

**TITLE IV - RESEARCH, DEVELOPMENT, TEST AND
EVALUATION**

For Research, Development, Test and Evaluation, funds are to be
available for fiscal year 2010, as follows:

(In thousands of dollars)

	Budget	House	Senate	Recommendation
RECAPITULATION				
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY.....	10,438,218	11,151,884	10,653,126	11,474,180
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY.....	19,270,932	20,197,300	19,148,509	20,003,463
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE.	27,992,827	27,976,278	28,049,015	28,121,985
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE-WIDE.....	20,741,542	20,721,723	20,408,968	20,747,061
OPERATIONAL TEST AND EVALUATION, DEFENSE.....	190,770	190,770	190,770	190,770
GRAND TOTAL, RDT&E.....	78,634,289	80,237,955	78,450,388	80,537,479

JOINT LIGHT TACTICAL VEHICLE

The budget request includes a total of \$90,099,000 to continue technology development for the Joint Light Tactical Vehicle (JLTV). The acquisition strategy involves competitive prototyping of vehicles from three contractors, followed by a down-select to two vehicles in fiscal year 2011 to proceed into the engineering and manufacturing development phase of the program. The recommendation fully supports this development strategy, which shares a number of elements of the reforms that have been written into law by the Weapon Systems Acquisition Reform Act of 2009. However, the program has yet to demonstrate itself as a model for a successful development program despite the reformed acquisition strategy. The funding profile has not changed despite a four month delay in initiating the program. Deficiencies in billings have resulted in the program falling far behind the financial benchmarks established by the Department of Defense. Program management has been complicated due to the different funding strategies pursued by the Army and the Marine Corps. There is great concern that of the \$217,255,000 Congress has approved for JLTV since fiscal year 2007, only \$53,128,000 had been expended through the end of fiscal year 2009. Despite these challenges, information has been provided that the program is proceeding in accordance with its revised schedule, billing errors are being addressed, budget execution is being corrected and prior year funding will be exhausted in 2010. Based upon these assurances, the recommendation contains full funding for the budget request. Careful oversight of program execution and military requirements will continue to ensure the commitment of the Army and Marine Corps to the success of the program.

EJECTION SEATS

The US16E ejection seat was competitively selected as the ejection seat for the F-35 Joint Strike Fighter. The progress made on this ejection seat is encouraging and the program of record is fully supported.

ENERGETICS

House language noted that the efforts of the military Services as coordinated through the Office of the Secretary of Defense, with the Department of Energy, have led to steady progress in the last decade in advancing the science of energetics and revitalizing the research and development workforce.

However, a report on energetics in the Department of Defense, as directed in House

Report 110-652, and which was to be provided to the congressional defense committees not later than March 1, 2009, was completed June 2009, and was finally delivered September 2, 2009.

House language recommended that the Department of Defense capitalize on best practices within the individual Services to advance the state of the energetics field, and directed that no funds be expended for the creation of a new Executive Agent or Executive Director for Advanced Energetics. The Senate included no similar language.

The recommendation includes no language regarding the use of funds for the creation of a new Executive Agent or Executive Director for Advanced Energetics and directs instead that the Secretary of Defense shall provide a report to the congressional defense committees not later than October 1, 2010, on progress being made on the findings and actions in the June 2009 report.

DOMESTIC ENERGY PRODUCTION

There is concern that a plan has not been presented to fund continued development and risk mitigation of domestic gas centrifuge enrichment technology during fiscal year 2010. Despite that, there is support for efforts to develop domestic gas centrifuge enrichment technology so that it can move to commercial scale uranium enrichment operations and potentially serve as a domestic source of fuel for nuclear power and the enrichment requirements of the defense community. Therefore, the Secretary of Defense, in consultation with the Department of Energy, is urged to explore utilizing all possible existing statutory authority to fund this important activity and to report to the Committees on Appropriations of both the House and Senate no later than 30 days following enactment of this Act regarding funding options.

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" are congressional interest items for purposes of the Base for Reprogramming Department of Defense form (DD Form 1414). Each of these items must be carried on the DD Form 1414 at the stated amount, as specifically addressed in these materials.

REPROGRAMMING GUIDANCE FOR ACQUISITION ACCOUNTS

It is the intent of 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 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 Department of Defense is directed to continue to follow the reprogramming guidance specified in the report accompanying the House version of the fiscal year 2006 Department of Defense Appropriations Act (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 Department shall continue to follow the limitation that prior approval reprogrammings are set at either the specified dollar threshold or 20 percent of the procurement or research, development, test and evaluation line, whichever is less. 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 Department of Defense must submit a prior approval reprogramming request 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. This guidance is effective for fiscal year 2010 and forward.

REPROGRAMMING REPORTING REQUIREMENTS

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

FUNDING INCREASES

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

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY

For Research, Development, Test and Evaluation, Army, funds are to be available for fiscal year 2010, as follows:

(In thousands of dollars)

	Budget	House	Senate	Recommendation
RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY				
BASIC RESEARCH				
1 IN-HOUSE LABORATORY INDEPENDENT RESEARCH.....	19,671	19,671	19,671	19,671
2 DEFENSE RESEARCH SCIENCES.....	173,024	196,074	183,324	196,504
3 UNIVERSITY RESEARCH INITIATIVES.....	88,421	110,421	87,921	99,921
4 UNIVERSITY AND INDUSTRY RESEARCH CENTERS.....	96,144	114,844	103,144	115,944
TOTAL, BASIC RESEARCH.....	377,260	441,010	394,060	434,040
APPLIED RESEARCH				
5 MATERIALS TECHNOLOGY.....	27,206	68,256	81,806	99,906
6 SENSORS AND ELECTRONIC SURVIVABILITY.....	50,641	67,641	56,641	70,641
7 TRACTOR HIP.....	14,324	14,324	14,324	14,324
8 AVIATION TECHNOLOGY.....	41,332	50,832	44,332	49,532
9 ELECTRONIC WARFARE TECHNOLOGY.....	16,119	24,119	16,119	22,419
10 MISSILE TECHNOLOGY.....	50,716	64,816	65,716	71,296
11 ADVANCED WEAPONS TECHNOLOGY.....	19,678	22,678	19,678	22,078
12 ADVANCED CONCEPTS AND SIMULATION.....	17,473	26,973	23,473	27,473
13 COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY.....	55,937	74,437	66,437	79,337
14 BALLISTICS TECHNOLOGY.....	61,843	79,843	64,843	78,443
15 CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY....	5,293	13,293	7,293	13,693
16 JOINT SERVICE SMALL ARMS PROGRAM.....	7,674	7,674	7,674	7,674
17 WEAPONS AND MUNITIONS TECHNOLOGY.....	41,085	124,585	88,985	145,625
18 ELECTRONICS AND ELECTRONIC DEVICES.....	61,404	115,454	107,204	135,234
19 NIGHT VISION TECHNOLOGY.....	26,893	48,893	35,893	51,143
20 COUNTERMINE SYSTEMS.....	18,945	20,945	22,945	23,745
21 HUMAN FACTORS ENGINEERING TECHNOLOGY.....	18,605	33,605	18,605	30,605
22 ENVIRONMENTAL QUALITY TECHNOLOGY.....	15,902	19,402	23,402	25,602
23 COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY.....	24,833	31,533	24,833	30,193
24 COMPUTER AND SOFTWARE TECHNOLOGY.....	5,639	5,639	5,639	5,639
25 MILITARY ENGINEERING TECHNOLOGY.....	54,818	61,918	57,818	61,098
26 MANPOWER/PERSONNEL/TRAINING TECHNOLOGY.....	18,701	18,701	16,701	16,701

(In thousands of dollars)

	Budget	House	Senate	Recommendation
27 WARFIGHTER TECHNOLOGY.....	27,109	31,909	38,109	38,549
28 MEDICAL TECHNOLOGY.....	99,027	195,942	165,387	223,107
TOTAL, APPLIED RESEARCH.....	781,197	1,223,412	1,075,857	1,344,117
ADVANCED TECHNOLOGY DEVELOPMENT				
29 WARFIGHTER ADVANCED TECHNOLOGY.....	37,574	54,524	41,874	54,574
30 MEDICAL ADVANCED TECHNOLOGY.....	72,940	301,866	196,040	341,531
31 AVIATION ADVANCED TECHNOLOGY.....	60,097	87,097	104,697	112,977
32 WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY.....	66,410	89,910	71,210	90,330
33 COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY.....	89,586	162,186	182,886	241,446
34 COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY..	8,667	13,667	8,667	12,417
35 MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY..	7,410	7,410	7,410	7,410
36 ELECTRONIC WARFARE ADVANCED TECHNOLOGY.....	50,458	57,258	58,458	57,498
37 TRACTOR HIKE.....	11,328	11,328	11,328	11,328
38 NEXT GENERATION TRAINING & SIMULATION SYSTEMS.....	19,415	23,915	22,415	25,495
39 TRACTOR ROSE.....	14,569	14,569	14,569	14,569
40 EXPLOSIVES DEMILITARIZATION TECHNOLOGY.....	---	3,500	12,200	12,560
41 MILITARY HIV RESEARCH.....	6,657	29,657	6,657	29,657
42 COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT.....	11,989	11,989	36,989	11,989
43 ELECTRONIC WARFARE TECHNOLOGY.....	19,192	22,692	19,192	21,992
44 MISSILE AND ROCKET ADVANCED TECHNOLOGY.....	63,951	75,751	79,451	87,011
45 TRACTOR CAGE.....	12,154	12,154	12,154	12,154
46 LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY.....	30,317	30,317	36,217	35,037
47 JOINT SERVICE SMALL ARMS PROGRAM.....	8,996	8,996	8,996	8,996
48 NIGHT VISION ADVANCED TECHNOLOGY.....	40,329	64,829	57,329	72,629
49 ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS.....	15,706	15,706	16,206	16,206
50 MILITARY ENGINEERING ADVANCED TECHNOLOGY.....	5,911	45,461	17,511	45,631
51 ADVANCED TACTICAL COMPUTER SCIENCE & SENSOR TECHNOLOGY	41,561	60,061	47,061	57,361
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	695,217	1,204,843	1,069,517	1,380,798

(In thousands of dollars)

	Budget	House	Senate	Recommendation

DEMONSTRATION & VALIDATION				
52 UNIQUE ITEM IDENTIFICATION (UID).....	---	2,500	---	2,000
53 ARMY MISSILE DEFENSE SYSTEMS INTEGRATION.....	14,683	31,683	74,783	72,163
54 ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (SPACE).....	117,471	120,471	118,671	119,231
55 AIR AND MISSILE DEFENSE SYSTEMS ENGINEERING.....	209,531	110,531	211,531	166,931
57 LANDMINE WARFARE AND BARRIER - ADV DEV.....	17,536	17,536	17,536	17,536
58 SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV.....	4,920	4,920	4,920	4,920
59 TANK AND MEDIUM CALIBER AMMUNITION.....	33,934	33,934	33,934	33,934
60 ADVANCED TANK ARMAMENT SYSTEM (ATAS).....	90,299	90,299	90,299	90,299
61 SOLDIER SUPPORT AND SURVIVABILITY.....	31,752	31,752	33,752	33,352
62 TACTICAL ELECTRONIC SURVEILLANCE SYSTEM - AD.....	18,228	18,228	12,228	12,228
64 ENVIRONMENTAL QUALITY TECHNOLOGY.....	4,770	19,770	6,770	18,470
65 WARFIGHTER INFORMATION NETWORK-TACTICAL.....	180,673	165,673	180,673	170,673
66 NATO RESEARCH AND DEVELOPMENT.....	5,048	5,048	5,048	5,048
67 AVIATION - ADV DEV.....	8,537	8,537	8,537	8,537
68 LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV.....	56,373	57,373	49,873	59,973
69 COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION.....	9,868	9,868	9,868	9,868
70 MEDICAL SYSTEMS - ADV DEV.....	31,275	37,275	33,275	36,075
71 SOLDIER SYSTEMS - ADVANCED DEVELOPMENT.....	71,832	71,007	71,832	74,172
72 INTEGRATED BROADCAST SERVICE.....	1,476	1,476	1,476	1,476

TOTAL, DEMONSTRATION & VALIDATION.....	908,206	837,881	965,006	936,886

(In thousands of dollars)

	Budget	House	Senate	Recommendation
ENGINEERING & MANUFACTURING DEVELOPMENT				
73 AIRCRAFT AVIONICS.....	92,977	88,977	92,977	89,977
74 ARMED, DEPLOYABLE OH-58D.....	65,515	70,515	61,236	66,515
75 ELECTRONIC WARFARE DEVELOPMENT.....	248,463	248,463	197,463	202,063
76 ALL SOURCE ANALYSIS SYSTEM.....	13,107	13,107	13,107	13,107
77 TRACTOR CAGE.....	16,286	16,286	16,286	16,286
78 INFANTRY SUPPORT WEAPONS.....	74,814	76,814	82,814	83,614
79 MEDIUM TACTICAL VEHICLES.....	5,683	5,683	5,683	5,683
80 SMOKE, OBSCURANT AND TARGET DEFEATING SYS-SDD.....	978	978	978	978
81 FAMILY OF HEAVY TACTICAL VEHICLES.....	7,477	10,477	7,477	9,877
82 AIR TRAFFIC CONTROL.....	7,578	7,578	7,578	7,578
83 NON-LIGHT OF SIGHT LAUNCH SYSTEM.....	88,660	88,660	92,460	91,700
84 NON-LINE OF SIGHT CANNON.....	58,216	31,216	58,216	48,216
85 FCS MANNED GRD VEHICLES & COMMON GRD VEHICLE.....	368,557	184,557	368,557	276,557
86 FCS SYSTEMS OF SYSTEMS ENGR & PROGRAM MGMT.....	1,067,191	1,067,191	868,191	917,191
87 FCS RECONNAISSANCE (UAV) PLATFORMS.....	68,701	68,701	78,001	75,501
88 FCS UNMANNED GROUND VEHICLES.....	125,616	125,616	125,616	125,616
89 FCS UNATTENDED GROUND SENSORS.....	26,919	26,919	26,919	26,919
90 FCS SUSTAINMENT & TRAINING R&D.....	749,182	749,182	567,182	659,182
92 NIGHT VISION SYSTEMS - SDD.....	55,410	57,910	55,410	57,410
93 COMBAT FEEDING, CLOTHING, AND EQUIPMENT.....	2,092	2,092	2,092	2,092
94 NON-SYSTEM TRAINING DEVICES - SDD.....	30,209	30,209	30,209	30,209
95 AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE -SDD....	28,936	28,936	28,936	28,936
96 CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT.....	33,213	33,213	33,213	33,213
97 AUTOMATIC TEST EQUIPMENT DEVELOPMENT.....	15,320	15,320	15,320	15,320
98 DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS) - SDD.....	15,727	15,727	15,727	15,727
99 POSITIONING SYSTEMS DEVELOPMENT (SPACE).....	9,446	9,446	9,446	9,446
100 COMBINED ARMS TACTICAL TRAINER (CATT) CORE.....	26,243	26,243	26,243	26,243
102 WEAPONS AND MUNITIONS - SDD.....	34,878	44,378	69,878	87,478
103 LOGISTICS AND ENGINEER EQUIPMENT - SDD.....	36,018	37,518	36,018	37,218

(In thousands of dollars)

	Budget	House	Senate	Recommendation
104 COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - SDD.....	88,995	88,995	43,995	58,995
105 MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT.	33,893	40,293	37,393	42,013
106 LANDMINE WARFARE/BARRIER - SDD.....	82,260	60,960	82,260	72,760
107 ARTILLERY MUNITIONS.....	42,452	42,452	42,452	42,452
108 COMBAT IDENTIFICATION.....	20,070	20,070	10,070	10,070
109 ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE...	90,864	85,364	78,072	79,864
111 GENERAL FUND ENTERPRISE BUSINESS SYSTEM (GFEBS).....	6,002	6,002	6,002	23,902
112 FIREFINDER.....	20,333	20,333	20,333	20,333
113 SOLDIER SYSTEMS - WARRIOR DEM/VAL.....	19,786	19,786	19,786	19,786
114 ARTILLERY SYSTEMS.....	23,318	34,318	114,818	116,418
115 PATRIOT/HEADS COMBINED AGGREGATE PROGRAM (CAP).....	569,182	569,182	569,182	569,182
116 NUCLEAR ARMS CONTROL MONITORING SENSOR NETWORK.....	7,140	7,140	7,140	7,140
117 INFORMATION TECHNOLOGY DEVELOPMENT.....	35,309	35,309	67,109	66,909
118 JOINT AIR-TO-GROUND MISSILE (JAGM).....	127,439	127,439	127,439	127,439
119 MANNED GROUND VEHICLE.....	100,000	50,000	100,000	80,000
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	4,640,455	4,389,555	4,319,284	4,397,115
RDT&E MANAGEMENT SUPPORT				
120 THREAT SIMULATOR DEVELOPMENT.....	22,222	30,222	22,222	25,222
121 TARGET SYSTEMS DEVELOPMENT.....	13,615	13,615	13,615	13,615
122 MAJOR T&E INVESTMENT.....	51,846	51,846	51,846	51,846
123 RAND ARROYO CENTER.....	16,305	16,305	18,305	17,905
124 ARMY KWAJALEIN ATOLL.....	163,514	163,514	163,514	163,514
125 CONCEPTS EXPERIMENTATION PROGRAM.....	23,445	23,445	26,945	26,545
127 ARMY TEST RANGES AND FACILITIES.....	354,693	354,693	354,693	354,693
128 ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS.....	72,911	75,111	86,611	84,831
129 SURVIVABILITY/LETHALITY ANALYSIS.....	45,016	45,016	45,016	45,016
130 DOD HIGH ENERGY LASER TEST FACILITY.....	2,891	2,891	8,891	7,391
131 AIRCRAFT CERTIFICATION.....	3,766	3,766	3,766	3,766
132 METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES.....	8,391	8,391	8,391	8,391
133 MATERIEL SYSTEMS ANALYSIS.....	19,969	19,969	19,969	19,969

(In thousands of dollars)

	Budget	House	Senate	Recommendation
134 EXPLOITATION OF FOREIGN ITEMS.....	5,432	5,432	5,432	5,432
135 SUPPORT OF OPERATIONAL TESTING.....	77,877	77,877	77,877	77,877
136 ARMY EVALUATION CENTER.....	66,309	68,309	66,309	67,909
137 SIMULATION & MODELING FOR ACQ, RQTS, & TNG (SMART)....	5,357	5,357	5,357	5,357
138 PROGRAMWIDE ACTIVITIES.....	77,823	77,823	77,823	77,823
139 TECHNICAL INFORMATION ACTIVITIES.....	51,620	51,620	51,620	51,620
140 MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY...	45,053	70,653	56,153	73,233
141 ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT.....	5,191	5,191	5,191	5,191
142 MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT)....	15,866	15,866	15,866	15,866
TOTAL, RDT&E MANAGEMENT SUPPORT.....	1,149,112	1,186,912	1,185,412	1,203,012
OPERATIONAL SYSTEMS DEVELOPMENT				
144 MLRS PRODUCT IMPROVEMENT PROGRAM.....	27,693	27,693	27,693	27,693
146 AEROSTAT JOINT PROJECT OFFICE.....	360,076	288,076	360,076	330,076
147 ADV FIELD ARTILLERY TACTICAL DATA SYSTEM.....	23,727	30,727	23,727	29,327
148 COMBAT VEHICLE IMPROVEMENT PROGRAMS.....	190,301	192,301	197,201	197,421
149 MANEUVER CONTROL SYSTEM.....	21,394	21,394	21,394	21,394
150 AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS...	209,401	209,401	214,817	214,107
151 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM.....	792	792	792	792
152 DIGITIZATION.....	10,692	10,692	10,692	10,692
154 MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM.....	39,273	39,273	39,273	39,273
155 OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS.....	---	5,000	---	4,000
156 TRACTOR CARD.....	20,035	20,035	20,035	20,035
158 JOINT TACTICAL GROUND SYSTEM.....	13,258	13,258	13,258	13,258
159 JOINT HIGH SPEED VESSEL (JHSV).....	3,082	3,082	3,082	3,082
161 SECURITY AND INTELLIGENCE ACTIVITIES.....	2,144	2,144	2,144	2,144
162 INFORMATION SYSTEMS SECURITY PROGRAM.....	74,355	74,355	61,455	58,955
163 GLOBAL COMBAT SUPPORT SYSTEM.....	144,733	144,733	144,733	144,733
164 SATCOM GROUND ENVIRONMENT (SPACE).....	40,097	40,097	40,097	40,097
165 WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM.....	12,034	12,034	12,034	12,034

(In thousands of dollars)

	Budget	House	Senate	Recommendation
166 JOINT COMMAND AND CONTROL PROGRAM (JC2).....	20,365	20,365	---	---
167 TACTICAL UNMANNED AERIAL VEHICLES.....	202,521	172,521	172,124	173,521
168 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	188,414	188,414	189,714	189,454
170 AERIAL COMMON SENSOR (ACS).....	210,035	210,035	---	116,035
172 END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES.....	68,466	94,466	85,766	103,406
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	1,882,888	1,820,888	1,640,107	1,751,529
999 CLASSIFIED PROGRAMS.....	3,883	47,383	3,883	26,683
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, ARMY.....	10,438,218	11,151,884	10,653,126	11,474,180

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	House	Senate	Recommendation	
2	DEFENSE RESEARCH SCIENCES	173,024	196,074	183,324	198,504
	Cyber Threat Analytics		3,000		2,400
	Organic Semiconductor Modeling and Simulation		1,100		880
	Perpetually Available and Secure Information Systems		4,000		3,200
	Maine Center for Toxicology and Environmental Health, Toxic Particles Research and Equipment		2,000		1,600
	Nanocrystal Source Display		950		760
	Secure Open Source Initiative		3,000		2,400
	Sustainable Alternative Energy		2,000		2,000
	Lightweight Polymer Designs for Soldier Combat Optics		1,000		800
	Combat Mental Health Initiative		2,000		1,600
	Vision Integrating Strategies in Ophthalmology and Neurochemistry		4,000	2,000	3,200
	Bioactive Polymers and Coating Systems for Protection Against Bio-Threats			4,500	3,600
	High Frequency Devices and Circuits for Nanotubes and Nanowires			1,800	1,440
	Integrated Flexible Electronics			2,000	1,600
3	UNIVERSITY RESEARCH INITIATIVES	88,421	110,421	87,921	99,921
	Antennas for Unmanned Aerial Vehicles		1,000		1,000
	Collaboration Skills Training for Time-Critical Teams, Squads and Workgroups		2,000		1,600
	Construct Training Program		1,500	2,000	1,600
	Cooperative Developmental Energy Program		2,000		1,600
	Laboratory for Engineered Human Protection		2,000		1,600
	Manufacturing Lab for Next Generation Engineers		2,000		1,600
	Military Family Coping Patterns		500		400
	National Biodefense Training Center (Transferred to line number 30)		5,000		0
	Molecular Electronics for Flash Memory Production (Includes transfer from RDT&E, Navy line number 1)		2,000		2,400
	Science, Technology, Engineering, Mathematics (STEM) at Coppin University		1,000		800
	Battlefield Exercise and Combat Related Spinal Cord Injury Research		3,000		2,400
	V72			-7,500	-7,500
	Burn and Shock Trauma Institute			2,000	1,600
	Hi-Tech Eyes for the Battlefield			2,000	1,600
	Open Source Intelligence for Force Protection and Intelligence Analysis			1,000	800
4	UNIVERSITY AND INDUSTRY RESEARCH CENTERS	96,144	114,844	103,144	115,944
	Advanced Polymer Systems for Defense Application - Power Generation, Protection and Sensing		3,000		2,400
	Center for Hetero-Functional Materials		1,000		800
	Center for Nanoscale Bio-Sensors as a Defense against Biological Threats		3,000	3,000	3,000
	Development of Enabling Chemical Technologies for Power from Green Sources		1,500		1,200

R-1	Budget Request	House	Senate	Recommendation
High Performance Computing in Biomedical Engineering and Health Sciences		1,500		1,200
Intelligent Network-Centric Sensor Development Program		1,500		1,200
Ink-Based Desktop Electronic Material Technology		2,000		1,600
Manufacturing and Industrial Technology Center		500		400
Materials Processing and Applications Development Center of Excellence for Industry		1,500		1,200
DoD Diabetes Research and Development Initiative (DRDI)		3,200		2,560
H50/J22 Network Science - fiscal year 2009 execution delays and excessive growth			-6,000	-6,000
ARL-ONAMI Center for Nanoarchitectures for Enhanced Performance			1,000	800
Academic Support and Research Compliance for Knowledge Gathering (Transferred from O&M, Army line number 323)				2,000
Army Material Degradation			800	640
MEMS Antenna for Wireless Communications Supporting UAVs in the Battlefield			3,000	2,400
Nanotubes Optimized for Lightweight Exceptional Strength (NOLES)			4,000	3,200
Visualization for Training and Simulation in Urban Terrains at Fort Knox			1,200	1,200
5 MATERIALS TECHNOLOGY	27,206	68,256	81,806	99,966
Advanced Composite Research for Vehicles		5,000		4,000
Advanced Conductivity Program		1,000		1,000
Advanced Nanocomposite Materials for Lightweight Integrated Armor Systems		2,000		1,600
Aluminum Armor Project		1,050		840
Ballistic Armor Research		1,000	4,000	3,200
Capabilities Expansion of Spinel Transparent Armor Manufacturing		2,000		1,600
Composite Applied Research and Technology for FCS and Tactical Vehicle Survivability		1,500	4,000	3,200
Development of Improved Lighter-Weight IED/EFP Armor Solutions		2,000		1,600
Distributed, Networked, Unmanned Ground Systems		2,000	4,000	3,200
Dual Stage Variable Energy Absorber		3,000		2,400
Fused Silica for Large-Format Transparent Armor		4,000		3,200
High Strength Glass Production and Qualification for Armor Applications		2,000		1,600
Large-Scale Manufacturing of Revolutionary Nanostructured Materials		1,500		1,200
Lightweight Metal Alloy Foam for Armor		4,000		3,200
Modeling and Testing of Next Generation Body Armor		1,500	2,500	2,000
Multi-Utility Materials for Future Combat Systems		1,000	9,000	7,200
Nanomanufacturing of Multifunctional Sensors		2,000	4,000	4,000
One-Step JP-8 Bio-Diesel Fuel		2,000		1,600
Reactive Materials		1,500		1,200
Ultra Light Metallic Armor		1,000		800
Affordable Light-Weight Metal Matrix Composite (MMC) Armor			2,500	2,500

R-1	Budget Request	House	Senate	Recommendation
Development, Optimization, and Transfer of a Reliable Testing Technology for Materials Designed to Protect Warfighters Against Toxic Chemical Warfare Agents			600	480
Lattice Block Structures for AM2 Matting Replacement			2,000	1,600
Materials Technology for LED Lighting Applications			3,000	2,400
Moldable Fabric Armor (Includes transfer from RDT&E, Defense-Wide line number 18)			2,000	2,240
Nanoelectronic Memory, Sensor and Energy Devices			7,000	6,300
Next Generation High Strength Glass Fibers for Ballistic Armor Applications			2,000	1,600
Next Generation Lightweight Drive System for Army Weapons Systems			2,000	1,600
Renewable Jet Fuel from Lignocellulosic Feedstocks			3,000	2,400
Smart Integrated Systems: Materials, Manufacturing Methods, and Structures			1,000	1,000
Ultrasonic Impact Technology			2,000	2,000
6 SENSORS AND ELECTRONIC SURVIVABILITY	50,641	67,641	58,641	70,641
Advanced Bonded Diamond for Optical Applications		2,500		2,000
Advanced Communications for Mobile Networks		4,000		3,200
Advanced Composite Nickel-Manganese-Cobalt and other Lithium Ion Battery Technologies using Nano Crystal Scission Process			3,000	2,400
Advanced Detection of Explosives			2,000	1,600
Advanced Tactical Laser Flashlight			1,000	800
Next Generation Wearable Video Capture System			1,000	800
Surveillance Augmentation Vehicle			1,500	1,200
Terahertz Sensing and Imaging Technology			2,000	1,600
Advanced UV Light Diode Development			1,000	800
Diamond Lens Elements for High Powered Laser			1,000	800
Electronic Keel			2,000	1,600
Force Protection Radar for Forward Operating Bases			2,000	1,600
Nanophotonic Devices			2,000	1,600
8 AVIATION TECHNOLOGY	41,332	50,832	44,332	49,532
Composite Small Main Rotor Blades			3,000	3,000
Intensive Quenching for Advanced Weapon Systems			1,500	1,200
OMNI Active Vibration Control System			3,000	2,400
Technologies for Military Equipment Replenishment			2,000	1,600
9 ELECTRONIC WARFARE TECHNOLOGY	16,119	24,119	16,119	22,419
Short Wave Infrared Hostile Fire Indicator for Aircraft			2,000	1,500
Integrated Information Technology Policy Analysis Research and Technology Commercialization and Management Network			4,000	3,200
Silver Fox and Manta Unmanned Aerial Systems			2,000	1,600
10 MISSILE TECHNOLOGY	50,716	64,816	65,716	71,296
Electrically Charged Mesh Defense Net Troop Protection System			7,500	6,000
Mariah Hypersonic Wind Tunnel Development Program			4,000	7,600
Portable Sensor for Toxic Gas Detection			2,600	2,080

R-1	Budget Request	House	Senate	Recommendation
Army Center of Excellence in Acoustics, National Center for Physical Acoustics		4,000	4,100	4,000
Defense Support for Civil Authorities for Key Resource Protection		1,000		800
Developmental Mission Integration		7,000		5,600
Effects Based Operations Decision Support Services		2,000		1,600
Green Armament and Range Safe Technology Initiatives		2,000		1,600
Highly Integrated Lethality Systems Development		4,000		4,000
Highly Integrated Production for Expediting Reset		2,500		2,000
Mortar Anti-Personnel/Anti-Materiel Technology		4,000		3,200
Project National Shield Integration Center		1,500		1,200
Rare Earth Mining Separation and Metal Production		3,000		2,400
Rapid Response Force Projection Systems		2,000		1,600
Reliability and Affordability Enhancement for Precision Guided Munition Systems		6,000		4,800
Scaleable Efficient Power for Armament Systems and Vehicles Dual Use		5,000		4,000
Specialized Compact Automated Mechanical Clearance Platform		4,000		3,200
Tamper Proof Organic Packaging as Applied to Remote Armament Systems		6,000		4,800
Technology Development at the Quad Cities Manufacturing Laboratory (Transferred to line number 32)		2,000		0
Threat Detection and Neutralization		4,000		3,200
Tungsten Heavy Alloy Penetrator and Warhead Development		1,500		1,200
Accelerated Materials Development for Army Cannon Systems			3,000	2,400
Acoustic Gun Detection System for Tracked Combat Vehicles			2,000	1,600
Advanced Materials and Process for Armament Structures (AMPAS)			4,000	3,200
Building a Unified Information Framework			2,000	1,600
Center for Borane Technology			2,000	2,000
Exploding Foil Initiators (EFI) with Nanomaterial-Based Circuits			3,000	2,400
Kinetic Energy Enhanced Lethality and Protection Materials			2,000	2,000
Laser-Guided Energy (LGE) Demonstrator			2,800	2,240
Multifunctional Nanomaterials for Homeland Defense, Counter-Terrorism and Dual-Use Applications			2,500	2,000
Nanotechnology Enterprise Consortium (NTEC)			5,000	5,000
Perimeter Security Systems			5,000	4,500
Projectile Unmanned Aerial Systems		3,000	2,000	2,400
Ripsaw Unmanned Ground Vehicle (UGV) Weaponization			2,500	2,000
Titanium Extraction, Mining and Process Engineering Research			6,000	4,800
18 ELECTRONICS AND ELECTRONIC DEVICES	61,404	115,454	107,204	135,234
Advanced Flexible Solar Photovoltaic Technologies		3,000		2,400
Advanced Power Generation Unit for Military Applications		650		650

