TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

Research, Development, Test and Evaluation Overview

The budget request for fiscal year 2005 included an authorization of $67,772.3 million in Research and Development for the Department of Defense.

The House bill would authorize $68,090.4 million.

The Senate amendment would authorize $68,608.7 million.

The conferees recommend an authorization of $66,497.8 million. Unless noted explicitly in the statement of managers, all changes are made without prejudice.

NATIONAL DEFENSE AUTHORIZATION FOR FISCAL YEAR 2005

(Dollars in Thousands)

Title II -- RESEARCH, DEVELOPMENT, TEST & EVALUATION	Authorization Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
Research, Development, Test & Evaluation, Army	9,266,258	9,478,164	9,690,458	40,990	9,307,248
Research, Development, Test & Evaluation, Navy	16,346,391	16,052,841	16,690,391	-145,800	16,200,591
Research, Development, Test & Evaluation, Air Force	21,114,667	21,532,967	21,264,267	-681,734	20,432,933
Research, Development, Test & Evaluation, Defense-wide	20,739,837	20,721,254	20,654,437	-486,986	20,252,851
Operational Test & Evaluation	305,135	305,135	309,135	-1,000	304,135
TOTAL RDT&E	67,772,288	68,090,361	68,608,688	-1,274,530	66,497,758

ARMY

Research, Development, Test and Evaluation, Army Overview

The budget request for fiscal year 2005 included an authorization of $9,266.3 million in Research, Development, Test and Evaluation, Army for the Department of Defense.

The House bill would authorize $9,478.2 million.

The Senate amendment would authorize $9,690.5 million.

The conferees recommend an authorization of $9,307.2 million. Unless noted explicitly in the statement of managers, all changes are made without prejudice.

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
		RESEARCH, DEVELOPMENT, TEST & EVALUATION, ARMY					
0601101A	1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	23,971	23,971	23,971		23,971
0601102A	2	DEFENSE RESEARCH SCIENCES	131,206	137,206	142,706	9,300	140,506
		Reactive surface technology			[2,000]	[1,800]	
		Flexible substrates electronics			[3,000]		
		Desert terrain prediction			[2,500]	[2,500]	
		Low temperature research			[2,000]	[2,000]	
		Advanced deployable nanosensors			[2,000]	[1,000]	
		Carbon Nano Technology		[6,000]		[2,000]	
0601103A	3	UNIVERSITY RESEARCH INITIATIVES	75,133	79,133	77,133	3,500	78,633
		Anti terrorism building and construction research			[2,000]	[1,500]	
		Smart Responsive Nanocomposites		[4,000]		[2,000]	
0601104A	4	UNIVERSITY AND INDUSTRY RESEARCH CENTERS	77,658	80,658	83,658	6,950	84,608
		Nanocomposite materials research			[2,000]	[1,500]	
		Ferroelectric nanodevice research			[2,500]	[2,000]	
		Information assurance research			[1,500]	[1,200]	
		Centers of Excellence		[3,000]		[2,250]	
0601105A	5	FORCE HEALTH PROTECTION	9,538	9,538	9,538		9,538

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602105A	6	MATERIALS TECHNOLOGY	15,385	23,685	22,885	11,500	26,885
		Advanced materials processing			[3,000]	[3,000]	
		Affordable multi-utility materials			[2,000]	[2,000]	
		Mine detection and blast mitigation			[2,500]	[2,500]	
		Titanium Alloy Powder		[5,000]		[2,000]	
		Ultrasonic Consolidation Matrix for Metal Composites		[2,300]		[1,000]	
		Ballistic Shields Technology		[1,000]		[1,000]	
0602120A	7	SENSORS AND ELECTRONIC SURVIVABILITY	25,629	25,629	27,129	1,500	27,129
		Army small airship program			[1,500]	[1,500]	
0602122A	8	TRACTOR HIP	6,627	6,627	6,627		6,627
0602211A	9	AVIATION TECHNOLOGY	41,629	58,629	46,629	8,500	50,129
		Silver Fox			[5,000]	[5,000]	
		National Full Scale Aerodynamic Complex		[10,000]			
		Center for Rotorcraft Innovation		[5,000]		[2,500]	
		Xenon Light Source for Non Lethal Deterrence from Small UAVs		[2,000]		[1,000]	
0602270A	10	ELECTRONIC WARFARE TECHNOLOGY	18,034	18,034	18,034		18,034
0602303A	11	MISSILE TECHNOLOGY	51,993	61,993	57,993	4,200	56,193
		Hypersonic engine research			[2,000]	[2,000]	
		Air defense science and technology			[2,000]	[1,400]	
		Army flight test			[2,000]	[1,500]	
		Unmanned Systems Initiative		[10,000]		[7,000]	
		National Aerospace Initiative				[-7,700]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602307A	12	ADVANCED WEAPONS TECHNOLOGY	16,641	46,641	18,641	9,750	26,391
		Rapid target acquisition and tracking			[2,000]	[2,000]	
		Solid state lasers		[10,000]		[4,700]	
		Applied Weapons Technology		[20,000]		[3,050]	
0602308A	13	ADVANCED CONCEPTS AND SIMULATION	15,041	22,041	26,341	7,100	22,141
		Advanced modeling and simulation			[2,500]		
		Photonics research			[2,000]	[2,000]	
		Joint unmanned testing facility			[6,800]	[5,100]	
		Institute for Creative Technologies		[7,000]			
0602601A	14	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY	69,638	84,638	85,138	14,850	84,488
		Advanced electric drives			[3,000]	[1,500]	
		Clean battlefield fuel research			[3,000]	[3,000]	
		Advanced energy and manufacturing technology			[3,000]	[2,200]	
		Advanced high power rechargeable stored energy technology			[2,000]	[2,000]	
		Rapid prototyping			[2,000]	[2,000]	
		Unmanned vehicle control technologies			[2,500]	[1,900]	
		Hydrogen Proton Exchange Membrane		[10,000]			
		Light Utility Vehicle		[5,000]		[2,250]	
0602618A	15	BALLISTICS TECHNOLOGY	51,301	51,301	51,301		51,301
0602622A	16	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY	3,476	3,476	3,476		3,476
0602623A	17	JOINT SERVICE SMALL ARMS PROGRAM	5,739	5,739	5,739		5,739

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602624A	18	WEAPONS AND MUNITIONS TECHNOLOGY	44,666	64,666	52,666	10,650	55,316
		Micro-laminate ceramic armor			[3,000]	[3,000]	
		Active coating technology		[2,000]	[4,000]	[3,000]	
		Active coating technology (S. Amdt 3228)			[-1,000]		
		Gun recoil mitigation technologies			[2,000]	[1,000]	
		Strategic Materials Strategic Manufacturing Initiative		[6,000]		[2,250]	
		TEMPER		[12,000]		[1,400]	
0602705A	19	ELECTRONICS AND ELECTRONIC DEVICES	41,236	80,236	52,236	23,700	64,936
		Flexible display initiative		[13,500]	[8,000]	[5,600]	
		Software-defined radio research			[3,000]	[1,500]	
		Advanced Battery Technology Initiative		[20,000]		[15,600]	
		JP-8 Soldier Fuel Cell		[2,000]		[1,000]	
		Silicon Based Alternative Substrates for IR Images		[3,500]			
0602709A	20	NIGHT VISION TECHNOLOGY	22,617	27,617	22,617	2,000	24,617
		UAV Miniature Hyperspectral Coherent Imaging		[5,000]		[2,000]	
0602712A	21	COUNTERMINE SYSTEMS	20,547	22,047	24,547	5,000	25,547
		Landmine detection technology			[4,000]	[4,000]	
		Stoichemetric Explosive Detection Systems		[1,500]		[1,000]	
0602716A	22	HUMAN FACTORS ENGINEERING TECHNOLOGY	16,899	22,399	16,899	4,200	21,099
		Manpower and Personnel Integration (MANPRINT)		[5,500]		[4,200]	
0602720A	23	ENVIRONMENTAL QUALITY TECHNOLOGY	17,026	17,026	17,026		17,026
0602782A	24	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY	18,604	18,604	18,604		18,604
0602783A	25	COMPUTER AND SOFTWARE TECHNOLOGY	3,982	3,982	3,982		3,982

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602784A	26	MILITARY ENGINEERING TECHNOLOGY	47,152	52,152	50,152	2,800	49,952
		Geoscience and atmospheric research			[3,000]	[1,800]	
		Modeling and Anaylsis of Response of Structures		[5,000]		[1,000]	
0602785A	27	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY	15,322	15,322	15,322		15,322
0602786A	28	WARFIGHTER TECHNOLOGY	21,131	31,131	35,631	10,550	31,681
		Smart combat suits			[2,000]	[1,000]	
		Chem/bio protective garment			[2,500]	[1,250]	
		Advanced structures and composites			[3,000]	[3,000]	
		Supplemental body armor research		[10,000]	[7,000]	[5,300]	
0602787A	29	MEDICAL TECHNOLOGY	60,877	95,877	74,077	26,600	87,477
		Fibrogen bandage development			[4,500]	[3,500]	
		Post traumatic stress disorder research			[2,000]	[1,000]	
		Non-defense research reduction			[-5,000]	[-5,000]	
		Walter Reed Army Medical Center amputee research			[8,700]	[7,800]	
		Expanded anthrax research			[3,000]	[2,250]	
		Amputee R&D		[10,000]		[10,000]	
		Applied Research Initiative		[25,000]		[7,050]	
0603001A	30	WARFIGHTER ADVANCED TECHNOLOGY	68,034	68,034	70,034	-4,000	64,034
		Technology for human systems integration			[2,000]	[1,000]	
		Land Warrior/Future Force Warrior consolidation				[-5,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603002A	31	MEDICAL ADVANCED TECHNOLOGY	38,404	46,404	47,804	8,300	46,704
		Automatic records tracking			[2,000]	[2,000]	
		Wound decontamination			[3,000]	[1,400]	
		Electronic textiles		[3,000]	[3,000]	[2,000]	
		Digital imaging diagnosis			[1,000]	[1,000]	
		Non-defense research reduction			[-5,000]	[-5,000]	
		Elastin biomatrices			[4,000]	[4,000]	
		Leishmaniasis			[1,400]	[1,400]	
		Patient Monitor with Defibrillator		[5,000]		[1,500]	
0603003A	32	AVIATION ADVANCED TECHNOLOGY	69,549	71,549	77,549	8,000	77,549
		Unmanned tactical combat vehicle			[8,000]	[6,000]	
		VTDP Compound Helicopter Program		[2,000]		[2,000]	
0603004A	33	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY	67,622	83,622	69,622	2,000	69,622
		Advanced penetrator munitions			[2,000]	[2,000]	
		Silicon Power Light Sandwich Technology		[1,000]			
		ALACV Air Burst Munition		[15,000]			

