.

ENGINE COMPONENT IMPROVEMENT PROGRAM

The fiscal year 2016 budget request includes \$177,048,000 for F135 engine system development and demonstration (SDD) under the F-35 Joint Strike Fighter program and \$14,800,000 for the F135 element of the Engine Component Improvement Program (CIP). The Committee recommends full funding for both requests, but the concurrency of the two programs makes it necessary to clearly delineate the tasks to be properly accomplished under both SDD and CIP. The Committee understands that the Air Force has established a process to ensure that future engine tasks are prioritized and assigned to meet the respective requirements of the Air Force and the F-35 program. The Committee directs that none of the funds provided in this Act for F135 engine CIP be obligated until 15 days after the Secretary of the Air Force submits a report to the congressional defense committees describing the outcome of this process and the tasks to be accomplished on the F135 engine using CIP funds.

C-130 AVIONICS MODERNIZATION

The Department of Defense Appropriations Act, 2015 provided the Air Force with the flexibility to use funds previously appropriated for the C-130 Avionics Modernization Program to pursue a more limited scope program intended to satisfy safety and airspace access requirements for legacy C-130H aircraft. The Committee continues to support a phased approach that prioritizes these more immediate operability concerns while retaining options for further avionics modernization and intends that the \$33,962,000 provided in the Committee's recommendation be used in accordance with this approach.

HUMAN EFFECTIVENESS APPLIED RESEARCH

The Committee notes that unmanned aerial systems continue to rely heavily on human operators and supports ongoing research to develop a more seamless human-machine environment. The Committee understands that the Air Force is researching how to measure, accelerate, and expand the cognitive skills necessary to improve airmen training and mission performance, as well as how to evaluate human dynamics to advance machine intelligence and op-

erator-aiding technologies for advanced intelligence, surveillance, and reconnaissance capabilities. The Committee encourages the Secretary of the Air Force to continue these research efforts.

SPACE MODERNIZATION INITIATIVE

The Committee is concerned that the Air Force is using Space Modernization Initiative (SMI) funding to begin and sustain new development programs. The Committee believes that SMI funding should be used to make evolutionary upgrades to existing programs to enhance mission effectiveness and avoid parts obsolescence. Over the last few years, the Air Force has attempted to begin next generation technologies using SMI funds within the Advanced Extremely High Frequency (AEHF) and the Space Based Infrared (SBIRS) satellite programs.

The Committee can find no analyses of alternatives or fully vetted operational requirements documents that support the initiation of these efforts. The Government Accountability Office has found that these efforts are limited by lack of direction, are focused on isolated technologies, and are not set up to identify insertion points for a desired future system.

The Committee is skeptical of the operational impacts, potential program risks, and cost of these new efforts. Before investing in this architectural approach, the Committee recommends that the Joint Requirements Oversight Council assesses the operational impacts and approves the requirements; the Secretary of the Air Force completes an analysis of alternatives, and the Director of Cost Assessment and Program Evaluation certifies that the new program is cost effective. Until these actions have been completed, funding for these efforts is premature. Therefore, the Committee reduces the fiscal year 2016 request for AEHF SMI by \$140,000,000 and SBIRS SMI by \$51,000,000.

NEXT GENERATION JSTARS

The House report accompanying the Department of Defense Appropriations Act, 2015 encouraged the Secretary of the Air Force to adopt an acquisition strategy for the next generation JSTARS system that would minimize development cost and schedule and field new aircraft ahead of the first planned delivery date of 2019. The Committee believes development and procurement of a single integrated system would significantly reduce development costs and provide a solution consistent with the conclusions of the Air Force's mission area analysis of alternatives. The Committee notes that the fiscal year 2016 budget request delays the initial operating capability for the next generation system by 21 months as a consequence of the Air Force's decision to extend the technology maturation and risk reduction phase. The Committee recognizes the need to reduce technological risk, but is also concerned by the growth in the program's schedule in light of the increasing costs and capability risks associated with the legacy JSTARS system. The Committee believes that finalizing and adhering to a stable set of requirements will support an accelerated and more cost effective acquisition strategy for the next generation system and is critical to ensuring competition and accountability in the program. Therefore, the Committee directs the Secretary of the Air Force to brief

the congressional defense committees on the updated status of the next generation JSTARS program not later than 90 days following formal milestone A approval for the program. The briefing shall include an update on requirements definition, a technological risk analysis and the strategy to reduce such risk, an update on the acquisition strategy for all phases of the program, and any options for accelerating the program's schedule relative to the plan included with the fiscal year 2016 budget request.