R-1	Budget Request	House	Senate	Recommendation
Advanced Power Source for Future Soldiers		1,500		1,200
Bio Battery		1,000		800
Program Increase - SOF Technology Insertion		10,000		6,000
Portable Fuel Cell Power Source		3,000		2,400
High-Volume Manufacturing Development for Thin-film Lithium Stack Battery Technologies		1,000		800
Integrated Lightweight Tracker System		2,000		2,000
Intelligent Energy Control Systems		3,000		2,400
Internal Base Facility Energy Independence		3,200		2,560
Large Format Li-Ion Battery		600	6,200	4,960
Market Viable, Dual-Use, Advanced Energy Storage Solutions Development		5,000		4,000
Micromachined Switches in Support of Transformational Communications Architecture		3,000		2,400
Mid-Infrared Super Continuum Laser		1,000		800
Military Fuel Cell Genset Technology Demonstration		2,500		2,000
Multi-Campus Base Facility Energy Independence		4,000		3,200
Novel Zinc Air Power Sources for Military Applications		2,500		2,000
ONAMI Miniaturized Tactical Energy Systems Development		2,500	3,000	2,500
Printed and Conformal Electronics for Military Applications		2,000		1,600
Soldier Situational Awareness Wristband		1,400		1,120
Solid Oxide Fuel Cell Powered Tactical Charger		1,200		960
Unmanned System Algorithm Development		4,000		3,200
Unjustified program growth		-5,000		-5,000
Tactical Cogeneration System		1,000	3,000	2,400
Advanced Hybrid Chemistry for Portable Power			3,200	2,560
Advanced Soldier-Portable Power Systems Technologies			3,100	2,480
Advanced Wearable Power System Manufacturing			2,000	1,600
Army Asset Visibility Enhancement			1,000	800
Ceramic Membrane – 10(X) Times More Energy for Battery Systems			3,000	2,400
Cogeneration for Enhanced Cooling and Heating of Advanced Tactical Vehicles			4,000	3,200
Eye Safe Laser Range Finder			3,000	2,400
High-Frequency, High-Power Electronic and Optoelectronic Devices on Aluminum Nitride (AlN)			4,000	3,200
Light Weight Nanophosphate Battery with Improved Energy Density			3,000	2,000
Maryland Proof of Concept Alliance for Defense Technologies			2,000	1,600
Self Powered, Lightweight, Flexible Display Unit on a Plastic Substrate			3,800	3,040
Stabilized Enzyme Biofuel Cell (SEBC) for Unmanned Ground Sensors			1,500	1,200
19 NIGHT VISION TECHNOLOGY	26,893	48,893	35,893	51,143
IR-Vascular Facial Fingerprinting		3,000		2,400
Next Generation Communications System		1,000		800
Personal Miniature Thermal Viewer		1,000		800
Program Increase		11,000		8,250
Standoff Improvised Explosive Detection Program		6,000		4,800
Materials for Infrared Night Vision Equipment			9,000	7,200

R-1		Budget Request	House	Senate	Recommendation
20	COUNTERMINE SYSTEMS	18,945	20,945	22,945	23,745
	Spectroscopic Materials Identification Center		2,000		1,600
	Standoff Sensors, Detection of Explosives and Explosive Devices (IEDs)			4,000	3,200
21	HUMAN FACTORS ENGINEERING TECHNOLOGY	18,605	33,605	18,605	30,605
	Leonard Wood Institute		15,000		12,000
22	ENVIRONMENTAL QUALITY TECHNOLOGY	15,902	19,402	23,402	25,602
	Biowaste-to-Bioenergy Center		2,500		2,000
	Rocket Motor Contained System		1,000		800
	Chemical Materials and Environmental Modeling Project			2,000	2,000
	Cluster Bomb Unit and Combined Effects Munitions Demilitarization			1,000	800
	MLRS Disposal System			2,500	2,500
	Navy Gun Ammunition Demilitarization and Recycling			2,000	1,600
	COMMAND, CONTROL, COMMUNICATIONS				
23	TECHNOLOGY	24,833	31,533	24,833	30,193
	Command, Control, Communications Technology		2,000		1,600
	Lightweight 10-meter Antenna Mast		2,500		2,000
	Mobile Mesh Network Node		2,200		1,760
25	MILITARY ENGINEERING TECHNOLOGY	54,818	61,918	57,818	61,098
	Cellulose Nanocomposites Panels for Ballistic Protection		2,000		1,600
	Environmentally Intelligent Moisture and Corrosion Control for Concrete		2,100		1,680
	Geosciences/Atmospheric Research		3,000	3,000	3,000
26	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY	18,701	18,701	16,701	16,701
	Premature Growth			-2,000	-2,000
27	WARFIGHTER TECHNOLOGY	27,109	31,909	38,109	38,549
	Improved Thermal Resistant Nylon for Enhanced Durability and Thermal Protection in Combat Uniforms		1,500	4,000	3,200
	Injection Molded Ceramic Body Armor		1,000		800
	Joint Precision Airdrop Systems-Wind Profiling Portable Radar		2,300		1,840
	Biosecurity Research for Soldier Food Safety			2,000	1,600
	Carbon Nanotube Production			2,000	1,600
	Nano-enabled Ultra High Storage Density Non-volatile Memory for Commander's Digital Assistant			3,000	2,400
28	MEDICAL TECHNOLOGY	99,027	195,942	165,387	223,107
	Advanced Bio-Engineering for Enhancement of Soldier Survivability		3,000	2,500	2,500
	Advanced Functional Nanomaterials for Biological Processes		2,500	2,400	2,400
	Alginate Oligomers to Treat Infectious Microbial Biofilms		2,000		1,600
	Battlefield Research Accelerating Virtual Environments for Military Individual Neuro Disorders (BRAVEMIND)		1,000		1,000

R-1	Budget Request	House	Senate	Recommendation
Protein Hydrogel for Surgical Repair of Battlefield Injuries		1,000		800
Cancer Prevention through Remote Biological Sensing		2,000		1,600
Carbide Derived Carbon for Treatment of Combat Related Sepsis		1,000		800
Center for Bone Repair and Military Readiness		1,500		1,200
Center for Injury Biomechanics		4,000	4,000	4,000
Womens Cancer Genomics Center		3,000		2,400
Clinical Trial to Investigate Efficacy of Human Skin Substitute		1,000		800
Control of Vector-Borne Diseases		3,000		2,400
Diabetes Care in the Military		2,000		1,600
Flu Vaccine Technology Program		1,500		1,200
Epigenetic Disease Research		2,000		1,600
Evaluation of Integrative Approaches to Resilience		2,000		1,600
Extended Duration Silver Wound Dressing - Phase II		1,000		800
Eye Trauma and Visual Restoration		1,000		800
Florida Trauma Rehabilitation Institute for Returning Military Personnel		3,000		2,400
Framework for Electronic Health Record-Linked Predictive Models		3,000		2,400
Human Organ and Tissue Preservation Technology		2,000		1,600
Improving Soldier Recovery from Catastrophic Bone Injuries		4,000	3,000	3,200
Jackson Health System Military Trauma Training Enhancement Initiative		2,500		2,000
Lifestyle Modifications to Reduce Chronic Disease in Military Personnel		1,500		1,500
Lightweight, Battery Driven, and Battlefield Deployment Ready NG Feeding Tube Cleaner		500		500
Myositis Association-exposure to environmental toxins		1,250		1,000
Nanofiber Based Synthetic Bone Repair Device for Limb Salvage		1,000		1,000
Nano-Imaging Agents for Early Disease Detection		1,000		800
National Eye Evaluation and Research Network		3,000		2,400
Neuro-Performance Research		2,000		1,600
Neuroscience Research Consortium to Study Spinal Cord Injury		1,500		1,200
New York Medical College Bioterrorism Research		165		132
Non-Leaching Antimicrobial Surface for Orthopedic Devices		1,500		1,200
Operating Room of the Future (Includes transfer from Defense Health Program RDT&E)		2,500		2,000
Portable Low-Volume Therapy for Severe Blood Loss		2,000		1,600
Positron Capture and Storage (Transferred to line number 54)		1,500		0
Rapid Wound Healing Cell Technology		2,500		2,000
Regenerative Medicine Research		2,000		1,600
Research to Develop Strategies to Improve Prognosis of Soldiers Suffering Abdominal Trauma		2,000		1,600
Research to Treat Cancerous Brain Tumors using Neural Stem Cells		2,000		1,600
School of Nursing Advancement		2,000		2,000

R-1	Budget Request	House	Senate	Recommendation
Self Powered Prosthetic Limb Technology		2,000	1,000	1,600
Synchrotron-Based Scanning Research Neuroscience and Proton Institute		6,000		6,000
Technology Solutions for Brain Cancer Detection and Treatment		1,500		1,200
Understanding Blast Induced Brain Injury		3,000		2,400
University of Miami Ryder Trauma Center/ William Lehman Injury Research Center		4,000		3,200
Westchester County Medical Center Health Imaging Upgrades		1,500		1,200
Biometric Signature and Passive Physiological Monitoring (Transferred to RDT&E, Air Force line number 238)			5,000	0
Center for Advanced Emergency Response (Transferred from RDT&E, Defense-Wide line number 32)				4,000
Center for Engineered Biomedical Devices			360	288
Center for Respiratory Biodefense			3,000	2,400
Cleveland Clinic Rehabilitation Research			1,000	800
Complimentary and Alternative Medicine Research for Military Operations and Healthcare (MIL-CAM)			6,500	5,200
Development of Drugs for Malaria and Leishmaniasis			3,400	3,120
Expansion and Development of Bionic Limbs for US Military Personnel			2,500	2,000
Identification of New Drug Targets in Multi-Drug Resistant Bacterial Infections (Includes transfer from RDT&E, Defense-Wide line number 26)			2,500	2,000
Lightweight Medical Devices			2,000	1,600
Long-term Pain and Infection Management for Combat Casualty Care			2,900	2,320
Military Family Empowerment Initiative			1,000	800
Minimizing Shock in Battlefield Injuries			1,900	1,900
New Vaccines to Fight Respiratory Disease and Central Nervous Disorders			6,000	4,800
Online Health Services Optimization			3,900	3,120
Optical Neural Techniques for Combat and Post-Trauma Healthcare			4,000	3,500
Regenerative Medicine for Battlefield Injuries			1,000	1,000
Stabilized Hemoglobin Wound Healing Development			1,500	1,200
SupportNet for Frontline Providers			3,000	2,400
The Center for Neuroprosthetics and BioMEMS			2,000	1,600
29 WARFIGHTER ADVANCED TECHNOLOGY	37,574	54,524	41,874	54,574
Advanced Packaging Materials for Combat Rations		1,000		800
Compostable and Recyclable Fiberboard Material for Secondary Packaging		2,500		2,000
Multi-layer Co-extrusion for High Performance Packaging		2,000		1,600
Next Generation Precision Airdrop System		2,500		2,000
Precision Guided Airdropped Equipment		1,500		1,200
Predictive Casting Process Modeling for Rapid Production of Critical Defense Components		2,000		1,600
Reducing First Responder Casualties with Physiological Monitoring		1,500		1,200

R-1	Budget Request	House	Senate	Recommendation
Remote Environmental Monitoring and Diagnostics in the Perishables Supply Chain		2,750		2,200
Soldier Personal Cooling System		1,200		960
High Pressure Pasteurization and Pressure Assisted Thermal Sterilization Project			4,300	3,440
30 MEDICAL ADVANCED TECHNOLOGY		301,866	196,040	341,531
Advanced Cancer Genome Institute		2,500		2,000
Advanced Diagnostic and Therapeutic Digital Technologies		2,000		1,600
Advanced Military Wound Healing Research and Treatment		1,000		800
Alliance for Nanohealth		5,000		4,000
ALS Therapy Development Institute -Gulf War Illness Research Project		2,000		1,600
Anti-Microbial Bone Graft Product		2,000		1,600
Antioxidant Micronutrient Therapeutic Countermeasures		1,000		800
Automated Portable Field System for Rapid Detection and Diagnosis of Endemic Diseases and Other Pathogens		2,000		1,600
Battlefield Nursing		2,000		1,600
Battlefield Related Injury Translational Research Strategies		2,250		1,800
Bio-Printing of Skin for Battlefield Burn Repairs		1,000	2,000	2,000
Blood and Bone Marrow Collection Fellowship		2,500		2,000
Blood Safety and Decontamination Technology		3,000		2,400
Brain Interventional Surgical Hybrid Initiative		3,000		2,400
Brain Safety Net		3,000		2,400
Breast Cancer Medical Information Network Decision Support		1,000		800
Cellular Therapy for Battlefield Wounds		3,500		2,800
Center for Cancer Immunology Research		2,000		1,600
Center for Genetic Origins of Cancer		2,500		2,000
Center for Integration of Medicine and Innovative Technology		9,000	10,000	9,000
Center for Ophthalmic Innovation		3,000		2,400
Center of Excellence in Infectious Diseases and Human Microbiome		3,000		2,400
Center for Virtual Reality Medical Simulation Training		1,500		1,200
Clinical Technology Integration for Military Health		2,000		1,600
Chronic Tinnitus Treatment Program		1,000		800
Collagen-Based Wound Dressing		1,000		800
Combat Wound Initiative		3,000		2,400
Customized Nursing Programs for Fort Benning		2,000		1,600
Enhancing Military Ophthalmic Education and Overcoming Urban Healthcare Disparities with Telemedicine		3,000		2,400
Enhancing Wound Healing, Tissue Regeneration, and Biomarker Discovery		2,500	2,000	2,000
Exceptional Family Transitional Training Program for US Military Soldiers, Sailors, Marines and Airmen		800		640
Hadron Particle Therapy		2,000		1,600
Human Genomics, Molecular Epidemiology, and Clinical Diagnostics for Infectious Diseases		1,500		1,200
Health Disparities in Troop Readiness		8,000		8,000
Imaging and Cognitive Evaluation of Soldiers		800		640

R-1	Budget Request	House	Senate	Recommendation
Infection Prevention Program for Battlefield Wounds		2,000		1,600
Infectious and Airborne Pathogen Reduction		2,800		2,240
Institute for Simulation and Interprofessional Studies		5,800		4,640
Advancement of Bloodless Medicine		1,866		1,493
Intelligent Orthopedic Fracture Implant Program		1,000		800
Integrated Patient Electronic Record System		2,000		1,600
Joint Medical Simulation Technology Center (Transferred to line number 38)		1,600		0
Linear Accelerator Cancer Research Project		1,000		800
Maine Institute for Human Genetics and Health		2,000		1,600
Malaria Vaccine Development		2,000	5,000	4,000
Marty Driesler Lung Cancer Project		2,000		1,600
Mass Casualty First Responders Disaster Surge Technology Program		3,000		2,400
Medical Biosurveillance and Efficiency Program		2,000		1,600
Medical Errors Reduction Initiative		2,500		2,000
Microencapsulation and Vaccine Delivery Research		1,000		800
Midwest Traumatic Injury Rehabilitation Center		1,460		1,168
Military Burn Trauma Research Program		2,000	6,000	4,500
Military Low Vision Research		3,000		2,400
Military Drug Management System		3,000		2,400
Military Mental Health Initiative		750		600
Military Pediatric Training and Support		5,000		4,000
Mission Hospital Computerized Physician Order Entry		1,000		800
Mobile Integrated Diagnostic and Data Analysis		2,000		1,600
Montefiore Critical Looking Glass		1,500		1,200
Multiplexed Human Fungal Infection Diagnostic		2,000		1,600
Musculoskeletal Interdisciplinary Research Initiative		2,000		1,600
National Biodefense Training Center (Includes transfer from line number 3)			5,000	5,000
National Functional Genomics Center		6,000		6,000
National Oncogenomics and Molecular Imaging Center		5,950		4,760
Northern Illinois Proton Treatment and Research Center		3,500		2,800
NAU-TGen North Dangerous Pathogens DNA Forensics Center Upgrades		2,000		1,600
Near Infrared Spectroscopy Military Personnel Assessment		1,000		800
Neural Control of External Devices		1,000	2,000	2,000
Neuroimaging and Neuropsychiatric Trauma in US Warfighters		6,250	5,000	6,250
Nursing Teaching and Leadership Program		1,000		800
Nicholson Center for Surgical Advancement Medical Robotics and Simulation		5,250		4,200
Personal Status Monitor		1,000		800
Nurse Education Center of Excellence for Remote and Medically Underserved Populations		2,000		1,600
Operation Re-Entry NC		3,000	2,000	2,400
Parsons Institute for Information Mapping		1,500		1,200
Pediatric Cancer Research and Clinical Trials		2,000		1,600
Plant-Based Vaccine Research		2,500		2,000
Plug-In Architecture for DOD Medical Imaging		1,500		1,200
Power Efficient Microdisplay Development for US Army Night Vision		3,000		2,400

R-1	Budget Request	House	Senate	Recommendation
Prader Willi Syndrome Research		2,000		1,600
Pride Center for America's Wounded Veterans		2,000		1,600
Remote Bio-Medical Detector		3,500		2,800
Rural Health Center of Excellence for Remote and Medically Underserved Populations		2,000		1,600
Sensor Tape Physiological Monitoring		2,500		2,000
Smart Wound Dressing for MRSA Infected Battlefield Wounds		1,000		800
Spinal Cord Restoration Therapies		1,000	2,000	1,600
Spinal Muscular Atrophy Research Program		3,000		3,000
Stress Disorders Research Initiative at Fort Hood		3,000		2,400
Dermal Matrix Research		2,000	2,000	2,000
Techniques to Manage Noncompressible Hemorrhage Following Combat Injury		2,500		2,000
Telepharmacy Robotic Medicine Device Unit		1,000		800
Testing of Microneedle Device for Multiple Applications		1,200		960
Translational Research for Muscular Dystrophy		2,000		1,600
Transportable Renal Replacement Therapy for Battlefield Applications		1,000		800
Trauma Response Simulation Training (Transferred from O&M, Army National Guard line number 131)				1,200
Treatment of Battlefield Spinal Cord and Bum Injuries		450		360
VTOL Man-Rated UAV and UGV for Medical Multi-Missions and CASEVAC		1,000		800
Vanadium Safety Readiness		4,200		3,360
Wounded Servicemember Bioelectrics Research		1,500	1,000	1,200
101st Airborne/Air Assault Injury Prevention and Performance Enhancement Initiative			3,000	3,000
Advanced Lower Limb Prostheses for Battlefield Amputees			4,000	3,200
Advanced Regenerative Medicine Therapies for Combat Injuries			4,000	3,200
Bio-Surveillance in a Highly Mobile Population			2,000	1,600
Blood, Medical and Food Safety via Eco-Friendly Wireless Sensing (Phase II)			2,000	1,600
Clinical Development of a Norovirus Gastroenteritis Vaccine			4,500	3,600
Cooperative International Neuromuscular Research Group (CINRG)			4,100	3,280
Countermeasures to Hemorrhaging (Liquid Bandage and Tissue Regeneration)			7,200	5,760
Fibrin Adhesive Stat (FAST) Dressing			3,000	2,400
Health Sciences Regenerative Medicine Center - Autologous Tissues Research			4,000	3,200
Highly Functional Neurally Controlled Skeletally Attached and Intelligent Prosthetic Devices			3,800	3,040
Identification of Pain Mechanisms and Therapeutic Targets			1,000	800
In-Field Body Temperature Conditioner			3,000	2,400
Military Medical Decontamination System			4,500	4,500
Military Nutrition Research: Four Tasks to Address Personnel Readiness			1,000	800
Mobile Aerosol Monitoring System for the Department of Defense			1,500	1,200

R-1	Budget Request	House	Senate	Recommendation
Multi-Dose Closed Loop pH Monitoring System for Platelets			2,000	1,600
Rapid Burn Wound Therapies			2,000	2,000
Regenerative Medicine for Acute Deafness			3,000	2,400
Rugged Electronic Textile Vital Signs Monitoring			3,000	2,400
Silicon Nanomaterial for Battlefield Medical Devices			3,500	2,800
Staph Vaccine			8,000	6,400
Trauma Care, Research and Training			3,000	2,400
US Army Vascular Graft Research Project			2,000	1,600
31 AVIATION ADVANCED TECHNOLOGY	60,097	87,097	104,697	112,977
Advanced Affordable Turbine Engine Program		4,000	5,000	4,000
Crewmember Alert Display Development Program		2,000		1,600
Drive System Composite Structural Component Risk Reduction Program		3,000		2,400
Fighting Combat-Related Fatigue Syndrome		1,000		800
Inter Turbine Burner for Turbo Shaft Engines		3,000		2,400
Next Generation Green, Economical and Automated Production of Composite Structures for Aerospace		1,000		1,000
Qualification and Insertion of New High Temperature Domestic Sourced PES for Military Aircraft		3,000		2,400
Heavy Fuel Engine Family for Unmanned Systems		4,000		3,200
UH-60 Transmission/Gearbox Galvanic Corrosion Reduction		1,500	1,500	1,500
Wireless HUMS for Condition Based Maintenance of Army Helicopters		2,000		1,600
Universal Control		2,500	9,000	7,200
Autonomous Cargo Acquisition for Rotorcraft Unmanned Aerial Vehicles			1,600	1,280
Enhanced-Rapid Tactical Integration for Fielding of Systems Initiative			3,900	3,120
Parts-on-Demand from CONUS Operations			5,000	4,500
Robust Composite Structural Core for Army Helicopters			2,000	1,600
Transitioning Stretch Broken Carbon Fiber to Production Programs			4,000	3,200
Unmanned Aerial Systems Ground Based Sense and Avoid Capability Development for Integration into the National Air Space			3,600	2,880
Unmanned Aerial Vehicle Resupply (UAVR) - BURRO			4,000	3,200
Vectored Thrust Ducted Compound Helicopter			5,000	5,000
WEAPONS AND MUNITIONS ADVANCED				
32 TECHNOLOGY	66,410	89,910	71,210	90,330
Advanced Lightweight Gunner Protection Kit for Lightweight MRAP Vehicle		1,000		800
Lens-Less Dual-Mode Micro Seeker for Medium-Caliber Guided Projectiles		2,500		2,000
Lightweight Munitions and Surveillance System for Unmanned Air and Ground Vehicles		4,800		3,840
Micro Inertial Navigation Unit Technology		1,500		1,200
Nanotechnology Fuze		2,000		1,600
Next Generation Machining Technology and Equipment		2,000		1,600
Rapid Insertion of Developmental Technologies into Fielded Systems		2,000		1,600

R-1	Budget Request	House	Senate	Recommendation
Recovery, Recycle, and Reuse of DOE Metals for DoD Applications (Transferred to RDT&E, Defense-Wide line number 26)		2,400		0
Soldier Protection through Unmanned Ground Vehicles		1,500		1,200
Titanium Powder Advanced Forged Parts Program		3,800		3,040
EMG - lack of authorization			-11,500	-5,500
Biosensor, Communicator and Controller System			3,500	3,500
Advanced Prototyping with Non Traditional Suppliers			1,500	0
Advanced Robot and Sensor Technology for Surveillance and Energy Efficiency Applications			1,500	1,200
Lightweight Reliable Materials for Military Systems			3,500	2,800
Technology Development at the Quad Cities Manufacturing Laboratory (Includes transfer from line number 17)			6,300	5,040
33 COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY	89,586	162,186	182,886	241,446
Advanced Battery Materials and Manufacturing		5,000		4,000
Advanced Carbon Hybrid Battery for Hybrid Electric Vehicles		1,000		800
Advanced Composites for Light Weight, Low Cost Transportation Systems using a 3+ Ring Extruder		3,000		2,400
Advanced Digital Hydraulic Drive System		2,500		2,000
Advanced Lightweight Multifunctional Multi-Threat Composite Armor Material Technology		3,000		2,400
Advanced Lithium Ion Phosphate Battery System for Army Combat Hybrid HMMWV and Other Army Vehicle Platforms		2,000	3,000	2,400
Advanced Technology for Energy Storage		2,000		1,800
Advanced Thermal Management System		3,000		2,400
All Composite Bus Program		2,500		2,000
Ceramic and Metal Matrix Composites Armor Development using Ring Extruder Technology		1,000		800
Army Vehicle Condition Based Maintenance		5,000		4,000
Electric All Terrain Ultra Light Vehicle for the Minnesota National Guard		2,000		1,600
Fire Shield		4,000		3,200
Friction Stir Welding Program		3,000		2,400
Fuel System Component Technology Research		2,000		1,600
Fully Burdened Cost of Fuel and Alternative Energy Methodology and Conceptual Model		3,500		2,800
Hybrid Electric Drive All Terrain Vehicle		2,000		1,600
Hybrid Electric Heavy Truck Vehicle		2,000		1,600
Integrated Defense Technical Information		2,000		1,600
Logistical Fuel Processors Development		1,500		1,200
Networked Reliability and Safety Early Evaluation System		2,000		1,600
Protective 3-D Armor Structure to Safeguard Military Vehicles and Troops		2,000		1,600
Smart Plug-In Hybrid Vehicle Program		4,100	3,000	3,280
Silent Watch, IB NPS 1160 Lithium-Ion Advanced Battery		1,000		800
Superlattice Semiconductors for Mobile SS Lighting and Solar Power Applications		3,500		2,800

R-1	Budget Request	House	Senate	Recommendation
Unmanned Robotic System Utilizing a Hydrocarbon Fueled Solid Oxide Fuel Cell System		3,000		2,400
Program Increase		5,000		3,750
30-Kilowatt Auxiliary Power Unit for Armored Combat Vehicles			2,000	1,600
Advanced Battery Development Program			10,000	9,000
Advanced Corrosion Protection for Military Vehicles and Equipment			3,000	2,400
Advanced Suspension System For Heavy Vehicles			2,700	2,160
Alternative Energy Advanced Technology Development/Demonstration (Transferred from line number 42)				18,250
All Composite Lightweight Military Vehicle			2,000	1,600
Antiballistic Windshield Armor			3,000	2,400
Compact 10 Kilowatt Generator Set for Army and Marine Combat Vehicles			2,000	1,600
Defense Advanced Transportation Technology Program Hybrid Truck Users Forum			6,000	4,800
Enhanced Military Vehicle Maintenance System Demonstration Project			2,800	2,800
Field Deployable Fleet Hydrogen Fueling			3,000	2,400
Future Tactical Truck Carbon Composite Shelter and Retrofit of Current Vehicle Shelters			2,000	1,600
Ground-forces Readiness Enabler for Advanced Tactical Vehicles (GREAT-V)			1,000	800
Hybrid Engine Development Program			4,000	3,200
Hydraulic Hybrid Vehicles for the Tactical Wheeled Fleet			3,500	2,800
JAMMA Family of Vehicles			1,000	800
Military Installation Electric Vehicle Demonstration Project			2,000	1,600
On-Board Vehicle Power Systems Development			3,100	2,480
Plug-in Hybrid Electric Vehicle			4,000	4,000
Pre-Discharge Threat Cues			2,000	1,600
Simulation Based Reliability and Safety (SimBRS) Program			4,900	4,900
Unmanned Ground Vehicle Initiative			12,000	11,000
VePro - Vehicle Health Usage Monitoring and Prognostics			3,100	2,880
VSIL: Armored Vehicle Components and Systems Simulated In Cost-Effective Virtual Design and Test Environment			4,000	3,200
Zouline Armor			4,200	3,360
COMMAND, CONTROL, COMMUNICATIONS				
34 ADVANCED TECHNOLOGY	8,667	13,667	8,667	12,417
Program Increase		5,000		3,750
36 ELECTRONIC WARFARE ADVANCED TECHNOLOGY	50,458	57,258	58,458	57,498
Applied Communication and Information Networking		3,800	3,000	3,040
Portable Mobile Emergency Broadband Systems		3,000	4,000	3,200
Cybersecurity in Tactical Environments			1,000	800

R-1	Budget Request	House	Senate	Recommendation
NEXT GENERATION TRAINING AND SIMULATION				
38 SYSTEMS	19,415	23,915	22,415	25,495
Combat Medic Trainer		2,000	2,000	2,000
Joint Fires and Effects Trainer System Enhancements		2,500		2,000
Joint Medical Simulation Technology Center (Transferred from line number 30)				1,280
HapMed Combat Medic Trainer			1,000	800
40 EXPLOSIVES DEMILITARIZATION TECHNOLOGY	0	3,500	12,200	12,560
Advanced Reactive Armor Systems		2,000		1,600
Zumwalt National Program for Countermeasures to Biological and Chemical Threats		1,500		1,200
Cryofracture/Plasma Arc Demilitarization Program			8,000	6,400
Ultra Wideband Active RF Detection of IEDs			2,200	1,760
Unserviceable Ammunition Demilitarization via Chemical Dissolution at Tooele Army Depot			2,000	1,600
41 MILITARY HIV RESEARCH	6,657	29,657	6,657	29,657
HIV Prevention and Reducing Risk to US Military Personnel		3,000		3,000
Program Increase		20,000		20,000
COMBATING TERRORISM, TECHNOLOGY				
42 DEVELOPMENT	11,989	11,989	36,989	11,989
Alternative Energy Advanced Technology Development/Demonstration (Transferred to line number 33)			25,000	0
43 ELECTRONIC WARFARE TECHNOLOGY	19,192	22,692	19,192	21,992
Advanced Ground EW and Signals Intelligence System		2,500		2,000
AN/ALQ 211 Networked EW Controller		1,000		800
44 MISSILE AND ROCKET ADVANCED TECHNOLOGY	63,951	75,751	79,451	87,011
Anti-Tamper Research and Development		3,800		3,040
Captive Carry Sensor Test-Bed		3,000		2,400
Foil Bearing Supported UAV Engine		1,000		800
Waterside Wide Area Tactical Coverage and Homing		4,000		3,200
Advanced Commercial Technology Insertion			3,100	3,100
Army Responsive Tactical Space System Exerciser			3,000	3,000
Long Range Hypersonic Interceptor			2,000	1,600
Rapid Response Hostile Fire Detection and Active Protection of Ground and Air Vehicles Sensor Demonstration			3,200	2,560
Scenario Generation for Integrated Air and Missile Defense Evaluation			4,200	3,360
LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY				
46 TECHNOLOGY	30,317	30,317	36,217	35,037
Advanced Demining Technology			5,900	4,720
48 NIGHT VISION ADVANCED TECHNOLOGY	40,329	64,829	57,329	72,629
Brownout Situational Awareness Sensor		3,000		2,400
Buster/Blacklight UAV Development		1,000		800
Enhanced Driver Situational Awareness		1,000		800
Hyper Spectral Sensor for Improved Force Protection		2,000		1,600
Program Increase		15,000		9,000

R-1	Budget Request	House	Senate	Recommendation
Night Vision and Electronic Sensors Directorate		2,500		2,000
Bradley Third Generation FLIR			5,000	4,500
Compact Airborne Multi-Mission Payload (CAMP) (Transferred from line number 51)				1,600
Microterrain Persistent Surveillance			2,000	1,600
Smart Sensor Supercomputing Center			10,000	8,000
ENVIRONMENTAL QUALITY TECHNOLOGY				
49 DEMONSTRATIONS	15,706	15,706	16,206	16,206
Permafrost Tunnel			500	500
50 MILITARY ENGINEERING ADVANCED TECHNOLOGY	5,911	45,461	17,511	45,631
Conversion of Municipal Solid Waste to Renewable Diesel Fuel		3,150		2,520
Defense Support to Civil Authorities Automated Support System		2,000		1,600
Demonstration of Thin Film Solar Modules as a Renewable Energy Source		1,000		800
Distributed Power from Wastewater		2,500		2,000
Enhancing the Commercial Joint Mapping Toolkit to Support Tactical Military Operations		4,000		3,200
Field Deployable Hologram Production System		4,800		3,840
Gas Engine Driven Air Conditioning		3,000		2,400
Hybrid Energy Systems Design and Testing		2,000		2,000
Lightweight Protective Roofing		1,500		1,200
Nanotechnology for Potable Water and Waste Treatment		2,000		1,600
Optimization of the US Army Topographic Data Management Enterprise		2,600		2,080
Pacific Command Renewable Energy Security Systems		3,000		2,400
Ruggedized Military Laptop Fuel Cell Power Supply- Project Phase 3		4,000	2,000	3,200
University Center for Disaster Preparedness and Emergency Response		1,500		1,200
Zinc-Flow Electrical Energy Storage		2,500		2,000
Advanced Tactical Fuels for the US Military			4,000	3,200
Amorphous Si Flexible Photovoltaics for Grid Parity			2,000	1,600
Integrated Alternative Power Systems			2,600	2,080
Natural Gas Firetube Boiler Demonstration			1,000	800
ADVANCED TACTICAL COMPUTER SCIENCE AND 51 SENSOR TECHNOLOGY	41,561	60,061	47,061	57,361
Advanced Radar Transceiver Integrated Circuit Development		1,000		800
CERDEC Integrated Tool Control System		2,000		1,600
Foliage Penetrating, Reconnaissance, Surveillance, Tracking, and Engagement Radar (FORESTER) Phase II		2,000		1,600
Intelligence, Surveillance and Reconnaissance (ISR) Simulation Integration Laboratory		2,000		1,600
Optimizing Natural Language Processing of Open Source Intelligence		1,500		1,200
Reduced Manning Situational Awareness		5,000		4,000
Shared Vision		3,000	2,000	2,400
Video Compression Technology		2,000		1,400

