

TITLE IV

RESEARCH, DEVELOPMENT, TEST AND EVALUATION

The fiscal year 2013 Department of Defense research, development, test and evaluation budget request totals \$69,407,767,000. The accompanying bill recommends \$69,984,145,000. The total amount recommended is an increase of \$576,378,000 above the fiscal year 2013 budget request and is \$2,436,530,000 below the total provided in fiscal year 2012. The table below summarizes the budget estimate and the Committee's recommendations.

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| ----- | | | |
| RECAPITULATION | | | |
| RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY..... | 8,929,415 | 8,593,055 | -336,360 |
| RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY..... | 16,882,877 | 16,987,768 | +104,891 |
| RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE. | 25,428,046 | 25,117,692 | -310,354 |
| RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE-WIDE..... | 17,982,161 | 19,100,362 | +1,118,201 |
| OPERATIONAL TEST AND EVALUATION, DEFENSE..... | 185,268 | 185,268 | --- |
| GRAND TOTAL, RDT&E..... | 69,407,767 | 69,984,145 | +576,378 |
| | ===== | ===== | ===== |

SYSTEMS ENGINEERING

The Committee recognizes the importance of a strong systems engineering workforce for the success of acquisition programs within the Department of Defense. Studies indicate that early and sustained investment in systems engineering reduces the likelihood of cost and schedule overruns in acquisition programs.

The Committee is concerned that the Department exhibits inconsistency in its approach to systems engineering. The Defense Acquisition Guidebook defines systems engineering as “an interdisciplinary approach encompassing the entire technical effort to evolve and verify an integrated and total life cycle balanced set of system, people, and process solutions that satisfy customer needs, and the integrating mechanism across all technical efforts related to the development, manufacturing, verification, deployment, operations, support, disposal of, and user training for systems and their life cycle processes.” This definition is consistent with many others that distinguish systems engineering, a multidisciplinary and integrative effort, from other engineering disciplines.

By contrast, the Department’s approach to its systems engineering workforce does not distinguish between the limited cadre of government engineers with the education, experience, and record of past performance that qualifies them as true systems engineers, and the rest of its engineering workforce. Given the challenges the Department faces in recruiting and retaining these highly sought-after individuals, the Committee views the Department’s inability to track the level of real systems engineering expertise in its workforce as a key deficiency that must be addressed. The current lack of visibility clouds the Department’s knowledge of this vital element of its workforce, with implications for staffing, succession planning, and ultimately, program performance. Of particular concern is the fact that pending personnel reductions may result in the loss of hard-to-replace senior systems engineering talent and promising future systems engineers.

The Department conducts a wide range of Science, Technology, Engineering, and Mathematics (STEM) outreach programs aimed at all education levels to encourage students to pursue careers in these fields. Recruiting personnel with STEM backgrounds would logically help improve the quality of the systems engineering workforce.

The Committee urges the Secretary of Defense to establish a mechanism for identifying and tracking personnel within the Department’s organic acquisition workforce whom the Department recognizes as being qualified in the discipline of systems engineering, on the basis of education, experience, and such other factors as it may identify (such as prior performance). Additionally, the Committee believes it would benefit the Department to track the effectiveness of its many STEM outreach programs in an effort to determine if these programs are actually resulting in an improved STEM (including systems engineers) workforce within the Department.

DEPARTMENT OF DEFENSE AND SERVICE CYBER ACTIVITIES

The Committee acknowledges the threat to and from the cyber realm and believes it has been well documented; however, the resources being expended against the threat have not. In order to better evaluate the planning and resourcing for Department of Defense cyber activities, the Committee directs the Commander, United States Cyber Command, in coordination with the Secretary of Defense and each of the Service Secretaries, to provide the congressional defense committees separate budget justification material, in the form of budget documents as defined in the Department's financial management regulation, that details the year-to-year budgets, schedule, and milestone goals over the Future Years Defense Program for the individual programs that support the goals of cyber initiatives. The programs detailed must include cyberspace operations, computer network operations, information assurance, and full spectrum cyber operations for the Department of Defense and the Services. Further, the Committee suggests that the Department continue to refine what activities, budget lines, and programs should be considered cyber in order to better coordinate and track these budgets.

ADVANCED HYPERSONIC WEAPON

The Committee is aware that the United States Army Space and Missile Defense Command/Army Forces Strategic Command conducted the first test flight of the Advanced Hypersonic Weapon (AHW) concept on November 17, 2011. The AHW is designed to fly within the earth's atmosphere at hypersonic speed and long range. In the test, a three-stage booster system launched the AHW glide vehicle and deployed it on the desired flight trajectory. The vehicle flew a non-ballistic glide trajectory at hypersonic speed to the planned impact location. The Committee will follow the program as it advances. The Committee directs the Secretary of Defense to provide a report to the congressional defense committees not later than 60 days after enactment of this Act on plans for future development and testing of the Advanced Hypersonic Weapon. The report shall include the program plan and funding allocation for fiscal year 2012, fiscal year 2013, and the Future Years Defense Program through 2017, for Prompt Global Strike and the Navy Strategic Systems Project Office.

SPECIAL INTEREST ITEMS

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

REPROGRAMMING GUIDANCE FOR ACQUISITION ACCOUNTS

It is the intent of the Congress that the program baseline for reprogramming funds reflects all approved adjustment actions: the

initial appropriation as well as any rescissions, supplemental appropriations, and approved Department of Defense Form 1415 reprogrammings. The Secretary of Defense is directed to ensure that financial management regulations incorporate approved reprogramming actions as an adjustment to the base for reprogramming value.

The Committee directs the Secretary of Defense to continue to follow the reprogramming guidance specified in the report accompanying the House version of the Department of Defense Appropriations Act, 2006 (H.R. 109–119). Specifically, the dollar threshold for reprogramming funds will remain at \$20,000,000 for procurement and \$10,000,000 for research, development, test and evaluation. The Secretary of Defense 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. The percentage change limitation applies to both program increases and decreases. Additionally, this percentage change applies to the program base value at the time the below threshold movement of funds is executed. These thresholds are cumulative from the base for reprogramming value as modified by any adjustment action. Therefore, if the combined value of transfers into or out of a procurement (P–1) or research, development, test and evaluation (R–1) line exceeds the identified threshold, the Secretary of Defense must submit a prior approval reprogramming to the congressional defense committees. In addition, guidelines on the application of prior approval reprogramming procedures for congressional special interest items are established elsewhere in this report.

REPROGRAMMING REPORTING REQUIREMENTS

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

FUNDING INCREASES

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

CLASSIFIED ANNEX

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

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY

| | |
|---------------------------------------|-----------------|
| Fiscal year 2012 appropriation | \$8,745,492,000 |
| Fiscal year 2013 budget request | 8,929,415,000 |
| Committee recommendation | 8,593,055,000 |
| Change from budget request | –336,360,000 |

This appropriation provides funds for the research, development, test and evaluation activities of the Department of the Army. The

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total amount recommended in the bill will provide the following
program in fiscal year 2013:

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|--|--|--------------------------|------------------------|---------|
| RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY | | | | |
| BASIC RESEARCH | | | | |
| 1 | IN-HOUSE LABORATORY INDEPENDENT RESEARCH..... | 20,860 | 20,860 | --- |
| 2 | DEFENSE RESEARCH SCIENCES..... | 219,180 | 219,180 | --- |
| 3 | UNIVERSITY RESEARCH INITIATIVES..... | 80,986 | 80,986 | --- |
| 4 | UNIVERSITY AND INDUSTRY RESEARCH CENTERS..... | 123,045 | 107,446 | -15,599 |
| | TOTAL, BASIC RESEARCH..... | 444,071 | 428,472 | -15,599 |
| APPLIED RESEARCH | | | | |
| 5 | MATERIALS TECHNOLOGY..... | 29,041 | 39,041 | +10,000 |
| 6 | SENSORS AND ELECTRONIC SURVIVABILITY..... | 45,260 | 45,260 | --- |
| 7 | TRACTOR HIP..... | 22,439 | 22,439 | --- |
| 8 | AVIATION TECHNOLOGY..... | 51,607 | 51,607 | --- |
| 9 | ELECTRONIC WARFARE TECHNOLOGY..... | 15,068 | 15,068 | --- |
| 10 | MISSILE TECHNOLOGY..... | 49,383 | 49,383 | --- |
| 11 | ADVANCED WEAPONS TECHNOLOGY..... | 25,999 | 25,999 | --- |
| 12 | ADVANCED CONCEPTS AND SIMULATION..... | 23,507 | 23,507 | --- |
| 13 | COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY..... | 69,062 | 69,062 | --- |
| 14 | BALLISTICS TECHNOLOGY..... | 60,823 | 60,823 | --- |
| 15 | CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY.... | 4,465 | 4,465 | --- |
| 16 | JOINT SERVICE SMALL ARMS PROGRAM..... | 7,169 | 7,169 | --- |
| 17 | WEAPONS AND MUNITIONS TECHNOLOGY..... | 35,218 | 50,218 | +15,000 |
| 18 | ELECTRONICS AND ELECTRONIC DEVICES..... | 60,300 | 80,300 | +20,000 |
| 19 | NIGHT VISION TECHNOLOGY..... | 53,244 | 53,244 | --- |
| 20 | COUNTERMINE SYSTEMS..... | 18,850 | 18,850 | --- |
| 21 | HUMAN FACTORS ENGINEERING TECHNOLOGY..... | 19,872 | 19,872 | --- |
| 22 | ENVIRONMENTAL QUALITY TECHNOLOGY..... | 20,095 | 20,095 | --- |
| 23 | COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY..... | 28,852 | 28,852 | --- |
| 24 | COMPUTER AND SOFTWARE TECHNOLOGY..... | 9,830 | 9,830 | --- |
| 25 | MILITARY ENGINEERING TECHNOLOGY..... | 70,693 | 70,693 | --- |
| 26 | MANPOWER/PERSONNEL/TRAINING TECHNOLOGY..... | 17,781 | 17,781 | --- |
| 27 | WARFIGHTER TECHNOLOGY..... | 28,281 | 28,281 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 28 MEDICAL TECHNOLOGY..... | 107,891 | 107,891 | --- |
| TOTAL, APPLIED RESEARCH..... | 874,730 | 919,730 | +45,000 |
| ADVANCED TECHNOLOGY DEVELOPMENT | | | |
| 29 WARFIGHTER ADVANCED TECHNOLOGY..... | 39,359 | 39,359 | --- |
| 30 MEDICAL ADVANCED TECHNOLOGY..... | 69,580 | 100,580 | +31,000 |
| 31 AVIATION ADVANCED TECHNOLOGY..... | 64,215 | 64,215 | --- |
| 32 WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY..... | 67,613 | 77,613 | +10,000 |
| 33 COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY..... | 104,359 | 104,359 | --- |
| 34 COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY.. | 4,157 | 4,157 | --- |
| 35 MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY.. | 9,856 | 9,856 | --- |
| 36 ELECTRONIC WARFARE ADVANCED TECHNOLOGY..... | 50,661 | 50,661 | --- |
| 37 TRACTOR HIKE..... | 9,126 | 9,126 | --- |
| 38 NEXT GENERATION TRAINING & SIMULATION SYSTEMS..... | 17,257 | 17,257 | --- |
| 39 TRACTOR ROSE..... | 9,925 | 9,925 | --- |
| 40 MILITARY HIV RESEARCH..... | 6,984 | 22,984 | +16,000 |
| 41 COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT..... | 9,716 | 9,716 | --- |
| 42 TRACTOR NAIL..... | 3,487 | 3,487 | --- |
| 43 TRACTOR EGGS..... | 2,323 | 2,323 | --- |
| 44 ELECTRONIC WARFARE TECHNOLOGY..... | 21,683 | 21,683 | --- |
| 45 MISSILE AND ROCKET ADVANCED TECHNOLOGY..... | 71,111 | 71,111 | --- |
| 46 TRACTOR CAGE..... | 10,902 | 10,902 | --- |
| 47 HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM..... | 180,582 | 180,582 | --- |
| 48 LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY..... | 27,204 | 27,204 | --- |
| 49 JOINT SERVICE SMALL ARMS PROGRAM..... | 6,095 | 6,095 | --- |
| 50 NIGHT VISION ADVANCED TECHNOLOGY..... | 37,217 | 37,217 | --- |
| 51 ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS..... | 13,626 | 13,626 | --- |
| 52 MILITARY ENGINEERING ADVANCED TECHNOLOGY..... | 28,458 | 28,458 | --- |
| 53 ADVANCED TACTICAL COMPUTER SCIENCE & SENSOR TECHNOLOGY | 25,226 | 25,226 | --- |
| TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT..... | 890,722 | 947,722 | +57,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|----------------------------|--|--------------------------|------------------------|---------|
| ----- | | | | |
| DEMONSTRATION & VALIDATION | | | | |
| 54 | ARMY MISSILE DEFENSE SYSTEMS INTEGRATION..... | 14,505 | 24,505 | +10,000 |
| 55 | ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (SPACE)..... | 9,876 | 9,876 | --- |
| 56 | LANDMINE WARFARE AND BARRIER - ADV DEV..... | 5,054 | 5,054 | --- |
| 57 | SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV..... | 2,725 | 2,725 | --- |
| 58 | TANK AND MEDIUM CALIBER AMMUNITION..... | 30,560 | 30,560 | --- |
| 59 | ADVANCED TANK ARMAMENT SYSTEM (ATAS)..... | 14,347 | 14,347 | --- |
| 60 | SOLDIER SUPPORT AND SURVIVABILITY..... | 10,073 | 10,073 | --- |
| 61 | TACTICAL ELECTRONIC SURVEILLANCE SYSTEM - AD..... | 8,660 | 8,660 | --- |
| 62 | NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT..... | 10,715 | 10,715 | --- |
| 63 | ENVIRONMENTAL QUALITY TECHNOLOGY..... | 4,631 | 4,631 | --- |
| 64 | WARFIGHTER INFORMATION NETWORK-TACTICAL..... | 278,018 | 278,018 | --- |
| 65 | NATO RESEARCH AND DEVELOPMENT..... | 4,961 | 4,961 | --- |
| 66 | AVIATION - ADV DEV..... | 8,602 | 8,602 | --- |
| 67 | LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV..... | 14,605 | 14,605 | --- |
| 68 | COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION..... | 5,054 | 5,054 | --- |
| 69 | MEDICAL SYSTEMS - ADV DEV..... | 24,384 | 24,384 | --- |
| 70 | SOLDIER SYSTEMS - ADVANCED DEVELOPMENT..... | 32,050 | 32,050 | --- |
| 71 | INTEGRATED BROADCAST SERVICE..... | 96 | 96 | --- |
| 72 | TECHNOLOGY MATURATION INITIATIVES..... | 24,868 | 24,868 | --- |
| 73 | TRACTOR JUTE..... | 59 | 59 | --- |
| 75 | INDIRECT FIRE PROTECTION CAPABILITY INCREMENT 2-INTERC | 76,039 | 76,039 | --- |
| 77 | INTEGRATED BASE DEFENSE..... | 4,043 | 4,043 | --- |
| 78 | ENDURANCE UAVS..... | 26,196 | 26,196 | --- |
| ----- | | | | |
| | TOTAL, DEMONSTRATION & VALIDATION..... | 610,121 | 620,121 | +10,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| ----- | | | |
| ENGINEERING & MANUFACTURING DEVELOPMENT | | | |
| 79 AIRCRAFT AVIONICS..... | 78,538 | 78,538 | --- |
| 80 ARMED, DEPLOYABLE OH-58D..... | 90,494 | 90,494 | --- |
| 81 ELECTRONIC WARFARE DEVELOPMENT..... | 181,347 | 181,347 | --- |
| 83 MID-TIER NETWORKING VEHICULAR RADIO..... | 12,636 | 12,636 | --- |
| 84 ALL SOURCE ANALYSIS SYSTEM..... | 5,694 | 5,694 | --- |
| 85 TRACTOR CAGE..... | 32,095 | 32,095 | --- |
| 86 INFANTRY SUPPORT WEAPONS..... | 96,478 | 91,478 | -5,000 |
| 87 MEDIUM TACTICAL VEHICLES..... | 3,006 | 3,006 | --- |
| 89 JAVELIN..... | 5,040 | 5,040 | --- |
| 90 FAMILY OF HEAVY TACTICAL VEHICLES..... | 3,077 | 3,077 | --- |
| 91 AIR TRAFFIC CONTROL..... | 9,769 | 9,769 | --- |
| 92 TACTICAL UNMANNED GROUND VEHICLE..... | 13,141 | 13,141 | --- |
| 99 NIGHT VISION SYSTEMS - SDD..... | 32,621 | 32,621 | --- |
| 100 COMBAT FEEDING, CLOTHING, AND EQUIPMENT..... | 2,132 | 2,132 | --- |
| 101 NON-SYSTEM TRAINING DEVICES - SDD..... | 44,787 | 44,787 | --- |
| 102 TERRAIN INFORMATION - SDD..... | 1,008 | 1,008 | --- |
| 103 AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE -SDD.... | 73,333 | 73,333 | --- |
| 104 CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT..... | 28,937 | 28,937 | --- |
| 105 AUTOMATIC TEST EQUIPMENT DEVELOPMENT..... | 10,815 | 10,815 | --- |
| 106 DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS) - SDD..... | 13,926 | 13,926 | --- |
| 107 COMBINED ARMS TACTICAL TRAINER (CATT) CORE..... | 17,797 | 17,797 | --- |
| 108 BRIGADE ANALYSIS, INTEGRATION AND EVALUATION..... | 214,270 | 214,270 | --- |
| 109 WEAPONS AND MUNITIONS - SDD..... | 14,581 | 14,581 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 110 LOGISTICS AND ENGINEER EQUIPMENT - SDD..... | 43,706 | 43,706 | --- |
| 111 COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - SDD..... | 20,776 | 20,776 | --- |
| 112 MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT. | 43,395 | 43,395 | --- |
| 113 LANDMINE WARFARE/BARRIER - SDD..... | 104,983 | 104,983 | --- |
| 114 ARTILLERY MUNITIONS..... | 4,346 | 4,346 | --- |
| 116 ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE... | 77,223 | 77,223 | --- |
| 117 RADAR DEVELOPMENT..... | 3,486 | 3,486 | --- |
| 118 GENERAL FUND ENTERPRISE BUSINESS SYSTEM (GFEBS)..... | 9,963 | 27,163 | +17,200 |
| 119 FIREFINDER..... | 20,517 | 20,517 | --- |
| 120 SOLDIER SYSTEMS - WARRIOR DEM/VAL..... | 51,851 | 51,851 | --- |
| 121 ARTILLERY SYSTEMS..... | 167,797 | 167,797 | --- |
| 122 PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP)..... | 400,861 | --- | -400,861 |
| 123 NUCLEAR ARMS CONTROL MONITORING SENSOR NETWORK..... | 7,922 | 7,922 | --- |
| 124 INFORMATION TECHNOLOGY DEVELOPMENT..... | 51,463 | 51,463 | --- |
| 125 ARMY INTEGRATED MILITARY HUMAN RESOURCES SYSTEM (A-IMH) | 158,646 | 158,646 | --- |
| 126 JOINT AIR-TO-GROUND MISSILE (JAGM)..... | 10,000 | 10,000 | --- |
| 128 PAC-2/MSE MISSILE..... | 69,029 | 69,029 | --- |
| 129 ARMY INTEGRATED AIR AND MISSILE DEFENSE (AIAMD)..... | 277,374 | 277,374 | --- |
| 130 MANNED GROUND VEHICLE..... | 639,874 | 639,874 | --- |
| 131 AERIAL COMMON SENSOR..... | 47,426 | 47,426 | --- |
| 132 JOINT LIGHT TACTICAL VEHICLE ENG AND MANUFACTURING.... | 72,295 | 72,295 | --- |
| 133 TROJAN - RH12..... | 4,232 | 4,232 | --- |
| 134 ELECTRONIC WARFARE DEVELOPMENT..... | 13,942 | 13,942 | --- |
| TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT..... | 3,286,629 | 2,897,968 | -388,661 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| ----- | | | |
| RD&E MANAGEMENT SUPPORT | | | |
| 135 THREAT SIMULATOR DEVELOPMENT..... | 18,090 | 18,090 | --- |
| 136 TARGET SYSTEMS DEVELOPMENT..... | 14,034 | 14,034 | --- |
| 137 MAJOR T&E INVESTMENT..... | 37,394 | 37,394 | --- |
| 138 RAND ARROYO CENTER..... | 21,026 | 21,026 | --- |
| 139 ARMY KWAJALEIN ATOLL..... | 176,816 | 176,816 | --- |
| 140 CONCEPTS EXPERIMENTATION PROGRAM..... | 27,902 | 27,902 | --- |
| 142 ARMY TEST RANGES AND FACILITIES..... | 369,900 | 369,900 | --- |
| 143 ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS..... | 69,183 | 69,183 | --- |
| 144 SURVIVABILITY/LETHALITY ANALYSIS..... | 44,753 | 44,753 | --- |
| 146 AIRCRAFT CERTIFICATION..... | 5,762 | 5,762 | --- |
| 147 METEOROLOGICAL SUPPORT TO RD&E ACTIVITIES..... | 7,402 | 7,402 | --- |
| 148 MATERIEL SYSTEMS ANALYSIS..... | 19,954 | 19,954 | --- |
| 149 EXPLOITATION OF FOREIGN ITEMS..... | 5,535 | 5,535 | --- |
| 150 SUPPORT OF OPERATIONAL TESTING..... | 67,789 | 67,789 | --- |
| 151 ARMY EVALUATION CENTER..... | 62,765 | 62,765 | --- |
| 152 SIMULATION & MODELING FOR ACQ, RQTS, & TNG (SMART).... | 1,545 | 1,545 | --- |
| 153 PROGRAMWIDE ACTIVITIES..... | 83,422 | 83,422 | --- |
| 154 TECHNICAL INFORMATION ACTIVITIES..... | 50,820 | 50,820 | --- |
| 155 MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY... | 46,763 | 56,763 | +10,000 |
| 156 ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT..... | 4,601 | 4,601 | --- |
| 157 MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT).... | 18,524 | 18,524 | --- |
| ----- | | | |
| TOTAL, RD&E MANAGEMENT SUPPORT..... | 1,153,980 | 1,163,980 | +10,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| OPERATIONAL SYSTEMS DEVELOPMENT | | | |
| 159 MLRS PRODUCT IMPROVEMENT PROGRAM..... | 143,005 | 143,005 | --- |
| 161 PATRIOT PRODUCT IMPROVEMENT..... | 109,978 | 109,978 | --- |
| 162 AEROSTAT JOINT PROJECT OFFICE..... | 190,422 | 190,422 | --- |
| 164 ADV FIELD ARTILLERY TACTICAL DATA SYSTEM..... | 32,556 | 32,556 | --- |
| 165 COMBAT VEHICLE IMPROVEMENT PROGRAMS..... | 253,959 | 253,959 | --- |
| 166 MANEUVER CONTROL SYSTEM..... | 68,325 | 68,325 | --- |
| 167 AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS... | 280,247 | 226,147 | -54,100 |
| 168 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM..... | 898 | 898 | --- |
| 169 DIGITIZATION..... | 35,180 | 35,180 | --- |
| 171 MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM..... | 20,733 | 20,733 | --- |
| 172 TRACTOR CARD..... | 63,243 | 63,243 | --- |
| 173 JOINT TACTICAL GROUND SYSTEM..... | 31,738 | 31,738 | --- |
| 174 JOINT HIGH SPEED VESSEL (JHSV)..... | 35 | 35 | --- |
| 176 SECURITY AND INTELLIGENCE ACTIVITIES..... | 7,591 | 7,591 | --- |
| 177 INFORMATION SYSTEMS SECURITY PROGRAM..... | 15,961 | 15,961 | --- |
| 178 GLOBAL COMBAT SUPPORT SYSTEM..... | 120,927 | 120,927 | --- |
| 179 SATCOM GROUND ENVIRONMENT (SPACE)..... | 15,756 | 15,756 | --- |
| 180 WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM..... | 14,443 | 14,443 | --- |
| 182 TACTICAL UNMANNED AERIAL VEHICLES..... | 31,303 | 31,303 | --- |
| 183 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS..... | 40,876 | 40,876 | --- |
| 184 MQ-1 SKY WARRIOR A UAV..... | 74,618 | 74,618 | --- |
| 185 RQ-11 UAV..... | 4,039 | 4,039 | --- |
| 186 RQ-7 UAV..... | 31,158 | 31,158 | --- |
| 187 VERTICAL UAS..... | 2,387 | 2,387 | --- |
| 188 BIOMETRICS ENABLED INTELLIGENCE..... | 15,248 | 15,248 | --- |
| 189 END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES..... | 59,908 | 59,908 | --- |
| TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT..... | 1,664,534 | 1,610,434 | -54,100 |
| 999 CLASSIFIED PROGRAMS..... | 4,628 | 4,628 | --- |
| TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY..... | 8,929,415 | 8,593,055 | -336,360 |

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

| R-1 | | Budget Request | Committee Recommended | Change from Request |
|------------|---|-------------------|--------------------------|------------------------|
| 4 | UNIVERSITY AND INDUSTRY RESEARCH CENTERS | 123,045 | 107,446 | -15,599 |
| | Historically Black Colleges and Universities - transfer to Research, Development, Test and Evaluation, Defense- Wide line 9 | | -15,599 | |
| 5 | MATERIALS TECHNOLOGY | 29,041 | 39,041 | 10,000 |
| | Program increase - Corrosion Control | | 10,000 | |
| 17 | WEAPONS AND MUNITIONS TECHNOLOGY | 35,218 | 50,218 | 15,000 |
| | Program increase | | 15,000 | |
| 18 | ELECTRONICS AND ELECTRONIC DEVICES | 60,300 | 80,300 | 20,000 |
| | Program increase for energy efficiency | | 20,000 | |
| 30 | MEDICAL ADVANCED TECHNOLOGY | 69,580 | 100,580 | 31,000 |
| | Peer-Reviewed Neurotoxin Exposure Treatment | | 16,000 | |
| | Parkinsons Research Program | | 15,000 | |
| | Peer-Reviewed Neurofibromatosis Research Program | | 15,000 | |
| 32 | WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY | 67,613 | 77,613 | 10,000 |
| | Program increase | | 10,000 | |
| 40 | MILITARY HIV RESEARCH | 6,984 | 22,984 | 16,000 |
| | Program increase | | 16,000 | |
| 54 | ARMY MISSILE DEFENSE SYSTEMS INTEGRATION | 14,505 | 24,505 | 10,000 |
| | Program increase | | 10,000 | |
| 86 | INFANTRY SUPPORT WEAPONS | 96,478 | 91,478 | -5,000 |
| | Program delays | | -5,000 | |
| | GENERAL FUND ENTERPRISE BUSINESS | | | |
| 118 | SYSTEM (GFEBS) | 9,963 | 27,163 | 17,200 |
| | Program increase to develop secure capability | | 17,200 | |
| 122 | PATRIOT/MEADS COMBINED AGGREGATE PROGRAM | 400,861 | 0 | -400,861 |
| | Program termination | | -400,861 | |
| | MUNITIONS STANDARDIZATION, EFFECTIVENESS | | | |
| 155 | AND SAFETY | 46,763 | 56,763 | 10,000 |
| | Program increase | | 10,000 | |
| | AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT | | | |
| 167 | PROGRAMS | 280,247 | 226,147 | -54,100 |
| | Improved Turbine Engine Program - ahead of need | | -54,100 | |

MEDIUM EXTENDED AIR DEFENSE

The budget request for fiscal year 2013 proposes to provide \$400,861,000 for the final year of funding for the Medium Extended Air Defense (MEADS) proof of concept. While the Committee recognizes that some additional benefit might be realized by additional funding, the expected benefits do not justify the cost. The Committee recommendation includes no funding for MEADS.

ROBOTIC DEVELOPMENT

Recognizing the increased need to use unmanned systems as a means to maintain U.S. military capabilities in the face of likely reductions in manpower, the Committee encourages the Secretary of the Army to accelerate efforts to develop and deploy operational, prototype ground robotics systems utilizing both traditional and non-traditional suppliers.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY

| | |
|---------------------------------------|------------------|
| Fiscal year 2012 appropriation | \$17,753,940,000 |
| Fiscal year 2013 budget request | 16,882,877,000 |
| Committee recommendation | 16,987,768,000 |
| Change from budget request | 104,891,000 |

This appropriation provides funds for the research, development, test and evaluation activities of the Department of the Navy, which includes the Marine Corps. The total amount recommended in the bill will provide the following program in fiscal year 2013:

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|--|---|--------------------------|------------------------|---------|
| RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY | | | | |
| BASIC RESEARCH | | | | |
| 1 | UNIVERSITY RESEARCH INITIATIVES..... | 113,690 | 133,690 | +20,000 |
| 2 | IN-HOUSE LABORATORY INDEPENDENT RESEARCH..... | 18,261 | 18,261 | --- |
| 3 | DEFENSE RESEARCH SCIENCES..... | 473,070 | 473,070 | --- |
| | TOTAL, BASIC RESEARCH..... | 605,021 | 625,021 | +20,000 |
| APPLIED RESEARCH | | | | |
| 4 | POWER PROJECTION APPLIED RESEARCH..... | 89,189 | 89,189 | --- |
| 5 | FORCE PROTECTION APPLIED RESEARCH..... | 143,301 | 143,301 | --- |
| 6 | MARINE CORPS LANDING FORCE TECHNOLOGY..... | 46,528 | 46,528 | --- |
| 7 | COMMON PICTURE APPLIED RESEARCH..... | 41,696 | 41,696 | --- |
| 8 | WARFIGHTER SUSTAINMENT APPLIED RESEARCH..... | 44,127 | 44,127 | --- |
| 9 | ELECTROMAGNETIC SYSTEMS APPLIED RESEARCH..... | 78,228 | 78,228 | --- |
| 10 | OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH..... | 49,635 | 64,635 | +15,000 |
| 11 | JOINT NON-LETHAL WEAPONS APPLIED RESEARCH..... | 5,973 | 5,973 | --- |
| 12 | UNDERSEA WARFARE APPLIED RESEARCH..... | 96,814 | 96,814 | --- |
| 13 | FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV..... | 162,417 | 162,417 | --- |
| 14 | MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH..... | 32,394 | 32,394 | --- |
| | TOTAL, APPLIED RESEARCH..... | 790,302 | 805,302 | +15,000 |
| ADVANCED TECHNOLOGY DEVELOPMENT | | | | |
| 15 | POWER PROJECTION ADVANCED TECHNOLOGY..... | 56,543 | 56,543 | --- |
| 16 | FORCE PROTECTION ADVANCED TECHNOLOGY..... | 18,616 | 18,616 | --- |
| 19 | ELECTROMAGNETIC SYSTEMS ADVANCED TECHNOLOGY..... | 54,858 | 54,858 | --- |
| 20 | MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD)... | 130,598 | 130,598 | --- |
| 21 | JOINT NON-LETHAL WEAPONS TECHNOLOGY DEVELOPMENT..... | 11,706 | 11,706 | --- |
| 22 | FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEV..... | 256,382 | 256,382 | --- |
| 23 | WARFIGHTER PROTECTION ADVANCED TECHNOLOGY..... | 3,880 | 42,580 | +38,700 |
| 24 | UNDERSEA WARFARE ADVANCED TECHNOLOGY..... | --- | 10,000 | +10,000 |
| 25 | NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS..... | 51,819 | 51,819 | --- |
| | TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT..... | 584,402 | 633,102 | +48,700 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|----------------------------|---|--------------------------|------------------------|---------|
| ----- | | | | |
| DEMONSTRATION & VALIDATION | | | | |
| 28 | AIR/OCEAN TACTICAL APPLICATIONS..... | 34,085 | 34,085 | --- |
| 29 | AVIATION SURVIVABILITY..... | 8,783 | 8,783 | --- |
| 30 | DEPLOYABLE JOINT COMMAND AND CONTROL..... | 3,773 | 3,773 | --- |
| 31 | AIRCRAFT SYSTEMS..... | 24,512 | 24,512 | --- |
| 32 | ASW SYSTEMS DEVELOPMENT..... | 8,090 | 8,090 | --- |
| 33 | TACTICAL AIRBORNE RECONNAISSANCE..... | 5,301 | 5,301 | --- |
| 34 | ADVANCED COMBAT SYSTEMS TECHNOLOGY..... | 1,506 | 1,506 | --- |
| 35 | SURFACE AND SHALLOW WATER MINE COUNTERMEASURES..... | 190,622 | 160,622 | -30,000 |
| 36 | SURFACE SHIP TORPEDO DEFENSE..... | 93,346 | 93,346 | --- |
| 37 | CARRIER SYSTEMS DEVELOPMENT..... | 108,871 | 108,871 | --- |
| 39 | PILOT FISH..... | 101,169 | 101,169 | --- |
| 40 | RETRACT LARCH..... | 74,312 | 74,312 | --- |
| 41 | RETRACT JUNIPER..... | 90,730 | 90,730 | --- |
| 42 | RADIOLOGICAL CONTROL..... | 777 | 777 | --- |
| 43 | SURFACE ASW..... | 6,704 | 2,495 | -4,209 |
| 44 | ADVANCED SUBMARINE SYSTEM DEVELOPMENT..... | 555,123 | 555,123 | --- |
| 45 | SUBMARINE TACTICAL WARFARE SYSTEMS..... | 9,368 | 9,368 | --- |
| 46 | SHIP CONCEPT ADVANCED DESIGN..... | 24,609 | 24,609 | --- |
| 47 | SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES..... | 13,710 | 9,810 | -3,900 |
| 48 | ADVANCED NUCLEAR POWER SYSTEMS..... | 249,748 | 249,748 | --- |
| 49 | ADVANCED SURFACE MACHINERY SYSTEMS..... | 29,897 | 29,897 | --- |
| 50 | CHALK EAGLE..... | 509,988 | 509,988 | --- |
| 51 | LITTORAL COMBAT SHIP (LCS)..... | 429,420 | 401,620 | -27,800 |
| 52 | COMBAT SYSTEM INTEGRATION..... | 56,551 | 56,551 | --- |
| 53 | CONVENTIONAL MUNITIONS..... | 7,342 | 7,342 | --- |
| 54 | MARINE CORPS ASSAULT VEHICLES..... | 95,182 | 95,182 | --- |
| 55 | MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM..... | 10,496 | 10,496 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 56 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT..... | 52,331 | 38,331 | -14,000 |
| 57 COOPERATIVE ENGAGEMENT..... | 56,512 | 56,512 | --- |
| 58 OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT..... | 7,029 | 7,029 | --- |
| 59 ENVIRONMENTAL PROTECTION..... | 21,080 | 21,080 | --- |
| 60 NAVY ENERGY PROGRAM..... | 55,324 | 95,324 | +40,000 |
| 61 FACILITIES IMPROVEMENT..... | 3,401 | 3,401 | --- |
| 62 CHALK CORAL..... | 45,966 | 45,966 | --- |
| 63 NAVY LOGISTIC PRODUCTIVITY..... | 3,811 | 3,811 | --- |
| 64 RETRACT MAPLE..... | 341,305 | 341,305 | --- |
| 65 LINK PLUMERIA..... | 181,220 | 181,220 | --- |
| 66 RETRACT ELM..... | 174,014 | 174,014 | --- |
| 68 LINK EVERGREEN..... | 68,654 | 68,654 | --- |
| 69 SPECIAL PROCESSES..... | 44,487 | 44,487 | --- |
| 70 NATO RESEARCH AND DEVELOPMENT..... | 9,389 | 9,389 | --- |
| 71 LAND ATTACK TECHNOLOGY..... | 16,132 | 16,132 | --- |
| 72 NONLETHAL WEAPONS..... | 44,994 | 44,994 | --- |
| 74 JOINT PRECISION APPROACH AND LANDING SYSTEMS..... | 137,369 | 137,369 | --- |
| 77 TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES..... | 73,934 | 73,934 | --- |
| 78 ASE SELF-PROTECTION OPTIMIZATION..... | 711 | 711 | --- |
| 79 JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE. | 71,300 | 51,300 | -20,000 |
| 78 PRECISION STRIKE WEAPONS DEVELOPMENT PROGRAM..... | 5,654 | 5,654 | --- |
| 79 SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE.. | 31,549 | 31,549 | --- |
| 82 OFFENSIVE ANTI-SURFACE WARFARE WEAPON DEVELOPMENT..... | 86,801 | 86,801 | --- |
| 83 JOINT LIGHT TACTICAL VEHICLE ENGINEERING/MANUFACTURING | 44,500 | 44,500 | --- |
| 80 ASW SYSTEMS DEVELOPMENT - MIP..... | 13,172 | 13,172 | --- |
| 82 ELECTRONIC WARFARE DEVELOPMENT - MIP..... | 643 | 643 | --- |
| TOTAL, DEMONSTRATION & VALIDATION..... | 4,335,297 | 4,275,388 | -59,909 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|-------|--|--------------------------|------------------------|---------|
| ----- | | | | |
| 87 | ENGINEERING & MANUFACTURING DEVELOPMENT | | | |
| | OTHER HELO DEVELOPMENT..... | 33,978 | 24,978 | -9,000 |
| 88 | AV-8B AIRCRAFT - ENG DEV..... | 32,789 | 32,789 | --- |
| 89 | STANDARDS DEVELOPMENT..... | 84,988 | 82,988 | -2,000 |
| 90 | MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT..... | 6,866 | 6,866 | --- |
| 91 | AIR/OCEAN EQUIPMENT ENGINEERING..... | 4,060 | 4,060 | --- |
| 92 | P-3 MODERNIZATION PROGRAM..... | 3,451 | 3,451 | --- |
| 93 | WARFARE SUPPORT SYSTEM..... | 13,071 | 13,071 | --- |
| 94 | TACTICAL COMMAND SYSTEM..... | 71,645 | 71,645 | --- |
| 95 | ADVANCED HAWKEYE..... | 119,065 | 119,065 | --- |
| 96 | H-1 UPGRADES..... | 31,105 | 31,105 | --- |
| 97 | ACOUSTIC SEARCH SENSORS..... | 34,299 | 34,299 | --- |
| 98 | V-22A..... | 54,412 | 45,412 | -9,000 |
| 99 | AIR CREW SYSTEMS DEVELOPMENT..... | 2,717 | 2,717 | --- |
| 100 | EA-18..... | 13,009 | 13,009 | --- |
| 101 | ELECTRONIC WARFARE DEVELOPMENT..... | 51,304 | 51,304 | --- |
| 102 | VH-71A EXECUTIVE HELO DEVELOPMENT..... | 61,163 | 41,163 | -20,000 |
| 103 | NEXT GENERATION JAMMER (NGJ)..... | 187,024 | 187,024 | --- |
| 104 | JOINT TACTICAL RADIO SYSTEM - NAVY (JTRS-NAVY)..... | 337,480 | 257,480 | -80,000 |
| 105 | SURFACE COMBATANT COMBAT SYSTEM ENGINEERING..... | 260,616 | 260,616 | --- |
| 106 | LPD-17 CLASS SYSTEMS INTEGRATION..... | 824 | 824 | --- |
| 107 | SMALL DIAMETER BOMB (SDB)..... | 31,064 | 31,064 | --- |
| 108 | STANDARD MISSILE IMPROVEMENTS..... | 63,891 | 58,391 | -5,500 |
| 109 | AIRBORNE MCM..... | 73,246 | 73,246 | --- |
| 110 | MARINE AIR GROUND TASK FORCE ELECTRONIC WARFARE..... | 10,568 | 10,568 | --- |
| 111 | NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR SYSTEMS ENG..... | 39,974 | 39,974 | --- |
| 112 | FUTURE UNMANNED CARRIER-BASED STRIKE SYSTEM..... | 122,481 | 122,481 | --- |
| 113 | ADVANCED ABOVE WATER SENSORS..... | 255,516 | 255,516 | --- |
| 114 | SSN-688 AND TRIDENT MODERNIZATION..... | 82,620 | 82,620 | --- |
| 115 | AIR CONTROL..... | 5,633 | 5,633 | --- |
| 116 | SHIPBOARD AVIATION SYSTEMS..... | 55,826 | 55,826 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| 117 COMBAT INFORMATION CENTER CONVERSION..... | 918 | 918 | --- |
| 118 NEW DESIGN SSN..... | 165,230 | 180,230 | +15,000 |
| 119 SUBMARINE TACTICAL WARFARE SYSTEM..... | 49,141 | 49,141 | --- |
| 120 SHIP CONTRACT DESIGN/LIVE FIRE T&E..... | 196,737 | 176,737 | -20,000 |
| 121 NAVY TACTICAL COMPUTER RESOURCES..... | 3,889 | 3,889 | --- |
| 122 MINE DEVELOPMENT..... | 8,335 | 8,335 | --- |
| 123 LIGHTWEIGHT TORPEDO DEVELOPMENT..... | 49,818 | 59,818 | +10,000 |
| 124 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT..... | 10,099 | 10,099 | --- |
| 125 PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS.... | 7,348 | 7,348 | --- |
| 126 JOINT STANDOFF WEAPON SYSTEMS..... | 5,518 | 5,518 | --- |
| 127 SHIP SELF DEFENSE (DETECT & CONTROL)..... | 87,662 | 87,662 | --- |
| 128 SHIP SELF DEFENSE (ENGAGE: HARD KILL)..... | 64,079 | 64,079 | --- |
| 129 SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)..... | 151,489 | 151,489 | --- |
| 131 MEDICAL DEVELOPMENT..... | 12,707 | 41,707 | +29,000 |
| 132 NAVIGATION/ID SYSTEM..... | 47,764 | 47,764 | --- |
| 133 JOINT STRIKE FIGHTER (JSF) - EMD..... | 737,149 | 733,949 | -3,200 |
| 134 JOINT STRIKE FIGHTER (JSF)..... | 743,926 | 740,726 | -3,200 |
| 135 INFORMATION TECHNOLOGY DEVELOPMENT..... | 12,143 | 12,143 | --- |
| 136 INFORMATION TECHNOLOGY DEVELOPMENT..... | 72,209 | 72,209 | --- |
| 138 CH-53K..... | 606,204 | 606,204 | --- |
| 140 MULTI-MISSION MARITIME AIRCRAFT (MMA)..... | 421,102 | 436,102 | +15,000 |
| 141 DDG-1000..... | 124,655 | 124,655 | --- |
| 142 TACTICAL COMMAND SYSTEM - MIP..... | 1,170 | 1,170 | --- |
| 144 TACTICAL CRYPTOLOGIC SYSTEMS..... | 23,255 | 23,255 | --- |
| TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT..... | 5,747,232 | 5,664,332 | -82,900 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| ----- | | | |
| RDT&E MANAGEMENT SUPPORT | | | |
| 146 THREAT SIMULATOR DEVELOPMENT..... | 30,790 | 30,790 | --- |
| 147 TARGET SYSTEMS DEVELOPMENT..... | 59,221 | 59,221 | --- |
| 148 MAJOR T&E INVESTMENT..... | 35,894 | 35,894 | --- |
| 149 JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION.... | 7,573 | 7,573 | --- |
| 150 STUDIES AND ANALYSIS SUPPORT - NAVY..... | 20,963 | 20,963 | --- |
| 151 CENTER FOR NAVAL ANALYSES..... | 46,856 | 46,856 | --- |
| 153 TECHNICAL INFORMATION SERVICES..... | 796 | 796 | --- |
| 154 MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT..... | 32,782 | 32,782 | --- |
| 155 STRATEGIC TECHNICAL SUPPORT..... | 3,306 | 3,306 | --- |
| 156 RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT..... | 70,302 | 70,302 | --- |
| 157 RDT&E SHIP AND AIRCRAFT SUPPORT..... | 144,033 | 144,033 | --- |
| 158 TEST AND EVALUATION SUPPORT..... | 342,298 | 372,298 | +30,000 |
| 159 OPERATIONAL TEST AND EVALUATION CAPABILITY..... | 16,399 | 16,399 | --- |
| 160 NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT..... | 4,579 | 4,579 | --- |
| 161 SEW SURVEILLANCE/RECONNAISSANCE SUPPORT..... | 8,000 | 8,000 | --- |
| 162 MARINE CORPS PROGRAM WIDE SUPPORT..... | 18,490 | 18,490 | --- |
| 163 TACTICAL CRYPTOLOGIC ACTIVITIES..... | 2,795 | 2,795 | --- |
| TOTAL, RDT&E MANAGEMENT SUPPORT..... | 845,077 | 875,077 | +30,000 |
| ----- | | | |
| OPERATIONAL SYSTEMS DEVELOPMENT | | | |
| 167 UNMANNED COMBAT AIR VEHICLE (UCAV) ADVANCED COMPONENT. | 142,282 | 142,282 | --- |
| 170 STRATEGIC SUB & WEAPONS SYSTEM SUPPORT..... | 105,892 | 105,892 | --- |
| 171 SSBN SECURITY TECHNOLOGY PROGRAM..... | 34,729 | 34,729 | --- |
| 172 SUBMARINE ACOUSTIC WARFARE DEVELOPMENT..... | 1,434 | 1,434 | --- |
| 173 NAVY STRATEGIC COMMUNICATIONS..... | 19,208 | 19,208 | --- |
| 174 RAPID TECHNOLOGY TRANSITION (RTT)..... | 25,566 | 25,566 | --- |
| 175 F/A-18 SQUADRONS..... | 188,299 | 168,299 | -20,000 |
| 176 E-2 SQUADRONS..... | 8,610 | 8,610 | --- |
| 177 FLEET TELECOMMUNICATIONS (TACTICAL)..... | 15,695 | 15,695 | --- |
| 178 SURFACE SUPPORT..... | 4,171 | 4,171 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 179 TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC) .. | 11,265 | 11,265 | --- |
| 180 INTEGRATED SURVEILLANCE SYSTEM..... | 45,922 | 45,922 | --- |
| 181 AMPHIBIOUS TACTICAL SUPPORT UNITS..... | 8,435 | 8,435 | --- |
| 182 GROUND/AIR TASK ORIENTED RADAR..... | 75,088 | 75,088 | --- |
| 183 CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT..... | 20,229 | 20,229 | --- |
| 184 CRYPTOLOGIC DIRECT SUPPORT..... | 1,756 | 1,756 | --- |
| 185 ELECTRONIC WARFARE (EW) READINESS SUPPORT..... | 19,843 | 19,843 | --- |
| 186 HARM IMPROVEMENT..... | 11,477 | 11,477 | --- |
| 187 TACTICAL DATA LINKS..... | 118,818 | 118,818 | --- |
| 188 SURFACE ASW COMBAT SYSTEM INTEGRATION..... | 27,342 | 27,342 | --- |
| 189 MK-48 ADCAP..... | 28,717 | 38,717 | +10,000 |
| 190 AVIATION IMPROVEMENTS..... | 89,157 | 89,157 | --- |
| 191 NAVY SCIENCE ASSISTANCE PROGRAM..... | 3,450 | 3,450 | --- |
| 192 OPERATIONAL NUCLEAR POWER SYSTEMS..... | 86,435 | 86,435 | --- |
| 193 MARINE CORPS COMMUNICATIONS SYSTEMS..... | 219,054 | 219,054 | --- |
| 194 MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS.... | 181,693 | 181,693 | --- |
| 195 MARINE CORPS COMBAT SERVICES SUPPORT..... | 58,393 | 58,393 | --- |
| 196 USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP).... | 22,966 | 22,966 | --- |
| 197 TACTICAL AIM MISSILES..... | 21,107 | 21,107 | --- |
| 198 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)..... | 2,857 | 2,857 | --- |
| 199 JOINT HIGH SPEED VESSEL (JHSV)..... | 1,932 | 1,932 | --- |
| 204 SATELLITE COMMUNICATIONS (SPACE)..... | 188,482 | 188,482 | --- |
| 205 CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES..... | 16,749 | 16,749 | --- |
| 206 INFORMATION SYSTEMS SECURITY PROGRAM..... | 26,307 | 26,307 | --- |
| 207 WMCSS/Global Command and Control System..... | 500 | 500 | --- |
| 210 COBRA JUDY..... | 17,091 | 17,091 | --- |
| 211 NAVY METEOROLOGICAL AND OCEAN SENSORS-SPACE (METOC)... | 810 | 810 | --- |
| 212 JOINT MILITARY INTELLIGENCE PROGRAMS..... | 8,617 | 8,617 | --- |
| 213 TACTICAL UNMANNED AERIAL VEHICLES..... | 9,066 | 9,066 | --- |
| 215 MANNED RECONNAISSANCE SYSTEMS..... | 30,654 | 30,654 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| 216 DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS..... | 25,917 | 25,917 | --- |
| 217 DISTRIBUTED COMMON GROUND SYSTEMS/SURFACE SYSTEMS..... | 14,676 | 14,676 | --- |
| 218 RQ-4 UAV..... | 657,483 | 657,483 | --- |
| 219 MQ-8 UAV..... | 99,600 | 33,600 | -66,000 |
| 220 RQ-11 UAV..... | 495 | 495 | --- |
| 221 RQ-7 UAV..... | 863 | 863 | --- |
| 223 SMALL (LEVEL 0) TACTICAL UAS (STUASLO)..... | 9,734 | 9,734 | --- |
| 225 RQ-21A..... | 22,343 | 22,343 | --- |
| 226 MODELING AND SIMULATION SUPPORT..... | 5,908 | 5,908 | --- |
| 227 DEPOT MAINTENANCE (NON-IF)..... | 27,391 | 27,391 | --- |
| 229 INDUSTRIAL PREPAREDNESS..... | 54,879 | 64,879 | +10,000 |
| 230 MARITIME TECHNOLOGY (MARITECH)..... | 5,000 | 5,000 | --- |
| TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT..... | 2,824,387 | 2,758,387 | -66,000 |
| 999 CLASSIFIED PROGRAMS..... | 1,151,159 | 1,351,159 | +200,000 |
| TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY..... | 16,882,877 | 16,987,768 | +104,891 |