**RESEARCH, DEVELOPMENT, TEST AND EVALUATION,
DEFENSE-WIDE**

Fiscal year 2015 appropriation	\$17,225,889,000
Fiscal year 2016 budget request	18,329,861,000
Committee recommendation	18,207,171,000
Change from budget request	- 122,690,000

The Committee recommends an appropriation of \$18,207,171,000 for Research, Development, Test and Evaluation, Defense-Wide which will provide the following program in fiscal year 2016:

(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....	38,436	38,436	---
2	DEFENSE RESEARCH SCIENCES.....	333,119	333,119	---
3	BASIC RESEARCH INITIATIVES.....	42,022	42,022	---
4	BASIC OPERATIONAL MEDICAL RESEARCH SCIENCE.....	56,544	56,544	---
5	NATIONAL DEFENSE EDUCATION PROGRAM.....	49,453	49,453	---
6	HISTORICALLY BLACK COLLEGES & UNIV (HBCU).....	25,834	35,834	+10,000
7	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	46,261	47,761	+1,500
	TOTAL, BASIC RESEARCH.....	591,669	603,169	+11,500
APPLIED RESEARCH				
8	JOINT MUNITIONS TECHNOLOGY.....	19,352	19,352	---
9	BIOMEDICAL TECHNOLOGY.....	114,262	114,262	---
10	LINCOLN LABORATORY RESEARCH PROGRAM.....	51,026	51,026	---
11	APPLIED RESEARCH FOR ADVANCEMENT S&T PRIORITIES.....	48,226	48,226	---
12	INFORMATION AND COMMUNICATIONS TECHNOLOGY.....	356,358	356,358	---
14	BIOLOGICAL WARFARE DEFENSE.....	29,265	29,265	---
15	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	208,111	208,111	---
16	CYBER SECURITY RESEARCH.....	13,727	13,727	---
18	TACTICAL TECHNOLOGY.....	314,582	314,582	---
19	MATERIALS AND BIOLOGICAL TECHNOLOGY.....	220,115	220,115	---
20	ELECTRONICS TECHNOLOGY.....	174,798	174,798	---
21	WEAPONS OF MASS DESTRUCTION DEFEAT TECHNOLOGIES.....	155,415	155,415	---
22	SOFTWARE ENGINEERING INSTITUTE.....	8,824	8,824	---
23	SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT.....	37,517	37,517	---
	TOTAL, APPLIED RESEARCH.....	1,751,578	1,751,578	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST	
24	ADVANCED TECHNOLOGY DEVELOPMENT JOINT MUNITIONS ADVANCED TECH INSENSITIVE MUNITIONS AD..	25,915	25,915	---
26	COMBATING TERRORISM TECHNOLOGY SUPPORT.....	71,171	78,671	+7,500
27	FOREIGN COMPARATIVE TESTING.....	21,782	24,782	+3,000
28	COUNTERPROLIFERATION INITIATIVES--PROLIF PREV & DEFEAT..	290,654	290,654	---
30	ADVANCED CONCEPTS AND PERFORMANCE ASSESSMENT.....	12,139	12,139	---
31	DISCRIMINATION SENSOR TECHNOLOGY.....	28,200	28,200	---
32	WEAPONS TECHNOLOGY.....	45,389	2,131	-43,258
33	ADVANCED C4ISR.....	9,876	9,876	---
34	ADVANCED RESEARCH.....	17,364	17,364	---
35	JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT.....	18,802	18,802	---
36	AGILE TRANSPO FOR THE 21ST CENTURY (AT21) - THEATER CA..	2,679	2,679	---
37	SPECIAL PROGRAM--MDA TECHNOLOGY.....	64,708	51,458	-13,250
38	ADVANCED AEROSPACE SYSTEMS.....	185,043	185,043	---
39	SPACE PROGRAMS AND TECHNOLOGY.....	126,692	126,692	---
40	ANALYTIC ASSESSMENTS.....	14,645	14,645	---
41	ADVANCED INNOVATIVE ANALYSIS AND CONCEPTS.....	59,830	49,830	-10,000
42	COMMON KILL VEHICLE TECHNOLOGY.....	46,753	41,753	-5,000
43	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - ADVANCED DEV..	140,094	140,094	---
44	RETRACT LARCH.....	118,666	78,666	-40,000
45	JOINT ELECTRONIC ADVANCED TECHNOLOGY.....	43,966	30,466	-13,500
46	JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS.....	141,540	129,540	-12,000
47	NETWORKED COMMUNICATIONS CAPABILITIES.....	6,980	6,980	---
50	DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROG..	157,056	142,056	-15,000
51	EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT.....	33,515	41,015	+7,500
52	GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS.....	16,543	16,543	---
53	DEPLOYMENT AND DISTRIBUTION ENTERPRISE TECHNOLOGY.....	29,888	29,888	---
54	STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM.....	65,836	55,836	-10,000
55	MICROELECTRONIC TECHNOLOGY DEVELOPMENT AND SUPPORT.....	79,037	89,037	+10,000