R-1	Budget Request	House	Senate	Recommendation
Compact Airborne Multi-mission Payload (CAMP) (Transferred to line number 48)			2,000	0
Mobile Localization (M-LOC)			1,500	1,200
52 UNIQUE ITEM IDENTIFICATION (UID)	0	2,500	0	2,000
IUID Data Platform		2,500		2,000
53 ARMY MISSILE DEFENSE SYSTEMS INTEGRATION	14,683	31,683	74,783	72,163
Advanced Fuel Cell Research Program		4,000	2,000	3,200
Alternative Power Technology for Missile Defense		1,000	4,000	3,200
Biological Air Filtering System Technology		3,000	3,000	3,000
Compact Pulsed Power Initiative		4,000	3,000	3,200
Geospatial Airship Research Platform		4,000		3,200
Remote Explosive Analysis and Detection System		1,000		800
Adaptive Lightweight Materials Technology for Missile Defense			4,000	3,200
Adaptive Robotics Technology for Space, Air and Missiles (ART-SAM)			4,200	3,360
Advanced Cavitation Power Technology			4,800	3,840
Advanced Electronics Rosebud Integration			3,000	3,000
Continuous Threat Alert Sensing System (CTASS)			1,700	1,360
High Speed Digital Imaging			3,000	2,400
High Temp Polymers for Missile System Applications			4,900	3,920
On-Board Hybrid Power Unit (OBHPU)			1,300	1,040
Orion High Altitude Long Endurance UAV Risk Reduction Effort			9,700	7,760
Standoff Hazardous Agent Detection and Evaluation System			9,000	8,500
Discriminatory Imaging and Network Advancement for Missiles, Aviation and Space			2,500	2,500
ARMY MISSILE DEFENSE SYSTEMS INTEGRATION				
54 (SPACE)	117,471	120,471	118,671	119,231
Advanced Power Technologies for Nano-Satellites		2,000		1,600
Tactical Overwatch High Altitude System		1,000		800
Space Control - excessive program delays			-10,500	-10,000
HiSentinel Stratospheric Airship			3,000	2,400
Low Cost Interceptor			2,100	1,680
Missile Attack Early Warning System			2,600	2,080
Nanocomposite Enhanced Radar and Aerospace Materials (NERAM)			1,000	800
Positron Capture and Storage (Includes transfer from line number 28)			3,000	2,400
55 AIR AND MISSILE DEFENSE SYSTEMS ENGINEERING	209,531	110,531	211,531	166,931
Center for Defense Systems Research		1,000		800
Excessive project cost growth and large unobligated balances		-100,000		-45,000
Advanced Environmental Control Systems			2,000	1,600
61 SOLDIER SUPPORT AND SURVIVABILITY	31,752	31,752	33,752	33,352
Squad Mission Support System (SMSS)			2,000	1,600

R-1	Budget Request	House	Senate	Recommendation
TACTICAL ELECTRONIC SURVEILLANCE				
62	SYSTEM - AD	18,228	18,228	12,228
	Unsustained growth		-6,000	-6,000
64	ENVIRONMENTAL QUALITY TECHNOLOGY	4,770	19,770	6,770
	Cadmium Emissions Reduction - Letterkenny Army Depot		1,000	1,000
	Program Increase		10,000	7,500
	Renewable Energy Testing Center		1,000	800
	Vanadium Technology Program		3,000	2,400
	Environmental Management Information System (EMIS) (Army requested transfer from O&M, Army line number 131)		2,000	2,000
65	WARFIGHTER INFORMATION NETWORK-TACTICAL	180,673	165,673	180,673
	Program adjustment for FCS termination		-15,000	-10,000
LOGISTICS AND ENGINEER EQUIPMENT - ADVANCED DEVELOPMENT				
68	DEVELOPMENT	56,373	57,373	49,873
	In-Theater Evaluation of Ballistic Protection		1,000	800
	JLTV unjustified growth		-10,000	0
	Expeditionary Water Reclamation Process using Supercritical Water Oxidation		3,500	2,800
70	MEDICAL SYSTEMS - ADVANCED DEVELOPMENT	31,275	37,275	33,275
	Execution of a Quality Systems Program for FDA Regulation Activities		1,500	1,200
	Model for Green Laboratories and Clean Rooms		1,500	1,200
	Wireless Medical Monitoring System		3,000	2,400
71	SOLDIER SYSTEMS - ADVANCED DEVELOPMENT	71,832	71,007	71,832
	Unexecutable growth		-5,000	-1,000
	Acid Alkaline Direct Methanol Fuel Cell		2,000	1,600
	Fire Suppression System		1,425	1,140
	Improved HELLHOUND 40mm Low Velocity High Explosive Ammunition		750	600
73	AIRCRAFT AVIONICS	92,977	88,977	92,977
	Unjustified program growth		-4,000	-3,000
74	ARMED, DEPLOYABLE OH-58D	65,515	70,515	61,236
	Advanced Composite Ammunition Magazine/Mount System		2,000	1,600
	LW25 Gun System and Demonstration		3,000	2,400
	Kiowa Warrior Replacement funds requested ahead of Analysis of Alternatives completion		-4,279	-3,000
75	ELECTRONIC WARFARE DEVELOPMENT	248,463	248,463	197,463
	L12 unjustified growth		-18,000	-18,000
	Excessive CIRCM management services		-35,000	-30,000
	Hostile Fire Indicator		2,000	1,600
78	INFANTRY SUPPORT WEAPONS	74,814	76,814	82,814
	Headborne Energy Analysis and Diagnostic System		2,000	1,600
	Composite Bottles for Survival Egress Air		4,000	4,000
	Lightweight Caliber .50 Machine Gun		4,000	3,200

R-1	Budget Request	House	Senate	Recommendation	
81	FAMILY OF HEAVY TACTICAL VEHICLES	7,477	10,477	7,477	9,877
	Mobile Power 30 Kilowatt System Power Control Unit Development Project		1,000		800
	RDT&E for the Family of Heavy Tactical Vehicles (FHTV)		2,000		1,600
83	NON-LINE OF SIGHT LAUNCH SYSTEM	88,660	88,660	92,460	91,700
	NLOS-LS Anti-Tamper Initiative			3,800	3,040
84	NON-LINE OF SIGHT CANNON	58,216	31,216	58,216	48,216
	Unjustified termination costs		-27,000		-10,000
85	FCS MANNED GROUND VEHICLES AND COMMON GROUND VEHICLE	368,557	184,557	368,557	276,557
	Unjustified termination costs		-184,000		-92,000
86	FCS SYSTEMS OF SYSTEMS ENGINEERING AND PROGRAM MANAGEMENT	1,067,191	1,067,191	868,191	917,191
	Contractor fee reduction due to contract restructure			-199,000	-150,000
87	FCS RECONNAISSANCE (UAV) PLATFORMS	68,701	68,701	78,001	75,501
	MQ-8B Fire Scout Army			9,300	6,800
90	FCS SUSTAINMENT & TRAINING R&D	749,182	749,182	567,182	659,182
	Program adjustment			-182,000	-90,000
92	NIGHT VISION SYSTEMS - SDD	55,410	57,910	55,410	57,410
	Standard Ground Station - Enhancement Program		2,500		2,000
102	WEAPONS AND MUNITIONS - SDD	34,878	44,378	69,878	87,478
	Lightweight Packaging System for Enhancing Combat Munitions Logistics		2,000		1,600
	Precision Guidance Kit Technology Development		7,500		6,000
	SLAMRAAM (Transferred from Missile Procurement, Army line number 3)			35,000	45,000
103	LOGISTICS AND ENGINEER EQUIPMENT - SDD	36,018	37,518	36,018	37,218
	Autonomous Sustainment Cargo Container		1,500		1,200
104	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - SDD	88,995	88,995	43,995	58,995
	JBC-P lack of justification			-45,000	-30,000
105	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT	33,893	40,293	37,393	42,013
	Army Portable Oxygen Concentration System		1,500		1,200
	Nanophotonic Biosensor Detection of Bioagents and Pathogens		1,900		1,520
	Plasma Sterilizer		3,000		2,400
	Military Applications for Medical Grade Chitosan			3,500	3,000
106	LANDMINE WARFARE/BARRIER - SDD	82,260	60,960	82,260	72,760
	Program adjustment for FCS termination		-21,300		-9,500
108	COMBAT IDENTIFICATION	20,070	20,070	10,070	10,070
	JCTI-G lack of acquisition strategy			-10,000	-10,000

R-1	Budget Request	House	Senate	Recommendation
ARMY TACTICAL COMMAND AND CONTROL				
109	HARDWARE AND SOFTWARE	90,864	85,364	79,864
	Unjustified program growth		-5,500	-3,000
	Fiscal year 2011 operational testing funds requested ahead of need		-12,792	-8,000
GENERAL FUND ENTERPRISE BUSINESS SYSTEM				
111	(GFEBS)	6,002	6,002	23,902
	Army requested transfer from Other Procurement, Army line number 118			17,900
114	ARTILLERY SYSTEMS	23,318	34,318	116,418
	M109A6 Paladin		2,000	1,600
	Program Increase		9,000	0
	Army requested transfer from Weapons and Tracked Combat Vehicles, Army line number 11, for Paladin Integrated Management			
			91,500	91,500
117	INFORMATION TECHNOLOGY DEVELOPMENT	35,309	35,309	66,909
	DIMHRS (Transferred from RDT&E, Defense-Wide line number 117)			
			30,800	30,800
	Electronic Commodity Project		1,000	800
119	MANNED GROUND VEHICLE	100,000	50,000	80,000
	Unjustified program growth		-50,000	-20,000
120	THREAT SIMULATOR DEVELOPMENT	22,222	30,222	25,222
	Electronic Combat and Counter Terrorism Threat Developments to Support Joint Forces			
			3,000	3,000
	Joint Threat Emitters (Transferred to Other Procurement, Air Force line number 28)			
			5,000	0
123	RAND ARROYO CENTER	16,305	16,305	17,905
	Rand Arroyo Center			
			2,000	1,600
125	CONCEPTS EXPERIMENTATION PROGRAM	23,445	23,445	26,545
	Automated Communications Support Systems for WARFIGHTERS, Intelligence Community, Linguists, and Analysts			
			1,500	1,500
	Technology for Rapid Foreign Language Acquisition for Specialized Military and Intelligence Purposes			
			2,000	1,600
ARMY TECHNICAL TEST INSTRUMENTATION AND				
128	TARGETS	72,911	75,111	84,831
	Define Renewable Energy Sources for Base Energy Independence			
			1,000	1,600
	MOTS All Sky Imager			
			1,200	960
	Dugway Field Test Improvements			
			4,500	3,600
	Multiple Source Data Fusion for Dugway Proving Ground			
			2,500	2,000
	Phase II, Regional Partnership – Ft. Bliss, WSMR, Holloman			
			4,700	3,760
130	DOD HIGH ENERGY LASER TEST FACILITY	2,891	2,891	7,391
	High Energy Laser System Test Facility- HELSTF / HELTD			
			6,000	4,500

R-1	Budget Request	House	Senate	Recommendation
136 ARMY EVALUATION CENTER	66,309	68,309	66,309	67,909
Tire to Track Transformer System for Light Vehicles		2,000		1,600
MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY				
140	45,053	70,653	56,153	73,233
Defense Metals Technology Center		2,500		2,000
Atomized Magnesium Domestic Production Design and Development		2,000		1,600
Domestic Production of Nanodiamond for Military Applications		2,000		1,600
Improved Thermal Batteries for Guided Munitions		3,000		2,400
Joint Munitions and Lethality Mission Integration		2,000		1,600
Medium Caliber Metal Parts Upgrade		3,100	3,000	3,000
Nano Advanced Cluster Energetics		2,000		1,600
Nanotechnology-Enabled Self-Healing Anti-Corrosion Coating Products		2,000		1,400
Program Increase - Protective Armor Systems		5,000		5,000
Self-Powered Sensor System for Munition Guidance and Health Monitoring		2,000		1,500
3D Woven Preform Technology for Army Munitions Applications			2,000	1,600
Army Range Technology Program (ARTP)			6,100	4,880
146 AEROSTAT JOINT PROJECT OFFICE	360,076	288,076	360,076	330,076
Funding ahead of need		-72,000		-30,000
147 ADV FIELD ARTILLERY TACTICAL DATA SYSTEM	23,727	30,727	23,727	29,327
Advanced Field Artillery Tactical Data System		4,500		3,600
Voice Recognition and Cross Platform Speech Interface System		2,500		2,000
148 COMBAT VEHICLE IMPROVEMENT PROGRAMS	190,301	192,301	197,201	197,421
Current Force Common Active Protection System Radar		2,000		1,600
Combat Vehicle Electrical Power-21st Century (CVEP-21)			3,900	3,120
Vibration Management Enhancement Program			3,000	2,400
AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS				
150	209,401	209,401	214,817	214,107
D18 - JCA PQT and LFT&E non-Army requirements			-984	-984
UH-60 Aviation Software Performance Assessment Test Bed			6,400	5,690
OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS				
155	0	5,000	0	4,000
Javelin Warhead Improvement Program		5,000		4,000
162 INFORMATION SYSTEMS SECURITY PROGRAM	74,355	74,355	61,455	58,955
BEC EMD contract funds requested ahead of need			-10,100	-10,100
JPIv2 EMD contract funds requested ahead of need			-6,800	-6,800
Biometrics DNA Applications			4,000	1,500
166 JOINT COMMAND AND CONTROL PROGRAM (JC2)	20,365	20,365	0	0
NECC program adjustment			-20,365	-20,365

R-1	Budget Request	House	Senate	Recommendation
167 TACTICAL UNMANNED AERIAL VEHICLES	202,521	172,521	172,124	173,521
Unjustified program growth		-30,000		-20,000
UGCS lack of synchronization with Department-wide enterprise			-15,000	-15,000
D09 IOT&E funds requested ahead of need			-22,897	0
4th Generation Wireless Exploitation			3,000	2,400
Shadow TUAS Flight in the National Air Space			2,500	2,000
Tactical UAV, Heavy Fuel Engine			2,000	1,600
DISTRIBUTED COMMON GROUND/SURFACE				
168 SYSTEMS	188,414	188,414	189,714	189,454
Heuristic Internet Protocol Packet Inspection Engine (HIPPIE)			1,300	1,040
170 AERIAL COMMON SENSOR (ACS)	210,035	210,035	0	116,035
Program adjustment			-210,035	-94,000
172 END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES	68,466	94,466	85,766	103,406
Achieving Lightweight Casting Solutions		2,000		1,600
ARL 3D Model-Based Inspection and Scanning		3,000		2,400
De-Weighting Military Vehicles through Advanced Composites Manufacturing Technology		2,000	3,700	2,960
High Performance Alloy Materials and Advanced Manufacturing of Steel Castings for New Light Weight and Robotic Weapon Systems		3,000		2,400
Lightweight Magnesium Parts for Military Applications		2,000		1,600
National Center for Defense Manufacturing and Machining		2,000		1,600
Network Centric Prototype Manufacturing		4,000		4,000
Polymeric Web Run-Flat Tire Inserts for Convoy Protection		3,500		3,500
Smart Machine Platform Initiative		3,000		2,400
Solid State Processing of Titanium Alloys for Advanced Materiel Armaments		1,500		1,200
Aging and Battle Damaged Weapon Systems Repair			1,500	1,200
Improved Manufacturing Processes Demonstration Program for Army Tactical Vehicles			2,000	1,600
Large Structure Titanium Machining Initiative			1,000	800
Legacy Aerospace Gear Drive Re-Engineering Initiative			2,000	2,000
Precision Strike Munitions Advancement with Integrated Millimeter Wave Power Sources to Satisfy Army Strategic Goals			4,100	3,280
Spinel Transparent Armor Production Technology			1,000	800
Superior Weapons Systems through Castings			2,000	1,600
999 CLASSIFIED PROGRAMS	3,883	47,383	3,883	26,683
Asymmetric Threat Response and Analysis Project		2,500		2,000
Army/Joint STARS Surveillance and Control Data Link Technology Refresh		1,000		800
Classified adjustment		40,000		20,000

ENHANCED MEDIUM ALTITUDE
RECONNAISSANCE AND SURVEILLANCE SYSTEM

The fiscal year 2010 budget request includes \$210,035,000 in Research, Development, Test and Evaluation, Army to initiate the restructured Aerial Common Sensor (ACS) program. However, the Department of Defense has advised that the ACS has been terminated as a program of record and established in its place the Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS), which provides a fixed-wing, multi-sensor, integrated intelligence, surveillance and reconnaissance capability to the warfighter. Additionally, the fiscal year 2010 Overseas Contingency Operations (OCO) budget request includes \$105,000,000 to procure EMARSS C-12 aircraft and to modify those aircraft with special mission hardware as a quick reaction capability to satisfy theater-based requirements. The Department based its OCO request on the assumption that ACS would not deliver capability to the war fighter for several years. However, with EMARSS selected as a new program of

record in lieu of ACS, the EMARSS quick reaction capability request is duplicative of the program of record, and under current schedules, system deliveries for the program of record are expected shortly after deliveries of the so-called quick reaction capability. Accordingly, the recommendation provides no funding in the OCO title for procurement and modification of C-12 aircraft. In order to establish EMARSS as a program of record while fulfilling urgent theater-based fielding requirements, the recommendation includes \$116,035,000 in Research, Development, Test and Evaluation, Army, to fully fund the new EMARSS program of record and to accelerate its fielding while establishing a standardized, sustainable intelligence, surveillance and reconnaissance program.

REPORT ON THE USE OF LIVE PRIMATES IN
TRAINING RELATING TO CHEMICAL AND BIO-
LOGICAL AGENTS

The Secretary of Defense is directed to submit to the congressional defense commit-

tees, not later than 90 days after the date of the enactment of this Act, a report setting forth a detailed description of the requirements for use by the Department of Defense of live primates at the United States Army Medical Research Institute of Chemical Defense, and elsewhere, to demonstrate the effects of chemical or biological agents or chemical (such as physostigmine) or biological agent simulants in training programs. The report shall include, at a minimum, the following:

- (1) The number of live primates used in the training;
- (2) The average lifespan of primates from the point of introduction into such training programs;
- (3) An explanation as to why the use of primates in such training is more advantageous and realistic than the use of human simulators or other alternatives; and
- (4) An estimate of the cost of converting from the use of primates to human simulators in such training.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY

For Research, Development, Test and Evaluation, Navy, funds are to be available for fiscal year 2010, as follows:

(In thousands of dollars)

	Budget	House	Senate	Recommendation
RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY				
BASIC RESEARCH				
1 UNIVERSITY RESEARCH INITIATIVES.....	99,472	103,472	102,472	102,672
2 IN-HOUSE LABORATORY INDEPENDENT RESEARCH.....	18,076	18,076	18,076	18,076
3 DEFENSE RESEARCH SCIENCES.....	413,743	426,143	423,643	430,903
TOTAL, BASIC RESEARCH.....	531,291	547,691	544,191	551,651
APPLIED RESEARCH				
4 POWER PROJECTION APPLIED RESEARCH.....	59,787	68,787	72,287	77,547
5 FORCE PROTECTION APPLIED RESEARCH.....	91,400	124,900	135,900	148,700
6 MARINE CORPS LANDING FORCE TECHNOLOGY.....	39,308	39,308	46,808	45,808
7 MATERIALS, ELECTRONICS AND COMPUTER TECHNOLOGY.....	---	3,500	---	2,800
8 COMMON PICTURE APPLIED RESEARCH.....	83,163	85,963	89,663	90,903
9 WARFIGHTER SUSTAINMENT APPLIED RESEARCH.....	104,169	104,169	122,569	119,269
10 RF SYSTEMS APPLIED RESEARCH.....	64,816	68,316	66,816	69,616
11 OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH.....	48,750	53,750	51,750	53,950
12 JOINT NON-LETHAL WEAPONS APPLIED RESEARCH.....	6,008	6,008	6,008	6,008
13 UNDERSEA WARFARE APPLIED RESEARCH.....	55,694	60,194	63,194	65,294
14 MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH.....	40,880	40,880	44,380	44,080
TOTAL, APPLIED RESEARCH.....	593,975	655,775	699,375	721,995
ADVANCED TECHNOLOGY DEVELOPMENT				
15 POWER PROJECTION ADVANCED TECHNOLOGY.....	107,969	125,869	106,869	116,689
16 FORCE PROTECTION ADVANCED TECHNOLOGY.....	66,035	91,935	75,235	93,355
17 COMMON PICTURE ADVANCED TECHNOLOGY.....	108,394	49,284	110,394	109,994
18 WARFIGHTER SUSTAINMENT ADVANCED TECHNOLOGY.....	86,239	95,039	86,239	93,279
19 ELECTROMAGNETIC SYSTEMS ADVANCED TECHNOLOGY.....	65,827	65,827	76,327	75,827
20 MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD) ..	107,363	114,863	115,363	121,063
21 JOINT NON-LETHAL WEAPONS TECHNOLOGY DEVELOPMENT.....	10,998	11,998	10,998	11,798
22 WARFIGHTER PROTECTION ADVANCED TECHNOLOGY.....	18,609	52,609	20,609	52,109
23 UNDERSEA WARFARE ADVANCED TECHNOLOGY.....	68,037	76,037	68,037	74,037
24 NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS.....	52,643	52,643	52,643	52,643

(In thousands of dollars)

	Budget	House	Senate	Recommendation
25 MINE AND EXPEDITIONARY WARFARE ADVANCED TECHNOLOGY....	28,782	30,782	28,782	30,382
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	720,896	766,886	751,496	831,176
DEMONSTRATION & VALIDATION				
26 AIR/OCEAN TACTICAL APPLICATIONS.....	116,082	117,982	117,462	119,002
27 AVIATION SURVIVABILITY.....	6,505	19,505	18,005	27,405
28 DEPLOYABLE JOINT COMMAND AND CONTROL.....	6,032	9,832	6,032	9,072
29 ASW SYSTEMS DEVELOPMENT.....	16,585	26,455	19,585	25,680
30 TACTICAL AIRBORNE RECONNAISSANCE.....	7,713	10,213	7,713	9,713
31 ADVANCED COMBAT SYSTEMS TECHNOLOGY.....	1,677	4,177	1,677	3,677
32 SURFACE AND SHALLOW WATER MINE COUNTERMEASURES.....	76,739	86,739	84,739	92,739
33 SURFACE SHIP TORPEDO DEFENSE.....	57,538	70,038	57,538	67,538
34 CARRIER SYSTEMS DEVELOPMENT.....	173,594	173,594	176,794	176,554
35 SHIPBOARD SYSTEM COMPONENT DEVELOPMENT.....	1,691	13,791	21,491	30,351
36 PILOT FISH.....	79,194	79,194	79,194	79,194
37 RETRACT LARCH.....	99,757	99,757	99,757	109,757
38 RETRACT JUNIPER.....	120,752	120,752	114,752	114,752
39 RADIOLOGICAL CONTROL.....	1,372	1,372	1,372	1,372
40 SURFACE ASW.....	21,995	23,995	21,995	23,595
41 ADVANCED SUBMARINE SYSTEM DEVELOPMENT.....	551,836	554,836	550,836	551,836
42 SUBMARINE TACTICAL WARFARE SYSTEMS.....	10,172	11,172	12,172	12,572
43 SHIP CONCEPT ADVANCED DESIGN.....	22,541	22,541	22,541	22,541
44 SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES.....	28,135	40,935	28,135	38,375
45 ADVANCED NUCLEAR POWER SYSTEMS.....	259,887	259,887	259,887	259,887
46 ADVANCED SURFACE MACHINERY SYSTEMS.....	5,599	13,199	19,399	20,639
47 CHALK EAGLE.....	443,555	443,555	443,555	443,555
48 LITTORAL COMBAT SHIP (LCS).....	360,518	366,918	360,518	424,518
49 COMBAT SYSTEM INTEGRATION.....	22,558	22,558	22,558	22,558
50 CONVENTIONAL MUNITIONS.....	3,458	4,458	3,458	4,258
51 MARINE CORPS ASSAULT VEHICLES.....	293,466	243,466	293,466	293,466
53 MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM.....	73,798	73,798	59,798	78,598

(In thousands of dollars)

	Budget	House	Senate	Recommendation
54 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT.....	21,054	21,054	21,054	21,054
55 COOPERATIVE ENGAGEMENT.....	56,586	61,586	56,586	60,586
56 OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT.....	17,328	17,328	17,328	17,328
57 ENVIRONMENTAL PROTECTION.....	20,661	20,661	21,661	21,461
58 NAVY ENERGY PROGRAM.....	8,476	13,476	17,876	18,996
59 FACILITIES IMPROVEMENT.....	4,002	9,202	7,402	10,082
60 CHALK CORAL.....	70,772	70,772	70,772	70,772
61 NAVY LOGISTIC PRODUCTIVITY.....	4,301	7,101	16,001	15,101
62 RETRACT MAPLE.....	210,237	210,237	210,237	210,237
63 LINK PLUMERIA.....	69,313	69,313	63,313	63,313
64 RETRACT ELM.....	152,151	152,151	152,151	152,151
65 SHIP SELF DEFENSE.....	6,960	6,960	6,960	6,960
66 LINK EVERGREEN.....	123,660	123,660	123,660	123,660
67 SPECIAL PROCESSES.....	54,115	54,115	54,115	54,115
68 NATO RESEARCH AND DEVELOPMENT.....	10,194	10,194	10,194	10,194
69 LAND ATTACK TECHNOLOGY.....	1,238	8,238	1,238	6,838
70 NONLETHAL WEAPONS.....	46,971	49,871	46,971	49,291
71 JOINT PRECISION APPROACH AND LANDING SYSTEMS.....	150,304	150,304	150,304	150,304
72 SINGLE INTEGRATED AIR PICTURE (SIAP) SYSTEM ENGINEER..	52,716	52,716	52,716	52,716
74 DIRECTED ENERGY AND ELECTRIC WEAPON SYSTEMS.....	5,003	22,003	8,003	19,303
75 TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES.....	63,702	63,702	50,702	50,702
77 JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE.	67,843	67,843	32,843	55,843
78 PRECISION STRIKE WEAPONS DEVELOPMENT PROGRAM.....	40,926	40,926	40,926	40,926
79 SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE..	42,533	42,533	40,533	40,533
TOTAL, DEMONSTRATION & VALIDATION.....	4,163,795	4,260,665	4,177,995	4,385,670
ENGINEERING & MANUFACTURING DEVELOPMENT				
80 OTHER HELO DEVELOPMENT.....	54,092	54,092	54,092	54,092
81 AV-8B AIRCRAFT - ENG DEV.....	20,886	20,886	20,886	20,886
82 STANDARDS DEVELOPMENT.....	53,540	59,340	53,540	59,340

(In thousands of dollars)

	Budget	House	Senate	Recommendation
83 MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT.....	81,953	81,953	76,553	75,613
84 AIR/OCEAN EQUIPMENT ENGINEERING.....	7,485	7,485	7,485	7,485
85 P-3 MODERNIZATION PROGRAM.....	3,659	3,659	3,659	3,659
86 WARFARE SUPPORT SYSTEM.....	6,307	6,307	6,307	6,307
87 TACTICAL COMMAND SYSTEM.....	86,462	95,462	86,462	92,862
88 ADVANCED HAWKEYE.....	364,557	362,557	364,557	362,557
89 H-1 UPGRADES.....	32,830	25,830	32,830	32,830
90 ACOUSTIC SEARCH SENSORS.....	56,369	56,369	56,369	56,369
91 V-22A.....	89,512	89,512	64,512	77,012
92 AIR CREW SYSTEMS DEVELOPMENT.....	14,265	12,565	14,265	12,565
93 EA-18.....	55,446	57,446	55,446	57,046
94 ELECTRONIC WARFARE DEVELOPMENT.....	97,635	101,635	102,635	105,635
95 VHXX EXECUTIVE HELO DEVELOPMENT.....	85,240	485,240	30,000	130,000
96 NEXT GENERATION JAMMER (NGJ).....	127,970	117,970	127,970	117,970
97 JOINT TACTICAL RADIO SYSTEM - NAVY (JTRS-NAVY).....	876,374	880,874	876,374	879,974
98 SC-21 TOTAL SHIP SYSTEM ENGINEERING.....	---	5,000	5,000	8,000
99 SURFACE COMBATANT COMBAT SYSTEM ENGINEERING.....	178,459	185,459	178,459	184,059
100 LPD-17 CLASS SYSTEMS INTEGRATION.....	5,304	5,304	5,304	5,304
101 SMALL DIAMETER BOMB (SDB).....	43,902	43,902	43,902	43,902
102 STANDARD MISSILE IMPROVEMENTS.....	162,197	168,197	182,197	167,997
103 AIRBORNE MCM.....	48,712	51,712	48,712	51,112
104 NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR SYSTEMS ENG.	11,727	11,727	11,727	11,727
105 ADVANCED ABOVE WATER SENSORS.....	236,078	259,078	236,078	252,478
106 SSN-688 AND TRIDENT MODERNIZATION.....	122,733	122,733	121,733	121,333
107 AIR CONTROL.....	6,533	6,533	6,533	6,533
108 SHIPBOARD AVIATION SYSTEMS.....	80,623	82,123	77,623	78,823
109 COMBAT INFORMATION CENTER CONVERSION.....	13,305	13,305	13,305	13,305
110 NEW DESIGN SSN.....	154,756	195,256	162,756	185,156
112 SUBMARINE TACTICAL WARFARE SYSTEM.....	59,703	62,203	66,703	67,303

(In thousands of dollars)

	Budget	House	Senate	Recommendation
113 SHIP CONTRACT DESIGN/LIVE FIRE T&E.....	89,988	92,488	91,988	91,988
114 NAVY TACTICAL COMPUTER RESOURCES.....	4,620	4,620	4,620	4,620
115 MINE DEVELOPMENT.....	2,249	2,249	2,249	2,249
116 LIGHTWEIGHT TORPEDO DEVELOPMENT.....	21,105	21,105	24,105	23,505
117 JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT.....	10,327	10,327	10,327	10,327
118 PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS....	5,898	6,898	5,898	6,698
119 JOINT STANDOFF WEAPON SYSTEMS.....	10,022	10,022	10,022	10,022
120 SHIP SELF DEFENSE (DETECT & CONTROL).....	35,459	37,459	46,459	44,559
121 SHIP SELF DEFENSE (ENGAGE: HARD KILL).....	34,236	35,736	46,236	46,236
122 SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW).....	88,895	88,895	88,895	88,895
123 INTELLIGENCE ENGINEERING.....	14,438	14,438	14,438	14,438
124 MEDICAL DEVELOPMENT.....	9,888	33,788	22,288	56,928
125 NAVIGATION/ID SYSTEM.....	63,184	63,184	63,184	63,184
127 JOINT STRIKE FIGHTER (JSF).....	1,741,296	1,956,296	1,663,296	1,956,296
128 INFORMATION TECHNOLOGY DEVELOPMENT.....	9,868	9,868	9,868	9,868
129 INFORMATION TECHNOLOGY DEVELOPMENT.....	69,026	75,826	90,126	91,866
130 CH-53K.....	554,827	524,443	554,827	524,443
132 JOINT AIR-TO-GROUND MISSILE (JAGM).....	81,434	77,734	81,434	77,734
133 MULTI-MISSION MARITIME AIRCRAFT (MMA).....	1,162,417	1,182,417	1,162,417	1,175,417
134 CG(X).....	150,022	110,022	86,022	46,022
135 DDG-1000.....	539,053	539,053	526,453	526,453
136 TACTICAL CRYPTOLOGIC SYSTEMS.....	19,016	20,516	19,016	19,916
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	7,975,882	8,649,098	7,818,142	8,240,898
RDT&E MANAGEMENT SUPPORT				
137 THREAT SIMULATOR DEVELOPMENT.....	25,534	27,534	25,534	27,134
138 TARGET SYSTEMS DEVELOPMENT.....	79,603	79,603	79,603	79,603
139 MAJOR T&E INVESTMENT.....	44,844	51,544	49,844	51,844
140 STUDIES AND ANALYSIS SUPPORT - NAVY.....	11,422	12,422	11,422	12,422
141 CENTER FOR NAVAL ANALYSES.....	49,821	49,821	49,821	49,821