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603005A	34	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY	203,126	225,126	239,326	31,800	234,926
		Electrochromic materials research			[4,000]	[2,000]	
		Advanced thermal management controls			[3,500]	[2,600]	
		Fastening and joining research			[2,000]	[1,500]	
		Fuel cell ground support equipment demonstration			[6,100]	[4,600]	
		Next generation non-tactical vehicle propulsion			[3,500]	[2,600]	
		Tactical vehicle design tools			[2,000]	[1,500]	
		Armored composite cab development			[4,000]	[2,500]	
		Active protection system			[3,600]		
		Lightweight Structures Initiative		[9,000]	[7,500]	[7,900]	
		UAV Weaponization		[4,000]		[1,000]	
		Advanced Composite Bridge		[9,000]		[5,600]	
0603006A	35	COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY	9,946	9,946	9,946		9,946
0603007A	36	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY	7,288	7,288	10,288	1,000	8,288
		Coordinated training			[3,000]	[1,000]	
0603008A	37	ELECTRONIC WARFARE ADVANCED TECHNOLOGY	41,760	58,760	48,760	14,000	55,760
		Emergency response broadband system		[4,000]	[3,000]	[2,000]	
		C4 mobile service research			[2,000]	[2,000]	
		Missile intercept test bed			[2,000]		
		Applied Communications and Information Networking		[10,000]		[10,000]	
		GalaxyVue Compression Technology		[2,000]			
		Advanced Antenna Technologies		[1,000]			
0603009A	38	TRACTOR HIKE	8,035	8,035	8,035		8,035

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603015A	39	NEXT GENERATION TRAINING & SIMULATION SYSTEMS	18,072	18,072	23,572	5,500	23,572
		ICT/joint fires and effects training system			[2,500]	[2,500]	
		Automatic virtual environment			[3,000]	[3,000]	
0603020A	40	TRACTOR ROSE	4,736	4,736	4,736		4,736
0603103A	41	EXPLOSIVES DEMILITARIZATION TECHNOLOGY	9,706	9,706	13,706	2,900	12,606
		Missile recycling			[2,000]	[1,400]	
		Munitions demilitarization			[2,000]	[1,500]	
0603105A	42	MILITARY HIV RESEARCH	6,641	6,641	6,641		6,641
0603125A	43	COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT	3,383	3,383	3,383		3,383
0603238A	44	GLOBAL SURVEILLANCE/AIR DEFENSE/PRECISION STRIKE TECHNOLOGY	10,721	10,721	10,721		10,721
0603270A	45	ELECTRONIC WARFARE TECHNOLOGY	9,382	9,382	9,382		9,382
0603313A	46	MISSILE AND ROCKET ADVANCED TECHNOLOGY	92,800	92,800	100,300	5,300	98,100
		Close-in Active Protection System (CIAPS)			[7,500]	[5,300]	
0603322A	47	TRACTOR CAGE	13,312	13,312	13,312		13,312
0603606A	48	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY	25,577	25,577	25,577		25,577
0603607A	49	JOINT SERVICE SMALL ARMS PROGRAM	5,968	5,968	5,968		5,968
0603654A	50	LINE-OF-SIGHT TECHNOLOGY DEMONSTRATION					
0603710A	51	NIGHT VISION ADVANCED TECHNOLOGY	50,071	61,571	54,871	10,400	60,471
		Cost Effective Targeting Systems - demo/integrate into Stryker			[4,800]	[2,400]	
		Night Vision Fusion Technology		[9,500]		[6,000]	
		Integrated Autonomous Situation Awareness Sensor		[2,000]		[2,000]	
0603728A	52	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS	14,666	14,666	14,666		14,666

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603734A	53	MILITARY ENGINEERING ADVANCED TECHNOLOGY	3,865	3,865	10,065	6,200	10,065
		Advanced mobile microgrid			[6,200]	[6,200]	
0603772A	54	ADVANCED TACTICAL COMPUTER SCIENCE AND SENSOR TECHNOLOGY	31,951	38,951	31,951	1,000	32,951
		Digital Army radar technology development		[7,000]		[1,000]	
0603305A	55	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION(NON SPACE)	53,509	63,509	84,509	16,100	69,609
		C4ISR visualization			[3,000]	[1,000]	
		Integrated composite missile structure			[7,000]	[2,500]	
		Interactive modeling and simulation			[3,000]	[2,100]	
		Remote sensor monitoring technology research program			[3,000]	[2,500]	
		Mobile tactical high energy laser			[15,000]	[8,000]	
		Joint and Combined Communications Test Tool		[10,000]			
0603308A	56	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (SPACE)	4,871	4,871	4,871		4,871
0603327A	57	AIR AND MISSILE DEFENSE SYSTEMS ENGINEERING	91,713	105,713	103,713	15,500	107,213
		Adaptive integrated fire control demo program			[2,000]		
		E-STRIKE			[10,000]	[5,000]	
		Space and Missile Defense Architecture Analysis Program		[7,000]		[5,200]	
		Geospatial Information Decision Support		[7,000]		[5,300]	
0603619A	58	LANDMINE WARFARE AND BARRIER - ADV DEV	11,634	11,634	11,634		11,634
0603627A	59	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV	6,249	6,249	6,249		6,249
0603639A	60	TANK AND MEDIUM CALIBER AMMUNITION	39,697	39,697	39,697	-15,000	24,697
		Mid-range munition (MRM)				[-15,000]	
0603645A	61	ARMORED SYSTEM MODERNIZATION - ADV DEV					
0603653A	62	ADVANCED TANK ARMAMENT SYSTEM (ATAS)	51,892	51,892	51,892		51,892

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603747A	63	SOLDIER SUPPORT AND SURVIVABILITY	13,810	13,810	13,810		13,810
0603766A	64	TACTICAL ELECTRONIC SURVEILLANCE SYSTEM - ADV DEV	15,441	15,441	15,441		15,441
0603774A	65	NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT	14,047	14,047	14,047		14,047
0603779A	66	ENVIRONMENTAL QUALITY TECHNOLOGY	9,356	11,856	13,956	3,450	12,806
		Manganese Health Research Project			[4,600]	[2,250]	
		Aberdeen Proving Ground Asbestos Conversion Facility		[2,500]		[1,200]	
0603782A	67	WARFIGHTER INFORMATION NETWORK-TACTICAL	99,645	99,645	99,645		99,645
0603790A	68	NATO RESEARCH AND DEVELOPMENT	4,801	4,801	4,801		4,801
0603801A	69	AVIATION - ADV DEV	12,113	12,113	12,113		12,113
0603802A	70	WEAPONS AND MUNITIONS - ADV DEV	2,382	2,382	4,382		2,382
		120MM mortar family advance development			[2,000]		
0603804A	71	LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV	10,485	10,485	16,485	4,500	14,985
		Mobile parts hospital - continue development			[6,000]	[4,500]	
0603805A	72	COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION AND ANAL'	6,366	6,366	6,366		6,366
0603807A	73	MEDICAL SYSTEMS - ADV DEV	10,258	10,258	10,258		10,258
0603850A	74	INTEGRATED BROADCAST SERVICE (JMIP/DISTP)	4,356	4,356	4,356		4,356
0603854A	75	ARTILLERY SYSTEMS					
0603856A	76	SCAMP BLOCK II	10,221	10,221	10,221		10,221
0603869A	77	MEDIUM EXTENDED AIR DEFENSE SYSTEM (MEADS) CONCEPTS	264,527	264,527	328,705		264,527
		PAC-3/MEADS (transfer from 64865A, line 126)			[64,178]		
0604201A	78	AIRCRAFT AVIONICS	68,857	68,857	68,857		68,857
0604220A	79	ARMED, DEPLOYABLE OH-58D	20,000	20,000	20,000	-5,000	15,000
		Lack of justification				[-5,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604223A	80	COMANCHE					
0604270A	81	ELECTRONIC WARFARE DEVELOPMENT	16,879	16,879	16,879		16,879
0604280A	82	JOINT TACTICAL RADIO	121,400	121,400	121,400		121,400
0604321A	83	ALL SOURCE ANALYSIS SYSTEM	5,346	5,346	5,346		5,346
0604328A	84	TRACTOR CAGE	14,149	14,149	14,149		14,149
0604329A	85	COMMON MISSILE	152,381	152,381	152,381	-35,000	117,381
		Funding ahead of need				[-35,000]	
0604601A	86	INFANTRY SUPPORT WEAPONS	28,187	30,687	40,687	4,000	32,187
		XM312 .50 caliber advanced crew served weapon			[4,000]	[4,000]	
		XM-307 25mm advanced crew served weapon			[8,500]		
		Low Cost Course Correction M135 AT4		[2,500]			
0604604A	87	MEDIUM TACTICAL VEHICLES	2,854	12,554	5,854	9,700	12,554
		Medium Tactical Vehicle Development		[9,700]	[3,000]	[9,700]	
0604609A	88	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-SDD	3,798	3,798	3,798		3,798
0604611A	89	JAVELIN	944	944	944		944
0604622A	90	FAMILY OF HEAVY TACTICAL VEHICLES	2,479	2,479	12,479	7,500	9,979
		Tactical wheeled vehicle development			[10,000]	[7,500]	
0604633A	91	AIR TRAFFIC CONTROL	2,088	2,088	2,088		2,088
0604641A	92	TACTICAL UNMANNED GROUND VEHICLE (TUGV)					
0604642A	93	LIGHT TACTICAL WHEELED VEHICLES			15,000	10,000	10,000
		HMMWV block improvement program - initiate development			[15,000]	[10,000]	
0604645A	94	ARMORED SYSTEMS MODERNIZATION (ASM)-SDD	2,700,455	1,737,401	2,700,455	-270,070	2,430,385
		Program decrease		[-963,054]		[-270,070]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
646XAA	94a	Reconnaissance and Sensors		35,300			
646XBA	94b	Unmanned Ground Vehicles		57,600			
646XCA	94c	MGVs		186,900			
646XDA	94d	UGS		15,700			
646XEA	94e	NLOS-LS		76,400			
0604647A	95	NON-LINE OF SIGHT CANNON	497,643	843,500	497,643		497,643
		Program increase		[345,857]			
0604649A	96	ENGINEER MOBILITY EQUIPMENT DEVELOPMENT					
0604710A	97	NIGHT VISION SYSTEMS - SDD	24,693	24,693	24,693		24,693
0604713A	98	COMBAT FEEDING, CLOTHING, AND EQUIPMENT	115,093	119,293	117,593	-12,200	102,893
		Integrated battle space combat situational awareness system			[2,500]		
		Mounted Warrior Nomad C2 HUD		[4,200]		[2,800]	
		Land Warrior/Future Force Warrior consolidation				[-15,000]	
0604715A	99	NON-SYSTEM TRAINING DEVICES - SDD	51,694	51,694	51,694		51,694
0604716A	100	TERRAIN INFORMATION - SDD	3,199	3,199	3,199		3,199
0604726A	101	INTEGRATED METEOROLOGICAL SUPPORT SYSTEM	2,485	2,485	2,485		2,485
0604738A	102	JSIMS CORE PROGRAM					
0604741A	103	AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE - SDD	27,376	27,376	27,376		27,376
0604742A	104	CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT	42,869	42,869	42,869		42,869
0604746A	105	AUTOMATIC TEST EQUIPMENT DEVELOPMENT	4,713	4,713	7,213	1,800	6,513
		Accelerate diagnostic and expert system development			[2,500]	[1,800]	
0604760A	106	DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS) - SDD	26,985	26,985	26,985		26,985
0604766A	107	TACTICAL SURVEILLANCE SYSTEMS - SDD	21,821	21,821	21,821		21,821