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
56 JOINT WARFIGHTING PROGRAM.....	9,626	7,126	-2,500
57 ADVANCED ELECTRONICS TECHNOLOGIES.....	79,021	79,021	---
58 COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS.....	201,335	201,335	---
DEFENSE RAPID INNOVATION PROGRAM.....	---	250,000	+250,000
59 NETWORK-CENTRIC WARFARE TECHNOLOGY.....	452,861	452,861	---
60 SENSOR TECHNOLOGY.....	257,127	257,127	---
61 DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT.....	10,771	10,771	---
62 SOFTWARE ENGINEERING INSTITUTE.....	15,202	15,202	---
63 QUICK REACTION SPECIAL PROJECTS.....	90,500	75,500	-15,000
66 ENGINEERING SCIENCE AND TECHNOLOGY.....	18,377	18,377	---
67 TEST & EVALUATION SCIENCE & TECHNOLOGY.....	82,589	82,589	---
68 OPERATIONAL ENERGY CAPABILITY IMPROVEMENT.....	37,420	37,420	---
69 CWMD SYSTEMS.....	42,488	42,488	---
70 SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT.....	57,741	57,741	---
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	3,229,821	3,328,313	+98,492
DEMONSTRATION & VALIDATION			
71 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT.....	31,710	31,710	---
73 WALKOFF.....	90,567	90,567	---
74 ADVANCE SENSOR APPLICATIONS PROGRAM.....	15,900	15,900	---
75 ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM..	52,758	52,758	---
76 BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT.....	228,021	199,546	-28,475
77 BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT.....	1,284,891	1,270,991	-13,900
77A MULTI-OBJECT KILL VEHICLE.....	---	52,525	+52,525
78 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	172,754	172,754	---
79 BALLISTIC MISSILE DEFENSE SENSORS.....	233,588	228,588	-5,000
80 BALLISTIC MISSILE DEFENSE ENABLING PROGRAMS.....	409,088	403,543	-5,545
80A WEAPONS TECHNOLOGY--HIGH POWER DIRECTED ENERGY.....	---	26,055	+26,055
81 SPECIAL PROGRAMS - MDA.....	400,387	374,137	-26,250
82 AEGIS BMD.....	843,355	822,388	-20,967
83 SPACE SURVEILLANCE & TRACKING SYSTEM.....	31,632	27,605	-4,027
84 BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS.....	23,289	11,217	-12,072
BALLISTIC MISSILE DEFENSE COMMAND AND CONTROL, BATTLE			
85 MANAGEMENT.....	450,085	420,700	-29,385
86 BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT.....	49,570	47,898	-1,672