(In thousands of dollars)

	Budget	House	Senate	Recommendation
142 SMALL BUSINESS INNOVATIVE RESEARCH.....	---	---	2,000	1,600
143 TECHNICAL INFORMATION SERVICES.....	735	4,735	19,735	20,835
144 MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT.....	60,590	60,590	60,590	60,590
145 STRATEGIC TECHNICAL SUPPORT.....	3,633	3,633	3,633	3,633
146 RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT.....	70,942	70,942	70,942	70,942
148 RDT&E SHIP AND AIRCRAFT SUPPORT.....	193,353	193,353	183,353	193,353
149 TEST AND EVALUATION SUPPORT.....	380,733	380,733	380,733	370,733
150 OPERATIONAL TEST AND EVALUATION CAPABILITY.....	12,010	12,010	12,010	12,010
151 NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT.....	2,703	2,703	2,703	2,703
152 SEW SURVEILLANCE/RECONNAISSANCE SUPPORT.....	20,921	20,921	20,921	20,921
153 MARINE CORPS PROGRAM WIDE SUPPORT.....	19,004	20,004	19,004	19,804
154 TACTICAL CRYPTOLOGIC ACTIVITIES.....	2,464	2,464	2,464	2,464
155 SERVICE SUPPORT TO JFCOM, JNTC.....	4,197	4,197	4,197	4,197
TOTAL, RDT&E MANAGEMENT SUPPORT.....	982,509	997,209	998,509	1,004,609
OPERATIONAL SYSTEMS DEVELOPMENT				
159 UNMANNED COMBAT AIR VEHICLE (UCAV) ADVANCED COMPONENT.....	311,204	306,204	311,204	306,204
160 STRATEGIC SUB & WEAPONS SYSTEM SUPPORT.....	74,939	76,139	69,439	69,699
161 SSBN SECURITY TECHNOLOGY PROGRAM.....	34,479	34,479	34,479	34,479
162 SUBMARINE ACOUSTIC WARFARE DEVELOPMENT.....	7,211	7,211	7,211	7,211
163 NAVY STRATEGIC COMMUNICATIONS.....	43,982	23,982	46,982	46,382
164 RAPID TECHNOLOGY TRANSITION (RTT).....	39,125	39,125	39,125	39,125
165 F/A-18 SQUADRONS.....	127,733	127,733	122,333	121,813
166 E-2 SQUADRONS.....	63,058	63,058	63,058	63,058
167 FLEET TELECOMMUNICATIONS (TACTICAL).....	37,431	37,431	37,431	37,031
168 TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC).....	13,238	14,038	17,338	17,158
169 INTEGRATED SURVEILLANCE SYSTEM.....	24,835	26,835	24,835	26,435
170 AMPHIBIOUS TACTICAL SUPPORT UNITS.....	2,324	2,324	2,324	2,324
171 CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT.....	49,293	52,293	39,293	41,693
172 CRYPTOLOGIC DIRECT SUPPORT.....	1,609	1,609	1,609	1,609
173 ELECTRONIC WARFARE (EW) READINESS SUPPORT.....	37,524	37,524	37,524	37,524

(In thousands of dollars)

	Budget	House	Senate	Recommendation
174 HARM IMPROVEMENT.....	30,045	30,045	30,045	30,045
175 TACTICAL DATA LINKS.....	25,003	25,003	15,003	15,003
176 SURFACE ASW COMBAT SYSTEM INTEGRATION.....	41,803	41,803	41,803	41,803
177 MK-48 ADCAP.....	28,438	38,438	28,438	34,438
178 AVIATION IMPROVEMENTS.....	135,840	127,349	134,149	135,189
179 NAVY SCIENCE ASSISTANCE PROGRAM.....	3,716	3,716	3,716	3,716
180 OPERATIONAL NUCLEAR POWER SYSTEMS.....	72,031	72,031	72,031	72,031
181 MARINE CORPS COMMUNICATIONS SYSTEMS.....	287,348	291,848	277,348	280,748
182 MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS....	120,379	124,179	106,479	109,319
183 MARINE CORPS COMBAT SERVICES SUPPORT.....	17,057	17,057	21,457	20,577
184 USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP)....	30,167	29,900	30,167	29,900
185 TACTICAL AIM MISSILES.....	2,298	2,298	2,298	2,298
186 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)....	3,604	3,604	3,604	3,604
187 JOINT HIGH SPEED VESSEL (JHSV).....	8,431	8,431	8,431	8,431
192 SATELLITE COMMUNICATIONS (SPACE).....	474,009	474,009	474,009	474,009
193 CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES.....	45,513	45,513	45,513	45,513
194 INFORMATION SYSTEMS SECURITY PROGRAM.....	24,226	24,226	29,226	29,226
195 JOINT COMMAND AND CONTROL PROGRAM (JC2).....	2,453	2,453	---	---
196 JOINT COMMAND AND CONTROL PROGRAM (JC2).....	4,139	4,139	---	---
197 COBRA JUDY.....	62,061	62,061	62,061	62,061
198 NAVY METEOROLOGICAL AND OCEAN SENSORS-SPACE (METOC)...	28,094	29,094	28,094	28,894
199 JOINT MILITARY INTELLIGENCE PROGRAMS.....	4,600	7,000	4,600	6,520
200 TACTICAL UNMANNED AERIAL VEHICLES.....	8,971	8,971	8,871	8,871
202 AIRBORNE RECONNAISSANCE SYSTEMS.....	46,208	52,458	50,558	55,558
203 MANNED RECONNAISSANCE SYSTEMS.....	22,599	19,899	22,599	19,899
204 DISTRIBUTED COMMON GROUND SYSTEMS.....	18,079	12,379	18,079	12,379
205 RQ-4 UAV.....	465,839	380,839	465,839	440,839
206 MQ-8 UAV.....	25,639	25,639	25,639	25,639
207 RQ-11 UAV.....	553	553	553	553

(In thousands of dollars)

	Budget	House	Senate	Recommendation
208 RQ-7 UAV.....	986	986	986	986
209 SMALL (LEVEL 0) TACTICAL UAS (STUASLO).....	18,763	18,763	18,763	18,763
210 SMALL (LEVEL 0) TACTICAL UAS (STUASLO).....	23,594	23,594	23,594	23,594
212 EP-3E REPLACEMENT (EPX).....	11,976	11,976	11,976	11,976
213 MODELING AND SIMULATION SUPPORT.....	8,028	8,028	8,028	8,028
214 DEPOT MAINTENANCE (NON-IF).....	14,675	14,675	14,675	14,675
215 AVIONICS COMPONENT IMPROVEMENT PROGRAM.....	2,725	3,725	2,725	3,525
216 INDUSTRIAL PREPAREDNESS.....	56,691	69,191	66,941	75,191
MARITIME TECHNOLOGY (MARITECH).....	---	1,000	4,000	4,100
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	3,044,566	2,966,858	3,016,483	3,009,446
999 CLASSIFIED PROGRAMS.....	1,258,018	1,353,118	1,142,318	1,258,018
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, NAVY.....	19,270,932	20,197,300	19,148,509	20,003,463

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	House	Senate	Recommendation
1 UNIVERSITY RESEARCH INITIATIVES	99,472	103,472	102,472	102,672
Center for Assured Critical Application and Infrastructure Security		1,500		1,200
Ship Model Testing		2,500		2,000
Molecular Electronics for Flash Memory Production (transferred to RDT&E, Army line number 3)			3,000	
3 DEFENSE RESEARCH SCIENCES	413,743	426,143	423,643	430,903
Characterization and Exploitation of Magnetic and Electric Fields in the Coastal Ocean Environment		2,500		2,000
Energetics S&T Workforce Development		3,500		3,500
Next Generation Manufacturing Processes and Systems		1,500		1,200
ONAMI Nanoelectronics, Nanometrology and Nanobiotechnology Initiative		2,500	4,800	3,840
Shock and Vibration Modeling of Marine Composites		2,400		1,920
Waves, Wind and Scavengers: Next Generation			2,000	2,000
Renewable Energy Systems for Naval Applications			2,000	1,600
Texas Microfactory			1,100	1,100
Human Neural Cell-Based Biosensor				
4 POWER PROJECTION APPLIED RESEARCH	59,787	68,787	72,287	77,547
Aging Military Aircraft Fleet Support		2,000		1,600
Electronic Motion Actuation Systems		1,000		800
Multifunctional Materials, Devices, and Applications		2,000		1,600
Strike Weapon Propulsion		4,000		3,200
Advanced Helicopter Landing Aid			800	800
Combustion Light Gas Gun Projectile			5,000	4,000
Enhanced EO/IR Sensors			3,000	2,400
Naval Advanced Electric Launcher System			2,000	2,000
Millimeter Wave Imaging			1,700	1,360
5 FORCE PROTECTION APPLIED RESEARCH	91,400	124,900	135,900	146,700
Advanced Battery System for Military Avionics Power Systems		2,000		1,600
Advanced Energetics Initiative		4,000		4,000
Advanced Simulation Tools for Composite Aircraft Structures		2,000		1,600
Energetic Nano-Materials Agent Defeat Initiative		2,000		1,600
Center for Autonomous Solar Power - Supercapacitors for Integrated Power Storage		5,000	2,500	4,000
Advanced Composite Manufacturing for Composite High-Speed Boat Design		2,000		1,600
Non Traditional Ballistic Fiber and Fabric Weaving Application for Force Protection		2,500		2,000
Integration of Electro-Kinetic Weapons into Next Generation Navy Ships		5,000	4,000	4,000
Lithium Ion Storage Advancement for Aircraft Applications		2,500		2,000
Multi-Mission Unmanned Surface Vessel		2,500		2,000
Program Increase - Hybrid Power Systems		4,000		2,000
Alternative Energy Research			25,000	18,500
Carbon Composite Thin Films for Power Generation and Energy Storage			2,000	1,600
Magnetic Refrigeration Technology for Naval Applications			5,000	4,000

R-1		Budget Request	House	Senate	Recommendation
	Fuel Efficient, High Specific Power Free Piston Engine for USSVs			2,000	1,600
	Harbor Shield - Homeland Defense Port Security Initiative			2,000	1,600
	Proton Exchange Membrane Fuel Cell for Underwater Vehicles			2,000	1,600
6	MARINE CORPS LANDING FORCE TECHNOLOGY	39,308	39,308	46,808	45,808
	Warfighter Rapid Awareness Processing Technologies			5,000	4,500
	High Power Ultra Lightweight Zinc-Air Battery			2,500	2,000
	MATERIALS, ELECTRONICS AND COMPUTER				
7	TECHNOLOGY	0	3,500	0	2,800
	Infrared Materials Laboratory		3,500		2,800
8	COMMON PICTURE APPLIED RESEARCH	83,163	85,963	89,663	90,903
	Cognitive Radio Institute		1,000		800
	Sensor Integration Framework		1,800		1,440
	Intelligent Decision Exploration			4,500	3,900
	Head Attitude Tracking System			2,000	1,600
9	WARFIGHTER SUSTAINMENT APPLIED RESEARCH	104,169	104,169	122,569	119,289
	Composite Materials Enhancements through Polymer Science R&D			5,900	5,120
	Productization of Anti-fouling and Fouling Release Coating Systems			3,500	2,800
	Nanotechnology for Anti-Reverse Engineering			3,000	2,400
	Biosensors for Defense Applications			1,000	800
	Managing and Extending DoD Asset Lifecycles			2,000	1,600
	Advanced Composite Maritime Manufacturing			2,000	1,600
	Assistive Technologies for Injured Service Members			1,000	800
10	RF SYSTEMS APPLIED RESEARCH	64,816	68,316	66,816	69,616
	Gallium Nitride (GaN) Power Technology		2,000		1,600
	Silicon Carbide Wafer Production - Process Development for Low Defect Power Electronics		1,500		1,200
	National Initiatives for Applications of Multifunctional Materials			2,000	2,000
11	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH	48,750	53,750	51,750	53,950
	Autonomous Marine Sensors and Networks for Rapid Littoral Assessment		3,000		2,400
	Underwater Imaging and Communications Using Lasers		2,000	2,000	2,000
	Unmanned Undersea Vehicle Submerged Long Range Positioning			1,000	800
13	UNDERSEA WARFARE APPLIED RESEARCH	55,694	60,194	63,194	65,294
	Autonomous UUV Delivery and Communication System Integration		4,500		3,600
	Advanced High Energy Density Surveillance Power Module			4,000	3,200
	Galfenol Energy Harvesting			3,500	2,800
14	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH	40,880	40,880	44,380	44,080
	Electromagnetic Signatures Assessment System Using Multiple Autonomous Undersea Vehicles, Phase III			2,000	2,000
	Virtual Onboard Analyst for Multi-Sensor Mine Detection			1,500	1,200

R-1		Budget Request	House	Senate	Recommendation
15	POWER PROJECTION ADVANCED TECHNOLOGY	107,969	125,869	106,869	116,689
	AARGM Counter Air Defense Future Capabilities		2,500		2,000
	Countermine LIDAR UAV-Based Systems		2,000	1,400	1,600
	Flow Path Analysis Tool		2,000		1,600
	Moving Target Indicator Scout Radar		1,000		800
	Quiet Drive Advanced Rotary Actuator		2,000		1,600
	Smart Instrument Development for the Magdalena Ridge Observatory		2,000	5,000	4,000
	Tactical High Speed Anti-Radiation Missile Propulsion Demonstration		1,900		1,520
	X-49A Envelope Expansion Modifications		4,500		3,600
	Reduction to growth			-10,000	-10,000
	Detection, Tracking, and Identification for ISRTE of Mobile and Asymmetric Targets			2,500	2,000
16	FORCE PROTECTION ADVANCED TECHNOLOGY	66,035	91,935	75,235	93,355
	Accelerating Fuel Cells Manufacturability		2,000		1,600
	Advanced Logistics Fuel Reformer for Fuel Cells (Phase II)		3,000		2,400
	Agile Port and High Speed Ship Technology		2,000		1,600
	HBCU Applied Research Incubator		1,000		800
	High Power Density Motor Drive		3,600		2,880
	High Temperature Radar Dome Materials		2,000		1,600
	High Temperature Superconductor Trap Field Magnet Motor		1,000		800
	Multi-Element Structured Filter Arrays for Naval Platforms		4,300		3,440
	NAVAIR Project for Land/Sea-Based Air Systems Maintenance and Air Worthiness		2,000	2,000	2,000
	Pure Hydrogen Supply from Logistic Fuels		3,000		2,400
	Wide Area Sensor Force Protection Targeting		2,000		1,600
	Single Generator Operations Lithium Ion Battery			5,000	4,000
	Captive Air Amphibious Transporter			2,200	2,200
17	COMMON PICTURE ADVANCED TECHNOLOGY	108,394	49,284	110,394	109,994
	High Integrity Global Positioning System		-59,110		
	4-D Data Fusion Visualization			2,000	1,600
18	WARFIGHTER SUSTAINMENT ADVANCED TECHNOLOGY	86,239	95,039	86,239	93,279
	Intelligent Retrieval of Imagery		2,500		2,000
	Marine Corps Cultural and Language Training Platform		800		640
	Nanofluidic Lubricants for Increased Fuel Efficiency in Heavy Duty Vehicles		1,500		1,200
	Environmentally Sealed, Ruggedized Avionics Displays		4,000		3,200
19	ELECTROMAGNETIC SYSTEMS ADVANCED TECHNOLOGY	65,827	65,827	76,327	75,827
	Reduction to new starts			-7,000	-7,000
	Pacific Airborne Surveillance and Testing			17,500	17,000
20	MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD)	107,363	114,863	115,363	121,063
	California Central Coast Partnership Research		3,500		2,800
	Enhanced Small Arms Protective Insert		2,000		1,600
	Near Infrared Optical Augmentation System		2,000		1,600
	Ground Warfare Acoustical Combat Systems of Netted Sensors			5,000	5,000
	Marine Air-Ground Task Force Situational Awareness			3,000	2,700

R-1		Budget Request	House	Senate	Recommendation
	JOINT NON-LETHAL WEAPONS TECHNOLOGY				
21	DEVELOPMENT	10,998	11,998	10,998	11,798
	Dynamic Eye-Safe Imaging Laser		1,000		800
	WARFIGHTER PROTECTION ADVANCED TECHNOLOGY				
22	TECHNOLOGY	18,609	52,609	20,609	52,109
	Navy Special Warfare Performance and Injury Prevention Program for Special Boat Team 22		2,500	2,000	2,000
	C.W. Bill Young Bone Marrow Donor Recruitment and Research Program		31,500		31,500
23	UNDERSEA WARFARE ADVANCED TECHNOLOGY	68,037	76,037	68,037	74,037
	Underwater Explosives and Warhead Research		3,000		3,000
	Program Increase - ASW Research		5,000		3,000
	MINE AND EXPEDITIONARY WARFARE ADVANCED TECHNOLOGY				
25	TECHNOLOGY	28,782	30,782	28,782	30,382
	Joint Explosive Ordnance Disposal Diver Situational Awareness System		2,000		1,600
26	AIR/OCEAN TACTICAL APPLICATIONS	116,082	117,982	117,482	119,002
	Non-Gasoline Burning Outboard Engine		1,900		1,520
	Semi-Submersible UUV for Sensor Enhancements			1,400	1,400
27	AVIATION SURVIVABILITY	6,505	19,505	18,005	27,405
	Common Safety System Controller		3,000		2,400
	Improved Capabilities for Irregular Warfare Platforms		4,000		4,000
	Lighter-than-Air Stratospheric Unmanned Aerial Vehicle for Persistent Communications Relay and Surveillance		3,000		2,400
	Military Upset Recovery Training		1,000		800
	Modular Advanced Vision System		2,000		1,600
	Integrated Manifold and Tube Ceramic Oxygen Generator			6,000	4,800
	Conformal Ceramics for Enhanced Aviation Armor Systems			2,500	2,500
	Unmanned Vehicle Sensor Optimization Technologies Program			3,000	2,400
28	DEPLOYABLE JOINT COMMAND AND CONTROL	6,032	9,832	6,032	9,072
	Deployable Command and Control Vehicle		3,800		3,040
29	ASW SYSTEMS DEVELOPMENT	16,585	26,455	19,585	25,680
	Air Readiness/Effectiveness Measurement Program		2,000		1,600
	Marine Mammal Awareness, Alert and Response Systems		3,000		2,400
	Marine Mammal Detection System		2,000	2,000	2,000
	Marine Species Mitigation		2,870		2,295
	Sonobuoy Wave-Energy Module			1,000	800
30	TACTICAL AIRBORNE RECONNAISSANCE	7,713	10,213	7,713	9,713
	Precision Engagement Technologies for Unmanned Systems		2,500		2,000
31	ADVANCED COMBAT SYSTEMS TECHNOLOGY	1,677	4,177	1,677	3,677
	Maintenance Free Operating Period		2,500		2,000

R-1	Budget Request	House	Senate	Recommendation
SURFACE AND SHALLOW WATER MINE				
32 COUNTERMEASURES	76,739	86,739	84,739	92,739
Persistent Autonomous Maritime Surveillance		5,000		5,000
Program Increase - Minehunting Sonar		5,000		3,000
RMS transfer from Other Procurement ,Navy line number 29			8,000	8,000
33 SURFACE SHIP TORPEDO DEFENSE	57,538	70,038	57,538	67,538
AN/SLQ-25D Integration		8,000		6,400
Continuous Active Sonar for Torpedo DCL Systems		4,500		3,600
34 CARRIER SYSTEMS DEVELOPMENT	173,594	173,594	176,794	176,554
Composite Mast for CVNs			3,200	2,960
35 SHIPBOARD SYSTEM COMPONENT DEVELOPMENT	1,691	13,791	21,491	30,351
Advanced Fuel Filtration System		1,500		1,200
High-Shock 100 Amp Current Limiting Circuit Breaker		600		600
Integrated Condition Assessment and Reliability Engineering		1,000		800
Integrated Power System Power Dense Harmonic Filter Design		2,000		1,600
IP over Power Line Carrier Network Integration with ICAS		2,000		1,600
Landing Craft Composite Lift Fan		1,500		1,200
Shipboard Wireless Maintenance Assistant		1,500		1,200
Integrated Power System Converter		2,000		1,600
DDG-51 Hybrid Drive System			8,100	8,100
Advanced Steam Turbine			4,000	4,000
Propulsion Manufacturing Technology Development			4,700	3,760
Advanced Fluid Controls for Shipboard Application			3,000	3,000
37 RETRACT LARCH	99,757	99,757	99,757	109,757
Transfer from RDT&E, Defense-Wide line number 70				10,000
38 RETRACT JUNIPER	120,752	120,752	114,752	114,752
Program adjustment			-6,000	-6,000
40 SURFACE ASW	21,995	23,995	21,995	23,595
Low Frequency Active Towed Sonar System Organic ASW Capability		2,000		1,600
41 ADVANCED SUBMARINE SYSTEM DEVELOPMENT	551,836	554,836	550,836	551,836
Program delay		-4,000		-4,000
SSBN(X) Systems Development		2,500		2,000
Submarine Fatline Vector Sensor Towed Array		2,000		1,600
Underwater Explosion Modeling and Simulation for Ohio Class Replacement Composite Non-Pressure Hull Fairing		2,500		2,000
Organic Submarine ISRT Demonstration (IRST OSAID)			3,000	2,400
Undersea Superiority program support			-4,000	-4,000
42 SUBMARINE TACTICAL WARFARE SYSTEMS	10,172	11,172	12,172	12,572
Submarine Panoramic Awareness System		1,000		800
High Torque, Low Speed, Direct Drive Electric Motor Technology			2,000	1,600
44 SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES	28,135	40,935	28,135	38,375
Bow Lifting Body Project		4,000		3,200
Low Signature Defensive Weapon System for Surface Combatant Craft		4,800		3,840
Naval Ship Hydrodynamic Test Facilities		4,000		3,200

R-1		Budget Request	House	Senate	Recommendation
46	ADVANCED SURFACE MACHINERY SYSTEMS	5,599	13,199	19,399	20,639
	High Density Power Conversion and Distribution Equipment		1,500		1,200
	Hybrid Propulsion/Power Generation for Increased Fuel Efficiency for Surface Combatants		2,000	8,000	6,400
	Integrated Advanced Ship Control		1,500		1,200
	Micro-Drive for Future HVAC Systems		600	2,400	1,920
	Next Generation Shipboard Integrated Power-Fuel Efficiency and Advanced Capability Enhancer		2,000		1,600
	Fan Coil Assembly of the Future			3,400	2,720
48	LITTORAL COMBAT SHIP (LCS)	360,518	366,918	360,518	424,518
	Program Increase - Mine Warfare Modules		6,400		4,000
	Revised acquisition strategy				60,000
50	CONVENTIONAL MUNITIONS	3,458	4,458	3,458	4,258
	Improved Kinetic Energy Cargo Round		1,000		800
51	MARINE CORPS ASSAULT VEHICLES	293,466	243,466	293,466	293,466
	Program delay		-50,000		
	MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM	73,798	73,798	59,798	78,598
	Expeditionary Capabilities Laboratory			3,000	2,400
	Marine Expeditionary Rifle Squad Reconfigurable Vehicle Simulator			3,000	2,400
	JLTV program delay			-20,000	
55	COOPERATIVE ENGAGEMENT	56,586	61,586	56,586	60,586
	Cooperative Engagement Capability		5,000		4,000
57	ENVIRONMENTAL PROTECTION	20,661	20,661	21,661	21,461
	Compliance Tools Development for Metals in Antifouling Paints			1,000	800
58	NAVY ENERGY PROGRAM	8,476	13,476	17,876	18,996
	Program Increase - Alternative and Renewable Energy Sources		5,000		3,000
	Solar Heat Reflective Film for Energy and Fuel Efficiency in Buildings and Vehicles			4,900	3,920
	Molten Carbonate Fuel Cell Demonstrator			4,500	3,600
59	FACILITIES IMPROVEMENT	4,002	9,202	7,402	10,082
	Kinetic Hydropower System Turbine		2,000		1,600
	Photovoltaic Rooftop Systems for Military Housing		1,500		1,200
	Regenerative Fuel Cell Back-up Power		1,700	1,000	1,360
	Permanent Magnet Generator - Wave Energy Buoy			2,400	1,920

R-1	Budget Request	House	Senate	Recommendation
61 NAVY LOGISTIC PRODUCTIVITY	4,301	7,101	16,001	15,101
Highly Integrated Siloxane Optical Interconnect for Military Avionics		1,000		800
NSWC Corona Item Unique Identification Center		1,800		1,440
Advanced Naval Logistics			3,000	2,400
Hawaii National Guard Integrated Information Command System			1,600	1,280
Photonic Integration Foundry			3,000	2,400
Thin Film Materials for Advanced Applications, Advanced IED and Anti-Personnel Sensors			1,600	1,280
Radio Frequency Identification (RFID) Technologies (transferred to RDT&E, Defense-Wide line number 41)			1,000	
Real-time Tactical Intelligence Collection System			1,500	1,200
63 LINK PLUMERIA	69,313	69,313	63,313	63,313
Program adjustment			-6,000	-6,000
69 LAND ATTACK TECHNOLOGY	1,238	8,238	1,238	6,838
76mm Swarbuster Capability		2,000		1,600
Hybrid Propellant for Medium and Large Caliber Ammunition		5,000		4,000
70 NONLETHAL WEAPONS	46,971	49,871	46,971	49,291
Non-Lethal Defense Technologies		2,900		2,320
DIRECTED ENERGY AND ELECTRIC WEAPON SYSTEMS	5,003	22,003	8,003	19,303
Joint Technology Insertion and Accelerated System Integration Capability for Electronic Warfare		2,000		1,600
Program Increase - Directed Energy Weapons		15,000		10,000
Global Law Enforcement Support for Counter-Narcotics			1,500	1,500
Maritime Directed Energy Test and Evaluation Center			1,500	1,200
TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES	63,702	63,702	50,702	50,702
TADIRCM program delay			-13,000	-13,000
JOINT COUNTER RADIO CONTROLLED IED ELECTRONIC WARFARE	67,843	67,843	32,843	55,843
JCREW 3.3 contract delay			-35,000	-12,000
SPACE & ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINE	42,533	42,533	40,533	40,533
Funding carryover due to fleet schedules			-2,000	-2,000
82 STANDARDS DEVELOPMENT	53,540	59,340	53,540	59,340
Measurement Standards Research and Development		5,800		5,800
MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT	81,953	81,953	76,553	75,613
M230 30mm Chain Gun Automatic Cannon			4,700	3,760
Defer IFF Mode 5			-10,100	-10,100
87 TACTICAL COMMAND SYSTEM	86,462	95,462	86,462	92,862
Shipboard Wireless Network		3,000		2,400
Program Increase - ISR Enhancements		6,000		4,000
88 ADVANCED HAWKEYE	364,557	362,557	364,557	362,557
Engineering support growth		-2,000		-2,000

R-1	Budget Request	House	Senate	Recommendation
89 H-1 UPGRADES	32,830	25,830	32,830	32,830
Excessive program growth		-7,000		
91 V-22A	89,512	89,512	64,512	77,012
Reduction to growth			-25,000	-12,500
92 AIR CREW SYSTEMS DEVELOPMENT	14,265	12,565	14,265	12,565
Common Mobile Aircrew Restraint System contract delay		-1,700		-1,700
93 EA-18	55,446	57,446	55,446	57,046
Next Generation Electronic Warfare Simulator		2,000		1,600
94 ELECTRONIC WARFARE DEVELOPMENT	97,635	101,635	102,635	105,635
NAWCWD Point Mugu Electronic Warfare Laboratory Upgrade		4,000		3,200
Small Survivable Jammer			1,000	800
F/A-18 Countermeasures Improvement			4,000	4,000
95 VHXX EXECUTIVE HELO DEVELOPMENT	85,240	485,240	30,000	130,000
Continue Increment One Development		400,000		
Termination costs funded ahead of estimate			-55,240	-55,240
Technology capture				100,000
96 NEXT GENERATION JAMMER (NGJ)	127,970	117,970	127,970	117,970
Program growth		-10,000		-10,000
97 JOINT TACTICAL RADIO SYSTEM - NAVY (JTRS-NAVY)	876,374	880,874	876,374	879,974
Joint Tactical Radio System Handheld Manpack Small Form Factor Radio System		4,500		3,600
98 SC-21 TOTAL SHIP SYSTEM ENGINEERING	0	5,000	5,000	8,000
Floating Area Network Littoral Sensor Grid		5,000		4,000
Guidance, Navigation, Control, and Targeting			5,000	4,000
SURFACE COMBATANT COMBAT SYSTEM ENGINEERING	178,459	185,459	178,459	184,059
Advanced Capability Build 12 and 14		2,000		1,600
Aegis Research and Development		5,000		4,000
102 STANDARD MISSILE IMPROVEMENTS	182,197	168,197	182,197	167,997
SM-6 program execution		-15,000		-15,000
Automated Missile Tracking		1,000		800
103 AIRBORNE MCM	48,712	51,712	48,712	51,112
Common Air Mine Countermeasures Tow Cable		3,000		2,400
105 ADVANCED ABOVE WATER SENSORS	236,078	259,078	236,078	252,478
Common Digital Sensor Architecture		3,000		2,400
Submarine Navigation Decision Aids		5,000		4,000
Program Increase - Advanced Sensor Development		15,000		10,000
106 SSN-688 AND TRIDENT MODERNIZATION	122,733	122,733	121,733	121,333
Improved Submarine Towed Array Systems			2,000	1,600
OE-538/OE-592 funding carryover			-3,000	-3,000
108 SHIPBOARD AVIATION SYSTEMS	80,623	82,123	77,623	78,823
Voyage Repair Team Tool Management		1,500		1,200
ADMACS Block 3 program delay			-3,000	-3,000