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[in thousands of dollars]

| R-1 | Budget Request | Committee Recommended | Change from Request |
|--|-------------------|--------------------------|------------------------|
| 1 UNIVERSITY RESEARCH INITIATIVES | 113,690 | 133,690 | 20,000 |
| Program increase - cooperative based university research program | | 20,000 | |
| OCEAN WARFIGHTING ENVIRONMENT APPLIED | | | |
| 10 RESEARCH | 49,635 | 64,635 | 15,000 |
| Program increase - AGOR mid-life refit | | 15,000 | |
| 23 WARFIGHTER PROTECTION ADVANCED TECHNOLOGY | 3,880 | 42,580 | 38,700 |
| Program increase - bone marrow registry program | | 31,500 | |
| Program increase - tactical athlete program | | 7,200 | |
| 24 UNDERSEA WARFARE ADVANCED TECHNOLOGY | 0 | 10,000 | 10,000 |
| Program increase - ASW research | | 10,000 | |
| SURFACE AND SHALLOW WATER MINE | | | |
| 35 COUNTERMEASURES | 190,622 | 160,622 | -30,000 |
| Program execution | | -30,000 | |
| 43 SURFACE ASW | 6,704 | 2,495 | -4,209 |
| Program execution | | -4,209 | |
| 47 SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES | 13,710 | 9,810 | -3,900 |
| Program delay | | -3,900 | |
| 51 LITTORAL COMBAT SHIP (LCS) | 429,420 | 401,620 | -27,800 |
| Increment 2 missile system ahead of need | | -15,000 | |
| Irregular warfare module ahead of need | | -22,800 | |
| Program increase - small business technology insertion | | 10,000 | |
| JOINT SERVICE EXPLOSIVE ORDNANCE | | | |
| 56 DEVELOPMENT | 52,331 | 38,331 | -14,000 |
| Program execution | | -14,000 | |
| 60 NAVY ENERGY PROGRAM | 55,324 | 95,324 | 40,000 |
| Program increase - alternative energy initiatives | | 40,000 | |
| JOINT COUNTER RADIO CONTROLLED IED | | | |
| 79 ELECTRONIC WARFARE | 71,300 | 51,300 | -20,000 |
| Program execution | | -20,000 | |
| 87 OTHER HELO DEVELOPMENT | 33,978 | 24,978 | -9,000 |
| Program execution | | -9,000 | |
| 89 STANDARDS DEVELOPMENT | 84,988 | 82,988 | -2,000 |
| Support funding growth | | -2,000 | |
| 98 V-22A | 54,412 | 45,412 | -9,000 |
| Program execution | | -9,000 | |
| 102 VH-71A EXECUTIVE HELO DEVELOPMENT | 61,163 | 41,163 | -20,000 |
| Program execution | | -20,000 | |
| 104 JOINT TACTICAL RADIO SYSTEM - NAVY (JTRS-NAVY) | 337,480 | 257,480 | -80,000 |
| Revised acquisition strategy | | -80,000 | |

| R-1 | Budget Request | Committee Recommended | Change from Request |
|--|----------------|-----------------------|---------------------|
| 108 STANDARD MISSILE IMPROVEMENTS | 63,891 | 58,391 | -5,500 |
| Program execution | | -5,500 | |
| 118 NEW DESIGN SSN | 165,230 | 180,230 | 15,000 |
| Program increase - small business technology insertion | | 15,000 | |
| 120 SHIP CONTRACT DESIGN/LIVE FIRE T&E | 196,737 | 176,737 | -20,000 |
| Ship to shore connector contract delay | | -20,000 | |
| 123 LIGHTWEIGHT TORPEDO DEVELOPMENT | 49,818 | 59,818 | 10,000 |
| Program increase - small business technology insertion | | 10,000 | |
| 131 MEDICAL DEVELOPMENT | 12,707 | 41,707 | 29,000 |
| Program increase - NAMRU research | | 10,000 | |
| Program increase - wound care research | | 13,000 | |
| Program increase - military dental research | | 6,000 | |
| 133 JOINT STRIKE FIGHTER (JSF) - EMD | 737,149 | 733,949 | -3,200 |
| Block IV development ahead of need | | -3,200 | |
| 134 JOINT STRIKE FIGHTER (JSF) | 743,926 | 740,726 | -3,200 |
| Block IV development ahead of need | | -3,200 | |
| 140 MULTI-MISSION MARITIME AIRCRAFT (MMA) | 421,102 | 436,102 | 15,000 |
| Program increase - small business technology insertion | | 15,000 | |
| 158 TEST AND EVALUATION SUPPORT | 342,298 | 372,298 | 30,000 |
| Program increase - major range and test facility base | | 30,000 | |
| 175 F/A-18 SQUADRONS | 188,299 | 168,299 | -20,000 |
| Program execution | | -20,000 | |
| 189 MK-48 ADCAP | 28,717 | 38,717 | 10,000 |
| Program increase - small business technology insertion | | 10,000 | |
| 219 MQ-8 UAV | 99,600 | 33,600 | -66,000 |
| Program execution | | -66,000 | |
| 229 INDUSTRIAL PREPAREDNESS | 54,879 | 64,879 | 10,000 |
| Program increase | | 10,000 | |
| 999 CLASSIFIED PROGRAMS | 1,151,159 | 1,351,159 | 200,000 |
| Classified adjustment | | 200,000 | |

FIRES-COUT

The MQ-8 Firescout vertical take-off and landing unmanned aerial vehicle will provide intelligence, surveillance, and reconnaissance data to users without the use of manned aircraft or reliance on national assets. The Navy's original plan for this platform was for use in the mission packages onboard the Littoral Combat Ships. With the delay in construction and fielding of these ships, the aircraft has migrated to other roles and missions, which has disrupted the testing and development schedule, resulting in a concurrent development, testing, and production schedule. The current state of this program is not unlike the Joint Strike Fighter program, although both programs have arrived at their current state via different paths. Concurrency in an acquisition program is undesirable in that end items are being procured despite the development and testing being incomplete. This condition typically results in the need to modify, at some cost, these end items as problems are discovered and resolved. Recent examples of issues in the Firescout program include one aircraft that was unable to be recovered on its host ship and ultimately crashed into the water, and another aircraft that lost communications with its control station and was lost while conducting operations. These incidents have resulted in the Firescout fleet being grounded from routine operations. Additionally, the Firescout program is in the midst of a transition from the MQ-8B variant to the MQ-8C variant, which will possess much greater endurance relative to the MQ-8B. However, this transition has been delayed as not all components of the MQ-8C variant are ready for production. The result of the delay in transitioning variants in this program has been the stockpiling of development funding. The program essentially has two years of development funding to expend in fiscal year 2012 and undoubtedly a large portion of that will carry over to fiscal year 2013. Therefore the recommendation provides \$33,600,000 for the development of the Firescout program, a reduction of \$66,000,000.

The Committee recognizes the parallels between this program and the Joint Strike Fighter program. The F-35B variant of the Joint Strike Fighter was placed on probation as a result of some of the technical challenges it faced. Although probation was never specifically defined for the Committee, the Department recently removed the F-35B from probation, an indication that the strategy achieved its objectives. The Committee urges the Secretary of the Navy to use a similar strategy on the Firescout program and report to the congressional defense committees not later than 90 days after enactment of this Act on the strategy and its planned objectives.

BONE MARROW REGISTRY

The bill includes \$31,500,000 for the Department of the Navy to be administered by the Bone Marrow Registry, also known as and referred to within the Naval Medical Research Center as the C.W. Bill Young Marrow Donor Recruitment and Research Program. Funds appropriated for the Bone Marrow Registry shall remain available only for the purposes for which they were appropriated and may only be obligated for the Bone Marrow Registry. This De-

partment of Defense donor center has recruited more than 700,000 Department of Defense volunteers and provides more marrow donors per week than any other donor center in the nation. More than 18,000 servicemembers and other Department volunteers from this donor center have provided marrow to save the lives of patients. The success of this national and international life-saving program for military and civilian patients, which now includes more than 10,000,000 potential volunteer donors, is admirable. Further, the agencies involved in contingency planning are encouraged to continue to include the Bone Marrow Registry in the development and testing of their contingency plans. The Department of Defense form (DD Form 1414) shall show this as a congressional interest item. The Department is further directed to release all of the funds appropriated for this purpose to the Bone Marrow Registry not later than 60 days after enactment of this Act.

ELECTRONIC EQUIPMENT MAINTENANCE

The Committee is aware that the Navy has included low cost electronic system maintenance and distance support tools as part of the Aegis cruiser and destroyer modernization programs, resulting in improved readiness for Aegis ships. The Committee urges the Navy to develop these tools and practices for other platforms, including the Littoral Combat Ship.

AUTOMATED TEST AND RE-TEST

The Committee is aware that the Navy's automated test and retest (ATRT) project has reduced labor requirements for testing, improved system performance, and reduced cost for systems where the tool has been applied. The Committee believes with the advent of software intensive systems that the potential savings through the use of ATRT has only begun to be realized and encourages the Secretary of the Navy to expand the use of ATRT to other programs and systems and to expedite the execution of funding allocated towards this resource.

STRATEGIC SUBMARINE REPLACEMENT

The Committee is concerned with the national security and programmatic risks associated with the Department's decision to delay the Ohio class ballistic missile submarine replacement program. The Committee expects the Secretary of the Navy to conduct close and frequent oversight of this program to ensure that these risks are minimized.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE

| | |
|---------------------------------------|------------------|
| Fiscal year 2012 appropriation | \$26,535,996,000 |
| Fiscal year 2013 budget request | 25,428,046,000 |
| Committee recommendation | 25,117,692,000 |
| Change from budget request | - 310,354,000 |

This appropriation provides funds for the research, development, test and evaluation activities of the Department of the Air Force. The total amount recommended in the bill will provide the following program in fiscal year 2013:

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|---|--|--------------------------|------------------------|---------|
| RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE | | | | |
| BASIC RESEARCH | | | | |
| 1 | DEFENSE RESEARCH SCIENCES..... | 361,787 | 361,787 | --- |
| 2 | UNIVERSITY RESEARCH INITIATIVES..... | 141,153 | 141,153 | --- |
| 3 | HIGH ENERGY LASER RESEARCH INITIATIVES..... | 13,094 | 13,094 | --- |
| | TOTAL, BASIC RESEARCH..... | 516,034 | 516,034 | --- |
| APPLIED RESEARCH | | | | |
| 4 | MATERIALS..... | 114,166 | 114,166 | --- |
| 5 | AEROSPACE VEHICLE TECHNOLOGIES..... | 120,719 | 120,719 | --- |
| 6 | HUMAN EFFECTIVENESS APPLIED RESEARCH..... | 89,319 | 89,319 | --- |
| 7 | AEROSPACE PROPULSION..... | 232,547 | 232,547 | --- |
| 8 | AEROSPACE SENSORS..... | 127,637 | 127,637 | --- |
| 9 | SPACE TECHNOLOGY..... | 98,375 | 98,375 | --- |
| 10 | CONVENTIONAL MUNITIONS..... | 77,175 | 77,175 | --- |
| 11 | DIRECTED ENERGY TECHNOLOGY..... | 106,196 | 106,196 | --- |
| | DOMINANT INFORMATION SCIENCES AND METHODS..... | 104,362 | 104,362 | --- |
| 13 | HIGH ENERGY LASER RESEARCH..... | 38,557 | 38,557 | --- |
| | TOTAL, APPLIED RESEARCH..... | 1,109,053 | 1,109,053 | --- |
| ADVANCED TECHNOLOGY DEVELOPMENT | | | | |
| 14 | ADVANCED MATERIALS FOR WEAPON SYSTEMS..... | 47,890 | 47,890 | --- |
| 15 | SUSTAINMENT SCIENCE AND TECHNOLOGY (S&T)..... | 6,565 | 6,565 | --- |
| 16 | ADVANCED AEROSPACE SENSORS..... | 37,657 | 37,657 | --- |
| 17 | AEROSPACE TECHNOLOGY DEV/DEMO..... | 81,376 | 81,376 | --- |
| 18 | AEROSPACE PROPULSION AND POWER TECHNOLOGY..... | 151,152 | 151,152 | --- |
| 19 | ELECTRONIC COMBAT TECHNOLOGY..... | 32,941 | 32,941 | --- |
| 20 | ADVANCED SPACECRAFT TECHNOLOGY..... | 64,557 | 64,557 | --- |
| 21 | MAUI SPACE SURVEILLANCE SYSTEM (MSSS)..... | 29,256 | 29,256 | --- |
| 22 | HUMAN EFFECTIVENESS ADVANCED TECHNOLOGY DEVELOPMENT... | 21,523 | 21,523 | --- |
| 23 | CONVENTIONAL WEAPONS TECHNOLOGY..... | 36,352 | 36,352 | --- |
| 24 | ADVANCED WEAPONS TECHNOLOGY..... | 19,004 | 19,004 | --- |
| 25 | MANUFACTURING TECHNOLOGY PROGRAM..... | 37,045 | 57,045 | +20,000 |
| 26 | BATTLESPACE KNOWLEDGE DEVELOPMENT & DEMONSTRATION..... | 31,419 | 31,419 | --- |
| | TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT..... | 596,737 | 616,737 | +20,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| ----- | | | |
| ADVANCED COMPONENT DEVELOPMENT | | | |
| 28 INTELLIGENCE ADVANCED DEVELOPMENT..... | 3,866 | 3,866 | --- |
| 29 PHYSICAL SECURITY EQUIPMENT..... | 3,704 | 3,704 | --- |
| 30 ADVANCED EHF MILSATCOM (SPACE)..... | 229,171 | 199,171 | -30,000 |
| 31 POLAR MILSATCOM (SPACE)..... | 120,676 | 120,676 | --- |
| 32 SPACE CONTROL TECHNOLOGY..... | 25,144 | 25,144 | --- |
| 33 COMBAT IDENTIFICATION TECHNOLOGY..... | 32,243 | 29,243 | -3,000 |
| 34 NATO RESEARCH AND DEVELOPMENT..... | 4,507 | 4,507 | --- |
| 35 INTERNATIONAL SPACE COOPERATIVE R&D..... | 652 | 652 | --- |
| 36 SPACE PROTECTION PROGRAM (SPP)..... | 10,429 | 10,429 | --- |
| 37 INTEGRATED BROADCAST SERVICE..... | 19,938 | 19,938 | --- |
| 38 INTERCONTINENTAL BALLISTIC MISSILE..... | 71,181 | 71,181 | --- |
| 39 WIDEBAND GAFILLER SYSTEM RDT&E (SPACE)..... | 12,027 | 12,027 | --- |
| 40 POLLUTION PREVENTION (DEM/VAL)..... | 2,054 | 2,054 | --- |
| 41 JOINT PRECISION APPROACH AND LANDING SYSTEMS..... | 57,975 | 57,975 | --- |
| 42 NEXT GENERATION BOMBER..... | 291,742 | 291,742 | --- |
| 43 BATTLE MGMT COM & CTRL SENSOR DEVELOPMENT..... | 114,417 | 124,417 | +10,000 |
| 44 TECHNOLOGY TRANSFER..... | 2,576 | 2,576 | --- |
| 45 HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM..... | 16,711 | 16,711 | --- |
| 47 REQUIREMENTS ANALYSIS AND MATURATION..... | 16,343 | 16,343 | --- |
| 48 WEATHER SATELLITE FOLLOW-ON..... | 2,000 | 2,000 | --- |
| 50 GROUND ATTACK WEAPONS FUZE DEVELOPMENT..... | 9,423 | 9,423 | --- |
| 55 TECH TRANSITION PROGRAM..... | 37,558 | 3,058 | -34,500 |
| 56 NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT).... | 96,840 | 86,840 | -10,000 |
| ----- | | | |
| TOTAL, ADVANCED COMPONENT DEVELOPMENT..... | 1,181,177 | 1,113,677 | -67,500 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| ENGINEERING & MANUFACTURING DEVELOPMENT | | | |
| 58 GLOBAL BROADCAST SERVICE (GBS)..... | 14,652 | 14,652 | --- |
| 59 NUCLEAR WEAPONS SUPPORT..... | 25,713 | 25,713 | --- |
| 60 SPECIALIZED UNDERGRADUATE FLIGHT TRAINING..... | 6,583 | 1,583 | -5,000 |
| 61 ELECTRONIC WARFARE DEVELOPMENT..... | 1,975 | 1,975 | --- |
| 62 JOINT TACTICAL RADIO..... | 2,594 | 2,594 | --- |
| 63 TACTICAL DATA NETWORKS ENTERPRISE..... | 24,534 | 24,534 | --- |
| 64 PHYSICAL SECURITY EQUIPMENT..... | 51 | 51 | --- |
| 65 SMALL DIAMETER BOMB (SDB)..... | 143,000 | 143,000 | --- |
| 66 COUNTERSPACE SYSTEMS..... | 28,797 | 28,797 | --- |
| 67 SPACE SITUATION AWARENESS SYSTEMS..... | 267,252 | 230,152 | -37,100 |
| 68 AIRBORNE ELECTRONIC ATTACK..... | 4,118 | 4,118 | --- |
| 69 SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD..... | 448,594 | 516,594 | +68,000 |
| 70 ARMAMENT/ORDNANCE DEVELOPMENT..... | 9,951 | 9,951 | --- |
| 71 SUBMUNITIONS..... | 2,567 | 2,567 | --- |
| 72 AGILE COMBAT SUPPORT..... | 13,059 | 13,059 | --- |
| 73 LIFE SUPPORT SYSTEMS..... | 9,720 | 9,720 | --- |
| 74 COMBAT TRAINING RANGES..... | 9,222 | 9,222 | --- |
| 76 INTELLIGENCE EQUIPMENT..... | 803 | 803 | --- |
| 77 JOINT STRIKE FIGHTER (JSF)..... | 1,210,306 | 1,207,999 | -2,307 |
| 78 INTERCONTINENTAL BALLISTIC MISSILE..... | 135,437 | 135,437 | --- |
| 79 EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE)..... | 7,980 | 32,980 | +25,000 |
| 80 LONG RANGE STANDOFF WEAPON..... | 2,004 | 2,004 | --- |
| 81 ICBM FUZE MODERNIZATION..... | 73,512 | 73,512 | --- |
| 82 F-22 MODERNIZATION INCREMENT 3.2B..... | 140,100 | 140,100 | --- |
| 83 NEXT GENERATION AERIAL REFUELING AIRCRAFT..... | 1,815,588 | 1,815,588 | --- |
| 84 CSAR HH-60 RECAPITALIZATION..... | 123,210 | 123,210 | --- |
| 85 HC/MC-130 RECAP RDT&E..... | 19,039 | 19,039 | --- |
| 86 B-2 DEFENSIVE MANAGEMENT SYSTEM..... | 281,056 | 281,056 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| 87 NUCLEAR WEAPONS MODERNIZATION..... | 80,200 | 80,200 | --- |
| 89 READINESS TRAINING RANGES, OPERATIONS AND MAINTENANCE. | 310 | 310 | --- |
| 90 FULL COMBAT MISSION TRAINING..... | 14,861 | 14,861 | --- |
| 91 MC-12..... | 19,949 | 19,949 | --- |
| JOINT CARGO AIRCRAFT (JCA)..... | --- | 25,000 | +25,000 |
| 93 CV-22..... | 28,027 | 28,027 | --- |
| 94 AIRBORNE SENIOR LEADER C3 (SLC3S)..... | 1,960 | 1,960 | --- |
| TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT..... | 4,966,724 | 5,040,317 | +73,593 |
| RD&E MANAGEMENT SUPPORT | | | |
| 95 THREAT SIMULATOR DEVELOPMENT..... | 22,812 | 22,812 | --- |
| 96 MAJOR T&E INVESTMENT..... | 42,236 | 42,236 | --- |
| 97 RAND PROJECT AIR FORCE..... | 25,579 | 25,579 | --- |
| 99 INITIAL OPERATIONAL TEST & EVALUATION..... | 16,197 | 16,197 | --- |
| 100 TEST AND EVALUATION SUPPORT..... | 722,071 | 722,071 | --- |
| 101 ROCKET SYSTEMS LAUNCH PROGRAM (SPACE)..... | 16,200 | 16,200 | --- |
| 102 SPACE TEST PROGRAM (STP)..... | 10,051 | 10,051 | --- |
| 103 FACILITIES RESTORATION & MODERNIZATION - TEST & EVAL.. | 42,597 | 42,597 | --- |
| 104 FACILITIES SUSTAINMENT - TEST AND EVALUATION SUPPORT.. | 27,301 | 27,301 | --- |
| 105 MULTI-SERVICE SYSTEMS ENGINEERING INITIATIVE..... | 13,964 | 13,964 | --- |
| 106 SPACE AND MISSILE CENTER (SMC) CIVILIAN WORKFORCE..... | 203,766 | 203,766 | --- |
| 107 ACQUISITION AND MANAGEMENT SUPPORT..... | 42,430 | 42,430 | --- |
| 108 GENERAL SKILL TRAINING..... | 1,294 | 1,294 | --- |
| 111 INTERNATIONAL ACTIVITIES..... | 3,851 | 3,851 | --- |
| TOTAL, RD&E MANAGEMENT SUPPORT..... | 1,190,349 | 1,190,349 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| OPERATIONAL SYSTEMS DEVELOPMENT | | | |
| 112 GPS III - OPERATIONAL CONTROL SEGMENT..... | 371,595 | 333,295 | -38,300 |
| 114 AIR FORCE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM.. | 91,697 | 91,697 | --- |
| 115 ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY..... | 17,037 | 37,037 | +20,000 |
| 117 B-52 SQUADRONS..... | 53,208 | 18,508 | -34,700 |
| 118 AIR-LAUNCHED CRUISE MISSILE (ALCM)..... | 431 | 431 | --- |
| 119 B-1B SQUADRONS..... | 16,265 | 16,265 | --- |
| 120 B-2 SQUADRONS..... | 35,970 | 35,970 | --- |
| 121 STRAT WAR PLANNING SYSTEM - USSTRATCOM..... | 30,889 | 30,889 | --- |
| 122 NIGHT FIST - USSTRATCOM..... | 10 | 10 | --- |
| 124 REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION.. | 5,609 | 5,609 | --- |
| 126 WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRAN | 15,098 | 15,098 | --- |
| 127 MQ-9 UAV..... | 147,971 | 147,971 | --- |
| 128 MULTI-PLATFORM ELECTRONIC WARFARE EQUIPMENT..... | 49,848 | 34,848 | -15,000 |
| 129 A-10 SQUADRONS..... | 13,538 | 13,538 | --- |
| 130 F-16 SQUADRONS..... | 190,257 | 190,257 | --- |
| 131 F-15E SQUADRONS..... | 192,677 | 192,677 | --- |
| 132 MANNED DESTRUCTIVE SUPPRESSION..... | 13,683 | 13,683 | --- |
| 133 F-22 SQUADRONS..... | 371,667 | 371,667 | --- |
| 134 F-35 SQUADRONS..... | 8,117 | --- | -8,117 |
| 135 TACTICAL AIM MISSILES..... | 8,234 | 8,234 | --- |
| 136 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)..... | 87,041 | 87,041 | --- |
| 137 JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS)..... | 1,472 | 1,472 | --- |
| 138 COMBAT RESCUE AND RECOVERY..... | 2,095 | 2,095 | --- |
| 139 COMBAT RESCUE - PARARESCUE..... | 1,119 | 1,119 | --- |
| 140 AF TENCAP..... | 63,853 | 63,853 | --- |
| 141 PRECISION ATTACK SYSTEMS PROCUREMENT..... | 1,063 | 1,063 | --- |
| 142 COMPASS CALL..... | 12,094 | 12,094 | --- |
| 143 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM..... | 187,984 | 187,984 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 145 JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM)..... | 7,950 | 7,950 | --- |
| 146 AIR AND SPACE OPERATIONS CENTER (AOC)..... | 76,315 | 76,315 | --- |
| 147 CONTROL AND REPORTING CENTER (CRC)..... | 8,653 | 8,653 | --- |
| 148 AIRBORNE WARNING AND CONTROL SYSTEM (AWACS)..... | 65,200 | 48,900 | -16,300 |
| 149 TACTICAL AIRBORNE CONTROL SYSTEMS..... | 5,767 | 5,767 | --- |
| 152 COMBAT AIR INTELLIGENCE SYSTEM ACTIVITIES..... | 5,756 | 5,756 | --- |
| 154 TACTICAL AIR CONTROL PARTY--MOD..... | 16,226 | 16,226 | --- |
| 156 C2ISR TACTICAL DATA LINK..... | 1,633 | 1,633 | --- |
| 157 COMMAND AND CONTROL (C2) CONSTELLATION..... | 18,086 | 18,086 | --- |
| 158 DCAPEs..... | 15,690 | 15,690 | --- |
| 159 JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM..... | 24,241 | 24,241 | --- |
| 160 SEEK EAGLE..... | 22,654 | 22,654 | --- |
| 161 USAF MODELING AND SIMULATION..... | 15,501 | 15,501 | --- |
| 162 WARGAMING AND SIMULATION CENTERS..... | 5,699 | 5,699 | --- |
| 163 DISTRIBUTED TRAINING AND EXERCISES..... | 4,425 | 4,425 | --- |
| 164 MISSION PLANNING SYSTEMS..... | 69,377 | 69,377 | --- |
| 165 INFORMATION WARFARE SUPPORT..... | 7,159 | 7,159 | --- |
| 166 CYBER COMMAND ACTIVITIES..... | 66,888 | 66,888 | --- |
| 174 SPACE SUPERIORITY INTELLIGENCE..... | 12,056 | 12,056 | --- |
| 175 E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC)..... | 4,159 | 4,159 | --- |
| 176 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK..... | 20,124 | 20,124 | --- |
| 177 INFORMATION SYSTEMS SECURITY PROGRAM..... | 69,133 | 69,133 | --- |
| 178 GLOBAL COMBAT SUPPORT SYSTEM..... | 6,512 | 6,512 | --- |
| 179 GLOBAL COMMAND AND CONTROL SYSTEM..... | 4,316 | 2,316 | -2,000 |
| 180 MILSATCOM TERMINALS..... | 107,237 | 107,237 | --- |
| 182 AIRBORNE SIGINT ENTERPRISE..... | 129,106 | 129,106 | --- |
| 185 GLOBAL AIR TRAFFIC MANAGEMENT (GATHM)..... | 4,461 | 4,461 | --- |
| 186 CYBER SECURITY INITIATIVE..... | 2,055 | 2,055 | --- |
| 187 DOD CYBER CRIME CENTER..... | 285 | 285 | --- |
| 188 SATELLITE CONTROL NETWORK (SPACE)..... | 33,773 | 33,773 | --- |
| 189 WEATHER SERVICE..... | 29,048 | 29,048 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 190 AIR TRAFFIC CONTROL, APPROACH, & LANDING SYSTEM (ATC) | 43,187 | 43,187 | --- |
| 191 AERIAL TARGETS | 50,496 | 50,496 | --- |
| 194 SECURITY AND INVESTIGATIVE ACTIVITIES | 354 | 354 | --- |
| 195 ARMS CONTROL IMPLEMENTATION | 4,000 | 4,000 | --- |
| 196 DEFENSE JOINT COUNTERINTELLIGENCE ACTIVITIES | 342 | 342 | --- |
| 198 NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT) | 29,621 | 29,621 | --- |
| 199 NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE AND CONTROL) | 14,335 | 14,335 | --- |
| 201 SPACE AND MISSILE TEST AND EVALUATION CENTER | 3,680 | 3,680 | --- |
| 202 SPACE WARFARE CENTER | 2,430 | 2,430 | --- |
| 203 SPACELIFT RANGE SYSTEM (SPACE) | 8,760 | 8,760 | --- |
| 205 DRAGON U-2 | 23,644 | 23,644 | --- |
| 206 ENDURANCE UNMANNED AERIAL VEHICLES | 21,000 | 31,000 | +10,000 |
| 207 AIRBORNE RECONNAISSANCE SYSTEMS | 96,735 | 96,735 | --- |
| 208 MANNED RECONNAISSANCE SYSTEMS | 13,316 | 13,316 | --- |
| 209 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS | 63,501 | 63,501 | --- |
| 210 PREDATOR UAV (JMIP) | 9,122 | 9,122 | --- |
| 211 RQ-4 UAV | 236,265 | 252,265 | +16,000 |
| 212 NETWORK-CENTRIC COLLABORATIVE TARGET (TIARA) | 7,367 | 7,367 | --- |
| 213 COMMON DATA LINK (CDL) | 38,094 | 38,094 | --- |
| 214 NATO AGS | 210,109 | 210,109 | --- |
| 215 SUPPORT TO DCGS ENTERPRISE | 24,500 | 24,500 | --- |
| 216 GPS III SPACE SEGMENT | 318,992 | 318,992 | --- |
| 217 JSPOC MISSION SYSTEM | 54,645 | 54,645 | --- |
| 218 RAPID CYBER ACQUISITION | 4,007 | 4,007 | --- |
| 219 INTELLIGENCE SUPPORT TO INFORMATION WARFARE | 13,357 | 13,357 | --- |
| 220 NUDET DETECTION SYSTEM (SPACE) | 64,965 | 36,565 | -28,400 |
| 221 SPACE SITUATION AWARENESS OPERATIONS | 19,586 | 19,586 | --- |
| 223 SHARED EARLY WARNING (SEW) | 1,175 | 1,175 | --- |
| 224 C-130 AIRLIFT SQUADRON | 5,000 | 10,000 | +5,000 |
| 225 C-5 AIRLIFT SQUADRONS | 35,115 | 35,115 | --- |
| 226 C-17 AIRCRAFT | 99,225 | 99,225 | --- |
| 227 C-130J PROGRAM | 30,652 | 25,652 | -5,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| 228 LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM)..... | 7,758 | 7,758 | --- |
| 229 LIGHT MOBILITY AIRCRAFT (LiMA)..... | 100 | --- | -100 |
| 231 KC-10S..... | 24,022 | 24,022 | --- |
| 232 OPERATIONAL SUPPORT AIRLIFT..... | 7,471 | 7,471 | --- |
| 234 SPECIAL TACTICS / COMBAT CONTROL..... | 4,984 | 4,984 | --- |
| 235 DEPOT MAINTENANCE (NON-IF)..... | 1,588 | 1,588 | --- |
| 236 LOGISTICS SUPPORT ACTIVITIES..... | 577 | 577 | --- |
| 237 LOGISTICS INFORMATION TECHNOLOGY (LOGIT)..... | 119,327 | 99,327 | -20,000 |
| 238 SUPPORT SYSTEMS DEVELOPMENT..... | 15,873 | 15,873 | --- |
| 240 OTHER FLIGHT TRAINING..... | 349 | 349 | --- |
| 242 OTHER PERSONNEL ACTIVITIES..... | 117 | 117 | --- |
| 243 JOINT PERSONNEL RECOVERY AGENCY..... | 2,018 | 2,018 | --- |
| 244 CIVILIAN COMPENSATION PROGRAM..... | 1,561 | 1,561 | --- |
| 245 PERSONNEL ADMINISTRATION..... | 7,634 | 2,634 | -5,000 |
| 246 AIR FORCE STUDIES AND ANALYSIS AGENCY..... | 1,175 | 1,175 | --- |
| 247 FACILITIES OPERATION--ADMINISTRATION..... | 3,491 | 3,491 | --- |
| 248 FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT.. | 100,160 | 100,160 | --- |
| TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT..... | 4,695,789 | 4,673,872 | -121,917 |
| CLASSIFIED PROGRAMS..... | 11,172,183 | 10,957,653 | -214,530 |
| TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE | 25,428,046 | 25,117,692 | -310,354 |