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604768A	108	ARMY TACTICAL MISSILE SYSTEM (ATACMS)	21	21	5,021	1,800	1,821
		Viper Strike			[5,000]	[1,800]	
0604770A	109	JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM (JSTARS)					
0604778A	110	POSITIONING SYSTEMS DEVELOPMENT (SPACE)	2,048	2,048	2,048		2,048
0604780A	111	COMBINED ARMS TACTICAL TRAINER (CATT) CORE	23,849	23,849	23,849	-4,740	19,109
		Comanche IOT&E funding				[-4,740]	
0604783A	112	JOINT NETWORK MANAGEMENT SYSTEM	10,726	10,726	10,726		10,726
0604801A	113	AVIATION - SDD	2,378	2,378	2,378		2,378
0604802A	114	WEAPONS AND MUNITIONS - SDD	125,885	195,885	142,885	24,000	149,885
		APKWS - semi-active laser seeker production transition initiative			[7,000]	[3,500]	
		Precision guided mortar munitions - accelerate Block I			[10,000]	[8,500]	
		Common Remotely Operated Weapon System		[70,000]		[12,000]	
0604804A	115	LOGISTICS AND ENGINEER EQUIPMENT - SDD	89,151	89,151	89,151		89,151
0604805A	116	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - SDD	219,790	219,790	219,790		219,790
0604807A	117	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT - SDD	11,727	14,227	16,227	6,300	18,027
		LSTAT		[2,500]		[1,800]	
		Leishmaniasis topical treatment (S. Amdt 3329)			[4,500]	[4,500]	
0604808A	118	LANDMINE WARFARE/BARRIER - SDD	51,045	51,045	51,045		51,045
0604814A	119	ARTILLERY MUNITIONS	133,297	138,297	133,297	2,500	135,797
		BONUS Compliance Program		[5,000]		[2,500]	
0604817A	120	COMBAT IDENTIFICATION	6,994	6,994	6,994		6,994
0604818A	121	ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE	68,110	68,110	68,110		68,110
0604819A	122	LOSAT	22,628	22,628	22,628		22,628

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604820A	123	RADAR DEVELOPMENT	6,107	6,107	6,107		6,107
0604823A	124	FIREFINDER	18,516	18,516	18,516		18,516
0604854A	125	ARTILLERY SYSTEMS	9,550	9,550	9,550		9,550
0604865A	126	PATRIOT PAC-3 THEATER MISSILE DEFENSE ACQUISITION	64,178	64,178			64,178
		PAC-3 (transfer to 63869A, line 77)			[-64,178]		
0605013A	127	INFORMATION TECHNOLOGY DEVELOPMENT	95,261	95,261	95,261		95,261
0604256A	128	THREAT SIMULATOR DEVELOPMENT	22,101	22,101	22,101		22,101
0604258A	129	TARGET SYSTEMS DEVELOPMENT	11,017	11,017	11,017		11,017
0604759A	130	MAJOR T&E INVESTMENT	57,987	57,987	57,987		57,987
0605103A	131	RAND ARROYO CENTER	20,012	20,012	20,012		20,012
0605301A	132	ARMY KWAJALEIN ATOLL	143,921	143,921	143,921		143,921
0605326A	133	CONCEPTS EXPERIMENTATION PROGRAM	22,727	22,727	22,727		22,727
0605502A	134	SMALL BUSINESS INNOVATIVE RESEARCH					
0605601A	135	ARMY TEST RANGES AND FACILITIES	181,114	181,114	181,114		181,114
0605602A	136	ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS	52,433	52,433	52,433		52,433
0605604A	137	SURVIVABILITY/LETHALITY ANALYSIS	44,648	44,648	44,648		44,648
0605605A	138	DOD HIGH ENERGY LASER TEST FACILITY	15,725	15,725	15,725		15,725
0605606A	139	AIRCRAFT CERTIFICATION	3,485	3,485	3,485		3,485
0605702A	140	METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES	8,711	8,711	8,711		8,711
0605706A	141	MATERIEL SYSTEMS ANALYSIS	18,000	18,000	18,000		18,000
0605709A	142	EXPLOITATION OF FOREIGN ITEMS	4,740	4,740	4,740		4,740
0605712A	143	SUPPORT OF OPERATIONAL TESTING	71,239	71,239	71,239		71,239
0605716A	144	ARMY EVALUATION CENTER	62,209	62,209	62,209		62,209

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0605718A	145	SIMULATION & MODELING FOR ACQ, RQTS, & TNG (SMART)	1,935	1,935	1,935		1,935
0605801A	146	PROGRAMWIDE ACTIVITIES	59,368	59,368	59,368		59,368
0605803A	147	TECHNICAL INFORMATION ACTIVITIES	27,713	27,713	30,713	1,500	29,213
		Supercomputing research			[3,000]	[1,500]	
0605805A	148	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY	14,611	17,111	15,111	3,000	17,611
		Battle effects simulator			[500]	[500]	
		MEMS/IMU Technology		[2,500]		[2,500]	
0605857A	149	ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT	4,527	4,527	4,527		4,527
0605898A	150	MANAGEMENT HQ - R&D	11,575	11,575	11,575		11,575
0909999A	151	FINANCING FOR CANCELLED ACCOUNT ADJUSTMENTS					
0102419A	152	JOINT LAND ATTACK CRUISE MISSILES DEFENSE (JLENS)	81,514	84,514	81,514		81,514
		Aerostat Joint Program Office		[3,000]			
0203610A	153	DOMESTIC PREPAREDNESS AGAINST WMD					
0203726A	154	ADV FIELD ARTILLERY TACTICAL DATA SYSTEM	17,994	17,994	17,994		17,994
0203735A	155	COMBAT VEHICLE IMPROVEMENT PROGRAMS	15,952	20,952	15,952	2,000	17,952
		Combat Vehicle Electronics		[5,000]		[2,000]	
0203740A	156	MANEUVER CONTROL SYSTEM	24,753	24,753	24,753		24,753
0203744A	157	AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS	242,853	242,853	242,853	-20,000	222,853
		Contract award delay				[-20,000]	
0203752A	158	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	2,427	5,927	12,427	5,000	7,427
		Full Authority Control (FADEC) for armed reconnaissance Helicopters			[10,000]	[5,000]	
		Electronic Flight Planning		[3,500]			
0203758A	159	DIGITIZATION	24,506	24,506	24,506		24,506