R-1	Budget Request	House	Senate	Recommendation
110 NEW DESIGN SSN	154,756	195,256	162,756	185,156
Advanced Manufacturing for Submarine Bow Domes and Rubber Boots		2,000		1,600
Common Command and Control System Module		4,000	6,000	4,800
Mold-in-Place Coating Development for the US Submarine Fleet		2,000	2,000	2,000
Submarine Automated Test and Re-Test		2,500		2,000
Small Business Technology Insertion		30,000		20,000
112 SUBMARINE TACTICAL WARFARE SYSTEM	59,703	62,203	66,703	67,303
Submarine System Biometrics Access Control		2,500		2,000
Artificial Intelligence-Based Combat System Kernel			4,000	3,200
Submarine Environment for Evaluation and Development			3,000	2,400
113 SHIP CONTRACT DESIGN/ LIVE FIRE T&E	89,988	92,488	91,988	91,988
Automated Fiber Optic Manufacturing Initiative for Navy Ships		2,500	2,000	2,000
116 LIGHTWEIGHT TORPEDO DEVELOPMENT	21,105	21,105	24,105	23,505
Weapon Acquisition and Firing System			3,000	2,400
PERSONNEL, TRAINING, SIMULATION, AND HUMAN				
118 FACTORS	5,898	6,898	5,898	6,698
Workforce Requirements Planning - Team Enhancement		1,000		800
120 SHIP SELF DEFENSE (DETECT & CONTROL)	35,459	37,459	46,459	44,559
Persistent Surveillance Wave Powerbuoy System		2,000	4,000	3,200
Autonomous Unmanned Surface Vehicle			3,000	2,700
Expeditionary Swimmer Defense System			4,000	3,200
121 SHIP SELF DEFENSE (ENGAGE: HARD KILL)	34,236	35,736	46,236	46,236
Laser Phalanx		1,500	12,000	12,000
124 MEDICAL DEVELOPMENT	9,888	33,788	22,288	56,928
Advanced Molecular Medicine Initiative		1,000		800
Hampton University Proton Cancer Treatment Initiative		5,000		4,000
Deployment Health and Chronic Disease Surveillance		1,000		800
Integrated Psycho-Social Health Care Demonstration Program		1,000		1,000
Management of Lung Injury by Micronutrients		1,500		1,200
Mobile Oxygen, Ventilation, and External Suction (MOVES) System		3,400	2,000	2,720
National Functional Genomics Center Collaborating Site		4,000		3,200
On-Demand Custom Body Implants/Prosthesis for Injured Personnel		2,000		1,600
U.S. Navy Pandemic Influenza Vaccine Program		2,000		1,600
U.S. Navy Cancer Vaccine Program		3,000		2,400
Biocidal Wound Dressings			1,500	1,200
Simplified Orthopedic Surgery			5,300	4,240
Composite Tissue Transplantation for Combat Wounded Repair			2,000	2,000
Multivalent Dengue Vaccine Program			1,600	1,280
Military Dental Research (transferred from Defense Health Program)				6,000
Wound Care Research (transferred from Defense Health Program)				13,000
127 JOINT STRIKE FIGHTER (JSF)	1,741,296	1,956,296	1,663,296	1,956,296
Alternate Engine Development		215,000		215,000
Excess to need			-78,000	

R-1	Budget Request	House	Senate	Recommendation
129 INFORMATION TECHNOLOGY DEVELOPMENT	69,026	75,826	90,126	91,866
Instrumented Underwater Training Systems		2,800		2,240
Integrated Manufacturing Systems 3D Simulation and Modeling Project		2,500		2,000
Maintenance Planning and Assessment Technology Insertion		1,500		1,200
Condition-Based Maintenance Enabling Technologies Program			3,000	2,400
Digitization, Integration, and Analyst Access of Investigative Files, NCIS			1,500	1,200
Integration of Logistics Information of Knowledge Projection and Readiness Assessment Program			2,000	1,600
METOC Integrated Network-Centric Technology Systems			2,600	2,600
Supply Chain Logistics Capability at the ABL NIROP			8,000	6,400
SPAWAR Systems Center/ITC New Orleans			4,000	3,200
130 CH-53K	554,827	524,443	554,827	524,443
Program execution		-30,384		-30,384
132 JOINT AIR-TO-GROUND MISSILE (JAGM)	81,434	77,734	81,434	77,734
Program delay		-3,700		-3,700
133 MULTI-MISSION MARITIME AIRCRAFT (MMA)	1,162,417	1,182,417	1,162,417	1,175,417
Small Business Technology Insertion		20,000		13,000
134 CG(X)	150,022	110,022	86,022	46,022
Program delay		-40,000		-40,000
Propulsion development ahead of material solution decision			-24,000	-24,000
Unjustified request			-40,000	-40,000
135 DDG-1000	539,053	539,053	526,453	526,453
FSST alternative initiative			-12,600	-12,600
136 TACTICAL CRYPTOLOGIC SYSTEMS	19,016	20,516	19,016	19,916
Engineering support growth		-1,500		-1,500
Paragon (Frequency Extension)		3,000		2,400
137 THREAT SIMULATOR DEVELOPMENT	25,534	27,534	25,534	27,134
Navy Advanced Threat Simulator		2,000		1,600
139 MAJOR T&E INVESTMENT	44,844	51,544	49,844	51,844
Joint Mission Battle-Space to Support Net-Ready Key Performance Parameters		2,000		2,000
National Aviation Enterprise Interoperability with Carrier Strike and Expeditionary Group Forces		4,700	5,000	5,000
140 STUDIES AND ANALYSIS SUPPORT - NAVY	11,422	12,422	11,422	12,422
Joint Heavy-Lift Rotocraft Research		1,000		1,000
142 SMALL BUSINESS INNOVATIVE RESEARCH	0	0	2,000	1,600
Wave Energy Harvesting for Buoy Applications			2,000	1,600
143 TECHNICAL INFORMATION SERVICES	735	4,735	19,735	20,835
Center for Commercialization of Advanced Technology		2,500		2,000
Technology Transfer Office		1,500	1,500	1,500
Hawaii Technology Development Venture			10,500	10,000
Integrated Manufacturing Enterprise			5,000	5,000
Virtual Business Accelerator for the Silicon Prairie			2,000	1,600

R-1	Budget Request	House	Senate	Recommendation	
148	RDT&E SHIP AND AIRCRAFT SUPPORT MRTFB additional aircraft support early to need (transferred to line number 149)	193,353	193,353	183,353 -10,000	193,353
149	TEST AND EVALUATION SUPPORT MRTFB additional aircraft support early to need (transferred from line number 148)	380,733	380,733	380,733	370,733 -10,000
153	MARINE CORPS PROGRAM WIDE SUPPORT Global Supply Chain Management	19,004	20,004 1,000	19,004	19,804 800
159	UNMANNED COMBAT AIR VEHICLE (UCAV) ADVANCED COMPONENT Engineering support growth	311,204	306,204 -5,000	311,204	306,204 -5,000
160	STRATEGIC SUB & WEAPONS SYSTEM SUPPORT Advanced Linear Accelerator Facility Adelos Program: Nuclear Security Sensor System Joint Warhead Fuze Sustainment growth	74,939	76,139 1,200	69,439 3,500 -9,000	69,699 960 2,800 -9,000
163	NAVY STRATEGIC COMMUNICATIONS Block 1A contract delay E-6B Strategic Communications Upgrade	43,982	23,982 -20,000	46,982 3,000	46,382 2,400
165	F/A-18 SQUADRONS Fighter Jet Noise Reduction Under Carrier Deck Operational Environment IRST contract delay	127,733	127,733	122,333 3,600 -9,000	121,613 2,880 -9,000
167	FLEET TELECOMMUNICATIONS (TACTICAL) Shipboard Automated Radio Room System NC3-LTS late Milestone B	37,431	37,431	37,431 2,000 -2,000	37,031 1,600 -2,000
168	TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC) Image-Based Navigation and Precision Targeting Tomahawk Cost Reduction Initiative	13,238	14,038 800	17,338 4,100	17,158 640 3,280
169	INTEGRATED SURVEILLANCE SYSTEM Autonomous Anti-Submarine Warfare Vertical Beam Array Sonar	24,835	26,835 2,000	24,835	26,435 1,600
171	CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT NAVAIR High Fidelity Oceanographic Library Reduction to growth	49,293	52,293 3,000	39,293 -10,000	41,693 2,400 -10,000
175	TACTICAL DATA LINKS Increment 3 program uncertainty	25,003	25,003	15,003 -10,000	15,003 -10,000
177	MK-48 ADCAP Small Business Technology Insertion	28,438	38,438 10,000	28,438	34,438 6,000

R-1	Budget Request	House	Senate	Recommendation
178 AVIATION IMPROVEMENTS	135,840	127,349	134,149	135,189
F-135 engine funding ahead of need		-12,491	-12,491	-12,491
Arc Fault Circuit Breaker with Arc Location		1,000		800
Lightweight Composite Structure Development for Aerospace Vehicles		3,000		2,400
Highly Conductive Lightweight Aircraft Sealant			1,200	960
Laser Peening for P-3 Life Extension			1,600	1,280
Vet-Biz Initiative for National Sustainment			5,000	4,000
Wireless Sensors for Navy Aircraft			3,000	2,400
181 MARINE CORPS COMMUNICATIONS SYSTEMS	287,348	291,848	277,348	280,748
Battlefield Sensor Netting		3,000		2,400
Media Exploitation Tool Integration with Intelligence C2 Systems		1,500		1,200
Mobile Modular Command Center (M2C2)			3,000	2,800
DCGS-MC tech development excessive growth			-5,000	-5,000
C2 Warfare Systems reduce growth			-8,000	-8,000
MARINE CORPS GROUND COMBAT/SUPPORTING				
182 ARMS SYSTEMS	120,379	124,179	106,479	109,319
Remote Aiming and Sighting Optical Retrofit		3,800		3,040
Expandable Rigid Wall Composite Shelter			1,000	800
LAV Indirect Fire Modernization			-12,200	-12,200
Battlefield Target Identification Device program uncertainty			-2,700	-2,700
183 MARINE CORPS COMBAT SERVICES SUPPORT	17,057	17,057	21,457	20,577
High Performance Capabilities for Military Vehicles Project			1,400	1,120
Marine Personnel Carrier Support System			3,000	2,400
USMC INTELLIGENCE/ELECTRONIC WARFARE				
184 SYSTEMS (MIP)	30,167	29,900	30,167	29,900
Angelfire program cancellation		-267		-267
194 INFORMATION SYSTEMS SECURITY PROGRAM	24,226	24,226	29,226	29,226
Trusted Discovery/Universal Description Discovery and Integration UDDI			5,000	5,000
195 JOINT COMMAND AND CONTROL PROGRAM (JC2)	2,453	2,453	0	0
Program delay			-2,453	-2,453
196 JOINT COMMAND AND CONTROL PROGRAM (JC2)	4,139	4,139	0	0
Program delay			-4,139	-4,139
NAVY METEOROLOGICAL AND OCEAN SENSORS-				
198 SPACE (METOC)	28,094	29,094	28,094	28,894
Integration of Advanced Wide Field of View Sensor with Reusable, Reconfigurable Payload Processing Testbed System		1,000		800
199 JOINT MILITARY INTELLIGENCE PROGRAMS	4,600	7,000	4,600	6,520
Open Source Naval and Missile Database Reporting System		2,400		1,920
200 TACTICAL UNMANNED AERIAL VEHICLES	8,971	8,971	8,871	8,871
New start UAS			-100	-100

R-1	Budget Request	House	Senate	Recommendation
202 AIRBORNE RECONNAISSANCE SYSTEMS	46,208	52,458	50,558	55,558
EP-3E Requirements Capability Migration Systems Integration Lab		6,250		5,000
FEATHAR – Fusion, Exploitation, Algorithm, Targeting High-Altitude Reconnaissance			4,350	4,350
203 MANNED RECONNAISSANCE SYSTEMS	22,599	19,899	22,599	19,899
RF research growth		-2,700		-2,700
204 DISTRIBUTED COMMON GROUND SYSTEMS	18,079	12,379	18,079	12,379
Program delay		-5,700		-5,700
205 RQ-4 UAV	465,839	380,839	465,839	440,839
Program execution		-85,000		-25,000
215 AVIONICS COMPONENT IMPROVEMENT PROGRAM	2,725	3,725	2,725	3,525
Avionics Life Extension		1,000		800
216 INDUSTRIAL PREPAREDNESS	56,691	69,191	66,941	75,191
Laser Optimization Remote Lighting System		2,500		2,000
Manufacturing S&T for Next-Generation Energetics		5,000		5,000
Next Generation Scalable Lean Manufacturing Initiative - Phase Two		3,000		2,400
Out of Autoclave Composite Processing		2,000	2,000	2,000
Low Acoustic and Thermal Signature Battlefield Power Source			4,000	3,200
Life Extension of Weapon Systems Through Advanced Materials Processing			2,500	2,500
Flight/Hangar Deck Cleaner			1,750	1,400
217 MARITIME TECHNOLOGY (MARITECH)	0	1,000	4,000	4,100
Passive RFID Development		1,000		900
National Shipbuilding Research Program Advanced Shipbuilding Enterprise			4,000	3,200
999 CLASSIFIED PROGRAMS	1,258,018	1,353,118	1,142,318	1,258,018
Classified adjustment		95,100	-115,700	0

PRESIDENTIAL HELICOPTER

The House report directed the Secretary of Defense to report on the use of certain funds for the VH-71 Presidential Helicopter. The Senate report contained no similar language. The recommendation does not retain the House language.

BONE MARROW REGISTRY

The recommendation includes \$31,500,000 for the Department of the Navy, to be administered by the C.W. Bill Young Marrow Donor Recruitment and Research Program, also known as and referred to within the Naval Medical Research Center as the Bone Marrow Registry. Funds appropriated for the

C.W. Bill Young Marrow Donor Recruitment and Research Program shall remain available only for the purposes for which they were appropriated, and may only be obligated for the C.W. Bill Young Marrow Program. This donor center has recruited more than 525,000 Department of Defense volunteers and provides more marrow donors per week than any other donor center in the nation. More than 3,360 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 7,500,000 potential volunteer donors, is admirable. Further, the agencies involved in contingency planning are encouraged to continue to include the C.W. Bill Young Marrow Donor Recruitment and Research Program 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 of Defense is further directed to release all the funds appropriated for this purpose to the C.W. Bill Young Marrow Donor Recruitment and Research Program within 60 days of the enactment of this Act.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AIR FORCE

For Research, Development, Test and Evaluation, Air Force, funds are to be available for fiscal year 2010, as follows:

(In thousands of dollars)

	Budget	House	Senate	Recommendation
RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE				
BASIC RESEARCH				
1 DEFENSE RESEARCH SCIENCES.....	321,028	323,528	331,028	329,828
2 UNIVERSITY RESEARCH INITIATIVES.....	132,249	140,449	136,949	142,109
3 HIGH ENERGY LASER RESEARCH INITIATIVES.....	12,834	12,834	12,834	12,834
TOTAL, BASIC RESEARCH.....	466,111	476,811	480,811	484,771
APPLIED RESEARCH				
7 MATERIALS.....	127,957	155,707	168,957	179,157
8 AEROSPACE VEHICLE TECHNOLOGIES.....	127,129	129,129	138,529	139,149
9 HUMAN EFFECTIVENESS APPLIED RESEARCH.....	85,122	85,122	96,122	93,922
10 AEROSPACE PROPULSION.....	196,529	226,669	199,529	221,641
11 AEROSPACE SENSORS.....	121,768	129,768	135,668	136,588
12 SPACE TECHNOLOGY.....	104,148	116,248	110,148	119,628
13 CONVENTIONAL MUNITIONS.....	58,289	58,289	58,289	58,289
14 DIRECTED ENERGY TECHNOLOGY.....	105,677	106,677	99,927	106,477
15 COMMAND CONTROL AND COMMUNICATIONS.....	---	2,500	---	2,000
16 DOMINANT INFORMATION SCIENCES AND METHODS.....	115,278	115,278	115,278	115,278
17 HIGH ENERGY LASER RESEARCH.....	52,754	61,254	46,654	53,454
TOTAL, APPLIED RESEARCH.....	1,094,851	1,186,641	1,169,101	1,225,583
ADVANCED TECHNOLOGY DEVELOPMENT				
18 ADVANCED MATERIALS FOR WEAPON SYSTEMS.....	37,901	56,301	64,501	71,901
19 SUSTAINMENT SCIENCE AND TECHNOLOGY (S&T).....	2,955	2,955	2,955	2,955
20 ADVANCED AEROSPACE SENSORS.....	51,482	53,482	51,482	53,082
21 AEROSPACE TECHNOLOGY DEV/DEMO.....	76,844	91,844	76,844	88,594
22 AEROSPACE PROPULSION AND POWER TECHNOLOGY.....	175,676	191,176	178,676	189,576
23 CREW SYSTEMS AND PERSONNEL PROTECTION TECHNOLOGY.....	---	---	3,000	2,940
24 ELECTRONIC COMBAT TECHNOLOGY.....	31,021	32,521	31,021	32,221
25 ADVANCED SPACECRAFT TECHNOLOGY.....	83,909	98,609	90,409	99,269
26 MAUI SPACE SURVEILLANCE SYSTEM (MSSS).....	5,813	5,813	37,813	36,813
27 HUMAN EFFECTIVENESS ADVANCED TECHNOLOGY DEVELOPMENT.....	24,565	24,565	24,565	24,565

(In thousands of dollars)

	Budget	House	Senate	Recommendation
28 CONVENTIONAL WEAPONS TECHNOLOGY.....	14,356	16,556	14,356	16,116
29 ADVANCED WEAPONS TECHNOLOGY.....	30,056	30,056	44,556	44,996
30 MANUFACTURING TECHNOLOGY PROGRAM.....	39,913	41,913	44,913	45,513
31 BATTLESPACE KNOWLEDGE DEVELOPMENT & DEMONSTRATION.....	39,708	39,708	39,708	39,708
32 C3I ADVANCED DEVELOPMENT.....	---	4,000	2,900	6,900
33 HIGH ENERGY LASER ADVANCED TECHNOLOGY PROGRAM.....	3,831	3,831	3,831	3,831
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	618,030	693,330	711,530	758,960
DEMONSTRATION & VALIDATION				
34 INTELLIGENCE ADVANCED DEVELOPMENT.....	5,009	6,009	5,009	5,809
35 PHYSICAL SECURITY EQUIPMENT.....	3,623	3,623	3,623	3,623
38 ADVANCED EHF MILSATCOM (SPACE).....	464,335	464,335	464,335	464,335
39 POLAR MILSATCOM (SPACE).....	253,150	253,150	253,150	253,150
40 SPACE CONTROL TECHNOLOGY.....	97,701	97,701	102,701	101,701
41 COMBAT IDENTIFICATION TECHNOLOGY.....	27,252	27,252	29,252	28,852
42 NATO RESEARCH AND DEVELOPMENT.....	4,351	4,351	4,351	4,351
43 INTERNATIONAL SPACE COOPERATIVE R&D.....	632	632	632	632
45 INTEGRATED BROADCAST SERVICE.....	20,739	20,739	20,739	20,739
46 INTERCONTINENTAL BALLISTIC MISSILE.....	66,079	69,079	66,079	68,479
47 WIDEBAND GAPFILLER SYSTEM RDT&E (SPACE).....	70,956	70,956	70,956	70,956
48 POLLUTION PREVENTION (DEM/VAL).....	2,896	12,896	2,896	10,396
49 JOINT PRECISION APPROACH AND LANDING SYSTEMS.....	23,174	23,174	23,174	23,174
51 BATTLE MGMT COM & CTRL SENSOR DEVELOPMENT.....	22,612	---	72,612	22,612
52 HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM.....	20,891	20,891	20,891	20,891
53 JOINT DUAL ROLE AIR DOMINANCE MISSILE.....	6,882	6,882	6,882	6,882
54 REQUIREMENTS ANALYSIS AND MATURATION.....	35,533	35,533	35,533	35,533
55 GROUND ATTACK WEAPONS FUZE DEVELOPMENT.....	18,778	18,778	18,778	18,778
56 ALTERNATIVE FUELS.....	89,020	94,020	69,020	73,020
57 AUTOMATED AIR-TO-AIR REFUELING.....	43,158	43,158	43,158	43,158
59 OPERATIONALLY RESPONSIVE SPACE.....	112,861	114,361	125,861	125,211
60 TECH TRANSITION PROGRAM.....	9,611	9,611	9,611	9,611

(In thousands of dollars)

	Budget	House	Senate	Recommendation
61 NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SAT.	396,641	396,641	396,641	396,641
61A NEXT GENERATION MILSATCOM TECHNOLOGY DEVELOPMENT.....	---	---	50,000	50,000
TOTAL, DEMONSTRATION & VALIDATION.....	1,795,884	1,793,772	1,895,884	1,858,534
ENGINEERING & MANUFACTURING DEVELOPMENT				
62 GLOBAL BROADCAST SERVICE (GBS).....	31,124	31,124	31,124	31,124
63 NUCLEAR WEAPONS SUPPORT.....	37,860	42,860	37,860	41,860
65 SPECIALIZED UNDERGRADUATE FLIGHT TRAINING.....	6,227	10,862	7,862	10,862
68 ELECTRONIC WARFARE DEVELOPMENT.....	97,275	97,275	80,275	80,275
69 TACTICAL DATA NETWORKS ENTERPRISE.....	88,444	88,444	82,944	87,444
70 PHYSICAL SECURITY EQUIPMENT.....	50	50	50	50
71 SMALL DIAMETER BOMB (SDB).....	153,815	155,815	153,815	155,415
72 COUNTERSPACE SYSTEMS.....	64,248	64,248	64,248	64,248
73 SPACE SITUATION AWARENESS SYSTEMS.....	308,134	207,834	269,534	239,534
74 AIRBORNE ELECTRONIC ATTACK.....	11,107	11,107	11,107	11,107
75 SPACE BASED INFRARED SYSTEM (SBIRS) HIGH END.....	512,642	526,442	512,642	526,442
76 THIRD GENERATION INFRARED SURVEILLANCE (3GIRS).....	143,169	39,169	143,169	73,369
77 ARMAMENT/ORDNANCE DEVELOPMENT.....	18,671	18,671	18,671	18,671
78 SUBMUNITIONS.....	1,784	1,784	1,784	1,784
79 AGILE COMBAT SUPPORT.....	11,261	11,261	11,261	11,261
80 LIFE SUPPORT SYSTEMS.....	10,711	11,911	14,111	14,331
81 COMBAT TRAINING RANGES.....	29,718	29,718	14,718	22,718
82 INTEGRATED COMMAND & CONTROL APPLICATIONS (IC2A).....	10	9,010	10	6,960
83 INTELLIGENCE EQUIPMENT.....	1,495	1,495	1,495	1,495
84 JOINT STRIKE FIGHTER (JSF).....	1,858,055	2,073,055	1,780,055	2,073,055
85 INTERCONTINENTAL BALLISTIC MISSILE.....	60,010	60,010	60,010	60,010
86 EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE).....	26,545	51,545	26,545	46,545
88 NEXT GENERATION AERIAL REFUELING AIRCRAFT.....	439,615	---	409,615	15,000
89 CSAR-X RDT&E.....	89,975	9,975	---	---
89a HH-60 RDT&E.....	---	---	14,975	14,975

(In thousands of dollars)

	Budget	House	Senate	Recommendation
90 HC/MC-130 RECAP RDT&E.....	20,582	20,582	20,582	20,582
91 JOINT SIAP EXECUTIVE PROGRAM OFFICE.....	34,877	34,877	14,877	14,877
92 LINK-16 SUPPORT AND SUSTAINMENT.....	---	---	79,300	79,300
94 SINGLE INTEGRATED AIR PICTURE (SIAP).....	13,466	13,466	13,466	13,466
95 FULL COMBAT MISSION TRAINING.....	99,807	99,807	79,807	79,807
97 JOINT CARGO AIRCRAFT (JCA).....	9,353	9,353	9,353	9,353
98 CV-22.....	19,640	19,640	19,640	19,640
99 AIRBORNE SENIOR LEADER C3 (SLC3S).....	20,056	20,056	20,056	20,056
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	4,219,726	3,771,446	4,004,961	3,865,616
RDT&E MANAGEMENT SUPPORT				
100 THREAT SIMULATOR DEVELOPMENT.....	27,789	27,789	27,789	27,789
101 MAJOR T&E INVESTMENT.....	60,824	63,324	67,824	67,824
102 RAND PROJECT AIR FORCE.....	27,501	27,501	29,501	29,101
104 INITIAL OPERATIONAL TEST & EVALUATION.....	25,833	25,833	25,833	25,833
105 TEST AND EVALUATION SUPPORT.....	736,488	736,488	755,788	746,488
106 ROCKET SYSTEMS LAUNCH PROGRAM (SPACE).....	14,637	14,637	14,637	14,637
107 SPACE TEST PROGRAM (STP).....	47,215	47,215	47,215	47,215
108 FACILITIES RESTORATION & MODERNIZATION - TEST & EVAL..	52,409	60,409	52,409	58,809
109 FACILITIES SUSTAINMENT - TEST AND EVALUATION SUPPORT..	29,683	29,683	34,683	33,683
110 ACQUISITION AND MANAGEMENT SUPPORT.....	18,947	18,947	18,947	18,947
111 GENERAL SKILL TRAINING.....	1,450	1,450	1,450	1,450
113 INTERNATIONAL ACTIVITIES.....	3,748	3,748	3,748	3,748
TOTAL, RDT&E MANAGEMENT SUPPORT.....	1,046,524	1,057,024	1,079,824	1,075,524
OPERATIONAL SYSTEMS DEVELOPMENT				
114 COMMON VERTICAL LIFT SUPPORT PLATFORM.....	9,513	2,000	5,513	4,000
115 ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY.....	47,276	47,276	47,276	47,276
117 B-52 SQUADRONS.....	93,930	102,930	99,930	102,330
118 AIR-LAUNCHED CRUISE MISSILE (ALCM).....	3,652	3,652	3,652	3,652
119 B-1B SQUADRONS.....	148,025	178,025	179,025	179,025
120 B-2 SQUADRONS.....	415,414	436,714	397,414	407,189

(In thousands of dollars)

	Budget	House	Senate	Recommendation
121 STRAT WAR PLANNING SYSTEM - USSTRATCOM.....	33,836	33,836	33,836	33,836
122 NIGHT FIST - USSTRATCOM.....	5,328	5,328	5,328	5,328
124 ATMOSPHERIC EARLY WARNING SYSTEM.....	9,832	9,832	9,832	9,832
125 REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION..	25,734	25,734	25,734	25,734
126 STRATEGIC AEROSPACE INTELLIGENCE SYSTEM ACTIVITIES....	18	18	18	18
127 WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRAN	11,996	11,996	11,996	11,996
128 MQ-9 UAV.....	39,245	109,245	39,245	91,745
129 MULTI-PLATFORM ELECTRONIC WARFARE EQUIPMENT.....	14,747	14,747	14,747	14,747
130 A-10 SQUADRONS.....	9,697	9,697	12,197	12,197
131 F-16 SQUADRONS.....	141,020	141,020	143,020	142,620
132 F-15E SQUADRONS.....	311,167	320,167	323,167	319,967
133 MANNED DESTRUCTIVE SUPPRESSION.....	10,748	10,748	8,748	9,748
134 F-22 SQUADRONS.....	569,345	569,345	569,345	569,345
135 TACTICAL AIM MISSILES.....	5,915	5,915	5,915	5,915
136 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)....	49,971	49,971	49,971	49,971
137 JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS).....	2,529	2,529	2,529	2,529
138 COMBAT RESCUE - PARARESCUE.....	2,950	2,950	2,950	2,950
139 AF TENCAP.....	11,643	11,643	11,643	11,643
140 PRECISION ATTACK SYSTEMS PROCUREMENT.....	2,950	2,950	2,950	2,950
141 COMPASS CALL.....	13,019	13,019	13,019	13,019
142 AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM.....	166,563	157,563	154,563	156,963
143 CSAF INNOVATION PROGRAM.....	4,621	4,621	12,921	11,261
144 JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM).....	29,494	29,494	29,494	29,494
145 AIR AND SPACE OPERATIONS CENTER (AOC).....	99,405	101,405	103,405	102,605
146 CONTROL AND REPORTING CENTER (CRC).....	52,508	52,508	52,508	52,508
147 AIRBORNE WARNING AND CONTROL SYSTEM (AWACS).....	176,040	176,040	176,040	176,040
149 ADVANCED COMMUNICATIONS SYSTEMS.....	63,782	63,782	63,782	63,782
151 COMBAT AIR INTELLIGENCE SYSTEM ACTIVITIES.....	1,475	1,475	1,475	1,475
152 THEATER BATTLE MANAGEMENT (TBM) C4I.....	19,067	19,067	19,067	19,067

(In thousands of dollars)

	Budget	House	Senate	Recommendation
153 FIGHTER TACTICAL DATA LINK.....	72,106	72,106	62,106	67,106
155 C2ISR TACTICAL DATA LINK.....	1,667	1,667	1,667	1,667
156 COMMAND AND CONTROL (C2) CONSTELLATION.....	26,792	31,792	26,792	30,792
157 JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM.....	140,670	140,670	175,670	186,670
158 SEEK EAGLE.....	22,071	22,071	22,071	22,071
159 USAF MODELING AND SIMULATION.....	27,245	27,245	27,245	27,245
160 WARGAMING AND SIMULATION CENTERS.....	7,018	7,018	7,018	7,018
161 DISTRIBUTED TRAINING AND EXERCISES.....	6,740	6,740	6,740	6,740
162 MISSION PLANNING SYSTEMS.....	91,995	91,995	41,995	81,995
163 INFORMATION WARFARE SUPPORT.....	12,271	14,271	12,271	13,871
170 E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC).....	26,107	26,107	26,107	26,107
172 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK....	72,694	72,694	72,694	72,694
173 INFORMATION SYSTEMS SECURITY PROGRAM.....	196,621	196,621	136,621	166,621
174 GLOBAL COMBAT SUPPORT SYSTEM.....	3,375	3,375	3,375	3,375
175 GLOBAL COMMAND AND CONTROL SYSTEM.....	3,149	7,149	3,149	6,349
176 JOINT COMMAND AND CONTROL PROGRAM (JC2).....	3,087	3,087	---	---
177 MILSATCOM TERMINALS.....	257,693	257,693	257,693	257,693
179 AIRBORNE SIGINT ENTERPRISE.....	176,989	176,989	166,989	166,989
181 ADVANCED GEOSPATIAL INTELLIGENCE.....	---	---	6,500	5,200
182 GLOBAL AIR TRAFFIC MANAGEMENT (GATH).....	6,028	6,028	6,028	6,028
183 CYBER SECURITY INITIATIVE.....	2,065	2,065	7,065	2,065
184 SATELLITE CONTROL NETWORK (SPACE).....	20,991	20,991	20,991	20,991
185 WEATHER SERVICE.....	33,531	33,531	33,531	33,531
186 AIR TRAFFIC CONTROL, APPROACH, & LANDING SYSTEM (ATC).	9,006	9,006	12,006	11,406
187 AERIAL TARGETS.....	54,807	54,807	54,807	54,807
190 SECURITY AND INVESTIGATIVE ACTIVITIES.....	742	742	742	742
192 DEFENSE JOINT COUNTERINTELLIGENCE ACTIVITIES.....	39	39	39	39
194 NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT)....	137,692	137,692	137,692	137,692
195 NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE AND CONTROL).	52,039	52,039	52,039	52,039
197 SPACE AND MISSILE TEST AND EVALUATION CENTER.....	3,599	3,599	3,599	3,599

(In thousands of dollars)

	Budget	House	Senate	Recommendation
198 SPACE WARFARE CENTER.....	3,009	3,009	3,009	3,009
199 SPACELIFT RANGE SYSTEM (SPACE).....	9,957	9,957	9,957	9,957
200 INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS.....	1,240	2,240	1,240	2,240
202 ENDURANCE UNMANNED AERIAL VEHICLES.....	73,736	73,736	38,736	48,736
203 AIRBORNE RECONNAISSANCE SYSTEMS.....	143,892	145,892	143,892	145,492
204 MANNED RECONNAISSANCE SYSTEMS.....	12,846	15,346	12,846	14,846
205 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	82,765	82,765	82,765	82,765
206 PREDATOR UAV (JMIP).....	18,101	24,301	22,101	23,776
207 RQ-4 UAV.....	317,316	317,316	317,316	317,316
208 NETWORK-CENTRIC COLLABORATIVE TARGET (TIARA).....	8,160	8,160	8,160	8,160
209 GPS III SPACE SEGMENT.....	815,095	717,695	425,695	425,695
209 GPS CONTROL SEGMENT (OCX).....	---	---	292,000	292,000
210 JSPOC MISSION SYSTEM.....	131,271	131,271	137,271	136,271
211 INTELLIGENCE SUPPORT TO INFORMATION WARFARE.....	5,267	5,267	5,267	5,267
213 NUDET DETECTION SYSTEM (SPACE).....	84,021	84,021	84,021	84,021
214 NATIONAL SECURITY SPACE OFFICE.....	10,634	---	10,634	---
215 SPACE SITUATION AWARENESS OPERATIONS.....	54,648	54,648	54,648	54,648
216 NASS, IO TECHNOLOGY INTEGRATION & TOOL DEV.....	30,076	30,076	30,076	30,076
217 SHARED EARLY WARNING (SEW).....	3,082	3,082	3,082	3,082
218 C-130 AIRLIFT SQUADRON.....	201,250	201,250	182,250	109,250
219 C-5 AIRLIFT SQUADRONS.....	95,266	95,266	85,266	85,266
220 C-17 AIRCRAFT.....	161,855	161,855	161,855	161,855
221 C-130J PROGRAM.....	30,019	30,019	30,019	30,019
222 LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM).....	31,784	31,784	26,784	26,784
223 KC-135S.....	10,297	10,297	10,297	10,297
224 KC-10S.....	35,586	35,586	35,586	35,586
226 OPERATIONAL SUPPORT AIRLIFT.....	4,916	4,916	4,916	4,916
228 SPECIAL TACTICS / COMBAT CONTROL.....	8,222	10,222	10,222	11,422
229 DEPOT MAINTENANCE (NON-IF).....	1,508	1,508	1,508	1,508