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
87 BALLISTIC MISSILE DEFENSE INTERGRATION AND OPERATIONS CENTER (MDIOC).....	49,211	47,980	-1,231
88 REGARDING TRENCH.....	9,583	9,583	---
89 SEA BASED X-BAND RADAR (SBX).....	72,866	71,266	-1,600
90 ISRAELI COOPERATIVE PROGRAMS.....	102,795	267,595	+164,800
91 BALLISTIC MISSILE DEFENSE TEST.....	274,323	259,323	-15,000
92 BALLISTIC MISSILE DEFENSE TARGETS.....	513,256	522,256	+9,000
93 HUMANITARIAN DEMINING.....	10,129	10,129	---
94 COALITION WARFARE.....	10,350	10,350	---
95 DEPARTMENT OF DEFENSE CORROSION PROGRAM.....	1,518	6,518	+5,000
96 TECHNOLOGY MATURATION INITIATIVES.....	96,300	49,038	-47,262
97 ADVANCED INNOVATIVE TECHNOLOGIES.....	469,798	469,798	---
98 DOD UNMANNED AIRCRAFT SYSTEM (UAS) COMMON DEVELOPMENT... JOINT C5 CAPABILITY DEVELOPMENT, INTEGRATION AND INTEROPERABILITY.....	3,129	3,129	---
103 LONG RANGE DISCRIMINATION RADAR.....	137,564	137,564	---
106 IMPROVED HOMELAND DEFENSE INTERCEPTORS.....	278,944	217,535	-61,409
107 BMD TERMINAL DEFENSE SEGMENT TEST.....	26,225	26,225	---
108 AEGIS BMD TEST.....	55,148	45,148	-10,000
109 BALLISTIC MISSILE DEFENSE SENSOR TEST.....	86,764	78,337	-8,427
110 LAND-BASED SM-3 (LBSM3).....	34,970	34,970	---
111 AEGIS SM-3 BLOCK IIA CO-DEVELOPMENT.....	172,645	172,645	---
112 BMD MIDCOURSE DEFENSE SEGMENT TEST.....	64,618	64,618	---
114 JOINT ELECTROMAGNETIC TECHNOLOGY (JET) PROGRAM.....	2,660	2,660	---
115 CYBER SECURITY INITIATIVE.....	963	963	---
TOTAL, DEMONSTRATION & VALIDATION.....	6,816,554	6,781,712	-34,842

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST

ENGINEERING & MANUFACTURING DEVELOPMENT			
116 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT.....	8,800	8,800	---
117 PROMPT GLOBAL STRIKE CAPABILITY DEVELOPMENT.....	78,817	78,817	---
118 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	303,647	303,647	---
119 ADVANCED IT SERVICES JOINT PROGRAM OFFICE (AITS-JPO)....	23,424	23,424	---
120 JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)..	14,285	14,285	---
121 WEAPONS OF MASS DESTRUCTION DEFEAT CAPABILITIES.....	7,156	7,156	---
122 INFORMATION TECHNOLOGY DEVELOPMENT.....	12,542	12,542	---
123 HOMELAND PERSONNEL SECURITY INITIATIVE.....	191	191	---
124 DEFENSE EXPORTABILITY PROGRAM.....	3,273	3,273	---
125 OUSD(C) IT DEVELOPMENT INITIATIVES.....	5,962	5,962	---
126 DOD ENTERPRISE SYSTEMS DEVELOPMENT AND DEMONSTRATION....	13,412	13,412	---
127 DCMO POLICY AND INTEGRATION.....	2,223	2,223	---
128 DEFENSE AGENCY INITIATIVES FINANCIAL SYSTEM.....	31,660	31,660	---
129 DEFENSE RETIRED AND ANNUITANT PAY SYSTEM (DRAS).....	13,085	13,085	---
130 DEFENSE-WIDE ELECTRONIC PROCUREMENT CAPABILITY.....	7,209	7,209	---
131 GLOBAL COMBAT SUPPORT SYSTEM.....	15,158	15,158	---
132 DOD ENTERPRISE ENERGY INFORMATION MANAGEMENT (EEIM)....	4,414	4,414	---

TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	545,258	545,258	---
RDT&E MANAGEMENT SUPPORT			
133 DEFENSE READINESS REPORTING SYSTEM (DRRS).....	5,581	5,581	---
134 JOINT SYSTEMS ARCHITECTURE DEVELOPMENT.....	3,081	3,081	---
135 CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT.....	229,125	229,125	---
136 ASSESSMENTS AND EVALUATIONS.....	28,674	21,674	-7,000
138 JOINT MISSION ENVIRONMENT TEST CAPABILITY (JMETC).....	45,235	45,235	---
139 TECHNICAL STUDIES, SUPPORT AND ANALYSIS.....	24,936	24,936	---
141 JOINT INTEGRATED AIR AND MISSILE DEFENSE ORGANIZATION...	35,471	35,471	---
143 CLASSIFIED PROGRAM USD(P).....	---	100,000	+100,000
144 SYSTEMS ENGINEERING.....	37,655	37,655	---
145 STUDIES AND ANALYSIS SUPPORT.....	3,015	3,015	---
146 NUCLEAR MATTERS - PHYSICAL SECURITY.....	5,287	5,287	---
147 SUPPORT TO NETWORKS AND INFORMATION INTEGRATION.....	5,289	5,289	---
148 GENERAL SUPPORT TO USD (INTELLIGENCE).....	2,120	2,120	---
149 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	102,264	102,264	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
158 SMALL BUSINESS INNOVATION RESEARCH/TECHNOLOGY TRANSFER...	2,169	2,169	---
159 DEFENSE TECHNOLOGY ANALYSIS.....	13,960	13,960	---
160 DEFENSE TECHNICAL INFORMATION CENTER (DTIC).....	51,775	51,775	---
161 R&D IN SUPPORT OF DOD ENLISTMENT, TESTING & EVALUATION...	9,533	9,533	---
162 DEVELOPMENT TEST AND EVALUATION.....	17,371	21,371	+4,000
163 MANAGEMENT HEADQUARTERS (RESEARCH & DEVELOPMENT).....	71,571	71,571	---
164 BUDGET AND PROGRAM ASSESSMENTS.....	4,123	4,123	---
165 OPERATIONS SECURITY (DPSEC).....	1,946	1,946	---
166 JOINT STAFF ANALYTICAL SUPPORT.....	7,673	7,673	---
169 SUPPORT TO INFORMATION OPERATIONS (IO) CAPABILITIES.....	10,413	10,413	---
170 DEFENSE MILITARY DECEPTION PROGRAM OFFICE.....	971	971	---
171 CYBER INTELLIGENCE.....	6,579	6,579	---
174 COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION...	43,811	39,811	-4,000
175 MANAGEMENT HEADQUARTERS - MDA.....	35,871	35,871	---
176 MANAGEMENT HEADQUARTERS - WHS.....	1,072	1,072	---
9999 CLASSIFIED PROGRAMS.....	49,500	49,500	---
TOTAL, RDT&E MANAGEMENT SUPPORT.....	856,071	949,071	+93,000
OPERATIONAL SYSTEMS DEVELOPMENT			
178 ENTERPRISE SECURITY SYSTEM (ESS).....	7,929	7,929	---
179 REGIONAL INTERNATIONAL OUTREACH & PARTNERSHIP FOR PEAC...	1,750	1,750	---
180 OVERSEAS HUMANITARIAN ASSISTANCE SHARED INFORMATION SY...	294	294	---
181 INDUSTRIAL BASE ANALYSIS AND SUSTAINMENT SUPPORT.....	22,576	22,576	---
182 OPERATIONAL SYSTEMS DEVELOPMENT.....	1,901	1,901	---
183 GLOBAL THEATER SECURITY COOPERATION MANAGEMENT.....	8,474	8,474	---
184 CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS D...	33,561	33,561	---
186 PLANNING AND DECISION AID SYSTEM.....	3,061	3,061	---
187 C4I INTEROPERABILITY.....	64,921	64,921	---
189 JOINT/ALLIED COALITION INFORMATION SHARING.....	3,645	3,645	---
193 NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT.....	963	963	---
194 DEFENSE INFO INFRASTRUCTURE ENGINEERING & INTEGRATION...	10,186	10,186	---
195 LONG HAUL COMMUNICATIONS (DCS).....	36,883	36,883	---
196 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK.....	13,735	13,735	---
197 PUBLIC KEY INFRASTRUCTURE (PKI).....	6,101	6,101	---
198 KEY MANAGEMENT INFRASTRUCTURE (KMI).....	43,867	43,867	---

(DOLLARS IN THOUSANDS)

	BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
199 INFORMATION SYSTEMS SECURITY PROGRAM.....	8,957	8,957	---
200 INFORMATION SYSTEMS SECURITY PROGRAM.....	146,890	161,890	+15,000
201 GLOBAL COMMAND AND CONTROL SYSTEM.....	21,503	21,503	---
202 JOINT SPECTRUM CENTER (DEFENSE SPECTRUM ORGANIZATION)...	20,342	20,342	---
203 NET-CENTRIC ENTERPRISE SERVICES (NCES).....	444	444	---
205 JOINT MILITARY DECEPTION INITIATIVE.....	1,736	1,736	---
206 TELEPORT PROGRAM.....	65,060	65,060	---
210 SPECIAL APPLICATIONS FOR CONTINGENCIES.....	2,976	2,976	---
215 POLICY R&D PROGRAMS.....	4,182	4,182	---
216 NET CENTRICITY.....	18,130	18,130	---
218 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	5,302	5,302	---
221 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	3,239	3,239	---
225 INSIDER THREAT.....	11,733	11,733	---
226 HOMELAND DEFENSE TECHNOLOGY TRANSFER PROGRAM.....	2,119	2,119	---
234 INDUSTRIAL PREPAREDNESS.....	24,605	24,605	---
235 LOGISTICS SUPPORT ACTIVITIES.....	1,770	1,770	---
236 MANAGEMENT HEADQUARTERS (JCS).....	2,978	2,978	---
237 MQ-9 UAV.....	18,151	18,151	---
238 RQ-11 UAV.....	758	758	---
240 SPECIAL OPERATIONS AVIATION SYSTEMS ADVANCED DEV.....	173,934	169,134	-4,800
241 SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT.....	6,866	6,866	---
242 SOF OPERATIONAL ENHANCEMENTS.....	63,008	63,008	---
243 WARRIOR SYSTEMS.....	25,342	25,342	---
244 SPECIAL PROGRAMS.....	3,401	3,401	---
245 SOF TACTICAL VEHICLES.....	3,212	3,212	---
246 SOF MARITIME SYSTEMS.....	63,597	63,597	---
264 SOF GLOBAL VIDEO SURVEILLANCE ACTIVITIES.....	3,933	3,933	---
265 SOF OPERATIONAL ENHANCEMENTS INTELLIGENCE.....	10,623	10,623	---
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	974,638	984,838	+10,200
999 CLASSIFIED PROGRAMS.....	3,564,272	3,363,232	-201,040
DARPA UNDISTRIBUTED REDUCTION.....	---	-100,000	-100,000
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, DEF-WIDE...	18,329,861	18,207,171	-122,690

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[in thousands of dollars]

R-1	Budget Request	Committee Recommended	Change from Request
6 HISTORICALLY BLACK COLLEGES & UNIVERSITIES (HBCU)	25,834	35,834	10,000
Program increase		10,000	
7 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	46,261	47,761	1,500
Program increase		1,500	
26 COMBATING TERRORISM TECHNOLOGY SUPPORT	71,171	78,671	7,500
Program increase		7,500	
27 FOREIGN COMPARATIVE TESTING	21,782	24,782	3,000
Program increase		3,000	
32 WEAPONS TECHNOLOGY	45,389	2,131	-43,258
MD69 - excess growth		-4,236	
MD69 - directed energy research transfer to line 80A		-26,055	
MD72 - interceptor technology transfer to line 77A		-12,967	
37 SPECIAL PROGRAM - MDA TECHNOLOGY	64,708	51,458	-13,250
Unjustified growth		-13,250	
41 ADVANCED INNOVATIVE ANALYSIS AND CONCEPTS	59,830	49,830	-10,000
Program decrease		-10,000	
42 COMMON KILL VEHICLE TECHNOLOGY	46,753	41,753	-5,000
Previously funded activities		-5,000	
44 RETRACT LARCH	118,666	78,666	-40,000
Classified program adjustment		-40,000	
45 JOINT ELECTRONIC ADVANCED TECHNOLOGY	43,966	30,466	-13,500
Intrepid Tiger - unfunded outyear tail		-13,500	
46 JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS	141,540	129,540	-12,000
Program decrease		-12,000	
50 DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROGRAM	157,056	142,056	-15,000
Program decrease		-15,000	
51 EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT	33,515	41,015	7,500
Program increase		7,500	
54 STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM	65,836	55,836	-10,000
Program decrease		-10,000	
55 MICROELECTRONIC TECHNOLOGY DEVELOPMENT	79,037	89,037	10,000
Program increase		10,000	
56 JOINT WARFIGHTING PROGRAM	9,626	7,126	-2,500
Program decrease		-2,500	
58X DEFENSE RAPID INNOVATION FUND	0	250,000	250,000
Program increase		250,000	