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0203759A	160	FORCE XXI BATTLE COMMAND, BRIGADE AND BELOW (FBCB2)	23,510	23,510	23,510		23,510
0203801A	161	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM	31,690	31,690	36,690	2,000	33,690
		Advanced composite radome			[5,000]	[2,000]	
0203802A	162	OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS	4,863	4,863	4,863		4,863
0203806A	163	TRACTOR RUT	3,321	3,321	3,321		3,321
0203808A	164	TRACTOR CARD	9,023	9,023	9,023		9,023
0208010A	165	JOINT TACTICAL COMMUNICATIONS PROGRAM (TRI-TAC)	18,177	18,177	18,177		18,177
0208053A	166	JOINT TACTICAL GROUND SYSTEM	9,967	9,967	9,967		9,967
0301359A	167	SPECIAL ARMY PROGRAM	5,213	5,213	5,213		5,213
0303028A	168	SECURITY AND INTELLIGENCE ACTIVITIES		4,000	16,000	11,000	11,000
		Document exploitation			[4,000]	[3,000]	
		Information Dominance Center		[4,000]	[8,000]	[8,000]	
		Pathfinder Data Analysis Tool			[4,000]		
0303140A	169	INFORMATION SYSTEMS SECURITY PROGRAM	24,725	24,725	24,725		24,725
0303141A	170	GLOBAL COMBAT SUPPORT SYSTEM	94,215	94,215	94,215		94,215
0303142A	171	SATCOM GROUND ENVIRONMENT (SPACE)	51,959	51,959	51,959		51,959
0303150A	172	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM	19,204	19,204	19,204		19,204
0305114A	173	TRAFFIC CONTROL, APPROACH AND LANDING SYSTEM					
0305204A	174	TACTICAL UNMANNED AERIAL VEHICLES (JMIP)	45,627	49,127	45,627		45,627
		Shadow UAV Improvements		[3,500]			
0305206A	175	AIRBORNE RECONNAISSANCE SYSTEMS	5,128	8,628	11,328	3,100	8,228
		Hyperspectral Longwave Imager for the Tactical Environment (HYLITE)		[3,500]	[6,200]	[3,100]	
0305208A	176	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	43,254	43,254	43,254		43,254

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603778A	177	MLRS PRODUCT IMPROVEMENT PROGRAM	97,422	97,422	97,422		97,422
0702239A	178	AVIONICS COMPONENT IMPROVEMENT PROGRAM	997		997		997
		Program decrease		[-997]			
0708045A	179	END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES	67,236	70,236	75,736	8,200	75,436
		Packaging and interconnection technology			[3,000]	[2,500]	
		Virtual parts program			[3,000]	[2,300]	
		Lean manufacturing system demonstrations			[2,500]	[1,900]	
		LEAN Munitions		[3,000]		[1,500]	
1001018A	180	NATO JOINT STARS	595	595	595		595
XXXXXX	180A	Army Aviation Test Bed			48,000		
	180B	Defense Language Institute Foreign Learning Center		5,000		5,000	5,000
		Financial information systems			-18,200		
		Total, RDT&E Army	**9,266,258**	**9,478,164**	**9,690,458**	**40,990**	**9,307,248**

Advanced battery technology initiative

The budget request included $41.2 million in PE 62705A for applied research in electronics and electronic devices.

The House bill would authorize an increase of $20.0 million in PE 62705A for an advanced battery technology initiative.

The Senate amendment contained no similar authorization.

The conferees agree to authorize an increase of $15.6 million in PE 62705A for an advanced battery technology initiative, which would fund programs selected on the basis of technical merit, cost effectiveness, and potential to meet service requirements, including the following areas: alkaline cylindrical cells; cylindrical zinc air batteries; high capacity nickel/zinc rechargeable cells; lithium battery technologies; lithium carbon monoflouride cells; and proton exchange membrane fuel cells.

The conferees note that in a recent study, "Meeting the Energy Needs of Future Warriors," the National Research Council highlighted the importance of Army research on soldier power technologies, and indicated that "energy to power soldier systems, . . . must now be viewed on par with the other critical logistics commodities—ammunition, fuel, food, and water."

Medical technology applied research initiative

The budget request included $60.9 million in PE 62787A for medical technology.

The House bill would authorize an increase of $25.0 million in PE 62787A for a medical technology applied research initiative.

The Senate amendment contained no similar authorization.

The conferees agree to authorize an increase of $7.05 million for an applied initiative in medical technologies of specific military application and value, including: dermal phase meter; gene delivery technology; fibrin bandages from non-mammalian sources; nanofabricated bioartificial kidney; and rapid bio-pathogen detection technology. Projects are to be selected on the basis of technical merit, cost effectiveness, and potential to meet service requirements.

Lightweight Structures Initiative

The budget request included $203.1 million in PE 63005A for combat vehicle and automotive technology.

The House bill would authorize an increase of $9.0 million in PE 63005A for the Lightweight Structures Initiative.

The Senate amendment would authorize an increase of $7.5 million for components of the Lightweight Structures Initiative including: $3.0 million for advanced titanium armor systems; $1.5 million for Future Combat System common chassis design; and $3.0 million for non-line of sight cannon structure design.

The conferees agree to authorize an increase of $7.9 million in PE 63005A for the Lightweight Structures Initiative.

Mobile tactical high energy laser

The budget request included $53.5 million in PE 63305A for Army missile defense systems integration, of which $39.0 million was for the mobile tactical high energy laser (MTHEL).

The House bill would authorize the budget request.

The Senate amendment would authorize an increase of $15.0 million for MTHEL.

The conferees agree to authorize an increase of $8.0 million in PE 63305A for MTHEL.

The conferees are aware of successful tests of the Army's heat capacity solid state laser and believe that laser weapons could play an important role in future missile, air, and counter-mortar defenses. The conferees direct that the increase be used to accelerate development of a 100 kilowatt solid state laser and to initiate a system demonstration using a solid state laser.

The conferees note that the Joint Technology Office (JTO) plays a key role in maturing a range of laser technologies. The JTO was established pursuant to subtitle E, title II, of the National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398) with the intent of establishing an office that would accelerate progress in high energy laser technology and provide incentives to services to invest in such technologies. The conferees are concerned that the JTO may not be effective in accomplishing the goals defined in subtitle E or transitioning laser technology to the services. The conferees direct the Secretary of Defense to provide a report to the congressional defense committees by January 15, 2005 on the effectiveness of the JTO in achieving the objectives of subtitle E, the impact of shifting funding responsibility for JTO efforts to the Air Force, and the effectiveness of the JTO structure in transitioning laser technologies to the warfighter. The conferees further direct the Comptroller General to review this assessment and to report the results of this review to congressional defense committees no later March 15, 2005.

NAVY

Research, Development, Test and Evaluation, Navy Overview

The budget request for fiscal year 2005 included an authorization of $16,346.4 million in Research, Development, Test and Evaluation, Navy for the Department of Defense.

The House bill would authorize $16,052.8 million.

The Senate amendment would authorize $16,690.4 million.

The conferees recommend an authorization of $16,200.6 million. Unless noted explicitly in the statement of managers, all changes are made without prejudice.

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
		RESEARCH, DEVELOPMENT, TEST & EVALUATION, NAVY					
0601103N	1	UNIVERSITY RESEARCH INITIATIVES	83,508	83,508	100,508	6,600	90,108
		Nanoscience research			[3,000]	[1,500]	
		Nanoparticle materials research			[1,500]	[1,500]	
		Remote sensing research			[1,000]	[1,000]	
		Corrosion research			[5,000]		
		Neural engineering research			[1,500]	[1,000]	
		Multifunctional materials for naval structures			[5,000]	[1,600]	
0601152N	2	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	17,664	17,664	20,164	1,900	19,564
		Navy S&T outreach			[2,500]	[1,900]	
0601153N	3	DEFENSE RESEARCH SCIENCES	375,812	378,812	375,812		375,812
		Nanoscience and Nanomaterials		[3,000]			
0602114N	4	POWER PROJECTION APPLIED RESEARCH	98,831	106,831	103,831	10,200	109,031
		Silver Fox			[5,000]	[5,000]	
		Integrated Personnel Protection System		[3,000]		[1,200]	
		Interrogator for High-Speed Retro-Reflective Communications		[3,000]		[2,000]	
		Terahertz for Photonics for Imaging		[2,000]		[2,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602123N	5	FORCE PROTECTION APPLIED RESEARCH	96,269	103,269	111,269	15,400	111,669
		Hyperspectral data fusion			[4,000]	[3,400]	
		Unmanned systems battery development			[3,000]	[2,000]	
		Structural reliability composite research			[1,000]	[1,000]	
		Fire retardant resins			[1,000]		
		Theater support vessel hull material development			[4,000]	[2,000]	
		Polymer aircraft components			[2,000]	[2,000]	
		Hybrid POSS Composites		[2,000]			
		Center for Critical Infrastructure Protection		[5,000]		[5,000]	
0602131M	6	MARINE CORPS LANDING FORCE TECHNOLOGY	35,398	35,398	35,398		35,398
0602232N	7	COMMUNICATIONS, COMMAND AND CONTROL, INTELL, SURVEILLANCE					
0602233N	8	HUMAN SYSTEMS TECHNOLOGY		2,000		1,500	1,500
		Human Systems Integration		[2,000]		[1,500]	
0602234N	9	MATERIALS, ELECTRONICS AND COMPUTER TECHNOLOGY					
0602235N	10	COMMON PICTURE APPLIED RESEARCH	60,134	66,134	60,134	6,000	66,134
		Theater Undersea Warfare Initiative		[6,000]		[6,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602236N	11	WARFIGHTER SUSTAINMENT APPLIED RESEARCH	63,726	80,926	86,726	24,200	87,926
		Aerospace alloy research			[2,000]	[1,400]	
		Microsystem fuze, safe & arm devices			[2,000]	[1,000]	
		Infectious disease analysis			[2,500]	[2,100]	
		Biowarfare detector			[2,500]	[2,100]	
		Sensornet			[12,000]	[12,000]	
		Titanium materials research			[2,000]	[1,600]	
		Formable Aligned Carbon Thermosets		[2,000]		[1,500]	
		Marine Mammal Research Program		[2,200]		[1,100]	
		Composite Ceramic UUV		[8,000]			
		Composite Ceramic Materials for Aerospace Fabrication		[5,000]		[1,400]	
0602271N	12	RF SYSTEMS APPLIED RESEARCH	49,151	66,151	52,651	9,300	58,451
		Wide bandgap semiconductor research		[4,000]	[1,500]	[2,700]	
		High brightness electronics			[2,000]	[1,500]	
		Vacuum Technology		[10,000]		[3,100]	
		Gallium Nitride RF Power Technology		[3,000]		[2,000]	
0602435N	13	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH	48,482	48,482	50,482	1,000	49,482
		Integrated littoral sensor network			[2,000]	[1,000]	
0602747N	14	UNDERSEA WARFARE APPLIED RESEARCH	64,060	65,060	65,060		64,060
		Low Acoustic Signature Motor/Propulsor		[1,000]	[1,000]		
0602782N	15	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH	48,016	48,016	48,016		48,016