(In thousands of dollars)

	Budget	House	Senate	Recommendation
231 INDUSTRIAL PREPAREDNESS.....	---	4,000	1,000	4,000
232 LOGISTICS INFORMATION TECHNOLOGY (LOGIT).....	246,483	246,483	246,483	246,483
233 SUPPORT SYSTEMS DEVELOPMENT.....	6,288	12,788	38,188	38,258
234 OTHER FLIGHT TRAINING.....	805	805	805	805
235 JOINT NATIONAL TRAINING CENTER.....	3,220	3,220	3,220	3,220
236 TRAINING DEVELOPMENTS.....	1,769	1,769	1,769	1,769
237 OTHER PERSONNEL ACTIVITIES.....	116	116	116	116
238 JOINT PERSONNEL RECOVERY AGENCY.....	6,376	6,376	6,376	11,376
239 SERVICE-WIDE SUPPORT (NOT OTHERWISE ACCOUNTED FOR)....	---	---	---	---
240 CIVILIAN COMPENSATION PROGRAM.....	8,174	8,174	8,174	8,174
241 PERSONNEL ADMINISTRATION.....	10,492	10,492	30,982	30,982
242 FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT..	55,991	55,991	55,991	55,991
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	6,796,817	6,848,770	6,642,020	6,731,333
999 CLASSIFIED PROGRAMS.....	11,955,084	12,148,484	12,064,884	12,121,644
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, AIR FORCE	27,992,827	27,976,278	28,049,015	28,121,985

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	House	Senate	Recommendation
1 DEFENSE RESEARCH SCIENCES	321,028	323,528	331,028	329,828
Process Integrated Mechanism for Human-Computer Collaboration and Coordination		1,000		800
Safeguarding End-User Military Software		1,500	5,000	4,000
Coal Transformation Laboratory			1,000	800
Development and Validation of Advanced Design Technologies for Hypersonic Research			2,000	1,600
Development of Deployable Biosensors			2,000	1,600
2 UNIVERSITY RESEARCH INITIATIVES	132,249	140,449	136,949	142,109
Cyber Security Research Program/Cyber Security Laboratory		1,500	1,000	1,200
Unmanned Aerial Systems Mission Planning and Operation Center		3,500		2,800
Energy and Sensor Informatics Research and Translation		1,000		800
Frank R. Seaver Science and Engineering Initiative		2,200		1,760
Cyber Innovation Center (CIC) Research and Development Seed Fund			1,000	800
Cybersecurity of Security Control Networks (Note: Includes transfer from O&M, Air Force)			1,700	1,700
High Temperature Hydrogen Energy Production Facility			1,000	800
7 MATERIALS	127,957	155,707	168,957	179,157
Accelerated Insertion of Advanced Materials and Certification for Military Aircraft Structure Material Substitution and Repair		2,500		2,000
Advanced Aerospace Carbon Foam Heat Exchangers		750	4,000	3,200
Aerospace Laser Micro Engineering Station		1,000		800
Fine Water Mist Fire Suppression Technology to Replace Halon		2,500		2,000
Gallium Nitride (GaN) Microelectronics and Materials		2,000		1,600
Institute for Science and Engineering Simulation/Aircraft Fatigue Modeling and Simulation		4,500	3,000	3,600
Large Area, APVT Materials Development for High Power Devices		2,000		1,600
Low-Defect Density Gallium Nitride Materials for High- Performance Electronic Devices		3,500		2,800
ONAMI Safer Nanomaterials and Nanomanufacturing		2,000	4,400	3,520
Partnership for Energy and Automation Technologies		2,000		1,600
Pennsylvania Nanomaterials Commercialization Center		1,000		800
Ultra-High Temperature Materials for Hypersonic Aerospace Vehicles		3,000		2,400
Carbon Nanomaterials for Advanced Aerospace Applications		1,000		800
Air Force Minority Leaders Program			6,000	4,800
Conducting Polymer Stress and Polymer Damage Sensors for Composites			3,600	2,880
Consortium for Nanomaterials for Aerospace Commerce and Technology (CONTACT)			4,000	3,200
Development of Mobile Wind Turbine Systems to Power Forward Bases			1,500	1,200
Energy Efficiency, Recovery and Generation (ENERGY)			1,000	1,000
Fire and Blast Resistant Materials for Force Protection			4,000	3,200
Hybrid Materials Integration (HMI)			2,500	2,000

R-1	Budget Request	House	Senate	Recommendation
			2,000	1,600
			3,000	3,000
			1,000	800
			1,000	800
8 AEROSPACE VEHICLE TECHNOLOGIES	127,129	129,129	138,529	139,149
Unmanned Sense, Track, and Avoid Radar		2,000		1,600
Materials Integrity Management Research for the Air Force			3,000	3,000
UAV Sensor and Maintenance Development Center			4,900	3,920
Unmanned Aerial System Exploitation			3,500	3,500
9 HUMAN EFFECTIVENESS APPLIED RESEARCH	85,122	85,122	96,122	93,922
Advanced Night Vision System - Cockpit Integration			1,000	800
Imaging Tools for Human Performance Enhancement and Diagnostics			2,000	1,600
Center for UAS Research, Education and Training (Includes transfer from line number 206)			8,000	6,400
10 AEROSPACE PROPULSION	196,529	226,669	199,529	221,641
Advanced Lithium Battery Scale-up and Manufacturing		2,000		1,600
Advanced Vehicle Propulsion Center		3,000		2,400
Aerospace Lab Equipment Upgrade		1,500		1,200
AFRL Edwards Rocket Test Stand 2-A Technical Improvements (Includes transfer from line number 11)		1,500		3,200
Development and Testing of Advanced Hybrid Rockets for Space Applications		3,500		2,800
High Energy Li-Ion Technology for Aviation Batteries		1,500		1,200
Integrated Engine Starter/Generator		2,000		1,600
Integrated Propulsion Analysis and Spacecraft Engineering Tools (IPAT/SET)		6,000		4,800
Multi-Mode Propulsion Phase IIA: High Performance Green Propellant		2,000		1,600
National Test Facility for Aerospace Fuels Propulsion		1,640		1,312
Thermal and Energy Management for Aerospace		4,000	3,000	3,200
Wavelength Agile Spectral Harmonic Oxygen Sensor and Cell-Level Battery Controller		1,500		1,200
Energy Superior Lithium Battery Technology for Defense Applications			2,000	1,600
HEETE - funded in P.L. 111-5			-5,000	-5,000
Next Generation Solar Electric In-Space Propulsion			1,000	800
Split Discharge Variable Delivery Pump for Military Aircraft			2,000	1,600
11 AEROSPACE SENSORS	121,768	129,768	135,668	136,568
Advanced Electronic Components for Sensor Arrays		3,000		2,400
Net-Centric Sensor Grids		3,000		2,400
Watchkeeper		2,000		1,600
Advanced Integrated Microsystems for Military Electronic Systems			3,100	2,480
Edwards Rocket Test Stand 2-A Improvements (Transferred to line number 10)			4,000	
Information Quality Tools for Persistent Surveillance Data Sets			1,800	1,440
On-Chip Integrated Photonic Polymer Transceiver			5,000	4,500

R-1	Budget Request	House	Senate	Recommendation
12 SPACE TECHNOLOGY	104,148	116,248	110,148	119,628
Advanced Modular Avionics for Operationally Responsive Satellite Use		3,100		2,480
Center for Solar Electricity and Hydrogen		5,000		4,000
Center for Space Entrepreneurship		2,000		1,600
Mission Design and Analysis Tool		2,000		1,600
AFRL Seismic Research Program			5,000	5,000
Reconfigurable Electronics and Non-Volatile Memory Research			1,000	800
14 DIRECTED ENERGY TECHNOLOGY	105,677	106,677	99,927	106,477
Hybrid Nanoparticle-based Coolant Technology Development and Manufacturing		1,000		800
Chemical Laser Technology - authorization adjustment			-5,750	0
15 COMMAND CONTROL AND COMMUNICATIONS	0	2,500	0	2,000
Efficient Utilization of Transmission Hyperspace		2,500		2,000
17 HIGH ENERGY LASER RESEARCH	52,754	61,254	46,654	53,454
Advanced Deformable Mirrors for High Energy Laser Weapons		2,000		1,600
High Bandwidth, High Energy Storage, Exawatt Laser Glass Development		3,500		2,800
Planar Lightwave Circuit Development for High Power Military Laser Applications		3,000		2,400
Chemical Laser Technology - authorization adjustment			-6,100	-6,100
18 ADVANCED MATERIALS FOR WEAPON SYSTEMS	37,901	56,301	64,501	71,901
EMI Grid Fabrication Technology		3,000		2,400
Hawaii Microalgae Biofuel Project		4,400		3,520
Hybrid Bearings		1,000		800
Metals Affordability Initiative		10,000	5,000	10,000
Aircraft Evaluation Readiness Initiative			3,000	2,400
Automated Processing of Advanced Low Observables (RAPALO)			1,500	1,200
Military Waste-to-Energy Project using the Hydro-Thermal Energy Conversion (Hy-TEC) Process			2,000	1,600
Sewage-Derived Biofuels Project			4,800	3,840
SiC - RF Power for Airborne Avionics Systems			2,000	1,600
Silicon Carbide Electronics Material Producibility Initiative			6,300	5,040
Strategic Biofuels Supply System			2,000	1,600
20 ADVANCED AEROSPACE SENSORS	51,482	53,482	51,482	53,082
Reconfigurable Secure Computing		2,000		1,600
21 AEROSPACE TECHNOLOGY DEV/DEMO	76,844	91,844	76,844	88,584
3D Bias Woven Perform Development		3,000		2,400
Big Antennas Small Structures Efficient Tactical UAV		2,000		1,600
Long-Loiter, Load Bearing Antenna Platform for Pervasive Airborne Intelligence		5,000		4,000
Program Increase		5,000		3,750
AEROSPACE PROPULSION AND POWER TECHNOLOGY	175,676	191,176	178,676	189,576
Algal-Derived Jet Fuel for Air Force Applications		3,000		2,700
Bio-JP8 Fuel Development		5,000		4,000
Renewable Hydrocarbon Fuels for Military Applications		2,500		2,000

R-1	Budget Request	House	Senate	Recommendation	
34	INTELLIGENCE ADVANCED DEVELOPMENT Multilingual Text Mining Platform for Intelligence Analysts	5,009	6,009 1,000	5,009 800	5,809 800
40	SPACE CONTROL TECHNOLOGY Space Situational Awareness	97,701	97,701	102,701 5,000	101,701 4,000
41	COMBAT IDENTIFICATION TECHNOLOGY Advanced Fast Steering Mirror Applications for 3-D LADAR in LITENING Pod	27,252	27,252	29,252 2,000	28,852 1,600
46	INTERCONTINENTAL BALLISTIC MISSILE Minuteman III Advanced Third Stage Domestic Fiber Motor Case Development	66,079	69,079 3,000	66,079	68,479 2,400
48	POLLUTION PREVENTION (DEM/VAL) Program Increase	2,896	12,896 10,000	2,896	10,396 7,500
51	BATTLE MGMT COM & CTRL SENSOR DEVELOPMENT Early to need RTIP development for large aircraft platform	22,612	0 -22,612	72,612 50,000	22,612 0 0
56	ALTERNATIVE FUELS Synthetic Liquid Fuels Advance Propulsion Non-Tactical Vehicle Excess to need	89,020	94,020 3,000 2,000	69,020 -20,000	73,020 2,400 1,600 -20,000
59	OPERATIONALLY RESPONSIVE SPACE Micro-Satellite Serial Manufacturing to Include Academic Outreach Educational Program Low-Earth Orbit Nanosatellite Integrated Defense Autonomous Systems (LEONIDAS) Rapid Small Satellite Development Test Facilities Space Sensor Data Link Technology	112,861	114,361 1,500	125,861 5,000 2,000 6,000	125,211 1,200 4,750 1,600 4,800
61A	NEXT GENERATION MILSATCOM TECHNOLOGY DEVELOPMENT Next generation MILSATCOM technology development (Transferred from Missile Procurement, Air Force line number 16)			50,000 50,000	50,000 50,000
63	NUCLEAR WEAPONS SUPPORT Nuclear Enterprise Surety Tracking	37,860	42,860 5,000	37,860	41,860 4,000
65	SPECIALIZED UNDERGRADUATE FLIGHT TRAINING Improved Brake System Program Termination AT-6B Demonstration for ANG	6,227	10,862 -2,365 7,000	7,862 -2,365 4,000	10,862 -2,365 7,000
68	ELECTRONIC WARFARE DEVELOPMENT MALD-J excess to Air Force requirement	97,275	97,275	80,275 -17,000	80,275 -17,000
69	TACTICAL DATA NETWORKS ENTERPRISE Excess to need Global UAS Networking and Interoperability System (GUNIS)	88,444	88,444	82,944 -10,000 4,500	87,444 -5,000 4,000
71	SMALL DIAMETER BOMB (SDB) High Pressure Pure Air Generator System	153,815	155,815 2,000	153,815	155,415 1,600

R-1	Budget Request	House	Senate	Recommendation	
73	SPACE SITUATION AWARENESS SYSTEMS	308,134	207,834	269,534	239,534
	Space Fence Program Reduction		-45,200		-30,000
	Space Based Space Surveillance Follow-on		-55,100	-36,700	-36,700
	High Accuracy Network Determination System-Intelligent Optical Network for Space Situational Awareness (Includes transfer from RDT&E, Defense-Wide line number 34)			5,000	5,000
	Space Surveillance Telescope (SST)		-6,900		-6,900
75	SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD	512,642	526,442	512,642	526,442
	Ground Development (Transferred from line number 76)		13,800		13,800
	THIRD GENERATION INFRARED SURVEILLANCE				
76	(3GIRS)	143,169	39,169	143,169	73,369
	Third Generation Infrared System		-90,200		-56,000
	Ground Development (Transfer to line number 75)		-13,800		-13,800
80	LIFE SUPPORT SYSTEMS	10,711	11,911	14,111	14,331
	Program Increase - Bomber Crew Safety Study		1,200		900
	ACES 5 Ejection Seat			2,400	1,920
	Backpack Medical Oxygen System (BMOS)			1,000	800
81	COMBAT TRAINING RANGES	29,718	29,718	14,718	22,718
	ACTS Range Threat Systems - program delay			-15,000	-10,000
	P5CTS Equipment for the MT Joint Training Environment (Transferred from Aircraft Procurement, Air Force line number 85)				3,000
	INTEGRATED COMMAND & CONTROL APPLICATIONS				
82	(IC2A)	10	9,010	10	6,960
	Distributed Mission Interoperability Toolkit (DMIT)		4,000		3,200
	Program Increase		5,000		3,750
84	JOINT STRIKE FIGHTER (JSF)	1,858,055	2,073,055	1,780,055	2,073,055
	Alternate Engine Development		215,000		215,000
	Excess to need			-78,000	0
	EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM				
86	(SPACE)	26,545	51,545	26,545	46,545
	Program Increase		25,000		20,000
88	NEXT GENERATION AERIAL REFUELING AIRCRAFT	439,615	0	409,615	15,000
	Transferred to Title VIII		-439,615		-394,615
	Contract award delay			-30,000	-30,000
89	CSAR-X RDT&E	89,975	9,975	0	0
	Program terminated		-80,000		0
	Air Force requested transfer to line number 89A and Aircraft Procurement, Air Force line number 14			-89,975	-89,975
89A	HH-60 RDT&E			14,975	14,975
	HH-60 Replacements - Air Force requested transfer from line number 89			14,975	14,975
91	JOINT SIAP EXECUTIVE PROGRAM OFFICE	34,877	34,877	14,877	14,877
	Unjustified request			-20,000	-20,000

R-1	Budget Request	House	Senate	Recommendation	
92	LINK-16 SUPPORT AND SUSTAINMENT	0	0	79,300	79,300
	DOD requested transfer from Title VI Rapid Acquisition Fund for BACN			79,300	79,300
95	FULL COMBAT MISSION TRAINING	99,807	99,807	79,807	79,807
	Contract award delay			-20,000	-20,000
101	MAJOR T&E INVESTMENT	60,824	63,324	67,824	67,824
	Eglin AFB Range Operations Control Center		2,500		2,000
	Holloman High Speed Test Track			7,000	5,000
102	RAND PROJECT AIR FORCE	27,501	27,501	29,501	29,101
	RAND Project Air Force			2,000	1,600
105	TEST AND EVALUATION SUPPORT	736,488	736,488	755,788	746,488
	Authorization increase - Test Resources Management Center			19,300	10,000
108	FACILITIES RESTORATION & MODERNIZATION - TEST & EVAL	52,409	60,409	52,409	58,809
	Base Facility Energy Independence, Stewart Air National Guard Base		5,000		4,000
	Inter-Base Facility Energy Independence		3,000		2,400
109	FACILITIES SUSTAINMENT - TEST AND EVALUATION SUPPORT	29,683	29,683	34,683	33,683
	Sustainable Energy Vermont National Guard			5,000	4,000
114	COMMON VERTICAL LIFT SUPPORT PLATFORM	9,513	2,000	5,513	4,000
	Unjustified program/Excess to need		-7,513	-4,000	-5,513
117	B-52 SQUADRONS	93,930	102,930	99,930	102,330
	B-52 Tactical Data Link Capability		6,000	6,000	6,000
	Reconstitution of B-52 Nuclear Capability Study		3,000		2,400
119	B-1B SQUADRONS	148,025	178,025	179,025	179,025
	Transferred from Aircraft Procurement, Air Force line number 28		29,000	29,000	29,000
	B-1 AESA Radar Operational Utility Evaluation		1,000	2,000	2,000
120	B-2 SQUADRONS	415,414	436,714	397,414	407,189
	Program Increase		15,300		12,175
	B-2 Advanced Tactical Data Link		6,000	12,000	9,600
	EHF SATCOM Increment 2 - premature request			-30,000	-30,000
128	MQ-9 UAV	39,245	109,245	39,245	91,745
	Program Increase		70,000		52,500
130	A-10 SQUADRONS	9,697	9,697	12,197	12,197
	CAD/CAM Aircraft Structural Overhaul Work Center			2,500	2,500
131	F-16 SQUADRONS	141,020	141,020	143,020	142,620
	Thunder Radar Pod			2,000	1,600
132	F-15E SQUADRONS	311,167	312,167	323,167	319,967
	Corrosion Detection and Visualization Program		1,000		800
	F-15C AESA Classified Demo		8,000	12,000	8,000

R-1	Budget Request	House	Senate	Recommendation	
133	MANNED DESTRUCTIVE SUPPRESSION Funding ahead of need	10,748	10,748	8,748 -2,000	9,748 -1,000
AIRCRAFT ENGINE COMPONENT IMPROVEMENT					
142	PROGRAM F-135 Engine - Early to need Senior Scout Communications Intelligence (COMINT) Capability Upgrade	166,563	157,563 -12,000 3,000	154,563 -12,000	156,963 -12,000 2,400
143	CSAF INNOVATION PROGRAM Eagle Vision III Upgrades Multiband Realtime Hyperspectral Targeting Sensor	4,621	4,621	12,921 6,000 2,300	11,261 4,800 1,840
145	AIR AND SPACE OPERATIONS CENTER (AOC) COTS Technology for Space Command and Control	99,405	101,405 2,000	103,405 4,000	102,605 3,200
153	FIGHTER TACTICAL DATA LINK Excess to need	72,106	72,106	62,106 -10,000	67,106 -5,000
156	COMMAND AND CONTROL (C2) CONSTELLATION GAPS/AWS Horizontal Integration	26,792	31,792 5,000	26,792	30,792 4,000
JOINT SURVEILLANCE AND TARGET ATTACK RADAR					
157	SYSTEM Re-engining program (Transferred from Aircraft Procurement, Air Force line number 59)	140,670	140,670	175,670 35,000	186,670 46,000
162	MISSION PLANNING SYSTEMS Program delay	91,995	91,995	41,995 -50,000	81,995 -10,000
163	INFORMATION WARFARE SUPPORT Electromagnetic Battlespace Management	12,271	14,271 2,000	12,271	13,871 1,600
173	INFORMATION SYSTEMS SECURITY PROGRAM Restructure of Cryptographic Modernization program Premature request	196,621	196,621	136,621 -35,000 -25,000	166,621 -10,000 -20,000
175	GLOBAL COMMAND AND CONTROL SYSTEM Command and Control Service Level Management (C2SLM) Program	3,149	7,149 4,000	3,149	6,349 3,200
176	JOINT COMMAND AND CONTROL PROGRAM (JC2) Program termination	3,087	3,087	0 -3,087	0 -3,087
179	AIRBORNE SIGINT ENTERPRISE ASIP RQ-4 program delay	176,989	176,989	166,989 -10,000	166,989 -10,000
181	ADVANCED GEOSPATIAL INTELLIGENCE Advanced Technical Intelligence Center (ATIC)	0	0	6,500 6,500	5,200 5,200
183	CYBER SECURITY INITIATIVE Cyber Attack and Security Environment (CASE) (Transferred to line number 32)	2,065	2,065	7,065 5,000	2,065 0
AIR TRAFFIC CONTROL, APPROACH, & LANDING					
186	SYSTEM (ATC) Transportable Transponder Landing System	9,006	9,006	12,006 3,000	11,406 2,400

R-1	Budget Request	House	Senate	Recommendation
200 INTELLIGENCE SUPPORT TO INFORMATION	1,240	2,240	1,240	2,240
Open Source Research Centers		1,000		1,000
202 ENDURANCE UNMANNED AERIAL VEHICLES	73,736	73,736	38,736	48,736
ISIS - authorization adjustment			-35,000	-25,000
203 AIRBORNE RECONNAISSANCE SYSTEMS	143,892	145,892	143,892	145,492
Multiple UAS Cooperative Concentrated Observation and Engagement Against a Common Ground Objective		2,000		1,600
204 MANNED RECONNAISSANCE SYSTEMS	12,846	15,346	12,846	14,846
Rivet Joint Services Oriented Architecture		2,500		2,000
206 PREDATOR UAV (JMIP)	18,101	24,301	22,101	23,776
Predator C		1,500		1,200
Center for UAS Research, Education and Training Infrastructure (Transferred to line number 9)		3,000		0
Program increase		1,700		1,275
Multi Sensor Detect, Sense and Avoid (MSDSA)			4,000	3,200
209 GPS III SPACE SEGMENT	815,095	717,695	425,695	425,695
GPS Control Segment (OCX)		-97,400		0
GPS Control Segment (OCX) (Transferred to line number 209A)			-389,400	-389,400
209A GPS Control Segment (OCX)			292,000	292,000
GPS Control Segment (OCX) (Transferred from line number 209 - reduction due to contract award delay)			292,000	292,000
210 JSPOC MISSION SYSTEM	131,271	131,271	137,271	136,271
Project Kamac - authorization adjustment			6,000	5,000
214 NATIONAL SECURITY SPACE OFFICE	10,634	0	10,634	0
Program transferred to O&M, Defense-Wide		-10,634		-10,634
218 C-130 AIRLIFT SQUADRON	201,250	201,250	182,250	109,250
Funded in prior year reprogramming			-19,000	-19,000
Air Force requested transfer to Aircraft Procurement, Air Force line number 52 for avionics modernization of special mission aircraft				-73,000
219 C-5 AIRLIFT SQUADRONS	95,266	95,266	85,266	85,266
C-5 RERP - program underexecution			-10,000	-10,000
222 LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM)	31,784	31,784	26,784	26,784
Program underexecution			-5,000	-5,000
228 SPECIAL TACTICS / COMBAT CONTROL	8,222	10,222	10,222	11,422
BATMAV Program Miniature Digital Data Link		2,000		1,600
Next Generation Simulation Training for Pararescue Forces			2,000	1,600
231 INDUSTRIAL PREPAREDNESS	0	4,000	1,000	4,000
Laser Peening for Friction Stir Welded Aerospace Structures		2,000		1,600
Wire Integrity Technology		2,000		1,600
Mobile Laser Systems for Aircraft Structures (MLSAS)			1,000	800

R-1	Budget Request	House	Senate	Recommendation
233 SUPPORT SYSTEMS DEVELOPMENT	6,288	12,788	38,188	38,258
Accelerator-Driven Non-Destructive Testing		2,000		2,000
ALC Logistics Integration Environment		1,000		800
Demonstration and Validation of Renewable Energy Technology		1,000		800
Technical Order Modernization Environment		1,500		1,200
Mitigating RoHS Lead-Free Issues in Aerospace Circuit Board Manufacturing		1,000		800
Alternative energy research and integration			25,000	18,450
Assessment of Alternative Energy for Aircraft Ground Equipment (AGE)			2,000	1,600
Freedom Fuels/Coal Fuel Alliance			4,900	3,920
Engine Health Management Plus Data Repository Center (Transferred from O&M, Air Force)				2,400
238 JOINT PERSONNEL RECOVERY AGENCY	6,376	6,376	6,376	11,376
Biometric Signature and Passive Physiological Monitoring (Transferred from RDT&E, Army line number 28)				5,000
241 PERSONNEL ADMINISTRATION	10,492	10,492	30,982	30,982
DIMHRS (OSD requested transfer from RDT&E, Defense- Wide line number 117)			20,490	20,490
999 CLASSIFIED PROGRAMS	11,955,084	12,148,484	12,064,884	12,121,644
Classified adjustment		-27,800	-30,200	1,600
Carbon Nanotube Enhanced Power Sources for Space		2,000		1,600
Remote Language-Independent Suspect Identification		3,200		2,560
Close Proximity Space Situational Awareness		1,000		800
Classified Program		215,000	140,000	160,000

AERIAL REFUELING TANKER PROGRAM

The recommendation includes \$15,000,000 in Research, Development, Test and Evaluation, Air Force for program management and a general provision providing \$291,715,000 in a Tanker Replacement Transfer Fund.

Not later than 10 days after the release of the final request for proposal soliciting bids for an aerial tanker replacement aircraft, the Secretary of the Air Force is directed to submit a report to the congressional defense committees that includes a description of changes from the draft proposal to the final request for proposal and the rationale for each change.

The Secretary of the Air Force is encouraged to pursue tanker recapitalization at a rate of 36 aircraft per year instead of 12 or 15 aircraft in the current plan. This quantity will recapitalize the fleet in one-third the time and allow for a rapid retirement of the aging KC-135 aircraft. Furthermore, a more accelerated procurement strategy will avoid the large sustainment and modernization costs associated with keeping the legacy KC-135 fleet in the inventory longer.

MODULAR AERIAL SPRAY SYSTEM (MASS)
REPLACEMENT

The modular aerial spray system (MASS) is maintained by the Air Force Reserve and is the only fixed-wing aerial spray capability in the Department of the Defense. The current program is over 20 years old and is becoming increasingly difficult to maintain, leading to increased cost and the inability to conduct required missions. There is presently no recapitalization plan to replace the system. The Secretary of the Air Force is encouraged to pursue a recapitalization program in order to maintain this needed capability.

EVOLVED EXPENDABLE LAUNCH VEHICLE
COMMON UPPER STAGE

The recommendation includes \$20,000,000 to study options and begin research and development to achieve a common upper stage between the Atlas and Delta launch vehicle families. The Air Force is urged to develop a process to modify Delta IV RL-10 upper stage engines to the Atlas V RL-10 configuration to enable more efficient use of the existing RL-10 inventory. The study shall also investigate how to modify the upper stage(s) to enable Centaur and the Delta Cryogenic Second Stage to use a common RL-10 engine and other potential modifications to achieve a truly common upper stage.

EVOLVED EXPENDABLE LAUNCH VEHICLE
SUSTAINMENT PLAN

The Secretary of the Air Force, in consultation with the Director of the National Reconnaissance Office, is directed to submit an Evolved Expendable Launch Vehicle sustainment plan as described in House Report 111-230 to the congressional defense committees with the fiscal year 2011 budget submission.

15-YEAR SPACE SYSTEM INVESTMENT
STRATEGY

The recommendation supports language on a long-term space system investment strategy as described in House Report 111-230. The investment strategy is directed to span 15 years rather than the originally proposed 30 years. In addition, the Under Secretary of Defense (Acquisition, Technology and Logistics) is directed, in coordination with the Secretary of the Air Force and the Under Secretary of Defense (Intelligence), to deliver this Space System Investment Strategy to the congressional defense committees not later than May 1, 2010. As necessary, the report should contain a classified appendix.

NATIONAL POLAR-ORBITING OPERATIONAL
ENVIRONMENTAL SATELLITE SYSTEM

There is concern about the executability and management of the National Polar-orbiting Operational Environmental Satellite System (NPOESS) program. Therefore, it is directed that not more than 50 percent of the funds made available to the Department of Defense for the NPOESS program shall be obligated or expended until the Under Secretary of Defense (Acquisition, Technology and Logistics) certifies in writing to the congressional defense committees that the NPOESS program is being executed in support of the requirements, timelines and acquisition policies needed to meet Department of Defense missions.

The Secretary of Defense is directed, in consultation with the National Oceanic and Atmospheric Administration and the National Aeronautics and Space Administration, to perform an independent cost analysis of all recommended programmatic and acquisition alternatives. This analysis shall be submitted to the Committee on Appropriations, Subcommittees on Defense and Commerce, Justice, Science and Related Agencies, of both the House and Senate, in addition to any other congressional oversight committee before any contract changes are signed and any major documents are revised by the government.

OPERATIONALLY RESPONSIVE SPACE

The Director of the Operationally Responsive Space program office is urged to provide the congressional defense committees with independent cost, schedule and performance estimates prior to initiating any satellite development activity.