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

| R-1 | Budget Request | Committee Recommended | Change from Request |
|---|-------------------|--------------------------|------------------------|
| 25 MANUFACTURING TECHNOLOGY PROGRAM | 37,045 | 57,045 | 20,000 |
| Program increase | | 20,000 | |
| 30 ADVANCED EHF MILSATCOM (SPACE) | 229,171 | 199,171 | -30,000 |
| Program management services - excess to need | | -10,000 | |
| Satellite and MCS interim contractor support - excess to need | | -20,000 | |
| 33 COMBAT IDENTIFICATION TECHNOLOGY | 32,243 | 29,243 | -3,000 |
| Underexecution | | -3,000 | |
| BATTLE MANAGEMENT COMMAND & CONTROL | | | |
| 43 SENSOR DEVELOPMENT | 114,417 | 124,417 | 10,000 |
| SAR/MTI alternatives | | 10,000 | |
| 55 TECH TRANSITION PROGRAM | 37,558 | 3,058 | -34,500 |
| Reduce program growth | | -34,500 | |
| NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT) (SPACE) | | | |
| 56 GPS User equipment, directorate and other support - unjustified growth | 96,840 | 86,840 | -10,000 |
| GPS User equipment, FFRDC and management services - unjustified growth | | -5,000 | |
| GPS User equipment, FFRDC and management services - unjustified growth | | -5,000 | |
| 60 SPECIALIZED UNDERGRADUATE FLIGHT TRAINING | 6,583 | 1,583 | -5,000 |
| Program delays | | -5,000 | |
| 67 SPACE SITUATION AWARENESS SYSTEMS | 267,252 | 230,152 | -37,100 |
| Space fence - delay of award | | -37,100 | |
| 69 SPACE BASED INFRARED SYSTEM (SBIRS) HIGH | 448,594 | 516,594 | 68,000 |
| SBIRS SMI, hosted payloads | | -12,600 | |
| SBIRS SMI, architecture studies | | -9,400 | |
| SBIRS evolution | | -10,000 | |
| SBIRS ground expansion for HEO C2 | | 50,000 | |
| SBIRS ground starrer/scanner integration acceleration | | 50,000 | |
| 77 F-35 | 1,210,306 | 1,207,999 | -2,307 |
| Block 4 - early to need | | -2,307 | |
| EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE) | | | |
| 79 RL-10 conversions | 7,980 | 32,980 | 25,000 |
| RL-10 conversions | | 25,000 | |
| 92 C-27J JOINT CARGO AIRCRAFT | 0 | 25,000 | 25,000 |
| Restore C-27J program | | 25,000 | |

| R-1 | Budget Request | Committee Recommended | Change from Request |
|---|-------------------|-----------------------|---------------------|
| GLOBAL POSITIONING SYSTEM III - OPERATIONAL | | | |
| 112 CONTROL SEGMENT | 371,595 | 333,295 | -38,300 |
| GPS/OCX - Phase B, OCX, Block 1 and 2 development - early to need | | -50,000 | |
| GPS launch control system - acceleration | | 50,000 | |
| GPS/OCX FFRDC - excess to need | | -15,300 | |
| GPS - enterprise integrator FFRDC - excess to need | | -13,000 | |
| GPS - enterprise integrator - excess to need | | -10,000 | |
| 115 ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY | 17,037 | 37,037 | 20,000 |
| Alternative power sources for anti-tamper technology | | 20,000 | |
| 117 B-52 SQUADRONS | 53,208 | 18,508 | -34,700 |
| CONNECT restructure | | -34,700 | |
| MULTI-PLATFORM ELECTRONIC WARFARE | | | |
| 128 EQUIPMENT | 49,848 | 34,848 | -15,000 |
| Underexecution | | -15,000 | |
| 134 F-35 SQUADRONS | 8,117 | 0 | -8,117 |
| Block 4 - early to need | | -8,117 | |
| 148 AIRBORNE WARNING AND CONTROL SYSTEM (AWACS) | 65,200 | 48,900 | -16,300 |
| Underexecution | | -16,300 | |
| 179 GLOBAL COMMAND AND CONTROL SYSTEM | 4,316 | 2,316 | -2,000 |
| Underexecution | | -2,000 | |
| 206 ENDURANCE UNMANNED AERIAL VEHICLES | 21,000 | 31,000 | 10,000 |
| Testing base for EUAVs | | 10,000 | |
| 211 RQ-4 UAV | 236,265 | 252,265 | 16,000 |
| Restore Block 30 program at 21 aircraft | | 16,000 | |
| 220 NUDET DETECTION SYSTEM (SPACE) | 64,965 | 36,565 | -28,400 |
| ICADS - early to need | | -28,400 | |
| 224 C-130 AIRLIFT SQUADRON | 5,000 | 10,000 | 5,000 |
| CNS/ATM new start | | -5,000 | |
| Restore AMP | | 10,000 | |
| 227 C-130J PROGRAM | 30,652 | 25,652 | -5,000 |
| Block 8.1 delays | | -5,000 | |
| 229 LIGHT MOBILITY AIRCRAFT (LIMA) | 100 | 0 | -100 |
| Program termination | | -100 | |
| 237 LOGISTICS INFORMATION TECHNOLOGY (LOGIT) | 119,327 | 99,327 | -20,000 |
| Program delays | | -20,000 | |
| 245 PERSONNEL ADMINISTRATION | 7,634 | 2,634 | -5,000 |
| Unjustified growth | | -5,000 | |
| 999 CLASSIFIED PROGRAMS | 11,172,183 | 10,957,653 | -214,530 |
| Classified adjustment | | -214,530 | |

SPACE SYSTEM ACQUISITION AND SYSTEM MODERNIZATION INITIATIVES

The Committee is concerned that, in a time of declining budgets, the Air Force and the Department of Defense may resort to silver-bullet acquisition concepts in an attempt to save money and accelerate immature concepts and technologies. As the past two decades have proven, acquisition of space systems requires components with high technology readiness levels, as well as program managers, engineers, and organizations that have long histories of developing the system concepts to the point that many of the inevitable problems have been recognized and resolved. Quick-fix substitutes for years of hard-won experience are attractive but illusory. The Committee supports the concept of evolutionary modifications but believes that complete utilization of the systems that have been in development and production for the past two decades should be given priority. The Committee recommends that the Air Force reevaluate the choices of capabilities being pursued in the System Modernization Initiative effort and prioritize full utilization of fielded capabilities through ground and terminal enhancements, rather than future sensor enhancements.

SPACE BASED INFRARED SYSTEM GROUND ENHANCEMENTS

The Committee recommends \$50,000,000 for acceleration of the Space Based Infrared System (SBIRS) ground segment automated sensor tasking, which will allow the scanning sensor and the staring sensor to cue off each other and provide more accurate track for missile warning and tracking. Further, based on the current launch schedule of the various SBIRS system components, the Committee is concerned that the ground segment needs enhancement to command and control the projected constellation. The Committee also recommends \$50,000,000 for ground enhancement that will support the growth of command and control capability beyond the originally approved constellation.

MOVING TARGET INDICATOR

The Committee understands that the Air Force and the Department of Defense will soon complete the Synthetic Aperture Radar/Moving Target Indicator and Joint STARS mission area analysis of alternatives (AoA). The Committee is concerned by the extended length of time that has been required to complete the AoA and the uncertainty regarding the Air Force's future budget requirements for this vital mission. The Committee understands that the Department's final determination on the AoA will inform a Material Development Decision to achieve a solution for future requirements. The Committee has therefore included an increase of \$10,000,000 to Battle Management, Command and Control Sensor Development to initiate any new programs required as a result of the AoA.

KC-46A

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

JOINT STRIKE FIGHTER DECONTAMINATION

The Committee notes that, since 2001, Congress has appropriated funds to develop new technologies and techniques to decontaminate complex weapons systems and related equipment to protect against the threat of contamination by chemical or biological agents. Although system components have been developed to deliver decontamination technologies in a variety of environmental and field conditions, the Committee is concerned that no funding was requested for fiscal year 2013 to further Joint Strike Fighter (JSF) decontamination system development, begin system integration, and complete system validation. As a mission critical system, the F-35 is required by Department of Defense policy to be survivable in chemical, biological, radiological, and nuclear (CBRN) environments. Accordingly, the Committee directs the Air Force to make as a high priority investments in technologies that will ensure the safety of pilots in potentially contaminated environments, and to ensure that funding for such investments is adequately phased to support CBRN survivability requirements for the JSF and other mission critical systems.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION,
DEFENSE-WIDE

| | |
|---------------------------------------|------------------|
| Fiscal year 2012 appropriation | \$19,193,955,000 |
| Fiscal year 2013 budget request | 17,982,161,000 |
| Committee recommendation | 19,100,362,000 |
| Change from budget request | 1,118,201,000 |

This appropriation provides funds for the research, development, test and evaluation activities of the Department of Defense for defense-wide activities. The total amount recommended in the bill will provide the following program in fiscal year 2013:

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|--|--|--------------------------|------------------------|---------|
| RESEARCH, DEVELOPMENT, TEST & EVAL, DEFENSE-WIDE | | | | |
| BASIC RESEARCH | | | | |
| 1 | DTRA UNIVERSITY STRATEGIC PARTNERSHIP BASIC RESEARCH.. | 45,071 | 45,071 | --- |
| 2 | DEFENSE RESEARCH SCIENCES..... | 309,051 | 309,051 | --- |
| 3 | BASIC RESEARCH INITIATIVES..... | 19,405 | 15,005 | -4,400 |
| 5 | BASIC OPERATIONAL MEDICAL RESEARCH SCIENCE..... | 39,676 | 39,676 | --- |
| 6 | NATIONAL DEFENSE EDUCATION PROGRAM..... | 87,979 | 87,979 | --- |
| 7 | CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM..... | 50,566 | 50,566 | --- |
| | TOTAL, BASIC RESEARCH..... | 551,748 | 547,348 | -4,400 |
| APPLIED RESEARCH | | | | |
| 7 | JOINT MUNITIONS TECHNOLOGY..... | 20,615 | 20,615 | --- |
| 8 | BIOMEDICAL TECHNOLOGY..... | 110,900 | 110,900 | --- |
| 9 | HISTORICALLY BLACK COLLEGES & UNIV (HBCU)..... | --- | 35,599 | +35,599 |
| 10 | LINCOLN LABORATORY RESEARCH PROGRAM..... | 36,826 | 36,826 | --- |
| 11 | SYSTEMS 2020 APPLIED RESEARCH..... | 7,898 | --- | -7,898 |
| 12 | INFORMATION AND COMMUNICATIONS TECHNOLOGY..... | 392,421 | 402,421 | +10,000 |
| 13 | COGNITIVE COMPUTING SYSTEMS..... | 30,424 | 30,424 | --- |
| 15 | BIOLOGICAL WARFARE DEFENSE..... | 19,236 | 19,236 | --- |
| 16 | CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM..... | 223,269 | 223,269 | --- |
| 17 | JOINT DATA MANAGEMENT ADVANCED DEVELOPMENT..... | 13,753 | 8,753 | -5,000 |
| 18 | CYBER SECURITY RESEARCH..... | 18,985 | 11,485 | -7,500 |
| 19 | HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) APP | 6,771 | 6,771 | --- |
| 20 | TACTICAL TECHNOLOGY..... | 233,209 | 233,209 | --- |
| 21 | MATERIALS AND BIOLOGICAL TECHNOLOGY..... | 166,067 | 166,067 | --- |
| 22 | ELECTRONICS TECHNOLOGY..... | 222,416 | 222,416 | --- |
| 23 | WEAPONS OF MASS DESTRUCTION DEFEAT TECHNOLOGIES..... | 172,352 | 172,352 | --- |
| 24 | SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT..... | 28,739 | 28,739 | --- |
| | TOTAL, APPLIED RESEARCH..... | 1,703,881 | 1,729,082 | +25,201 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| ----- | | | |
| 25 | | | |
| ADVANCED TECHNOLOGY DEVELOPMENT | | | |
| JOINT MUNITIONS ADVANCED TECH INSENSITIVE MUNITIONS AD | 25,612 | 20,012 | -5,600 |
| 26 | | | |
| SO/LIC ADVANCED DEVELOPMENT..... | 26,324 | 26,324 | --- |
| 27 | | | |
| COMBATING TERRORISM TECHNOLOGY SUPPORT..... | 77,144 | 77,144 | --- |
| 28 | | | |
| COUNTERPROLIFERATION INITIATIVES--PROLIF PREV & DEFEAT | 275,022 | 275,022 | --- |
| 29 | | | |
| BALLISTIC MISSILE DEFENSE TECHNOLOGY..... | 79,975 | 75,975 | -4,000 |
| 31 | | | |
| JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT..... | 20,032 | 20,032 | --- |
| 32 | | | |
| AGILE TRANSPOR FOR THE 21ST CENTURY (AT21) - THEATER CA | 3,892 | 3,892 | --- |
| 33 | | | |
| SPECIAL PROGRAM--MDA TECHNOLOGY..... | 36,685 | 36,685 | --- |
| 34 | | | |
| ADVANCED AEROSPACE SYSTEMS..... | 174,316 | 174,316 | --- |
| 35 | | | |
| SPACE PROGRAMS AND TECHNOLOGY..... | 159,704 | 159,704 | --- |
| 36 | | | |
| CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - ADVANCED DEV | 234,280 | 234,280 | --- |
| 37 | | | |
| JOINT ELECTRONIC ADVANCED TECHNOLOGY..... | 6,983 | 6,983 | --- |
| 38 | | | |
| JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS..... | 158,263 | 158,263 | --- |
| 39 | | | |
| NETWORKED COMMUNICATIONS CAPABILITIES..... | 25,393 | 25,393 | --- |
| 40 | | | |
| JOINT DATA MANAGEMENT RESEARCH..... | 13,754 | 8,754 | -5,000 |
| 42 | | | |
| CYBER SECURITY ADVANCED RESEARCH..... | 19,935 | 12,435 | -7,500 |
| 43 | | | |
| HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) ADV | 8,235 | 8,235 | --- |
| 44 | | | |
| DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROG | 21,966 | 21,966 | --- |
| 45 | | | |
| EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT..... | 24,662 | 24,662 | --- |
| 47 | | | |
| GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS..... | 24,605 | 24,605 | --- |
| 48 | | | |
| DEPLOYMENT AND DISTRIBUTION ENTERPRISE TECHNOLOGY..... | 30,678 | 30,678 | --- |
| 49 | | | |
| STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM..... | 65,282 | 65,282 | --- |
| 50 | | | |
| MICROELECTRONIC TECHNOLOGY DEVELOPMENT AND SUPPORT.... | 72,234 | 62,234 | -10,000 |
| 51 | | | |
| JOINT WARFIGHTING PROGRAM..... | 8,403 | 8,403 | --- |
| 52 | | | |
| ADVANCED ELECTRONICS TECHNOLOGIES..... | 111,008 | 111,008 | --- |
| 54 | | | |
| COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS..... | 237,859 | 237,859 | --- |
| 55 | | | |
| CLASSIFIED DARPA PROGRAMS..... | 3,000 | 3,000 | --- |
| 56 | | | |
| NETWORK-CENTRIC WARFARE TECHNOLOGY..... | 236,883 | 236,883 | --- |
| 57 | | | |
| SENSOR TECHNOLOGY..... | 299,438 | 299,438 | --- |
| 57XX | | | |
| DEFENSE RAPID INNOVATION PROGRAM..... | --- | 250,000 | +250,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 58 DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT.. | 12,195 | 12,195 | --- |
| 59 SOFTWARE ENGINEERING INSTITUTE..... | 30,036 | 30,036 | --- |
| 60 QUICK REACTION SPECIAL PROJECTS..... | 107,002 | 82,002 | -25,000 |
| 62 JOINT EXPERIMENTATION..... | 21,230 | 21,230 | --- |
| 63 MODELING AND SIMULATION MANAGEMENT OFFICE..... | 47,433 | 47,433 | --- |
| 64 DIRECTED ENERGY RESEARCH..... | 46,944 | 41,944 | -5,000 |
| 65 NEXT GENERATION AEGIS MISSILE..... | 224,077 | 204,077 | -20,000 |
| 66 TEST & EVALUATION SCIENCE & TECHNOLOGY..... | 92,602 | 92,602 | --- |
| 68 OPERATIONAL ENERGY CAPABILITY IMPROVEMENT..... | 26,244 | 26,244 | --- |
| 69 CWMD SYSTEMS..... | 53,946 | 23,946 | -30,000 |
| 70 SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT.... | 45,317 | 45,317 | --- |
| 71 AVIATION ENGINEERING ANALYSIS..... | 861 | 861 | --- |
| 72 SOF INFORMATION AND BROADCAST SYSTEMS ADVANCED TECH... | 4,959 | 4,959 | --- |
| TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT..... | 3,194,413 | 3,332,313 | +137,900 |
| DEMONSTRATION & VALIDATION | | | |
| 73 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT.. | 33,234 | 33,234 | --- |
| 74 RETRACT LARCH..... | 21,023 | 21,023 | --- |
| 75 WALKOFF..... | 94,624 | 94,624 | --- |
| 77 ADVANCE SENSOR APPLICATIONS PROGRAM..... | 16,958 | 16,958 | --- |
| 78 ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM | 75,941 | 75,941 | --- |
| 79 BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT.... | 316,929 | 296,929 | -20,000 |
| 80 BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT... | 903,172 | 978,172 | +75,000 |
| 81 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM..... | 179,023 | 179,023 | --- |
| 82 BALLISTIC MISSILE DEFENSE SENSORS..... | 347,012 | 347,012 | --- |
| 84 BALLISTIC MISSILE DEFENSE ENABLING PROGRAMS..... | 362,711 | 362,711 | --- |
| 85 SPECIAL PROGRAMS - MDA..... | 272,387 | 272,387 | --- |
| 86 AEGIS BMD..... | 992,407 | 992,407 | --- |
| 87 SPACE SURVEILLANCE & TRACKING SYSTEM..... | 51,313 | 51,313 | --- |
| 88 BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS..... | 6,912 | 6,912 | --- |
| 89 BALLISTIC MISSILE DEFENSE C2BMC..... | 366,552 | 341,552 | -25,000 |
| 90 BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT.... | 55,550 | 55,550 | --- |
| 91 BALLISTIC MISSILE DEFENSE INTERGRATION AND OPERATIONS CENTER (MDIOC)..... | 63,043 | 63,043 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|---|-------------------|--------------------------|------------------------|
| 92 REGARDING TRENCH..... | 11,371 | 11,371 | --- |
| 93 SEA BASED X-BAND RADAR (SBX)..... | 9,730 | 9,730 | --- |
| 94 ISRAELI COOPERATIVE PROGRAMS..... | 99,836 | 948,736 | +848,900 |
| 95 BALLISTIC MISSILE DEFENSE TEST..... | 454,400 | 454,400 | --- |
| 96 BALLISTIC MISSILE DEFENSE TARGETS..... | 435,747 | 435,747 | --- |
| 97 HUMANITARIAN DEMINING..... | 13,231 | 13,231 | --- |
| 98 COALITION WARFARE..... | 11,398 | 11,398 | --- |
| 99 DEPARTMENT OF DEFENSE CORROSION PROGRAM..... | 3,283 | 3,283 | --- |
| 100 DOD UNMANNED AIRCRAFT SYSTEM (UAS) COMMON DEVELOPMENT..... | 12,368 | 12,368 | --- |
| 101 HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) RES..... | 5,131 | 5,131 | --- |
| 104 JOINT SYSTEMS INTEGRATION..... | 3,273 | 3,273 | --- |
| 106 JOINT FIRES INTEGRATION & INTEROPERABILITY TEAM..... | 7,364 | 7,364 | --- |
| 107 LAND-BASED SM-3 (LBSM3)..... | 276,338 | 266,338 | -10,000 |
| 108 AEGIS SM-3 BLOCK IIA CO-DEVELOPMENT..... | 420,630 | 420,630 | --- |
| 109 PRECISION TRACKING SPACE SYSTEM RDT&E..... | 297,375 | 242,375 | -55,000 |
| 111 ADVANCED REMOTE SENSOR TECHNOLOGY (ARST)..... | 58,742 | 33,742 | -25,000 |
| 113 JOINT ELECTROMAGNETIC TECHNOLOGY (JET) PROGRAM..... | 3,158 | 3,158 | --- |
| 115 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT..... | 6,817 | 6,817 | --- |
| 116 PROMPT GLOBAL STRIKE CAPABILITY DEVELOPMENT..... | 110,383 | 110,383 | --- |
| TOTAL, DEMONSTRATION & VALIDATION..... | 6,399,366 | 7,188,266 | +788,900 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| ----- | | | |
| ENGINEERING & MANUFACTURING DEVELOPMENT | | | |
| 117 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM..... | 311,071 | 311,071 | --- |
| 119 ADVANCED IT SERVICES JOINT PROGRAM OFFICE (AITS-JPO).. | 25,787 | 25,787 | --- |
| 120 JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS) | 20,688 | 20,688 | --- |
| 121 WEAPONS OF MASS DESTRUCTION DEFEAT CAPABILITIES..... | 5,749 | 5,749 | --- |
| 122 INFORMATION TECHNOLOGY DEVELOPMENT..... | 12,699 | 12,699 | --- |
| 125 HOMELAND PERSONNEL SECURITY INITIATIVE..... | 387 | 387 | --- |
| 126 DEFENSE EXPORTABILITY PROGRAM..... | 1,859 | 1,859 | --- |
| 127 OUSD(C) IT DEVELOPMENT INITIATIVES..... | 7,010 | 7,010 | --- |
| 128 DOD ENTERPRISE SYSTEMS DEVELOPMENT AND DEMONSTRATION.. | 133,104 | 64,104 | -69,000 |
| 129 DCMO POLICY AND INTEGRATION..... | 25,269 | 25,269 | --- |
| 131 DEFENSE-WIDE ELECTRONIC PROCUREMENT CAPABILITY..... | 10,238 | 10,238 | --- |
| 132 GLOBAL COMBAT SUPPORT SYSTEM..... | 19,670 | 19,670 | --- |
| 133 DOD ENTERPRISE ENERGY INFORMATION MANAGEMENT (EEIM)... | 3,556 | 3,556 | --- |
| ----- | | | |
| TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT..... | 577,087 | 508,087 | -69,000 |
| RD&E MANAGEMENT SUPPORT | | | |
| 135 DEFENSE READINESS REPORTING SYSTEM (DRRS)..... | 6,383 | 6,383 | --- |
| 136 JOINT SYSTEMS ARCHITECTURE DEVELOPMENT..... | 3,845 | 3,845 | --- |
| 137 CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT.... | 144,109 | 144,109 | --- |
| 138 ASSESSMENTS AND EVALUATIONS..... | 2,419 | 2,419 | --- |
| 139 THERMAL VICAR..... | 8,214 | 8,214 | --- |
| 140 JOINT MISSION ENVIRONMENT TEST CAPABILITY (JMETC)..... | 19,380 | 19,380 | --- |
| 141 TECHNICAL STUDIES, SUPPORT AND ANALYSIS..... | 32,266 | 32,266 | --- |
| 142 USD(A&T)--CRITICAL TECHNOLOGY SUPPORT..... | 840 | 840 | --- |
| 143 FOREIGN MATERIAL ACQUISITION AND EXPLOITATION..... | 56,012 | 56,012 | --- |
| 144 JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION.... | 55,508 | 55,508 | --- |
| 145 CLASSIFIED PROGRAM USD(P)..... | --- | 100,000 | +100,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| 146 FOREIGN COMPARATIVE TESTING..... | 18,174 | 18,174 | --- |
| 147 SYSTEMS ENGINEERING..... | 43,195 | 43,195 | --- |
| 148 STUDIES AND ANALYSIS SUPPORT..... | 6,457 | 6,457 | --- |
| 149 NUCLEAR MATTERS - PHYSICAL SECURITY..... | 4,901 | 4,901 | --- |
| 150 SUPPORT TO NETWORKS AND INFORMATION INTEGRATION..... | 6,307 | 6,307 | --- |
| 151 GENERAL SUPPORT TO USD (INTELLIGENCE)..... | 6,601 | 6,601 | --- |
| DEFENSE-WIDE ELECTRONIC PROCUREMENT..... | --- | 20,000 | +20,000 |
| 152 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM..... | 92,849 | 92,849 | --- |
| 159 SMALL BUSINESS INNOVATION RESEARCH/CHALLENGE ADMINISTR | 1,857 | 1,857 | --- |
| 160 DEFENSE TECHNOLOGY ANALYSIS..... | 12,056 | 12,056 | --- |
| 162 DEFENSE TECHNICAL INFORMATION CENTER (DTIC)..... | 55,454 | 55,454 | --- |
| 163 R&D IN SUPPORT OF DOD ENLISTMENT, TESTING & EVALUATION | 16,364 | 16,364 | --- |
| 164 DEVELOPMENT TEST AND EVALUATION..... | 15,110 | 15,110 | --- |
| 166 MANAGEMENT HEADQUARTERS (RESEARCH & DEVELOPMENT)..... | 69,767 | 69,767 | --- |
| 167 BUDGET AND PROGRAM ASSESSMENTS..... | 4,454 | 4,454 | --- |
| 169 OPERATIONS SECURITY (OPSEC)..... | 2,637 | 2,637 | --- |
| 174 SUPPORT TO INFORMATION OPERATIONS (IO) CAPABILITIES... | 8,238 | 8,238 | --- |
| 176 CYBER SECURITY INITIATIVE..... | 1,801 | 1,801 | --- |
| 177 INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)... | 16,041 | 16,041 | --- |
| 180 COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION. | 77,475 | 57,475 | -20,000 |
| 182 MANAGEMENT HEADQUARTERS - MDA..... | 34,855 | 34,855 | --- |
| 183 IT SOFTWARE DEV INITIATIVES..... | 104 | 104 | --- |
| 999 CLASSIFIED PROGRAMS..... | 64,255 | 64,255 | --- |
| TOTAL, RDT&E MANAGEMENT SUPPORT..... | 887,928 | 987,928 | +100,000 |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| OPERATIONAL SYSTEMS DEVELOPMENT | | | |
| 185 ENTERPRISE SECURITY SYSTEM (ESS)..... | 8,866 | 8,866 | --- |
| 186 REGIONAL INTERNATIONAL OUTREACH & PARTNERSHIP FOR PEAC | 3,238 | 3,238 | --- |
| 187 OVERSEAS HUMANITARIAN ASSISTANCE SHARED INFORMATION SY | 288 | 288 | --- |
| 188 CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS D | 14,745 | 14,745 | --- |
| 190 JOINT INTEGRATION AND INTEROPERABILITY..... | 5,013 | 5,013 | --- |
| 191 PLANNING AND DECISION AID SYSTEM..... | 3,922 | 3,922 | --- |
| 192 C4I INTEROPERABILITY..... | 72,574 | 72,574 | --- |
| 194 JOINT/ALLIED COALITION INFORMATION SHARING..... | 6,214 | 6,214 | --- |
| 201 NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT..... | 499 | 499 | --- |
| 202 DEFENSE INFO INFRASTRUCTURE ENGINEERING & INTEGRATION. | 14,498 | 14,498 | --- |
| 203 LONG HAUL COMMUNICATIONS (DCS)..... | 26,164 | 26,164 | --- |
| 204 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK.... | 12,931 | 12,931 | --- |
| 205 PUBLIC KEY INFRASTRUCTURE (PKI)..... | 6,296 | 6,296 | --- |
| 206 KEY MANAGEMENT INFRASTRUCTURE (KMI)..... | 30,948 | 30,948 | --- |
| 207 INFORMATION SYSTEMS SECURITY PROGRAM..... | 11,780 | 11,780 | --- |
| 208 INFORMATION SYSTEMS SECURITY PROGRAM..... | 191,452 | 191,452 | --- |
| 211 GLOBAL COMMAND AND CONTROL SYSTEM..... | 36,575 | 36,575 | --- |
| 212 JOINT SPECTRUM CENTER..... | 24,278 | 24,278 | --- |
| 213 NET-CENTRIC ENTERPRISE SERVICES (NCES)..... | 2,924 | 2,924 | --- |
| 214 JOINT MILITARY DECEPTION INITIATIVE..... | 1,294 | 1,294 | --- |
| 215 TELEPORT PROGRAM..... | 6,050 | 6,050 | --- |
| 217 SPECIAL APPLICATIONS FOR CONTINGENCIES..... | 17,058 | 17,058 | --- |
| 222 CYBER SECURITY INITIATIVE..... | 4,189 | 4,189 | --- |
| 223 CRITICAL INFRASTRUCTURE PROTECTION (CIP)..... | 10,462 | 10,462 | --- |
| 227 POLICY R&D PROGRAMS..... | 6,360 | 6,360 | --- |
| 229 NET CENTRICITY..... | 21,190 | 21,190 | --- |
| 232 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS..... | 7,114 | 7,714 | +600 |
| 235 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS..... | 3,247 | 3,247 | --- |
| 237 MQ-1 PREDATOR A UAV..... | 1,355 | 1,355 | --- |
| 240 HOMELAND DEFENSE TECHNOLOGY TRANSFER PROGRAM..... | 2,303 | 2,303 | --- |
| 241 INT'L INTELLIGENCE TECHNOLOGY ASSESSMENT, ADVANCEMENT. | 1,478 | 1,478 | --- |
| 249 INDUSTRIAL PREPAREDNESS..... | 27,044 | 27,044 | --- |