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603114N	16	POWER PROJECTION ADVANCED TECHNOLOGY	92,359	117,359	96,359	18,300	110,659
		Free electron laser			[9,000]	[2,200]	
		Unjustified growth			[-5,000]		
		DP-2 Thrust Vectoring System		[10,000]		[7,500]	
		Laser Radar Data Exploitation		[3,000]		[2,100]	
		Low-Cost Terminal Imaging Seeker		[5,000]		[4,500]	
		Low Power Mega Performance UAV Processing Engine		[7,000]		[2,000]	
0603123N	17	FORCE PROTECTION ADVANCED TECHNOLOGY	82,130	141,630	109,630	47,000	129,130
		High temp superconductor (HTS) synchronous Navy propulsion motor		[8,000]	[7,000]	[3,500]	
		Development of wide bandgap semiconductor materials			[6,000]	[4,500]	
		Wave Power Demonstration Project			[4,000]	[3,400]	
		Composite twisted rudder			[1,000]	[1,000]	
		Tactical aircraft directed IR countermeasures			[7,000]	[6,800]	
		Steel sandwich panel qualification			[2,500]	[2,500]	
		Littoral Support Craft Experimental		[25,800]		[11,100]	
		Superconducting DC Homopolar Motor		[9,200]		[5,500]	
		Project M		[4,000]		[2,500]	
		Technologies for Future Naval Capabilities		[2,000]		[1,300]	
		Electromagnetic Gun Program		[9,500]		[3,900]	
		High-Speed Power Node Switching Center		[1,000]		[1,000]	
0603235N	18	COMMON PICTURE ADVANCED TECHNOLOGY	79,521	83,521	82,521	3,400	82,921
		Consolidated undersea situational awareness		[4,000]	[3,000]	[3,400]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603236N	19	WARFIGHTER SUSTAINMENT ADVANCED TECHNOLOGY	61,103	76,103	78,103	13,500	74,603
		Automatic container and cargo handling systems			[4,000]	[2,000]	
		Ultrasonic consolidation of matrix composites			[2,000]	[1,000]	
		Expeditionary logistics for the 21st Century			[6,000]	[3,000]	
		Defense Systems Modernization and Sustainment Initiative			[5,000]	[4,000]	
		Intermediate Modulus COTS Carbon Fiber Qualification		[4,000]		[1,000]	
		Emerging/Critical Interconnection Technology		[4,000]		[1,500]	
		Virtual, At Sea Training Initiative		[4,000]		[1,000]	
		Human Systems Integration		[3,000]		[1,500]	
		Program growth				[-1,500]	
0603271N	20	RF SYSTEMS ADVANCED TECHNOLOGY	44,046	65,546	47,046	5,000	49,046
		APY-6 Realtime Precision Targeting Radar		[10,000]	[3,000]	[2,500]	
		Vacuum Technology		[5,000]			
		Remote Ocean Surveillance System		[3,000]		[1,500]	
		SCOUT Radar		[2,000]			
		Spectral Beam Combining Fiber Lasers		[1,500]		[1,000]	
0603640M	21	USMC ADVANCED TECHNOLOGY DEMONSTRATION (ATD)	58,222	62,722	67,222	12,600	70,822
		Unmanned tactical combat vehicle			[1,000]	[1,000]	
		Water purification research			[8,000]	[8,000]	
		Advanced Mine Detection Program		[3,000]		[2,600]	
		Rapid Deployment Fortification Wall		[1,500]		[1,000]	
0603712N	22	ENVIRONMENTAL QUALITY AND LOGISTICS ADVANCED TECHNOLOGY					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603727N	23	NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM	167,626		167,626		167,626
		Transfer PDW 81a		[-167,626]			
0603729N	24	WARFIGHTER PROTECTION ADVANCED TECHNOLOGY	16,719	27,719	19,319	3,600	20,319
		Anti-oxidant micronutrients research			[600]	[600]	
		Battlefield pharmaceutical test			[2,000]	[1,000]	
		Organ Transplant Technology		[4,000]		[2,000]	
		Biomedical Research Imaging		[5,000]			
		Oxygen Dressing		[2,000]			
0603747N	25	UNDERSEA WARFARE ADVANCED TECHNOLOGY	26,515	26,515	26,515		26,515
0603757N	26	JOINT WARFARE EXPERIMENTS	26		26		26
		Transfer PDW 81b		[-26]			
0603758N	27	NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS	16,006	16,006	16,006		16,006
0603782N	28	MINE AND EXPEDITIONARY WARFARE ADVANCED TECHNOLOGY	32,899	32,899	32,899		32,899
0603792N	29	ADVANCED TECHNOLOGY TRANSITION					
0603207N	30	AIR/OCEAN TACTICAL APPLICATIONS	24,431	24,431	24,431		24,431
0603216N	31	AVIATION SURVIVABILITY	10,820	13,820	16,320	3,800	14,620
		Rotorcraft External Airbag System			[5,500]	[3,800]	
		Reduced Risk Ordnance		[3,000]			
0603237N	32	DEPLOYABLE JOINT COMMAND AND CONTROL	42,394	42,394	42,394		42,394
0603254N	33	ASW SYSTEMS DEVELOPMENT	4,541	15,541	9,541	7,900	12,441
		Claymore marine		[7,000]	[5,000]	[4,200]	
		Tactical E Field Buoy Development		[4,000]		[3,700]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603261N	34	TACTICAL AIRBORNE RECONNAISSANCE	6,448	1,900	6,448		6,448
		UAV Concept of Operations		[-4,548]			
0603382N	35	ADVANCED COMBAT SYSTEMS TECHNOLOGY	67,605	67,605	67,605		67,605
0603502N	36	SURFACE AND SHALLOW WATER MINE COUNTERMEASURES	103,308	123,308	103,308	-3,500	99,808
		UUV		[20,000]		[1,500]	
		Long-Term Mine Reconnaissance System				[-5,000]	
0603506N	37	SURFACE SHIP TORPEDO DEFENSE	46,896	53,896	46,896	7,000	53,896
		Anti Torpedo Torpedo		[7,000]		[7,000]	
0603512N	38	CARRIER SYSTEMS DEVELOPMENT	157,479	167,479	166,479	3,700	161,179
		Aviation Ship Integration Center		[10,000]	[9,000]	[3,700]	
0603513N	39	SHIPBOARD SYSTEM COMPONENT DEVELOPMENT	18,993	25,493	21,993	2,900	21,893
		Amorphous metal permanent magnet generator set			[3,000]	[1,500]	
		DD(X) Ship System Component Development		[2,000]		[1,400]	
		Integrated-fight-through-power		[2,000]			
		Ultrasonic Detection Equipment		[2,500]			
0603525N	40	PILOT FISH	78,223	78,223	78,223		78,223
0603527N	41	RETRACT LARCH	82,532	82,532	82,532		82,532
0603536N	42	RETRACT JUNIPER	36,915	36,915	36,915		36,915
0603542N	43	RADIOLOGICAL CONTROL	946	946	946		946
0603553N	44	SURFACE ASW	17,633	34,233	23,433	2,400	20,033
		Surface ship combat systems warfare enhancements			[3,000]	[1,000]	
		Improved surface vessel torpedo launcher			[2,800]	[1,400]	
		Task Force Anti-Submarine Warfare		[16,600]			

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603559N	45	SSGN CONVERSION	19,970	19,970	19,970		19,970
0603561N	46	ADVANCED SUBMARINE SYSTEM DEVELOPMENT	81,160	98,160	91,160	1,400	82,560
		Submarine payloads and sensors		[10,000]	[10,000]	[5,000]	
		Composite Structures		[7,000]		[1,400]	
		Development and demonstration of UUV in submarine operations				[-5,000]	
0603562N	47	SUBMARINE TACTICAL WARFARE SYSTEMS	5,957	5,957	5,957		5,957
0603563N	48	SHIP CONCEPT ADVANCED DESIGN	3,723	3,723	8,723	2,500	6,223
		Integrated Condition Assessment System			[5,000]	[2,500]	
0603564N	49	SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES					
0603570N	50	ADVANCED NUCLEAR POWER SYSTEMS	169,733	169,733	169,733		169,733
0603573N	51	ADVANCED SURFACE MACHINERY SYSTEMS					
0603576N	52	CHALK EAGLE	47,786	47,786	47,786		47,786
0603581N	53	LITTORAL COMBAT SHIP (LCS)	352,089	244,389	352,089	-2,000	350,089
		Program decrease		[-107,700]			
		Phase I Design for Flight 1 Ship				[-2,000]	
0603582N	54	COMBAT SYSTEM INTEGRATION	80,840	86,840	75,840	-6,000	74,840
		Context-adaptable autonomous and remote unmanned systems			[5,000]	[2,500]	
		Transfer to PE 64503N (RDN 108)			[-10,000]	[-10,000]	
		Laser Diode Arrays		[6,000]		[1,500]	
0603609N	55	CONVENTIONAL MUNITIONS	34,151	34,151	34,151		34,151
0603611M	56	MARINE CORPS ASSAULT VEHICLES	236,969	236,969	236,969		236,969
0603612M	57	USMC MINE COUNTERMEASURES SYSTEMS - ADV DEV	4,522	4,522	4,522		4,522