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

For Research, Development, Test and Evaluation, Defense-Wide,

funds are to be available for fiscal year 2010, as follows:

(In thousands of dollars)

	Budget	House	Senate	Recommendation
RESEARCH, DEVELOPMENT, TEST & EVAL, DEFENSE-WIDE				
BASIC RESEARCH				
1 DTRA UNIVERSITY STRATEGIC PARTNERSHIP BASIC RESEARCH..	48,544	48,544	33,544	41,044
2 DEFENSE RESEARCH SCIENCES.....	226,125	242,825	194,218	206,778
3 GOVT/INDUSTRY COSPONSORSHIP OF UNIVERSITY RESEARCH....	---	5,000	---	4,800
5 NATIONAL DEFENSE EDUCATION PROGRAM.....	89,980	89,980	69,980	79,980
6 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	58,974	79,474	67,874	79,094
TOTAL, BASIC RESEARCH.....	423,623	465,823	365,616	411,696
APPLIED RESEARCH				
7 INSENSITIVE MUNITIONS--EXPLORATORY DEVELOPMENT.....	22,669	18,961	15,112	18,961
9 HISTORICALLY BLACK COLLEGES & UNIV (HBCU) SCIENCE.....	15,164	65,521	18,464	67,096
10 LINCOLN LABORATORY RESEARCH PROGRAM.....	34,034	34,034	34,034	34,034
11 INFORMATION AND COMMUNICATIONS TECHNOLOGY.....	282,749	285,749	255,931	273,331
12 COGNITIVE COMPUTING SYSTEMS.....	142,840	144,840	142,840	144,840
13 BIOLOGICAL WARFARE DEFENSE.....	40,587	40,587	40,587	40,587
14 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	209,072	226,572	215,972	225,772
15 JOINT DATA MANAGEMENT ADVANCED DEVELOPMENT.....	4,940	4,940	---	---
16 HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) APP	9,446	9,446	7,946	7,946
17 TACTICAL TECHNOLOGY.....	276,075	276,075	241,125	249,725
18 MATERIALS AND BIOLOGICAL TECHNOLOGY.....	268,859	268,959	272,359	271,339
19 ELECTRONICS TECHNOLOGY.....	223,841	225,841	170,154	180,154
20 WEAPONS OF MASS DESTRUCTION DEFEAT TECHNOLOGIES.....	219,130	220,630	221,530	222,250
21 SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT.....	27,384	33,884	24,884	30,734
22 SOF MEDICAL TECHNOLOGY DEVELOPMENT.....	---	3,000	---	2,400
TOTAL, APPLIED RESEARCH.....	1,776,790	1,861,039	1,660,938	1,769,169

(In thousands of dollars)

	Budget	House	Senate	Recommendation

ADVANCED TECHNOLOGY DEVELOPMENT				
23 JOINT MUNITIONS ADVANCED TECH INSENSITIVE MUNITIONS AD	23,538	16,754	10,428	13,644
24 SO/LIC ADVANCED DEVELOPMENT.....	43,808	43,808	43,808	43,808
25 COMBATING TERRORISM TECHNOLOGY SUPPORT.....	81,868	102,368	106,268	118,108
26 COUNTERPROLIFERATION INITIATIVES--PROLIF PREV & DEFEAT	233,203	241,203	233,203	239,923
27 BALLISTIC MISSILE DEFENSE TECHNOLOGY.....	109,760	109,760	104,760	190,260
28 JOINT ADVANCED CONCEPTS.....	7,817	3,909	7,817	3,909
29 JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT.....	23,276	23,276	23,276	23,276
30 ADVANCED AEROSPACE SYSTEMS.....	338,360	338,360	249,360	259,360
31 SPACE PROGRAMS AND TECHNOLOGY.....	200,612	202,612	189,312	190,912
32 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - ADVANCED DEV	282,235	297,735	296,235	300,935
33 JOINT ELECTRONIC ADVANCED TECHNOLOGY.....	10,838	10,838	10,838	10,838
34 JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS.....	198,352	202,352	143,467	169,952
35 NETWORKED COMMUNICATIONS CAPABILITIES.....	28,212	28,212	28,212	28,212
36 JOINT DATA MANAGEMENT RESEARCH.....	4,935	4,935	4,935	4,935
37 BIOMETRICS SCIENCE AND TECHNOLOGY.....	10,993	10,993	10,993	10,993
38 HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) ADV	11,480	11,480	9,980	10,480
39 DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROG	14,638	16,638	24,638	23,738
40 JOINT ROBOTICS PROGRAM/AUTONOMOUS SYSTEMS.....	9,110	11,610	9,110	11,110
41 GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS.....	19,043	34,043	42,643	52,123
42 DEPLOYMENT AND DISTRIBUTION ENTERPRISE TECHNOLOGY.....	29,356	29,356	29,356	29,356
43 STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM.....	69,175	69,175	67,675	67,675
44 MICROELECTRONIC TECHNOLOGY DEVELOPMENT AND SUPPORT....	26,310	51,810	55,210	70,830
45 JOINT WARFIGHTING PROGRAM.....	11,135	11,135	11,135	11,135
46 ADVANCED ELECTRONICS TECHNOLOGIES.....	205,912	207,912	179,907	194,907
47 SYNTHETIC APERTURE RADAR (SAR) COHERENT CHANGE DETECT.	4,864	4,864	4,864	4,864
49 HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM.....	221,286	221,286	245,186	237,406
50 COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS.....	293,476	293,476	270,326	270,326
52 CLASSIFIED DARPA PROGRAMS.....	186,526	186,526	178,326	178,326
53 NETWORK-CENTRIC WARFARE TECHNOLOGY.....	135,941	135,941	135,941	138,941

(In thousands of dollars)

	Budget	House	Senate	Recommendation
54 SENSOR TECHNOLOGY.....	243,056	243,056	223,800	223,800
55 GUIDANCE TECHNOLOGY.....	37,040	37,040	37,040	37,040
56 DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT..	13,822	13,822	13,822	13,822
57 SOFTWARE ENGINEERING INSTITUTE.....	31,298	31,298	31,298	31,298
59 QUICK REACTION SPECIAL PROJECTS.....	107,984	92,984	69,484	74,184
60 JOINT EXPERIMENTATION.....	124,480	107,380	109,480	108,800
61 JOINT WARGAMING SIMULATION MANAGEMENT OFFICE.....	38,505	38,505	34,505	34,505
62 TEST & EVALUATION SCIENCE & TECHNOLOGY.....	95,734	95,734	95,734	95,734
63 TECHNOLOGY TRANSFER.....	2,219	12,219	8,319	13,669
65 SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT....	31,675	57,175	36,975	56,965
66 SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT....	3,544	3,544	3,544	3,544
67 SOF INFORMATION & BROADCAST SYSTEMS ADVANCED TECHNOLOG	4,988	4,988	4,988	4,988
TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT.....	3,570,404	3,660,112	3,396,198	3,608,631
DEMONSTRATION & VALIDATION				
68 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT..	36,019	39,019	46,219	46,179
70 RETRACT LARCH.....	21,718	21,718	37,218	21,718
71 JOINT ROBOTICS PROGRAM.....	11,803	15,803	11,803	15,403
72 ADVANCE SENSOR APPLICATIONS PROGRAM.....	17,771	17,771	17,771	17,771
73 ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM	31,613	36,613	37,013	41,113
74 BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT....	719,465	719,465	719,465	719,465
75 BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT...	982,922	982,922	1,032,922	1,032,922
76 BALLISTIC MISSILE DEFENSE BOOST DEFENSE SEGMENT.....	186,697	186,697	186,697	183,297
77 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	205,952	210,952	205,952	210,152
78 BALLISTIC MISSILE DEFENSE SENSORS.....	636,856	636,856	626,856	624,156
79 BALLISTIC MISSILE DEFENSE SYSTEM INTERCEPTOR.....	---	80,000	---	---
80 BALLISTIC MISSILE DEFENSE TEST & TARGETS.....	966,752	940,752	778,652	827,752
81 BALLISTIC MISSILE DEFENSE SYSTEMS CORE.....	369,145	358,645	358,145	360,645
82 SPECIAL PROGRAMS - MDA.....	301,566	286,566	251,566	251,566
83 AEGIS BMD.....	1,690,758	1,670,758	1,468,358	1,443,358
183 AEGIS SM-3 BLOCK IIA CO-DEVELOPMENT.....	---	---	257,400	257,400

(In thousands of dollars)

	Budget	House	Senate	Recommendation
84 SPACE SURVEILLANCE & TRACKING SYSTEM.....	180,000	160,000	173,200	162,500
86 BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS.....	12,549	12,549	12,549	12,549
87 BALLISTIC MISSILE DEFENSE C2BMC.....	340,014	340,014	340,014	336,514
88 BALLISTIC MISSILE DEFENSE HERCULES.....	48,186	48,186	48,186	48,186
89 BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT....	60,921	61,421	60,921	61,421
90 BALLISTIC MISSILE DEFENSE JOINT NATIONAL INTERGRATION.	86,949	86,949	86,949	86,949
91 REGARDING TRENCH.....	6,164	6,164	6,164	6,164
92 SEA BASED X-BAND RADAR (SBX).....	174,576	161,576	174,576	168,076
95 BMD EUROPEAN CAPABILITY.....	50,504	50,504	50,504	50,504
97 ISRAELI COOPERATIVE PROGRAMS.....	119,634	202,434	202,434	202,434
98 HUMANITARIAN DEMINING.....	14,687	14,687	14,687	14,687
99 COALITION WARFARE.....	13,885	13,885	13,885	13,885
100 DEPARTMENT OF DEFENSE CORROSION PROGRAM.....	4,887	6,387	21,487	22,287
101 DOD UNMANNED AIRCRAFT SYSTEM (UAS) COMMON DEVELOPMENT.	55,289	65,289	55,289	61,289
102 JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS.....	18,577	3,577	18,577	11,077
103 HUMAN, SOCIAL AND CULTURE BEHAVIOR MODELING (HSCB) RES	7,006	7,006	7,006	7,006
104 JOINT SYSTEMS INTEGRATION COMMAND (JSIC).....	19,744	19,744	19,744	19,744
105 JOINT FIRES INTEGRATION & INTEROPERABILITY TEAM.....	16,972	16,972	16,972	16,972
106 REDUCTION OF TOTAL OWNERSHIP COST.....	24,647	24,647	24,647	24,647
107 JOINT ELECTROMAGNETIC TECHNOLOGY (JET) PROGRAM.....	3,949	6,949	3,949	6,349
108 DEFENSE ACQUISITION CHALLENGE PROGRAM (DACP).....	28,862	28,862	28,862	28,862
109 NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT .	7,628	7,628	7,628	7,628
110 PROMPT GLOBAL STRIKE CAPABILITY DEVELOPMENT.....	166,913	166,913	166,913	166,913
TOTAL, DEMONSTRATION & VALIDATION.....	7,641,580	7,716,880	7,591,180	7,589,540
ENGINEERING & MANUFACTURING DEVELOPMENT				
111 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	332,895	339,895	296,595	301,575
112 JOINT ROBOTICS PROGRAM.....	5,127	5,127	5,127	5,127
113 ADVANCED IT SERVICES JOINT PROGRAM OFFICE (AITS-JPO)..	39,911	39,911	15,157	15,157
114 JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)	20,633	20,633	20,633	20,633

(In thousands of dollars)

	Budget	House	Senate	Recommendation
115 WEAPONS OF MASS DESTRUCTION DEFEAT CAPABILITIES.....	8,735	8,735	9,735	9,535
116 INFORMATION TECHNOLOGY DEVELOPMENT.....	11,705	15,205	11,705	14,505
117 DEFENSE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM....	70,000	70,000	18,710	18,710
118 BUSINESS TRANSFORMATION AGENCY R&D ACTIVITIES.....	197,008	197,008	192,508	192,508
119 HOMELAND PERSONNEL SECURITY INITIATIVE.....	395	395	395	395
120 OUSD(C) IT DEVELOPMENT INITIATIVES.....	5,000	5,000	5,000	5,000
121 TRUSTED FOUNDRY.....	41,223	41,223	51,223	51,223
122 DEFENSE ACQUISITION EXECUTIVE (DAE) PILOT PROGRAM....	4,267	4,267	4,267	4,267
123 GLOBAL COMBAT SUPPORT SYSTEM.....	18,431	18,431	18,431	18,431
124 JOINT COMMAND AND CONTROL PROGRAM (JC2).....	49,047	49,047	---	---
125 WOUNDED ILL AND INJURED SENIOR OVERSIGHT COMMITTEE OFF	1,609	1,609	1,609	1,609
TOTAL, ENGINEERING & MANUFACTURING DEVELOPMENT.....	805,988	816,486	651,095	658,675
RDT&E MANAGEMENT SUPPORT				
126 GENERIC LOGISTICS TECHNOLOGY DEMONSTRATIONS.....	---	2,000	---	---
127 DEFENSE READINESS REPORTING SYSTEM (DRRS).....	13,121	16,121	13,121	15,371
128 JOINT SYSTEMS ARCHITECTURE DEVELOPMENT.....	15,247	15,247	7,430	11,339
129 CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT....	145,052	152,552	157,452	162,272
130 THERMAL VICAR.....	9,045	12,045	9,045	11,445
131 JOINT MISSION ENVIRONMENT TEST CAPABILITY (JMETC).....	9,455	9,455	9,455	9,455
132 TECHNICAL STUDIES, SUPPORT AND ANALYSIS.....	44,760	44,760	44,760	44,760
133 USD(A&T)--CRITICAL TECHNOLOGY SUPPORT.....	4,914	4,914	4,914	4,914
134 FOREIGN MATERIAL ACQUISITION AND EXPLOITATION.....	94,921	94,921	94,921	94,921
135 JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION....	96,909	96,909	96,909	96,909
136 CLASSIFIED PROGRAM USD(P).....	---	95,637	95,637	95,637
137 FOREIGN COMPARATIVE TESTING.....	35,054	35,054	35,054	35,054
138 NUCLEAR MATTERS - PHYSICAL SECURITY.....	6,474	6,474	6,474	6,474
139 SUPPORT TO NETWORKS AND INFORMATION INTEGRATION.....	14,916	14,916	14,916	14,916
140 GENERAL SUPPORT TO USD (INTELLIGENCE).....	5,888	5,888	5,888	5,888
141 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM.....	106,477	106,477	106,477	106,477
147 SMALL BUSINESS INNOVATION RESEARCH/CHALLENGE ADMINISTR	2,163	3,163	4,063	4,683

(In thousands of dollars)

	Budget	House	Senate	Recommendation
148 DEFENSE TECHNOLOGY ANALYSIS.....	11,005	11,805	11,005	11,805
150 FORCE TRANSFORMATION DIRECTORATE.....	19,981	24,981	19,981	23,981
151 DEFENSE TECHNICAL INFORMATION CENTER (DTIC).....	54,411	49,411	54,411	49,411
152 R&D IN SUPPORT OF DOD ENLISTMENT, TESTING & EVALUATION	19,554	19,554	19,554	19,554
153 DEVELOPMENT TEST AND EVALUATION.....	23,512	23,512	23,512	23,512
154 DARPA AGENCY RELOCATION.....	45,000	45,000	15,000	45,000
155 MANAGEMENT HEADQUARTERS (RESEARCH & DEVELOPMENT).....	51,055	51,055	51,055	51,055
156 BUDGET AND PROGRAM ASSESSMENTS.....	5,929	5,929	5,929	5,929
157 AVIATION SAFETY TECHNOLOGIES.....	8,000	8,000	8,000	8,000
158 JOINT STAFF ANALYTICAL SUPPORT.....	1,250	1,250	1,250	1,250
161 SUPPORT TO INFORMATION OPERATIONS (IO) CAPABILITIES...	30,604	25,904	36,504	30,624
162 INFORMATION TECHNOLOGY RAPID ACQUISITION.....	4,667	4,667	4,667	4,667
163 CYBER SECURITY INITIATIVE.....	50,000	50,000	50,000	50,000
164 INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)...	20,648	22,648	20,648	20,648
166 WARFIGHTING AND INTELLIGENCE-RELATED SUPPORT.....	829	829	829	829
167 COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION.	34,306	34,306	41,806	40,706
168 PENTAGON RESERVATION.....	19,709	---	19,709	19,709
169 MANAGEMENT HEADQUARTERS - MDA.....	57,403	52,403	57,403	52,403
170 IT SOFTWARE DEV INITIATIVES.....	980	980	980	980
TOTAL, RDT&E MANAGEMENT SUPPORT.....	1,063,239	1,148,767	1,148,759	1,180,578
OPERATIONAL SYSTEMS DEVELOPMENT				
171 DEFENSE INFORMATION SYSTEM FOR SECURITY (DISS).....	1,384	1,384	1,384	1,384
172 REGIONAL INTERNATIONAL OUTREACH & PARTNERSHIP FOR PEAC	2,001	2,001	2,001	2,001
173 OVERSEAS HUMANITARIAN ASSISTANCE SHARED INFORMATION SY	292	292	292	292
174 CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS D	6,198	6,198	6,198	6,198
175 JOINT INTEGRATION AND INTEROPERABILITY.....	46,214	46,214	46,214	46,214
177 CLASSIFIED PROGRAMS.....	2,179	2,179	2,179	2,179
178 C4I INTEROPERABILITY.....	74,786	74,786	74,786	74,786
180 JOINT/ALLIED COALITION INFORMATION SHARING.....	10,767	10,767	10,767	10,767

(In thousands of dollars)

	Budget	House	Senate	Recommendation
187 NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT.....	548	548	548	548
188 DEFENSE INFO INFRASTRUCTURE ENGINEERING AND INTEGRATIO	17,655	17,655	17,655	17,655
189 LONG HAUL COMMUNICATIONS (DCS).....	9,406	9,406	9,406	9,406
190 MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK....	9,830	9,830	9,830	9,830
191 PUBLIC KEY INFRASTRUCTURE (PKI).....	8,116	8,116	8,116	8,116
192 KEY MANAGEMENT INFRASTRUCTURE (KMI).....	41,002	41,002	41,002	41,002
193 INFORMATION SYSTEMS SECURITY PROGRAM.....	13,477	13,477	15,477	15,077
194 INFORMATION SYSTEMS SECURITY PROGRAM.....	408,316	408,316	408,316	408,316
196 DISA MISSION SUPPORT OPERATIONS.....	1,205	1,205	1,205	1,205
197 C4I FOR THE WARRIOR.....	4,098	4,098	4,098	4,098
198 GLOBAL COMMAND AND CONTROL SYSTEM.....	23,761	23,761	34,761	34,761
199 JOINT SPECTRUM CENTER.....	18,944	18,944	18,944	18,944
200 NET-CENTRIC ENTERPRISE SERVICES (NCES).....	1,782	1,782	1,782	1,782
201 JOINT MILITARY DECEPTION INITIATIVE.....	942	942	942	942
202 TELEPORT PROGRAM.....	5,239	5,239	5,239	5,239
203 SPECIAL APPLICATIONS FOR CONTINGENCIES.....	16,381	30,381	16,381	27,581
206 CYBER SECURITY INITIATIVE.....	993	993	993	993
208 CYBER SECURITY INITIATIVE.....	10,080	10,080	10,080	10,080
209 CRITICAL INFRASTRUCTURE PROTECTION (CIP).....	12,725	12,725	17,725	16,725
215 POLICY R&D PROGRAMS.....	6,948	6,948	6,948	6,948
217 NET CENTRICITY.....	1,479	1,479	1,479	1,479
221 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	1,407	9,407	1,407	7,407
224 DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS.....	3,158	3,158	3,158	3,158
226 MQ-1 PREDATOR A UAV.....	2,067	2,067	2,067	2,067
228 HOMELAND DEFENSE TECHNOLOGY TRANSFER PROGRAM.....	2,963	2,963	2,963	2,963
229 INT'L INTELLIGENCE TECHNOLOGY ASSESSMENT, ADVANCEMENT.	1,389	1,389	1,389	1,389
238 INDUSTRIAL PREPAREDNESS.....	20,514	28,014	50,514	46,514
239 LOGISTICS SUPPORT ACTIVITIES.....	2,798	2,798	2,798	2,798
240 MANAGEMENT HEADQUARTERS (JCS).....	8,303	8,303	8,303	8,303
241 NATO AGS.....	74,485	74,485	66,485	69,485

(In thousands of dollars)

	Budget	House	Senate	Recommendation
242 MQ-9 UAV.....	4,380	4,380	4,380	4,380
245 SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT.....	82,621	74,121	67,592	72,612
246 SPECIAL OPERATIONS TACTICAL SYSTEMS DEVELOPMENT.....	6,182	2,594	7,494	6,874
247 SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT...	21,273	21,780	36,173	41,393
248 SOF OPERATIONAL ENHANCEMENTS.....	60,310	64,310	60,310	63,310
249 SPECIAL OPERATIONS CV-22 DEVELOPMENT.....	12,687	12,687	12,687	12,687
250 JOINT MULTI-MISSION SUBMERSIBLE.....	43,412	23,412	43,412	33,412
252 OPS ADVANCED SEAL DELIVERY SYSTEM (ASDS) DEVELOPMENT..	1,321	3,500	1,600	3,500
253 MISSION TRAINING AND PREPARATION SYSTEMS (HTPS).....	3,192	3,192	3,192	3,192
254 UNMANNED VEHICLES (UV).....	---	1,000	---	1,000
255 MC130J SOF TANKER RECAPITALIZATION.....	5,957	5,957	5,957	5,957
256 SOF COMMUNICATIONS EQUIPMENT AND ELECTRONICS SYSTEMS..	733	733	733	733
257 SOF TACTICAL RADIO SYSTEMS.....	2,368	2,368	2,368	2,368
258 SOF WEAPONS SYSTEMS.....	1,081	1,081	1,081	1,081
259 SOF SOLDIER PROTECTION AND SURVIVAL SYSTEMS.....	597	597	597	597
260 SOF VISUAL AUGMENTATION, LASERS & SENSOR SYSTEMS.....	3,369	6,869	6,369	8,569
261 SOF TACTICAL VEHICLES.....	1,973	1,973	1,973	1,973
262 SOF ROTARY WING AVIATION.....	18,863	18,863	18,863	18,863
263 SOF UNDERWATER SYSTEMS.....	3,452	13,000	12,452	18,852
264 SOF SURFACE CRAFT.....	12,250	10,000	12,250	10,000
265 SOF PSYOP.....	9,887	9,887	9,887	9,887
266 SOF GLOBAL VIDEO SURVEILLANCE ACTIVITIES.....	4,944	4,944	4,944	4,944
267 SOF OPERATIONAL ENHANCEMENTS INTELLIGENCE.....	11,547	11,547	11,547	11,547
TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT.....	1,186,231	1,202,127	1,239,693	1,266,363
999 CLASSIFIED PROGRAMS.....	4,273,689	4,050,489	4,355,489	4,264,429
DARPA UNDISTRIBUTED REDUCTION.....	---	-200,000	---	---
TOTAL, RESEARCH, DEVELOPMENT, TEST & EVAL, DEF-WIDE.	20,741,542	20,721,723	20,408,968	20,747,081

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS
[In thousands of dollars]

R-1	Budget Request	House	Senate	Recommendation
DTRA UNIVERSITY STRATEGIC PARTNERSHIP BASIC				
1 RESEARCH	48,544	48,544	33,544	41,044
Excessive growth ahead of program assessment			-15,000	-7,500
2 DEFENSE RESEARCH SCIENCES	226,125	242,825	194,218	206,778
Laboratory for Advanced Photonic Composites Research		1,600		1,280
Hydrogen Fuel Cell Research		4,000		4,000
Institute for Collaborative Sciences Research		2,600		2,080
Science, Technology, Engineering and Mathematics Initiative		2,000		1,600
Solid Oxide Fuel Technology		1,000		1,000
American Museum of Natural History Infectious Disease Research		1,500		1,200
Countermeasures to Combat Protozoan Parasites (Toxoplasmosis and Malaria)		2,000		1,600
UAV Systems and Operations Validation Program (Transferred to line number 129)		2,000		0
Fiscal year 2009 new start execution delays			-16,750	-16,750
Reduction to requested fiscal year 2010 new starts			-20,057	-20,057
Advanced Materials Research Institute (AMRI)			1,000	800
Security Protection using Ballistic CORE Technology			3,900	3,900
GOVERNMENT/INDUSTRY COSPONSORSHIP OF				
3 UNIVERSITY RESEARCH	0	5,000	0	4,800
High Efficiency Solar Energy Generation and Storage		1,000		800
Integrated Cryo-cooled High Power Density Systems		4,000		3,200
Center for Research on Minority Health Prostate Cancer Outreach Project		1,000		800
5 NATIONAL DEFENSE EDUCATION PROGRAM	89,980	89,980	69,980	79,980
Premature funding increase			-20,000	-10,000
6 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	58,974	79,474	67,874	79,094
Joint Services Aircrew Mask Don/Doff Inflight (Transferred to line number 111)		1,500		0
Advanced Development of Antiviral Prophylactics and Therapeutics		3,000		3,000
Countermeasures to Chemical and Biological Controls-Rapid Response		3,500		2,800
MEMS Sensors for Real-Time Sensing of Weaponized Pathogens		2,500		2,000
Mismatch Repair Driven Antibody Medicines to Treat Staphylococcus-derived Bioweapons		1,000		1,000
Portable Rapid Bacterial Warfare Detection Unit		4,000	5,000	4,000
Potent Human Monoclonal Antibodies Against BoNT A, B and E Suited for Mass Production and Treatment of Large Populations		1,000		1,000
Synchrotron Beamline Experimental Station		4,000		3,200
High Speed, High Volume Laboratory Network for Infectious Disease			2,000	1,600
InVitro Models for Biodefense Vaccines			1,900	1,520

R-1		Budget Request	House	Senate	Recommendation
	INSENSITIVE MUNITIONS--EXPLORATORY				
7	DEVELOPMENT	22,669	18,961	15,112	18,961
	Partial Program growth reduction		-3,708		-3,708
	P-204 - new start			-7,557	0
	HISTORICALLY BLACK COLLEGES & UNIVERSITIES				
9	(HBCU) SCIENCE	15,164	65,521	18,464	67,096
	Reappropriation of fiscal year 2008 account level		34,457		34,457
	Program Increase		9,400		9,400
	Active Duty Training and Education Program		2,000		2,000
	Morehouse College, John H. Hopps Defense Research Scholars Program		3,000		2,400
	Thurgood Marshall College Fund Defense Leadership and Technology Initiative		1,500		1,200
	Instrumentation Program for Tribal Colleges			3,300	2,475
11	INFORMATION AND COMMUNICATIONS TECHNOLOGY	282,749	285,749	255,931	273,331
	High Speed Optical Interconnects for Next Generation Supercomputing		1,500		1,200
	Intelligent Remote Sensing for Urban Warfare Operations II		1,500		1,200
	Fiscal year 2009 new start execution delays			-8,196	-8,196
	Reduction to requested fiscal year 2010 new starts			-18,622	-18,622
	Fiscal year 2010 new starts				15,000
12	COGNITIVE COMPUTING SYSTEMS	142,840	144,840	142,840	144,840
	BioButanol Production Research		2,000		2,000
14	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	209,072	226,572	215,972	225,772
	Self-decontaminating Polymer System for Chemical and Biological Warfare Agents (Transferred to line number 111)		3,500		0
	Botulinum Neurotoxin Research		2,500		2,000
	Botulinum Toxin Treatment Therapy		1,000		800
	Chemical and Biological Agent Fate Appropriate Response Operational Tool		2,000		1,600
	Chemical and Biological Resistant Clothing		2,000		1,600
	Anti-viral vaccine development		4,500	1,000	3,600
	Miniaturized Chemical Detector for Chemical Warfare Protection		2,000		1,600
	Chemical and Biological Infrared Detection System			1,900	1,900
	Contaminated Human Remains Pouch			2,000	1,600
	PaintShield for Protecting People from Microbial Threats			2,000	2,000
	JOINT DATA MANAGEMENT ADVANCED				
15	DEVELOPMENT	4,940	4,940	0	0
	Redundancy with other DoD programs			-4,940	-4,940
	HUMAN, SOCIAL AND CULTURE BEHAVIOR				
16	MODELING (HSCB) APP	9,446	9,446	7,946	7,946
	Unexecutable growth			-1,500	-1,500

R-1	Budget Request	House	Senate	Recommendation
17 TACTICAL TECHNOLOGY	276,075	278,075	241,125	249,725
Sea Catcher UAS Launch and Recovery System		2,000		1,600
Fiscal year 2009 new start execution delays			-31,950	-31,950
Reduction to requested fiscal year 2010 new starts			-24,000	-24,000
Fiscal year 2010 new starts			12,000	20,000
Center of Excellence for Research in Ocean Sciences (CEROS)			9,000	8,000
18 MATERIALS AND BIOLOGICAL TECHNOLOGY	268,859	268,959	272,359	271,339
Moldable Fabric Armor (Transferred to RDT&E, Army line number 5)		2,800		0
Photovoltaic Ribbon Solar Cell Technology Project		3,600		2,880
Center for Nonproliferation Studies, Monterey Institute for International Affairs		2,000		1,600
Bioinspired Sensors - excessive program growth		-5,000		-5,000
Biological Interfaces - excessive program growth		-3,300		0
Fiscal year 2009 new start execution delays			-2,000	-2,000
Strategic Materials			5,500	5,000
19 ELECTRONICS TECHNOLOGY	223,841	225,841	170,154	180,154
3-D Technology for Advanced Sensor Systems		2,000		2,000
Fiscal year 2009 new start execution delays			-39,500	-39,500
Reduction to requested fiscal year 2010 new starts			-26,187	-26,187
Fiscal year 2010 new starts			12,000	20,000
WEAPONS OF MASS DESTRUCTION DEFEAT TECHNOLOGIES	219,130	220,630	221,530	222,250
National Center for Blast Mitigation		1,500		1,200
University Strategic Partnership			2,400	1,920
21 SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT	27,384	33,884	24,884	30,734
Flashlight Soldier-to-Soldier Combat Identification System		4,500	2,000	4,500
United States Special Operations Command - USSOCOM / STAR-TEC Partnership Program		2,000		1,600
REITS unjustified new starts			-4,500	-2,750
22 SOF MEDICAL TECHNOLOGY DEVELOPMENT	0	3,000	0	2,400
Personalized Medicine Initiative		3,000		2,400
JOINT MUNITIONS ADVANCED TECHNOLOGY, INSENSITIVE MUNITIONS - ADVANCED	23,538	16,754	10,428	13,644
Partial Program growth reduction		-6,784	-10,000	-6,784
P301 new start			-3,110	-3,110
25 COMBATING TERRORISM TECHNOLOGY SUPPORT	81,868	102,368	106,268	118,108
Affordable Robust Mid-Sized Unmanned Ground Vehicle		2,000		1,600
Comprehensive and Integrated Procedures for Risk Assessment and Resource Allocation		2,500		2,000
Facility Security Using Tactical Surveys		4,500		3,600
Integrated Rugged Checkpoint Container		2,500	1,600	2,000
Low Cost Stabilized Turret		1,000		800
Military/Law Enforcement Counterterrorism Test Bed		3,000		2,400
Radio Inter-Operability System		2,000		1,600
Ultra Low Profile EARS Gunshot Localization System		1,500		1,200
Remote VBIED Detection and Defeat System		1,500		1,200

R-1	Budget Request	House	Senate	Recommendation
BOPPER/COPPER - Bioterrorism Operations Policy for Public Emergency/Chemoterrorism Operations Policy for Public Emergency			1,000	1,000
Covert Sensing and Tagging System			1,500	1,200
Dynamic Data Flow Management System			2,000	1,600
Emergency Egress System			2,000	1,600
Expeditionary Surveillance and Reconnaissance Program			5,000	4,000
IdentClarity-Identity Resolution			1,800	1,440
MARCENT Thermal Imaging Suite			3,000	3,000
Omni Directional Relay and Conformal Antenna			2,500	2,500
Reconnaissance and Data Exploitation (REX) System			4,000	3,500
COUNTERPROLIFERATION INITIATIVES--				
26 PROLIFERATION PREVENTION & DEFEAT	233,203	241,203	233,203	239,923
AELED IED/WMD Electronic Signature Detection		6,000		4,800
New Drug Targets in Multi-Drug Resistant Bacteria (Transferred to RDT&E, Army line number 28)		2,000		0
Recovery, Recycle and Reuse of DOE Metals for DoD Applications (Transferred from RDT&E, Army line number 32)				1,920
27 BALLISTIC MISSILE DEFENSE TECHNOLOGY	109,760	109,760	104,760	190,260
Reduce program growth to support near-term missile defense programs		-5,000	-10,000	-7,500
Advanced Battery Technology		2,000		1,600
Missile Activity and Characteristics - Releasable		3,000		2,400
Multiple-Target-Tracking Optical Sensor-Array Technology (MOST)			5,000	4,000
Early Interceptor (Transferred from line number 79)				80,000
28 JOINT ADVANCED CONCEPTS	7,817	3,909	7,817	3,909
Excessive program growth		-3,908		-3,908
30 ADVANCED AEROSPACE SYSTEMS	338,360	338,360	249,360	259,360
Vulture contract award delay			-17,000	-17,000
Reduction for high speed engines			-40,000	-30,000
Rapid Eye excessive growth without acquisition strategy			-25,000	-25,000
Reduction to requested fiscal year 2010 new starts			-7,000	-7,000
31 SPACE PROGRAMS AND TECHNOLOGY	200,612	202,612	189,312	190,912
Mosaic Camera Technology Transition		2,000		1,600
Fiscal year 2009 new start execution delays			-4,500	-4,500
Reduction to requested fiscal year 2010 new starts			-6,800	-6,800
CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM -				
32 ADVANCED DEVELOPMENT	282,235	297,735	296,235	300,935
Multi-target Shipping Container Interrogation System				
Mobile Continuous Air Monitor		2,000		1,600
Hand-Held Apparatus for Mobile Mapping and Expedited Reporting		3,500		2,800
Regenerative Filtration System for CBRN Defense		3,000		2,700
Total Perimeter Surveillance		2,000		1,600
Unified Management Infrastructure System		1,000		800
Advanced Development of Mobile Rapid Response Prototypes		2,000	3,000	2,400
Chemical and Biological Defense Program - Advanced Development		2,000		2,000