R-1		Budget Request	Committee Recommended	Change from Request
63	QUICK REACTION SPECIAL PROJECTS	90,500	75,500	-15,000
	Program decrease		-15,000	
76	BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT	228,021	199,546	-28,475
	Basic development program - efforts previously completed		-28,475	
77	BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT	1,284,891	1,270,991	-13,900
	Program operations unjustified growth		-13,900	
77A	MULTI-OBJECT KILL VEHICLE	0	52,525	52,525
	Multi-object kill vehicle - transfer from line 42		39,558	
	Transfer from line 21		12,967	
79	BALLISTIC MISSILE DEFENSE SENSORS	233,588	228,588	-5,000
	Basic development program - efforts previously completed		-5,000	
80	BALLISTIC MISSILE DEFENSE ENABLING PROGRAMS	409,088	403,543	-5,545
	MT23 - test delays		-4,545	
	MD31 - unjustified growth		-1,000	
80A	WEAPONS TECHNOLOGY - HIGH POWER DIRECTED ENERGY	0	26,055	26,055
	MD69 - directed energy research transfer from line 32		26,055	
81	SPECIAL PROGRAMS - MDA	400,387	374,137	-26,250
	Schedule delays		-26,250	
82	AEGIS BMD	843,355	822,388	-20,967
	Aegis BMD 5.0 development previously funded		-7,000	
	SM-3 IIA development transfer not properly accounted		-13,967	
83	SPACE SURVEILLANCE & TRACKING SYSTEM	31,632	27,605	-4,027
	Previously funded		-4,027	
84	BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS	23,289	11,217	-12,072
	Previously funded		-1,782	
	Unjustified growth		-10,290	
85	BALLISTIC MISSILE DEFENSE C2BMC	450,085	420,700	-29,385
	MDD1 - future spirals unjustified request		-25,000	
	MT01 - test delays		-4,385	
86	BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT	49,570	47,898	-1,672
	Strategic warfighter integration unjustified growth		-1,672	
87	MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	49,211	47,980	-1,231
	Unjustified growth		-1,231	
89	SEA BASED X-BAND RADAR (SBX)	72,866	71,266	-1,600
	Test delays		-1,600	
90	ISRAELI COOPERATIVE PROGRAMS	102,795	267,595	164,800
	Israeli Upper Tier	55,050	19,500	
	Israeli Arrow program	11,019	45,500	
	Short range ballistic missile defense	36,726	99,800	

R-1	Budget Request	Committee Recommended	Change from Request
91 BMD TESTS	274,323	259,323	-15,000
Test efficiencies		-15,000	
92 BMD TARGETS	513,256	522,256	9,000
Transfer from line 96		9,000	
95 DEPARTMENT OF DEFENSE CORROSION PROGRAM	1,518	6,518	5,000
Program increase		5,000	
96 TECHNOLOGY MATURATION INITIATIVES	96,300	49,038	-47,262
MD99 - concurrent development programs		-23,343	
MT99 - test delays		-3,347	
MT99 - transfer to line 92		-9,000	
MT99 - unjustified test costs		-11,572	
106 IMPROVED HOMELAND DEFENSE INTERCEPTORS	278,944	217,535	-61,409
Lack of justification materials and schedule		-61,409	
108 AEGIS BMD TEST	55,148	45,148	-10,000
Prior year carryover		-10,000	
109 BALLISTIC MISSILE DEFENSE SENSORS TEST	86,764	78,337	-8,427
Test delays		-8,427	
136 ASSESSMENTS AND EVALUATIONS	28,674	21,674	-7,000
Reduce program growth		-7,000	
143 CLASSIFIED PROGRAM USD(P)	0	100,000	100,000
Classified adjustment		100,000	
162 DEVELOPMENT TEST AND EVALUATION	17,371	21,371	4,000
Program increase		4,000	
174 COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION	43,811	39,811	-4,000
Program decrease		-4,000	
200 INFORMATION SYSTEMS SECURITY PROGRAM	146,890	161,890	15,000
Sharkseer		15,000	
240 SPECIAL OPERATIONS AVIATION SYSTEMS ADVANCED DEVELOPMENT	173,934	169,134	-4,800
C-130J TF radar - transfer from P.DW line 54		15,200	
Underexecution		-20,000	
CLASSIFIED PROGRAMS	3,564,272	3,363,232	-201,040
Classified adjustment		-201,040	
DARPA UNDISTRIBUTED REDUCTION		-100,000	-100,000
DARPA undistributed reduction		-100,000	