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603635M	58	MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM	22,440	22,440	39,140	10,300	32,740
		Urban operations environmental laboratory			[6,400]	[4,200]	
		Urban operations nonlethal and scalable weaponization			[2,900]	[1,900]	
		Clearing facilities with novel technology			[3,400]	[2,200]	
		Anti-Armor Weapon System - Heavy			[4,000]	[2,000]	
0603654N	59	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	18,047	18,047	18,047		18,047
0603658N	60	COOPERATIVE ENGAGEMENT	103,452	103,452	103,452		103,452
0603713N	61	OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT	26,232	26,232	26,232		26,232
0603721N	62	ENVIRONMENTAL PROTECTION	24,641	24,641	27,641	2,100	26,741
		Marine mammal detection and mitigation			[3,000]	[2,100]	
0603724N	63	NAVY ENERGY PROGRAM	1,494	7,494	4,494	6,300	7,794
		Proton exchange membrane (PEM) fuel cell trial			[3,000]	[2,800]	
		One Megawatt Molten Carbonate Fuel Cell		[6,000]		[3,500]	
0603725N	64	FACILITIES IMPROVEMENT	1,621	1,621	1,621		1,621
0603734N	65	CHALK CORAL	58,467	58,467	58,467		58,467
0603739N	66	NAVY LOGISTIC PRODUCTIVITY	7,421	7,421	7,421		7,421
0603746N	67	RETRACT MAPLE	275,407	275,407	275,407		275,407
0603748N	68	LINK PLUMERIA	112,997	112,997	112,997		112,997
0603751N	69	RETRACT ELM	48,130	48,130	48,130		48,130
0603755N	70	SHIP SELF DEFENSE	9,493	9,493	9,493		9,493
0603764N	71	LINK EVERGREEN	63,346	63,346	63,346		63,346
0603787N	72	SPECIAL PROCESSES	44,232	44,232	44,232		44,232
0603790N	73	NATO RESEARCH AND DEVELOPMENT	10,151	10,151	10,151		10,151

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603795N	74	LAND ATTACK TECHNOLOGY	82,049	105,049	53,149	13,200	95,249
		Reduction - Affordable Weapons System			[-28,900]		
		Affordable Weapon System		[23,000]		[20,000]	
		Extended Range Guided Munition (ERGM)				[-6,800]	
0603851M	75	NONLETHAL WEAPONS	43,321	43,321	43,321		43,321
0603857N	76	ALL SERVICE COMBAT IDENTIFICATION EVALUATION TEAM (ASCIET)	13,626	13,626	13,626		13,626
0603860N	77	JOINT PRECISION APPROACH AND LANDING SYSTEMS	32,391	32,391	32,391		32,391
0603879N	78	SINGLE INTEGRATED AIR PICTURE (SIAP) SYSTEM ENGINEER (SE)	20,252	20,252	20,252		20,252
0603889N	79	COUNTERDRUG RDT&E PROJECTS					
0604272N	80	TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES (TADIRCM)					
0604707N	81	SPACE AND ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINEERINC	25,943	25,943	25,943		25,943
0604787N	82	JOINT WARFARE TRANSFORMATION PROGRAMS	22,450		22,450		22,450
		Transfer PDW 81c		[-22,450]			
0604212N	83	OTHER HELO DEVELOPMENT	186,970	186,970	186,970		186,970
0604214N	84	AV-8B AIRCRAFT - ENG DEV	12,284	12,284	12,284		12,284
0604215N	85	STANDARDS DEVELOPMENT	57,675	57,675	57,675		57,675
0604216N	86	MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT	78,757	78,757	78,757		78,757
0604217N	87	S-3 WEAPON SYSTEM IMPROVEMENT					
0604218N	88	AIR/OCEAN EQUIPMENT ENGINEERING	4,506	4,506	4,506		4,506
0604221N	89	P-3 MODERNIZATION PROGRAM	9,554	9,554	9,554		9,554
0604230N	90	WARFARE SUPPORT SYSTEM	5,201	5,201	5,201		5,201
0604231N	91	TACTICAL COMMAND SYSTEM	49,180	49,180	49,180		49,180
0604234N	92	ADVANCED HAWKEYE	597,015	597,015	597,015		597,015

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604245N	93	H-1 UPGRADES	90,389	90,389	132,389	42,000	132,389
		AH-1Z/UH-1Y upgrades - turned exhaust			[42,000]	[42,000]	
0604261N	94	ACOUSTIC SEARCH SENSORS	13,363	28,363	13,363		13,363
		Automatic Radar Periscope Detection Discrimination		[15,000]			
0604262N	95	V-22A	304,164	304,164	304,164	-42,000	262,164
		CV-22 flight test program delay				[-42,000]	
0604264N	96	AIR CREW SYSTEMS DEVELOPMENT	8,838	8,838	12,838	4,000	12,838
		Joint Helmet Mounted Cueing System Quad Eye			[4,000]	[4,000]	
0604269N	97	EA-18	357,502	357,502	357,502		357,502
0604270N	98	ELECTRONIC WARFARE DEVELOPMENT	48,956	48,956	48,956		48,956
0604273N	99	VHXX EXECUTIVE HELO DEVELOPMENT	777,398	557,398	632,398	-220,000	557,398
		VXX executive helicopter execution		[-220,000]	[-145,000]	[-220,000]	
0604280N	100	JOINT TACTICAL RADIO SYSTEM - NAVY (JTRS-NAVY)	78,624	93,624	78,624	2,000	80,624
		Digital Modular Radio		[15,000]		[2,000]	
0604300N	101	SC-21 TOTAL SHIP SYSTEM ENGINEERING	1,431,585	1,220,485	1,530,985	39,900	1,471,485
		For second DD(X)			[99,400]	[84,400]	
		Program decrease		[-221,100]			
		Advanced Gun System for DD(X)		[10,000]			
		Joint distance support and response and integrated fleet support				[-44,500]	
0604307N	102	SURFACE COMBATANT COMBAT SYSTEM ENGINEERING	146,463	168,263	146,463	4,300	150,763
		Open Architecture		[21,800]		[4,300]	
0604311N	103	LPD-17 CLASS SYSTEMS INTEGRATION	8,988	8,988	8,988		8,988
0604312N	104	TRI-SERVICE STANDOFF ATTACK MISSILE	27,047	27,047	27,047		27,047

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604329N	105	SMALL DIAMETER BOMB (SDB)	9,961	9,961	9,961		9,961
0604366N	106	STANDARD MISSILE IMPROVEMENTS	99,022	99,022	109,022	8,500	107,522
		Standard missile insensitive munitions improvements			[5,000]	[5,000]	
		Advanced missile data link			[5,000]	[3,500]	
0604373N	107	AIRBORNE MCM	50,514	50,514	53,514		50,514
		Surface Navy integrated undersea tactical technology (SNIUTT) sim			[3,000]		
0604503N	108	SSN-688 AND TRIDENT MODERNIZATION	75,359	104,359	94,359	20,800	96,159
		Submarine expendable communication device			[4,000]		
		Transfer from PE 63582N (RDN 54)			[10,000]	[10,000]	
		Advanced Processor Build Integration		[20,000]		[4,000]	
		Affordable Towed Array Construction		[6,000]		[3,500]	
		AN/BLQ-10 Test and Support		[3,000]			
		Littoral array system (S. Amdt 3351)			[5,000]	[3,300]	
0604504N	109	AIR CONTROL	13,102	13,102	13,102		13,102
0604507N	110	ENHANCED MODULAR SIGNAL PROCESSOR	1,075	1,075	1,075		1,075
0604512N	111	SHIPBOARD AVIATION SYSTEMS	28,631	32,631	31,131	1,000	29,631
		Synthetic material arresting cable			[2,500]	[1,000]	
		Aviation Shipboard Information Technology Initiative		[4,000]			
0604518N	112	COMBAT INFORMATION CENTER CONVERSION	8,228	8,228	8,228		8,228