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST |
|--|-------------------|--------------------------|------------------------|
| 250 LOGISTICS SUPPORT ACTIVITIES..... | 4,711 | 4,711 | --- |
| 251 MANAGEMENT HEADQUARTERS (JCS)..... | 4,100 | 4,100 | --- |
| 253 MQ-9 UAV..... | 3,002 | 3,002 | --- |
| 257 SPECIAL OPERATIONS AVIATION SYSTEMS ADVANCED DEV..... | 97,267 | 97,267 | --- |
| 258 SPECIAL OPERATIONS TACTICAL SYSTEMS DEVELOPMENT..... | 821 | 821 | --- |
| 259 SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT... | 25,935 | 25,935 | --- |
| 260 SOF OPERATIONAL ENHANCEMENTS..... | 51,700 | 65,700 | +14,000 |
| 261 SPECIAL OPERATIONS CV-22 DEVELOPMENT..... | 1,822 | 1,822 | --- |
| 262 MISSION TRAINING AND PREPARATION SYSTEMS (MTPS)..... | 10,131 | 10,131 | --- |
| 263 MC130J SOF TANKER RECAPITALIZATION..... | 19,647 | 19,647 | --- |
| 264 SOF COMMUNICATIONS EQUIPMENT AND ELECTRONICS SYSTEMS.. | 2,225 | 2,225 | --- |
| 265 SOF TACTICAL RADIO SYSTEMS..... | 3,036 | 3,036 | --- |
| 266 SOF WEAPONS SYSTEMS..... | 1,511 | 1,511 | --- |
| 267 SOF SOLDIER PROTECTION AND SURVIVAL SYSTEMS..... | 4,263 | 4,263 | --- |
| 268 SOF VISUAL AUGMENTATION, LASERS & SENSOR SYSTEMS..... | 4,448 | 4,448 | --- |
| 269 SOF TACTICAL VEHICLES..... | 11,325 | 11,325 | --- |
| 270 SOF MUNITIONS..... | 1,515 | 1,515 | --- |
| 271 SOF ROTARY WING AVIATION..... | 24,430 | 24,430 | --- |
| 272 SOF UNDERWATER SYSTEMS..... | 26,405 | 61,405 | +35,000 |
| 273 SOF SURFACE CRAFT..... | 8,573 | 8,573 | --- |
| 275 SOF GLOBAL VIDEO SURVEILLANCE ACTIVITIES..... | 7,620 | 7,620 | --- |
| 276 SOF OPERATIONAL ENHANCEMENTS INTELLIGENCE..... | 16,386 | 16,386 | --- |
| TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT..... | 913,222 | 962,822 | +49,600 |
| 999 CLASSIFIED PROGRAMS..... | 3,754,516 | 3,844,516 | +90,000 |
| TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, DEF-WIDE. | 17,982,161 | 19,100,362 | +1,118,201 |

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

| R-1 | Budget Request | Committee Recommended | Change from Request |
|---|-------------------|--------------------------|------------------------|
| 3 BASIC RESEARCH INITIATIVES | 19,405 | 15,005 | -4,400 |
| Excessive growth | | -4,400 | |
| HISTORICALLY BLACK COLLEGES & UNIVERSITIES | | | |
| 9 (HBCU) SCIENCE | 15,599 | 35,599 | 20,000 |
| Program adjustment | | 20,000 | |
| 11 SYSTEMS 2020 APPLIED RESEARCH | 7,898 | 0 | -7,898 |
| Reduction to new starts | | -7,898 | |
| 12 INFORMATION AND COMMUNICATIONS TECHNOLOGY | 392,421 | 402,421 | 10,000 |
| Program increase - power efficiency technology | | 10,000 | |
| 17 DATA TO DECISIONS APPLIED RESEARCH | 13,753 | 8,753 | -5,000 |
| Excessive growth | | -5,000 | |
| 18 CYBER SECURITY RESEARCH | 18,985 | 11,485 | -7,500 |
| Excessive growth | | -7,500 | |
| JOINT MUNITIONS ADVANCED TECHNOLOGY | | | |
| 25 INSENSITIVE MUNITIONS ADVANCED TECHNOLOGY | 25,612 | 20,012 | -5,600 |
| Excessive growth | | -5,600 | |
| 29 BALLISTIC MISSILE DEFENSE TECHNOLOGY | 79,975 | 75,975 | -4,000 |
| Advanced Technology Modeling and Simulation - early to need | | -4,000 | |
| DATA TO DECISIONS ADVANCED TECHNOLOGY | | | |
| 40 DEVELOPMENT | 13,754 | 8,754 | -5,000 |
| Excessive growth | | -5,000 | |
| 42 CYBER SECURITY ADVANCED RESEARCH | 19,935 | 12,435 | -7,500 |
| Excessive growth | | -7,500 | |
| MICROELECTRONIC TECHNOLOGY DEVELOPMENT | | | |
| 50 AND SUPPORT | 72,234 | 62,234 | -10,000 |
| 90nm Next Generation Foundry | | -10,000 | |
| 57XX DEFENSE RAPID INNOVATION FUND | 0 | 250,000 | 250,000 |
| Program increase | | 250,000 | |
| 60 QUICK REACTION SPECIAL PROJECTS | 107,002 | 82,002 | -25,000 |
| Excessive growth | | -25,000 | |
| 64 DIRECTED ENERGY RESEARCH | 46,944 | 41,944 | -5,000 |
| Unjustified request | | -5,000 | |
| 65 NEXT GENERATION AEGIS MISSILE | 224,077 | 204,077 | -20,000 |
| SM-3 Block IIB - Program reduction | | -20,000 | |
| COMBATING WEAPONS OF MASS DESTRUCTION | | | |
| 69 SYSTEMS | 53,946 | 23,946 | -30,000 |
| Program reduction | | -30,000 | |

| R-1 | Budget Request | Committee Recommended | Change from Request |
|--|----------------|---|---------------------|
| BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE | | | |
| 79 | 316,929 | 296,929 | -20,000 |
| | | Unjustified growth in program support | -10,000 |
| | | Excess to need | -10,000 |
| BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE | | | |
| 80 | 903,172 | 978,172 | 75,000 |
| | | Program increase - sustainment | 75,000 |
| 89 | 366,552 | 341,552 | -25,000 |
| | | Unjustified growth | -25,000 |
| 94 | 99,836 | 948,736 | 848,900 |
| | | Upper Tier | 23,800 |
| | | Arrow Program | 33,700 |
| | | David's Sling Weapon System | 111,400 |
| | | Iron Dome | 680,000 |
| 107 | 276,338 | 266,338 | -10,000 |
| | | AEGIS Ashore test - early to need | -10,000 |
| 109 | 297,375 | 242,375 | -55,000 |
| | | Program reduction | -55,000 |
| 111 | 58,742 | 33,742 | -25,000 |
| | | Program reduction | -25,000 |
| DOD ENTERPRISE SYSTEMS DEVELOPMENT AND | | | |
| 128 | 133,104 | 64,104 | -69,000 |
| | | DEMONSTRATION | -69,000 |
| | | Program growth | |
| 145 | 0 | 100,000 | 100,000 |
| | | Classified program USD(P) | 100,000 |
| 151X | 0 | 20,000 | 20,000 |
| | | DEFENSE-WIDE ELECTRONIC PROCUREMENT | |
| | | Program increase - contract management services program | 20,000 |
| COCOM EXERCISE ENGAGEMENT AND TRAINING | | | |
| 180 | 77,475 | 57,475 | -20,000 |
| | | TRANSFORMATION | -20,000 |
| | | Duplication with Service initiatives | |
| 232 | 7,114 | 7,714 | 600 |
| | | DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS | 600 |
| | | HD Full Motion Video | |
| 260 | 51,700 | 65,700 | 14,000 |
| | | SOF OPERATIONAL ENHANCEMENTS | 14,000 |
| | | Signature management and digital optics | |
| 272 | 26,405 | 61,405 | 35,000 |
| | | SOF UNDERWATER SYSTEMS | 35,000 |
| | | Risk reduction | |
| CLASSIFIED PROGRAMS | | | |
| | 3,754,516 | 3,844,516 | 90,000 |
| | | Classified adjustment | 90,000 |

HISTORICALLY BLACK COLLEGES AND UNIVERSITIES AND MINORITY INSTITUTIONS

The Committee noted with concern in fiscal year 2012 that the Department transferred the Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) program from the Office of the Secretary of Defense to the Department of the Army, thus dramatically diminishing the effectiveness and scope of the program.

At the request of the Department, after the budget submission, the Committee has transferred funding from the Army, thus returning the program's execution to the Office of the Secretary of Defense. The Committee encourages the Department to maintain this account in this budget line in future budget submissions.

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS EDUCATION

The Committee notes with increasing concern the underperformance of students in science and math, and recognizes efforts being made at the Department to remedy these concerns. The Committee recommends that the Department explore the expansion of programs in science, technology, engineering and mathematics for grades K through 12 that are comprehensive in nature, provide curriculum for in-school and after-school programs, and promote an overall appreciation for the subject matter.

EXPANDING UNDERREPRESENTED MINORITY PARTICIPATION

Consistent with the National Academy of Sciences report "Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads", the Committee recognizes the importance of ensuring that there is a strong pipeline of underrepresented minorities pursuing engineering, science, and technology careers. The Committee commends public-private partnerships that have come together to ensure scholarship support, innovative ideas like Academies of Engineering in high schools, and corporate partnership and sponsorship of district, urban, and rural areas to build a minority pipeline in key fields like engineering, which are needed for both national security and national economic reasons and by virtually every federal science and technology agency. The Committee encourages the Secretary of Defense to provide resources for scholarships for minorities in engineering and to promote the collection of research information on the status of minorities in engineering education and employment.

SPECIAL OPERATIONS COMMAND UNDERSEA MOBILITY PROGRAM

The Committee is concerned that frequent program and strategy changes to the Undersea Mobility Program have delayed the introduction of advanced capabilities for both wet combat submersible replacement and dry combat submersible development. The current program schedule for dry combat submersibles will not field an operational evaluation platform until early 2015 with extended integrated testing not taking place until 2016. Given current dry combat submersible capability gaps and a potential shift in strategic emphasis to the Asia-Pacific and other regions that present anti-access and area-denial challenges, the Committee believes suc-

cessful development and fielding of undersea mobility capabilities are critical to meeting combatant commanders' needs. Additionally, the Committee is concerned that the highly perishable and technical operational expertise for wet and dry combat submersibles resident within the Naval Special Warfare community have not been fully exercised and utilized in recent years, thereby increasing capability gaps and risks to the overall program.

The Committee recommends \$35,000,000 above the request for the Undersea Mobility Program for the dry combat submersible program to enable the program to undertake risk reduction activities, thereby increasing the likelihood of delivery of a technically satisfactory system that meets the warfighter's requirements.

DEFENSE PERSONNEL SECURITY RESEARCH CENTER

It is essential that the Department of Defense conducts proper background investigations for employees in a prompt and efficient manner. Workplace efficiency and morale decline when an employee is unable to work due to a delay in security clearance processing. The Committee is concerned that the Department is not investing enough in automated tools necessary to expedite the investigation and reinvestigation process for security clearances. The Committee encourages the Secretary of Defense to invest in automated tools capable of performing queries across government and commercial databases to streamline the time-consuming process for top level security clearances.

ADVANCED REMOTE SENSOR TECHNOLOGY

The Committee recommendation includes \$33,742,000 for the Advanced Remote Sensor Technology (ARST) program of the Missile Defense Agency. The focus of ARST is to develop and mature emerging sensor technologies capable of three-dimensional missile imaging and tracking to discriminate threats from a single platform. The Committee expects funding will enable the Missile Defense Agency to demonstrate a baseline sensor capability with instantaneous, three-dimensional imagery and precision track data on every frame at video rates. The Committee sees strong potential for utilizing this capability not only on space-based assets, but from remotely-piloted aircraft as a risk reduction for space-based platforms. However, the Committee notes that although this program is a follow-on effort from the Airborne Infrared system, it is considered a new start, and thus the Committee recommendation aligns funding with the request levels throughout the Future Years Defense Program.

STANDARD MISSILE-3 RISK REDUCTION FOR THE MISSILE DEFENSE AGENCY

The Committee is concerned that there are certain components for missile defense systems that only have one or two suppliers in the area of design and production. This is especially true for the producers of the Standard Missile-3 (SM-3) interceptor's Divert and Attitude Control System which guides the kill vehicle during the final phase of its intercept operations. The Committee encourages the Director, Missile Defense Agency to fund risk reduction activi-

ties for the continued development of components essential to the production of SM-3 interceptors.

SEMICONDUCTOR INDUSTRY

The Committee is concerned about the ability of the United States to maintain its global leadership in the production of semiconductor manufacturing equipment. In order to ensure U.S. dominance in this critical technology sector and that the Department of Defense has long-term, reliable domestic access to the most advanced technologies to manufacture and service next generation semiconductor fabrication technology, the Committee directs the Department of Defense to submit a report to the congressional defense committees, not later than 90 days after enactment of this Act, on its plans to ensure leadership in the next generation of 450mm semiconductor fabrication equipment manufacturing technology in the United States.

OPERATIONAL TEST AND EVALUATION, DEFENSE

| | |
|---------------------------------------|---------------|
| Fiscal year 2012 appropriation | \$191,292,000 |
| Fiscal year 2013 budget request | 185,268,000 |
| Committee recommendation | 185,268,000 |
| Change from budget request | --- |

This appropriation provides funds for the research, development, test and evaluation activities of the Department of Defense for defense-wide activities. The total amount recommended in the bill will provide the following program in fiscal year 2013:

(DOLLARS IN THOUSANDS)

| | BUDGET REQUEST | COMMITTEE RECOMMENDED | CHANGE FROM REQUEST | |
|--|--|--------------------------|------------------------|-----|
| ----- | | | | |
| OPERATIONAL TEST AND EVALUATION, DEFENSE | | | | |
| RDT&E MANAGEMENT SUPPORT | | | | |
| 1 | OPERATIONAL TEST AND EVALUATION..... | 72,501 | 72,501 | --- |
| 2 | LIVE FIRE TESTING..... | 49,201 | 49,201 | --- |
| 3 | OPERATIONAL TEST ACTIVITIES AND ANALYSES..... | 63,566 | 63,566 | --- |
| | TOTAL, RDT&E MANAGEMENT SUPPORT..... | 185,268 | 185,268 | --- |
| | TOTAL, OPERATIONAL TEST AND EVALUATION, DEFENSE..... | 185,268 | 185,268 | --- |
| | ===== | ===== | ===== | |