R-1	Budget Request	House	Senate	Recommendation	
			2,000	1,600	
				0	
			3,000	2,400	
			1,000	800	
34	JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS	198,352	202,352	143,467	169,952
	Distributed Network Switching and Security		2,000	1,600	
	High Accuracy Network Determination System - Intelligent Optical Networks (Transferred to RDT&E, Air Force line number 73)		2,000	0	
	Fiscal year 2010 JCTD New Starts		-54,885	-30,000	
	HUMAN, SOCIAL AND CULTURE BEHAVIOR				
38	MODELING (HSCB) ADVANCED DEVELOPMENT	11,480	11,480	9,980	10,480
	Unexecutable growth		-1,500	-1,000	
	DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROGRAM				
39	TECHNOLOGY PROGRAM	14,638	16,638	24,638	23,738
	California Enhanced Defense Small Manufacturing Suppliers Program		2,000	1,600	
	High Performance Manufacturing Technology Initiative		10,000	7,500	
	JOINT ROBOTICS PROGRAM/AUTONOMOUS SYSTEMS				
40	SYSTEMS	9,110	11,810	9,110	11,110
	Autonomous Control and Video Sensing for Robots		1,000	800	
	Battle-Proven Packbot		1,500	1,200	
	GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS				
41	DEMONSTRATIONS	19,043	34,043	42,643	52,123
	Aging Systems Sustainment and Enabling Technologies		3,000	2,400	
	Progressive Research for Sustainable Manufacturing		1,500	1,200	
	Reduced Cost Supply Readiness		1,500	1,200	
	Alternative Energy from Organic Sources		6,000	6,000	
	Cellulosic-Derived Biofuels Research		3,000	2,400	
	Biofuels Program		2,000	1,600	
	Commodity Management Systems Consolidation Program		2,000	1,600	
	Continuous Acquisition and Life-Cycle Support (CALs)				
	Integrated Data Environment and Defense Logistics Enterprise Services Program (DLES)		4,000	3,200	
	Fuel Cell Hybrid Battery Manufacturing for Defense Operations		1,000	800	
	Fuelcell Locomotive		3,000	2,400	
	Next Generation Manufacturing Technologies Initiative		2,000	1,600	
	Vehicle Fuel Cell and Hydrogen Logistics Program		8,000	6,400	
	Woody Biomass Conversion to JP-8 Fuel		1,600	1,280	
	Radio Frequency Identification Technologies (Transferred from line number 63 and RDT&E, Navy line number 61)			1,000	
43	STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM	69,175	69,175	67,675	67,675
	Execution adjustment		-1,500	-1,500	

R-1	Budget Request	House	Senate	Recommendation
MICROELECTRONIC TECHNOLOGY DEVELOPMENT				
44 AND SUPPORT	26,310	51,810	55,210	70,830
3-D Electronics and Power		6,000		4,800
AESA Technology Insertion Program		3,000		2,400
Carbon Nanotube Thin Film Near Infrared Detector		2,000		1,600
End to End Semi Fab Alpha Tool		2,000		1,600
Feature Size Yield Enhancement Advanced Reconfigurable Manufacturing for Semiconductors Foundry		3,000		2,400
Heterogeneous Gallium Nitride/Silicon Microcircuit Technology		2,000		1,600
Spintronics Memory Storage Technology		3,500		2,800
Superconducting Quantum Information Technology		1,000		800
X-Band/W-Band Solid State Power Amplifier		1,000		1,000
Semiconductor Photomask Technology Infrastructure Initiative		2,000		1,600
Electronics and Materials for Flexible Sensors and Transponders (EMFST)			6,000	4,800
High Performance Tunable Materials - Combinatorial Development of Advanced Dielectrics			4,500	3,600
Shipping Container Security System Field Evaluation			4,500	3,600
Smart Bomb Targeting Radar System			2,900	2,320
Tunable MicroRadio for Military Systems			7,000	5,600
Vehicle and Dismount Exploitation Radar (VADER)			4,000	4,000
46 ADVANCED ELECTRONICS TECHNOLOGIES	205,912	207,912	179,907	194,907
Hybrid Power Generating System		2,000		0
Fiscal year 2009 new start execution delays			-11,000	-11,000
Reduction to requested fiscal year 2010 new starts			-22,005	-22,005
Institute of Advanced Flexible Manufacturing Systems			7,000	7,000
Fiscal year 2010 new starts				15,000
HIGH PERFORMANCE COMPUTING MODERNIZATION				
49 PROGRAM	221,286	221,286	245,186	237,406
Program adjustment			20,000	13,000
High Performance Computational Design of Novel Materials			3,900	3,120
COMMAND, CONTROL AND COMMUNICATIONS				
50 SYSTEMS	293,476	293,476	270,326	270,326
Fiscal year 2009 new start execution delays			-2,000	-2,000
CCC-CLS execution delays			-18,150	-18,150
Reduction to requested fiscal year 2010 new starts			-3,000	-3,000
52 CLASSIFIED DARPA PROGRAMS	186,526	186,526	178,326	178,326
Program terminated by DARPA			-8,200	-8,200
53 NETWORK-CENTRIC WARFARE TECHNOLOGY	135,941	135,941	135,941	136,941
Fiscal year 2009 new start execution delays			-9,500	-9,500
Reduction to requested fiscal year 2010 new starts			-2,500	-2,500
Fiscal year 2010 new starts			12,000	15,000
54 SENSOR TECHNOLOGY	243,056	243,056	223,800	223,800
Fiscal year 2009 new start execution delays			-4,256	-4,256
SEN-CLS execution delays			-10,000	-10,000
Reduction to requested fiscal year 2010 new starts			-5,000	-5,000

R-1		Budget Request	House	Senate	Recommendation
59	QUICK REACTION SPECIAL PROJECTS	107,984	92,984	69,484	74,184
	Reduction from Technology Transition Initiative		-15,000		-10,000
	QRF fiscal year 2010 new starts			-15,000	-10,000
	RRF fiscal year 2010 new starts			-25,000	-15,000
	Small Craft Threat Identification Program			1,500	1,200
60	JOINT EXPERIMENTATION	124,480	107,380	109,480	106,800
	Reduction for National Center for Small Unit Excellence		-20,000	-5,000	-10,000
	Tidewater Full Scale Exercise		2,900		2,320
	Unexecutable program growth			-10,000	-10,000
	JOINT WARGAMING SIMULATION MANAGEMENT				
61	OFFICE	38,505	38,505	34,505	34,505
	Unexecutable growth			-4,000	-4,000
63	TECHNOLOGY TRANSFER	2,219	12,219	8,319	13,669
	National Radio Frequency Research, Development and Technology Transfer		5,000	1,400	4,000
	Radio Frequency Identification Technologies (Transferred to line number 41)		1,000		0
	FirstLink Technology Transfer Program		3,000		2,400
	Program Increase		1,000		750
	Center for Innovation at Arlington			2,700	2,700
	MilTech Expansion Program			2,000	1,600
	SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT				
65	DEVELOPMENT	31,675	57,175	36,975	56,965
	Affordable Miniature FOPEN Radar for Special Operations Craft - Riverine		3,500		2,800
	Optical Surveillance Equipment		2,000		2,000
	Field Experiment Program for Special Operations		2,000		1,600
	CBRN Detection Unmanned Aircraft		2,000		1,600
	Intelligence, Surveillance, and Reconnaissance Global Sensors Architecture		2,000		1,600
	Partnership for Defense Innovation Wi-Fi Laboratory Testing and Assessment Center		1,500	3,500	2,800
	Program Increase Helicopter Situational Awareness and Survivability		12,500		10,000
	REITS unjustified new starts			-4,500	-2,750
	Advanced Distributed Aperture System (ADAS)/Hostile Fire Indicating System (HFIS)			1,300	1,040
	Antennas and other CNT Devices for Intelligence/Special Military			3,000	3,000
	Tiger Moth Air-Launched Off Board Sensing Small Unmanned Aerial System			2,000	1,600
	NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT				
68	EQUIPMENT	36,019	39,019	46,219	46,179
	Under-Vehicle Inspection System		3,000	1,500	2,400
	Advance Detection of Special Nuclear Materials			2,000	2,000
	Pacific Data Conversion and Technology Program			2,000	2,000
	Wyoming Army National Guard Joint Training and Experimentation Center (JTEC)			4,700	3,760
70	RETRACT LARCH	21,718	21,718	37,218	21,718
	Program adjustment (Transferred to RDT&E, Navy line number 37)			15,500	0

R-1		Budget Request	House	Senate	Recommendation
71	JOINT ROBOTICS PROGRAM	11,803	15,803	11,803	15,403
	Autonomous Machine Vision for Mapping and Investigation of Remote Sites		2,000		1,600
	Joint Robotics Training Program		2,000		2,000
	ENVIRONMENTAL SECURITY TECHNICAL				
73	CERTIFICATION PROGRAM	31,613	36,613	37,013	41,113
	Environmentally Friendly Nanometal Electroplating Processes for Cadmium and Chromium Replacement		3,000		3,000
	Wellhead Treatment of Perchlorate Contaminated Wells		2,000		1,600
	Alternative Energy Study			1,400	1,400
	Inland Empire Perchlorate Remediation			4,000	3,500
	BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE				
75	SEGMENT	982,922	982,922	1,032,922	1,032,922
	GBI vendor base sustainment			50,000	50,000
	BALLISTIC MISSILE DEFENSE BOOST DEFENSE				
76	SEGMENT	186,697	186,697	186,697	183,297
	Support for FTS-01				-3,400
	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	205,952	210,952	205,952	210,152
	Automated Sample Preparation for Biological Detection		1,000		800
	Broad Spectrum Therapeutic Countermeasures to OP Nerve Agents		2,000		1,600
	Tactical, Cargo, and Rotary Wing Aircraft Decon		2,000		1,800
	BALLISTIC MISSILE DEFENSE SENSORS	636,856	636,856	626,856	624,156
	Replacement Patriot Launcher Pad for Japan - MDA requested adjustment			[2,500]	[2,500]
	System Engineering and Unifying Missile Defense Functions-reduce program growth to support near-term missile defense programs			-10,000	-10,000
	Support for FTS-01				-2,700
79	BALLISTIC MISSILE DEFENSE SYSTEM INTERCEPTOR	0	80,000	0	0
	Program Increase - Early Interceptor Program (Transferred to line number 27)		80,000		0
	BALLISTIC MISSILE DEFENSE TEST & TARGETS	966,752	940,752	778,652	827,752
	Target Synchronization with Test Schedule		-26,000		0
	Premature Request			-151,100	-135,800
	STSS Targets - FTS-01			-37,000	-3,200
	BALLISTIC MISSILE DEFENSE SYSTEMS CORE	369,145	358,645	358,145	360,645
	General Reduction		-25,000	-15,000	-20,000
	Next Generation Sensor Producability-Flight 2		10,000		7,500
	Advanced Decision Support System		2,500		2,000
	Miniature Divert and Altitude Controls System Thruster		2,000		1,600
	Advanced Composite Radome			4,000	3,200
	Support for FTS-01				-2,800
82	SPECIAL PROGRAMS - MDA	301,566	286,566	251,566	251,566
	Program decrease due to excessive growth		-15,000	-50,000	-50,000

R-1	Budget Request	House	Senate	Recommendation
83 AEGIS BMD	1,690,758	1,670,758	1,468,358	1,443,358
New Operational Configuration for six additional Aegis Cruisers and New Missile Type for Block 5.2 not determined		-50,000		-30,000
Ballistic Signal Processor/Open Architecture		30,000		20,000
Transfer to line 83A			-257,400	-257,400
SM-3 Development			35,000	20,000
83A AEGIS BMD SM-3 Block IIA co-development	0	0	257,400	257,400
Transferred from line 83	0	0	257,400	257,400
84 SPACE SURVEILLANCE & TRACKING SYSTEM	180,000	160,000	173,200	162,500
Demonstration Satellites		-20,000		-10,000
Support for FTS-01			-6,800	-7,500
87 BALLISTIC MISSILE DEFENSE C2BMC	340,014	340,014	340,014	336,514
Support for FTS-01				-3,500
BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER				
89 SUPPORT	60,921	61,421	60,921	61,421
Independent Advisory Group to Review Ballistic Missile Defense Training Needs		500		500
92 SEA BASED X-BAND RADAR (SBX)	174,576	161,576	174,576	168,076
General Reduction		-13,000		-6,500
97 ISRAELI COOPERATIVE PROGRAMS	119,634	202,434	202,434	202,434
Arrow 3		12,500	12,500	12,500
Arrow 2 Development		26,000	26,000	26,000
Arrow 2 Co-Production		10,000	10,000	10,000
David's Sling		34,300	34,300	34,300
100 DEPARTMENT OF DEFENSE CORROSION PROGRAM	4,887	6,387	21,487	22,287
Corrosion Training Simulation Program		1,500		1,200
Center for Education and Research on Corrosion and Materials Performance			2,000	1,600
Department of Defense Corrosion Prevention and Control Program			14,600	14,600
DOD UNMANNED AIRCRAFT SYSTEM (UAS) COMMON				
101 DEVELOPMENT	55,289	65,289	55,289	61,289
Small Business Technology Insertion		10,000		6,000
102 JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS	18,577	3,577	18,577	11,077
Reduction due to obligation and expenditure		-15,000		-7,500
JOINT ELECTROMAGNETIC TECHNOLOGY (JET)				
107 PROGRAM	3,949	6,949	3,949	6,349
Lifetime Power for Wireless Control Sensors		1,000		800
Secure, Miniaturized, Hybrid, Free Space, Optical Communications		2,000		1,600
111 CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	332,895	339,895	296,595	301,575
Chemical and Biological Threat Reduction Coating		3,000		2,400
Detection and Remediation of Bio/Chemical Weapons Program		2,000		2,000
Protective Self-Decontaminating Surfaces		2,000		1,600
Lack of justification for core program growth			-47,400	-47,400

R-1	Budget Request	House	Senate	Recommendation
Joint Services Aircrew Mask (JSAM) Don/Doff In-flight Upgrade (Includes transfer from line number 6)			3,000	2,400
Self-Decontaminating Polymer System for Chemical and Biological Warfare Agents (Includes transfer from line number 14)			2,000	2,800
Man Portable Sensors for Dismounted Reconnaissance Real Time Test Monitoring of Chemical Agents, Chemical Agent Stimulants and Toxic Industrial Chemicals			2,500	2,000
Self-Contained Automated Vehicle Washing Systems with Microwave Decontamination			1,600	1,280
			2,000	1,600
ADVANCED IT SERVICES JOINT PROGRAM OFFICE				
113 (AITS-JPO)	39,911	39,911	15,157	15,157
Rapid Technology Insertion Fund			-24,754	-24,754
WEAPONS OF MASS DESTRUCTION DEFEAT				
115 CAPABILITIES	8,735	8,735	9,735	9,535
Electric Grid Reliability/Assurance			1,000	800
116 INFORMATION TECHNOLOGY DEVELOPMENT	11,705	15,205	11,705	14,505
National Terrorism Preparedness Institute, Anti-Terrorism/Counter-Terrorism Technology Development and Training		3,500		2,800
DEFENSE INTEGRATED MILITARY HUMAN				
117 RESOURCES SYSTEM	70,000	70,000	18,710	18,710
Transfer to RDT&E, Army line number 117 for DIMHRS execution			-30,800	-30,800
Transfer to RDT&E, Air Force line number 241 for DIMHRS execution			-20,490	-20,490
BUSINESS TRANSFORMATION AGENCY R&D				
118 ACTIVITIES	197,008	197,008	192,508	192,508
DAI - Defer one major fielding			-4,500	-4,500
121 TRUSTED FOUNDRY	41,223	41,223	51,223	51,223
Trusted Foundry			10,000	10,000
124 JOINT COMMAND AND CONTROL PROGRAM (JC2)	49,047	49,047	0	0
Program adjustment			-38,047	-38,047
Transfer to line number 198			-11,000	-11,000
GENERIC LOGISTICS R&D TECHNOLOGY				
126 DEMONSTRATIONS	0	2,000	0	0
Integrated Analysis Environment (Transferred to line number 167)		2,000		0
127 DEFENSE READINESS REPORTING SYSTEM (DRRS)	13,121	16,121	13,121	15,371
Program Increase		3,000		2,250
128 JOINT SYSTEMS ARCHITECTURE DEVELOPMENT	15,247	15,247	7,430	11,339
Duplicate funding			-7,817	-3,908

R-1	Budget Request	House	Senate	Recommendation
CENTRAL TEST AND EVALUATION INVESTMENT				
129 DEVELOPMENT	145,052	152,552	157,452	162,272
Gulf Range Mobile Instrumentation Capability		3,000		2,400
Savannah CRTC Training Enabled Maneuver Instrumentation (STEM)		4,500		3,600
Advanced SAM Hardware Simulator Development			4,000	4,000
Border Security and Defense Systems Research			2,000	1,600
Pacific Region Interoperability Test and Evaluation Capability			3,500	3,300
UAV Systems and Operations Validation Program (Includes transfer from line number 2)			2,900	2,320
130 THERMAL VICAR	9,045	12,045	9,045	11,445
Joint Gulf Range Complex Test and Training		3,000		2,400
136 CLASSIFIED PROGRAM USD(P)	0	95,637	95,637	95,637
Classified Program USD(P)		95,637	95,637	95,637
SMALL BUSINESS INNOVATION				
147 RESEARCH/CHALLENGE ADMINISTRATION	2,163	3,163	4,063	4,683
UAV Directed Energy Weapons Systems Payloads		1,000		1,000
Random Obfuscating Compiler Anti-Tamper Software			1,900	1,520
148 DEFENSE TECHNOLOGY ANALYSIS	11,005	11,805	11,005	11,805
Modeling and Simulation Standards Study		800		800
150 FORCE TRANSFORMATION DIRECTORATE	19,981	24,981	19,981	23,981
Rigid Aeroshell Variable Buoyancy Air Vehicle		5,000		4,000
151 DEFENSE TECHNICAL INFORMATION CENTER (DTIC)	54,411	49,411	54,411	49,411
General Reduction		-5,000		-5,000
154 DARPA AGENCY RELOCATION	45,000	45,000	15,000	45,000
Delay to project initiation			-30,000	0
SUPPORT TO INFORMATION OPERATIONS (IO)				
161 CAPABILITIES	30,604	25,904	36,504	30,624
Excess Funding		-4,700		-4,700
Enhanced Simulation for Information Operations Capabilities			5,900	4,720
INTELLIGENCE SUPPORT TO INFORMATION				
164 OPERATIONS (IO)	20,648	22,648	20,648	20,648
Biological and Chemical Warfare Online Repository of Technical Holdings (Transferred to line number 999)		2,000		0
167 COCOM EXERCISE ENGAGEMENT AND TRAINING	34,306	34,306	41,806	40,706
Agile Software Capability Intervention (ASCI)			1,500	1,200
Integrated Analysis Environment (Includes transfer from line number 126)			2,000	2,000
Playas Training and Research Center			4,000	3,200
168 PENTAGON RESERVATION	19,709	0	19,709	19,709
Duplicative Maintenance and Facilities Support Costs for FOB 2		-19,709	0	0
169 MANAGEMENT HEADQUARTERS - MDA	57,403	52,403	57,403	52,403
General Reduction		-5,000		-5,000

R-1	Budget Request	House	Senate	Recommendation
193 INFORMATION SYSTEMS SECURITY PROGRAM	13,477	13,477	15,477	15,077
IASTAR Federal Information Security Management Act Compliance			2,000	1,600
198 GLOBAL COMMAND AND CONTROL SYSTEM	23,761	23,761	34,761	34,761
Transfer from line number 124 for program enhancements			11,000	11,000
203 SPECIAL APPLICATIONS FOR CONTINGENCIES	16,381	30,381	16,381	27,581
Advanced Technologies Sensors and Payloads/Unattended SIGINT Node		6,000		4,800
Comprehensive Maritime Domain Awareness		4,000		3,200
GMTI Radar for Class II UAVs		1,000		800
UAV/UAS Test Facility		3,000		2,400
209 CRITICAL INFRASTRUCTURE PROTECTION (CIP)	12,725	12,725	17,725	16,725
Disaster Response: Communications and Other Infrastructure Restoration			5,000	4,000
221 DISTRIBUTED COMMON GROUND/SURFACE	1,407	9,407	1,407	7,407
Program Increase - DCGS Capabilities Modernization		8,000		6,000
238 INDUSTRIAL PREPAREDNESS	20,514	28,014	50,514	46,514
Copper-base Casting Technology Applications		2,000		1,600
Corrosion Resistant Ultrahigh-Strength Steel for Landing Gear		2,000		1,600
DLA VetBiz Initiative for National Sustainment		1,000		800
Northwest Manufacturing Initiative		2,500		2,000
Industrial Base Innovation Fund			30,000	20,000
241 NATO AGS	74,485	74,485	66,485	69,485
Excess to requirement			-8,000	-5,000
245 SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT	82,621	74,121	67,592	72,612
Avionics Modernization Program		-10,000	-20,029	-15,209
Helicopter Cable Warning and Obstacle Avoidance		1,500		1,200
EC-130J Multi-Mission Upgrades			5,000	4,000
SPECIAL OPERATIONS TACTICAL SYSTEMS				
246 DEVELOPMENT	6,182	2,594	7,494	6,874
SOF Resource Business Information System		-4,588	-4,588	-4,588
Covert Waveform for Software Defined Radios		1,000	2,800	2,800
SOC-R Armor Development for Small Arms Armor Piercing Ammo			3,100	2,480
SPECIAL OPERATIONS INTELLIGENCE SYSTEMS				
247 DEVELOPMENT	21,273	21,780	36,173	41,393
Counterproliferation Analysis and Planning System Program Review		-14,993		0
Advanced, Long Endurance Unattended Ground Sensor Technologies		2,000	4,900	3,920
Biometric Optical Surveillance System		5,000	6,000	6,000
Counterproliferation Analysis and Planning System		5,000		4,000
United States Special Operations Command SOCRATES High Assurance Platform Program		1,000		1,000
University Multi-Spectral Laboratories		2,500		2,000
Picoceptor and Processor for Man-portable Threat Warning			4,000	3,200

R-1	Budget Request	House	Senate	Recommendation	
248	SOF OPERATIONAL ENHANCEMENTS USSOCOM Medical Research	60,310 4,000	64,310	60,310 3,000	63,310 3,000
250	JOINT MULTI-MISSION SUBMERSIBLE Fiscal year 2009 new start execution delays	43,412 -20,000	23,412	43,412	33,412 -10,000
OPS ADVANCED SEAL DELIVERY SYSTEM (ASDS)					
252	DEVELOPMENT ASDS Program Termination Lithium-ion Battery Safety Detection and Control of Impending Failures Material, Design and Fabrication Solutions for Advanced SEAL Delivery System External Structural Components	1,321 -1,321 1,500 2,000	3,500 -1,321 1,600	1,600	3,500 -1,321 1,500 2,000
254	UNMANNED VEHICLES (UV) Hand-held, Lethal Small Unmanned Aircraft System	0 1,000	1,000	0	1,000 1,000
SOF VISUAL AUGMENTATION, LASERS & SENSOR					
260	SYSTEMS Miniature Day Night Sight for Crew Served Weapons Thermal Pointer/Illuminator for Force Protection ASIC Miniaturization for Lasers and Sensors Development	3,369 1,500 2,000	6,869 1,500 2,000	6,369	8,569 1,200 1,600 2,400
263	SOF UNDERWATER SYSTEMS Fiscal year 2009 new start execution delays Alternative SOF Submersible Concept Design Study Non-Gasoline Burning Outboard Engine Technology for Shallow Water Special Operation Forces Mobility Transformer Technology for Combat Submersibles Future Dry Deck Shelter Undersea Special Warfare Engineering Support Office	3,452 -1,452 1,000 1,900 3,600 4,500	13,000 -1,452 1,000 1,900 3,600 4,500	12,452 1,000 5,500 2,500	18,852 0 1,000 1,520 2,880 3,600 4,400 2,000
264	SOF SURFACE CRAFT Fiscal year 2009 new start execution delays	12,250 -2,250	10,000	12,250	10,000 -2,250
999	CLASSIFIED PROGRAMS Classified Adjustments Laser Ablation Resonance Ionization Mass Spectrometer Portable Device for Latent Fingerprint Identification Advanced Scientific Missile Intelligence Preparation of the Battlespace Security for Critical Communication Networks Cybersecurity and Operational Identity Management Improving Support to the Warfighter MS GIS Educational and Research Program (Transferred to O&M Def-wide) Enhancement of Geo-location Systems Armed Forces Health and Food Supply Research Center for Intelligence and Security Studies Hawaii Advanced Laboratory for Information Integration Initiative to Advance Adaptive Petascale Supercomputing Intelligent Explosives Detection Technology Applications for Security Enhancement Biological and Chemical Warfare Online Repository of Technical Holdings (Includes transfer from line number 164) DARPA Undistributed Reduction	4,273,689 -251,500 3,000 1,800 2,500 7,000 2,000 7,000 1,000 4,000	4,050,489 -251,500 3,000 1,800 2,500 7,000 2,000 7,000 1,000 4,000	4,355,489 52,900	4,264,429 -57,100 2,400 1,440 2,000 5,600 1,600 7,000 0 3,200 4,000 2,400 2,000 8,000 3,200 3,000 2,000
			-200,000	0	0

DARPA NEW START PROGRAMS

The Defense Advanced Research Projects Agency's (DARPA's) fiscal year 2010 budget request includes \$135,170,000 for new start programs, a significant increase over the \$28,000,000 executed for new starts in fiscal year 2009 and the \$16,000,000 executed for new starts in fiscal year 2008. The recently appointed Director of DARPA did not have an opportunity to adjust DARPA's fiscal year 2010 budget submission to reflect the new administration's priorities. Additionally, management changes instituted to address DARPA's historic budget execution challenges are likely to require some time before taking effect.

Therefore, the recommendation denies all funding for the requested new start programs. Instead, following the receipt of additional information from the new DARPA Director, the recommendation provides \$85,000,000 in multiple program elements, as requested by the Director, for fiscal year 2010 new starts to be selected by the Director in fiscal year 2010. None of these funds may be obligated until the Director provides details to the congressional defense committees on the programs to be initiated, to include descriptions, program objectives, the expected duration of the DARPA effort and associated out-year funding requirements and planned technology readiness levels to be achieved by DARPA and Service transition partners. This is an exception to conventional budgeting procedures and the Director of DARPA is directed to use established budgeting procedures for its fiscal year 2011 budget submission.

RAPID EXPLOITATION OF INNOVATIVE TECHNOLOGIES IN ALL AREAS OF SCIENCE AND TECHNOLOGY

The recommendation provides \$4,500,000 for fiscal year 2010 new starts in Rapid Exploitation of Innovative Technologies (REITS) and directs the Commander, Special Operations Command, to provide quarterly reports to the congressional defense committees on the use of any current fiscal year or prior year funds provided for REITS, to include individual project schedules, cost estimates and transition plans. The Commander, Special Operations Command, is further directed to submit an annual report to the congressional defense committees on the actual cost, schedule to complete and transition to operational use or further development for all projects for which REITS funds were executed.

GROUND-BASED MISSILE DEFENSE

In addition to the reporting requirements contained in Sections 232 and 233 of H.R. 2647, the National Defense Authorization Act for Fiscal Year 2010, the Director of the Missile Defense Agency (MDA) is directed to provide a report on how MDA will utilize the funds in the Ground-based Midcourse Defense (GMD) program in fiscal year 2010 to maintain the Ground-Based Interceptor (GBI) production line. The report shall identify the number of GBIs that are being produced in fiscal year 2010. Furthermore, the report shall include a discussion of MDA's GMD Analysis of Alternatives that was conducted as a result of U.S. Northern Command's Ballistic Missile Defense study that was provided to MDA in October 2008. These reports shall be submitted to the congressional defense committees at the same time the President submits the fiscal year 2011 budget request to Congress.

BALLISTIC MISSILE DEFENSE TEST AND TARGETS

There is strong support for a robust testing program for the Missile Defense Agency (MDA). In December of 2008, the Director of MDA initiated a review of the entire Ballistic Missile Defense test program and developed the Integrated Master Test Plan (IMTP) that was signed in late July 2009, well after the submission of the fiscal year 2010 budget request. The IMTP's primary purpose is to establish and document the executable test baseline program from fiscal year 2010 and out to satisfy critical engagement conditions and empirical measurement events data collection requirements.

Since the plan was submitted, it has become known that some tests scheduled for fiscal year 2010 have slipped to fiscal year 2011 and that target synchronization with the new test plan still needs clarification. Furthermore, the fiscal year 2010 budget requests an increase of \$50,000,000 over last year's funding level. However, MDA has not expended over \$500,000,000 of fiscal year 2009 funds and those funds will be carried over into fiscal year 2010 in the test and target program. Therefore, the recommendation reduces the budget request by \$135,800,000 due to a premature request of funding.

EARLY INTERCEPTOR

The Director of the Missile Defense Agency (MDA) is conducting a 90-day study on the different components of the early interceptor to evaluate how best to incorporate them into the Integrated Master Test Plan and MDA's new focus on early/ascent-phase intercept. The recommendation includes

\$80,000,000 in Line 27, Ballistic Missile Defense Technology, only for the development of the relevant technologies and incorporation of existing technologies to support the early intercept program. Additionally, MDA is urged to use previously appropriated funds in other program elements that would be complimentary or enhance the relevant technologies for early/ascent-phase intercept.

TWO-STAGE GROUND-BASED INTERCEPTOR

The Missile Defense Agency (MDA) is encouraged to continue developing and testing the two-stage ground-based interceptor. It is understood that over \$173,000,000 has already been obligated in prior year funding to support development and testing. MDA is encouraged to provide at least \$50,000,000 in fiscal year 2010 funds to continue the two-stage interceptor program.

Furthermore, the Under Secretary of Defense for Policy is directed to submit a report to the congressional defense committees by June 1, 2010. The report shall include a plan for the continuation of the two-stage ground-based interceptor program as well as how MDA plans to leverage the development and testing of the interceptor to modernize the Ground-based Midcourse Defense system. If the report recommends continuation of the two-stage interceptor program, it shall address any options for basing two-stage interceptors in Europe or the United States to provide enhanced defense in response to future long-range missile threats from Iran. The report shall also include a description of how such a site may be made interoperable with the planned missile defense architecture for Europe and the United States. Finally, the report shall include an independent cost estimate for the two-stage ground-based interceptor plan that is recommended.

GLOBAL SUPPLY CHAIN SECURITY

The national security establishment currently relies on electronic and computer components manufactured predominately overseas. The Department of Defense requires a trusted procurement process to provide classified handling, chain of custody, tracking and vital control of mission critical information technology system components. Accordingly, the Department is urged to provide the necessary resources to establish a Secure Procurement Logistics pilot project within the Cyber Security Initiative to perform secure procurement and logistics support for mission critical information technology.

OPERATIONAL TEST AND EVALUATION, DEFENSE

For Operational Test and Evaluation, Defense, funds are to be available for fiscal year 2010, as follows:

(In thousands of dollars)

	Budget	House	Senate	Recommendation
OPERATIONAL TEST & EVAL, DEFENSE				
RD&E MANAGEMENT SUPPORT				
1	58,647	58,647	58,647	58,647
2	12,285	12,285	12,285	12,285
3	119,838	119,838	119,838	119,838
TOTAL, RD&E MANAGEMENT SUPPORT				
	190,770	190,770	190,770	190,770
TOTAL, OPERATIONAL TEST & EVAL, DEFENSE				
	190,770	190,770	190,770	190,770