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604558N	113	NEW DESIGN SSN	143,270	153,270	219,370	12,000	155,270
		Submarine information assurance			[2,000]	[1,500]	
		Multi-mission module		[10,000]	[56,000]	[20,000]	
		Large aperture bow array			[5,000]	[2,500]	
		Common submarine radio room			[13,100]	[8,000]	
		Re-align base funding to fiscal year 2004 level				[-20,000]	
0604561N	114	SSN-21 DEVELOPMENTS	3,020	3,020	3,020		3,020
0604562N	115	SUBMARINE TACTICAL WARFARE SYSTEM	43,404	43,404	49,404	4,600	48,004
		Submarine warfare system strike weapon status control			[6,000]	[4,600]	
0604567N	116	SHIP CONTRACT DESIGN/ LIVE FIRE T&E	130,908	130,908	130,908	-13,000	117,908
		Cruiser modernization				[-13,000]	
0604574N	117	NAVY TACTICAL COMPUTER RESOURCES	2,381	2,381	2,381		2,381
0604601N	118	MINE DEVELOPMENT	6,123	6,123	6,123		6,123
0604603N	119	UNGUIDED CONVENTIONAL AIR-LAUNCHED WEAPONS					
0604610N	120	LIGHTWEIGHT TORPEDO DEVELOPMENT	9,965	9,965	9,965	1,500	11,465
		MK-54 System PIP (non-add)		[2,000]			
		MK-54 System				[1,500]	
0604618N	121	JOINT DIRECT ATTACK MUNITION					
0604654N	122	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	8,081	8,081	8,081		8,081
0604703N	123	PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS	3,005	3,005	3,005		3,005
0604710N	124	NAVY ENERGY PROGRAM					
0604721N	125	BATTLE GROUP PASSIVE HORIZON EXTENSION SYSTEM	17,981	17,981	20,981	1,100	19,081
		Anti-terrorism Tech Surveillance System			[3,000]	[1,100]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604727N	126	JOINT STANDOFF WEAPON SYSTEMS	9,531	9,531	9,531		9,531
0604755N	127	SHIP SELF DEFENSE (DETECT & CONTROL)	48,154	88,754	53,154	9,400	57,554
		Directed energy user scrutiny equipment			[5,000]	[2,500]	
		Integrated Radar Optical Surveillance and Sighting System		[3,500]		[3,500]	
		Evolved Sea Sparrow		[15,300]			
		Open Architecture Warfare Systems		[21,800]		[3,400]	
0604756N	128	SHIP SELF DEFENSE (ENGAGE: HARD KILL)	51,213	51,213	51,213		51,213
0604757N	129	SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW)	28,233	28,233	33,233	1,500	29,733
		NULKA research to counter multi-mode RF and IR			[5,000]	[1,500]	
0604771N	130	MEDICAL DEVELOPMENT	6,942	21,942	9,942	11,500	18,442
		Sea rescue technology			[3,000]	[3,000]	
		Hemoglobin-based Oxygen Carrier		[13,000]		[7,000]	
		Pseudofollicullitus Barbae Research		[2,000]		[1,500]	
0604777N	131	NAVIGATION/ID SYSTEM	28,104	28,104	28,104		28,104
0604784N	132	DISTRIBUTED SURVEILLANCE SYSTEM	7,776	7,776	7,776		7,776
0604800N	133	JOINT STRIKE FIGHTER (JSF)	2,264,507	2,264,507	2,279,507	-126,000	2,138,507
		STOVL lift fan study			[15,000]	[8,000]	
		Align engine development with SDD schedule				[-49,000]	
		Fiscal year 2003/04 reprogramming activity				[-25,000]	
		Manufacturing, tooling materials				[-60,000]	
0604910N	134	SMART CARD	695	695	695		695
0605013M	135	INFORMATION TECHNOLOGY DEVELOPMENT	9,301	9,301	9,301		9,301

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0605013N	136	INFORMATION TECHNOLOGY DEVELOPMENT	109,543	29,543	109,543	-25,000	84,543
		Enterprise Resource Planning		[-83,000]		[-25,000]	
		Open Architecture Wireless Sensors		[3,000]			
0605014N	137	DEFENSE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM (DIMHRS					
0605500N	138	MULTI-MISSION MARITIME AIRCRAFT (MMA)	496,029	496,029	496,029		496,029
0508713N	139	NAVY STANDARD INTEGRATED PERSONNEL SYSTEM (NSIPS)					
0604256N	140	THREAT SIMULATOR DEVELOPMENT	23,866	23,866	23,866		23,866
0604258N	141	TARGET SYSTEMS DEVELOPMENT	35,677	35,677	35,677		35,677
0604759N	142	MAJOR T&E INVESTMENT	39,787	39,787	39,787		39,787
0605152N	143	STUDIES AND ANALYSIS SUPPORT - NAVY	2,183	2,183	2,183		2,183
0605154N	144	CENTER FOR NAVAL ANALYSES	43,982	43,982	43,982		43,982
0605155N	145	FLEET TACTICAL DEVELOPMENT	2,338	2,338	2,338		2,338
0605502N	146	SMALL BUSINESS INNOVATIVE RESEARCH					
0605804N	147	TECHNICAL INFORMATION SERVICES	696	696	696		696
0605853N	148	MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT	31,407	31,407	31,407		31,407
0605856N	149	STRATEGIC TECHNICAL SUPPORT	3,493	3,493	3,493		3,493
0605861N	150	RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT	66,117	66,117	62,317	-3,800	62,317
		Unjustified growth			[-3,800]	[-3,800]	
0605862N	151	RDT&E INSTRUMENTATION MODERNIZATION	19,370	19,370	19,370		19,370
0605863N	152	RDT&E SHIP AND AIRCRAFT SUPPORT	81,308	81,308	81,308		81,308
0605864N	153	TEST AND EVALUATION SUPPORT	255,926	255,926	255,926		255,926
0605865N	154	OPERATIONAL TEST AND EVALUATION CAPABILITY	13,044	13,044	13,044		13,044
0605866N	155	NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT	2,941	2,941	2,941		2,941

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0605867N	156	SEW SURVEILLANCE/RECONNAISSANCE SUPPORT	12,160	12,160	12,160		12,160
0605873M	157	MARINE CORPS PROGRAM WIDE SUPPORT	19,701	19,701	19,701		19,701
0909999N	158	FINANCING FOR CANCELLED ACCOUNT ADJUSTMENTS					
0603660N	159	ADVANCED DEVELOPMENT PROJECTS	[ ]				
0603661N	160	RETRACT VIOLET	[ ]				
0101221N	161	STRATEGIC SUB & WEAPONS SYSTEM SUPPORT	108,782	108,782	113,782	-18,100	90,682
		Thin-plate pure lead battery technology			[5,000]	[4,900]	
		Strategic propulsion applications				[-18,000]	
		Radiation hardened applications				[-5,000]	
0101224N	162	SSBN SECURITY TECHNOLOGY PROGRAM	43,408	43,408	43,408		43,408
0101226N	163	SUBMARINE ACOUSTIC WARFARE DEVELOPMENT	8,453	8,453	8,453		8,453
0101402N	164	NAVY STRATEGIC COMMUNICATIONS	31,391	31,391	31,391		31,391
0203761N	165	RAPID TECHNOLOGY TRANSITION (RTT)	14,630	14,630	14,630		14,630
0204136N	166	F/A-18 SQUADRONS	134,580	134,580	134,580		134,580
0204152N	167	E-2 SQUADRONS	6,055	6,055	6,055		6,055
0204163N	168	FLEET TELECOMMUNICATIONS (TACTICAL)	19,784	19,784	19,784		19,784
0204229N	169	TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC)	28,776	28,776	33,776	4,000	32,776
		Precision Terrain Aided Navigation			[5,000]	[4,000]	
0204311N	170	INTEGRATED SURVEILLANCE SYSTEM	16,965	16,965	16,965		16,965
0204413N	171	AMPHIBIOUS TACTICAL SUPPORT UNITS (DISPLACEMENT CRAFT)	2,604	2,604	2,604		2,604
0204571N	172	CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT	21,644	21,644	21,644		21,644
0204574N	173	CRYPTOLOGIC DIRECT SUPPORT	1,460	1,460	1,460		1,460
0204575N	174	ELECTRONIC WARFARE (EW) READINESS SUPPORT	12,139	12,139	12,139		12,139

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0205601N	175	HARM IMPROVEMENT	163,371	165,371	163,371	1,100	164,471
		Embedded National Tactical Receiver - AARGM		[2,000]		[1,100]	
0205604N	176	TACTICAL DATA LINKS	18,977	18,977	18,977		18,977
0205620N	177	SURFACE ASW COMBAT SYSTEM INTEGRATION	10,612	10,612	10,612		10,612
0205632N	178	MK-48 ADCAP	21,620	21,620	21,620		21,620
0205633N	179	AVIATION IMPROVEMENTS	62,635	67,635	66,635	3,700	66,335
		Corrosion inhibiting coatings			[4,000]	[1,400]	
		Nano-composite hard-coat for aircraft canopies (H. Amdt 10)		[5,000]		[2,300]	
0205658N	180	NAVY SCIENCE ASSISTANCE PROGRAM	3,821	3,821	3,821		3,821
0205675N	181	OPERATIONAL NUCLEAR POWER SYSTEMS	64,554	64,554	64,554		64,554
0206313M	182	MARINE CORPS COMMUNICATIONS SYSTEMS	268,638	268,638	278,438	-6,000	262,638
		Communication emitter sensing and attacking system			[3,800]		
		Infrastructure system security engineering development (S. Amdt 3228)			[3,000]	[1,500]	
		Advanced ferrite antenna (S. Amdt 3179)			[3,000]	[2,100]	
		Coastal battlefield reconnaissance and analysis				[-9,600]	
0206623M	183	MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS	44,828	44,828	44,828		44,828
0206624M	184	MARINE CORPS COMBAT SERVICES SUPPORT	10,731	10,731	12,731	1,000	11,731
		Battlefield Management System			[2,000]	[1,000]	
0207161N	185	TACTICAL AIM MISSILES	4,061	4,061	4,061		4,061
0207163N	186	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)	9,085	9,085	9,085		9,085
0301303N	187	MARITIME INTELLIGENCE	[ ]				
0301323N	188	COLLECTION MANAGEMENT	[ ]				
0301327N	189	TECHNICAL RECONNAISANCE AND SURVEILLANCE	[ ]				