HISTORICALLY BLACK COLLEGES AND UNIVERSITIES AND MINORITY INSTITUTIONS

The Committee recommendation includes \$10,000,000 above the request for the Historically Black Colleges and Universities and Minority Institutions Program (HBCU/MI). The HBCU/MI program provides access to scientific and technical information products and services to faculty, staff, and students of Historically Black Colleges and Universities, American Indian Tribally Controlled Colleges and Universities, Native American-Serving Nontribal Institutions, Hispanic-Serving Institutions, and other minority serving institutions.

The Committee remains concerned about the long-term development of the Science, Technology, Engineering and Mathematics (STEM) workforce pipeline for underrepresented minorities. The Committee encourages the Secretary of Defense to emphasize STEM education improvement within the HBCU/MI program and to focus on increasing the participation of minority students through engaged mentoring, enriched research experiences, and opportunities to publish, present, and network. The Committee encourages the Secretary of Defense to consider these factors when awarding competitive funding under this program, and directs the Secretary of Defense to provide a report to the congressional defense committees not later than 90 days after the enactment of this Act that details plans to expand STEM opportunities for underrepresented minorities.

NATIONAL SECURITY EDUCATION PROGRAM

The Committee supports the Department of Defense and the intelligence community in their partnerships with higher education institutions to ensure an adequate supply of professionals with proficiency in critical languages. The Committee believes that these efforts should include minority serving institutions, such as Historically Black Colleges and Universities, to ensure diversity within the intelligence community and to increase the number of analysts with proficiency in critical languages and cultural studies, including Russian, Chinese, Farsi, and Arabic.

HIGH ENERGY AND POWER DENSITY COMPOSITES

The Committee recommends \$7,500,000 above the request for emerging capabilities technology development to allow for the development of scalable composite systems which are capable of high energy and power densities. The Committee also encourages the Secretary of Defense to support the low-weight munitions for unmanned aerial system platforms that could increase range and mission duration for such aircraft.

SYSTEMS ENGINEERING RESEARCH CENTER

In the report accompanying the House version of the Department of Defense Appropriations Act, 2015, the Committee provided \$500,000 to conduct a study to assess the state of the Army's lethality capability and to provide recommendations to achieve the lethality capability of the future. The Committee understands the study is nearing completion and directs the Secretary of the Army

to submit a report to the congressional defense committees detailing the results and recommendations of the study not later than 60 days after the completion of the study.

UNIVERSITY AFFILIATED RESEARCH CENTERS

The National Strategic Research Institute is the only University Affiliated Research Center capable of developing solutions for combating weapons of mass destruction for the nation. The Department considers these centers strategic assets that are formally established by the Department of Defense’s Director of Defense Research and Engineering. The centers were developed to ensure that essential engineering and technology capabilities are maintained. The Committee encourages the Director of the Defense Threat Reduction Agency and the Secretary of the Air Force to utilize the capabilities these organizations can provide and to fund their operation beginning in fiscal year 2017.

OPERATIONAL TEST AND EVALUATION, DEFENSE

Fiscal year 2015 appropriation	\$209,378,000
Fiscal year 2016 budget request	170,558,000
Committee recommendation	170,558,000
Change from budget request	---

The Committee recommends an appropriation of \$170,558,000 for Operational Test and Evaluation, Defense which will provide the following program in fiscal year 2016:

(DOLLARS IN THOUSANDS)

		BUDGET REQUEST	COMMITTEE RECOMMENDED	CHANGE FROM REQUEST
OPERATIONAL TEST AND EVALUATION, DEFENSE				
1	RDT&E MANAGEMENT SUPPORT OPERATIONAL TEST AND EVALUATION.....	76,838	76,838	---
2	LIVE FIRE TEST AND EVALUATION.....	46,882	46,882	---
3	OPERATIONAL TEST ACTIVITIES AND ANALYSES.....	46,838	46,838	---
TOTAL, RDT&E MANAGEMENT SUPPORT.....		170,558	170,558	---
TOTAL, OPERATIONAL TEST AND EVALUATION, DEFENSE.....		170,558	170,558	---
		=====	=====	=====