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0303109N	190	SATELLITE COMMUNICATIONS (SPACE)	573,092	581,092	573,092	-105,100	467,992
		Joint Integrated Systems Technology for Digital Networking		[8,000]		[4,900]	
		MOUS - fund to CAIG estimate				[-110,000]	
0303140N	191	INFORMATION SYSTEMS SECURITY PROGRAM	18,676	36,376	18,676		18,676
		Common Submarine Radio Room		[17,700]			
0304111N	192	SPACE ACTIVITIES	[ ]				
0305149N	193	COBRA JUDY	80,694	80,694	93,694	13,000	93,694
		Cobra Judy replacement			[13,000]	[13,000]	
0305160N	194	NAVY METEOROLOGICAL AND OCEAN SENSORS-SPACE (METOC)	4,215	4,215	4,215		4,215
0305188N	195	JOINT C4ISR BATTLE CENTER (JBC)	43,569	43,569	43,569		43,569
0305192N	196	JOINT MILITARY INTELLIGENCE PROGRAMS	4,746	4,746	4,746		4,746
0305204N	197	TACTICAL UNMANNED AERIAL VEHICLES (JMIP)	53,439	53,439	53,439		53,439
0305205N	198	ENDURANCE UNMANNED AERIAL VEHICLES	113,438	113,438	113,438	-15,000	98,438
		Broad Area Maritime Development - schedule slip due to competition				[-15,000]	
0305206N	199	AIRBORNE RECONNAISSANCE SYSTEMS	10,191	13,191	10,191	1,000	11,191
		Passive Collision Avoidance and Reconnaissance		[3,000]		[1,000]	
0305207N	200	MANNED RECONNAISSANCE SYSTEMS (JMIP)	20,203	20,203	20,203		20,203
0305208N	201	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	3,635	9,635	3,635	2,800	6,435
		Enterprise Targeting and Strike System		[6,000]		[2,800]	
0305927N	202	NAVAL SPACE SURVEILLANCE					
0307207N	203	AERIAL COMMON SENSOR (ACS) (JMIP)	24,909	24,909	24,909		24,909
0308601N	204	MODELING AND SIMULATION SUPPORT	7,262	7,262	16,262	6,000	13,262
		Modeling and simulation research			[9,000]	[6,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0702207N	205	DEPOT MAINTENANCE (NON-IF)					
0708011N	206	INDUSTRIAL PREPAREDNESS	56,565	56,565	56,565		56,565
0708730N	207	MARITIME TECHNOLOGY (MARITECH)	10,265	10,265	10,265		10,265
XXXXXXXX	999	CLASSIFIED PROGRAMS	1,003,485	1,003,485	1,003,485		1,003,485
		Financial information systems			-15,200		
		Total, RDT&E Navy	**16,346,391**	**16,052,841**	**16,690,391**	**-145,800**	**16,200,591**

Littoral Combat Ship

The budget request included $352.1 million in PE 63581N for the Littoral Combat Ship (LCS), including $244.4 million for LCS development and $107.7 million for construction.

The House bill would authorize $244.4 million in PE 63581N for LCS development, a decrease of $107.7 million, delaying construction of the first LCS until fiscal year 2006.

The Senate amendment would authorize the budget request.

The conferees agree to authorize $350.1 million, a decrease of $2.0 million for phase one design of the Flight One LCS design.

The conferees note the concerns expressed in the House report accompanying H.R. 4200 (H. Rept. 108–491) regarding whether the LCS program schedule provides sufficient time and opportunities for experimentation and evaluation of the operational concepts for LCS in Flight Zero before committing to major serial production of the ship with Flight One. The program plan provided with the fiscal year 2005 budget request had construction starting on Flight One ships before delivery and evaluation of Flight Zero ships. This concurrency could require expensive retrofit to Flight One ships after lessons have been learned from operating Flight Zero ships.

The conferees are concerned with a potential industrial impact induced by making fiscal year 2006 a gap year in LCS production, which could lead to increased ship costs or technology insertion challenges. However, the conferees agree with the rationale of section 8092 of the Department of Defense Appropriations Act for Fiscal Year 2005 (section A of Public Law 108–287), which directs that no funds be obligated for construction of a third vessel in the fiscal year 2006 budget request. The conferees expect that the Navy will include a plan that reduces the risk of concurrency in the LCS justification submitted as part of the fiscal year 2006 budget request.

Land attack technology

The budget request included $82.0 million in PE 63795N for land attack technology. This included $28.9 million for the affordable weapons system (AWS) and $11.3 million for the continued development of the extended range guided munition (ERGM).

The House bill would authorize $105.0 million in PE 63795N for land attack technology. This included $51.9 million for AWS, an increase of $23.0 million, and would authorize the budget request for ERGM.

The Senate amendment would authorize $53.1 million in PE 63795N for land attack technology. This would authorize no funding for AWS, and would authorize the budget request for ERGM.

The conferees agree to authorize $95.2 million in PE 63795N for land attack technology. This includes an authorization of $48.9 million for AWS, an increase of $20.0 million. This also includes an authorization of $4.5 million for ERGM, a decrease of $6.8 million.

The conferees are aware of past testing problems in the ERGM program, but have supported fielding of ERGM capability as soon as possible. The conferees are also aware that the Navy has issued a notice to industry stating that it will issue a solicitation for a capability to mirror that of ERGM. While supportive of this risk-reduction strategy, the conferees also expect that funds appropriated

for the ERGM program be applied to continued developmental testing of ERGM.

Open architecture

The budget request included $146.5 million in PE 64307N for surface combatant combat system engineering and $48.2 million in PE 64755N for ship self-defense (detect and control).

The House bill would authorize an increase of $21.8 million in PE 64307N for open architecture systems and would also authorize an increase of $21.8 million in PE 64755N for open architecture warfare systems.

The Senate amendment would authorize the budget request.

The conferees agree to authorize an increase of $4.3 million in PE 64307N and an increase of $3.4 million in PE 64755N for open architecture warfare systems.

The conferees concur with the Navy's decision to move to open architecture (OA)-based warfare systems, and recognize OA as an enabling step to modernizing warfighting capabilities at an affordable cost. Similarly, given the rapid rate that commercial, off-the-shelf computing equipment and software is becoming obsolescent, delaying the implementation of OA will result in military systems falling further and further behind the commercial sector's capability. While an OA approach to development and fielding requires increased cooperation at all levels, it also creates interdependencies among programs as a result of design and development components that will be used in multiple systems. With this approach, the impact of a delay or funding cut in a program implementing OA could have impact on other programs.

The Navy identified the implementation of OA into Navy surface forces as its highest unfunded priority in fiscal year 2005. Under the Navy's plan, modernization of existing forces (cruiser modernization and DDG modernization) and recapitalization of the surface fleet (DD(X), CVN–21, and the Littoral Combat Ship) are all inextricably linked to the overall execution of the OA initiative. The conferees believe that there could be serious, cascading effects on these programs unless the Navy ensures that the OA initiative is fully funded, and urge the Navy to pursue any shortfalls through supplemental submissions for fiscal year 2005. The conferees also believe the Navy should consider grouping various OA efforts in a separate program element, so that: (1) the Navy can coordinate its efforts more efficiently; and (2) difficulties with individual platform programs do not jeopardize the entire effort.

AIR FORCE

Research, Development, Test and Evaluation, Air Force Overview

The budget request for fiscal year 2005 included an authorization of $21,114.7 million in Research Development, Test and Evaluation, Air Force for the Department of Defense.

The House bill would authorize $21,533.0 million.

The Senate amendment would authorize $21,264.3 million.

The conferees recommend an authorization of $20,432.9 million. Unless noted explicitly in the statement of managers, all changes are made without prejudice.

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
		RESEARCH, DEVELOPMENT, TEST & EVALUATION, AIR FORCE					
0601102F	1	DEFENSE RESEARCH SCIENCES	217,304	219,304	227,304	7,800	225,104
		Information assurance research			[3,000]	[2,500]	
		Logistics research			[2,000]		
		Advanced research in quantum information technology			[2,000]	[1,000]	
		Nanomaterials research			[3,000]	[2,300]	
		Chabot Space and Science Center		[2,000]		[2,000]	
0601103F	2	UNIVERSITY RESEARCH INITIATIVES	115,865	115,865	132,465	6,700	122,565
		Photonics research			[1,600]	[1,600]	
		Nano- and micro-electromechanical research			[2,500]		
		Information security research			[2,500]	[1,600]	
		SMART Defense scholarship pilot program			[10,000]	[2,500]	
		Logistics research				[1,000]	
0601108F	3	HIGH ENERGY LASER RESEARCH INITIATIVES	12,331	12,331	12,331		12,331
0602102F	4	MATERIALS	73,660	73,660	77,060	2,900	76,560
		Composite materials research for unmanned structures			[1,500]	[1,000]	
		Blast resistant barriers			[1,900]	[1,900]	
0602201F	5	AEROSPACE VEHICLE TECHNOLOGIES	74,679	74,679	74,679		74,679
0602202F	6	HUMAN EFFECTIVENESS APPLIED RESEARCH	71,483	74,483	76,483	2,600	74,083
		Battlefield air operations technology			[5,000]	[1,100]	
		Improved Performance Research Integration Tool		[3,000]		[1,500]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602203F	7	AEROSPACE PROPULSION	92,650	108,150	102,650	7,800	100,450
		Hypersonics research (X-43C)			[10,000]		
		Integrated Cooling and Power System Magnetic Bearing		[4,000]		[2,800]	
		Fuel Cell Technology-Proton Exchange Membrane		[2,000]			
		Advanced Vehicle and Propulsion Center		[8,500]		[4,000]	
		Engineering Research Lab Equipment Upgrade		[1,000]		[1,000]	
0602204F	8	AEROSPACE SENSORS	78,804	78,804	83,804	5,000	83,804
		Super-resolution Sensor System			[3,000]	[2,000]	
		Three-dimensional microelectronics development			[2,000]	[2,000]	
		Compact Optical Receiver for Smart Loitering Standoff Munitions (non-add)		[2,000]			
		Compact Optical Receiver for Smart Loitering Standoff Munitions				[1,000]	
0602500F	9	MULTI-DISCIPLINARY SPACE TECHNOLOGY	84,581	84,581	84,581		84,581
0602601F	10	SPACE TECHNOLOGY	88,909	96,909	99,909	1,500	90,409
		Elastic memory composite research			[3,000]	[2,000]	
		Foldable space structures			[3,000]	[1,500]	
		Hyperspectral technology			[5,000]		
		Integrated Control for Autonomous Space Systems		[4,000]		[2,000]	
		Satellite Tool Kit Technology Integration		[4,000]			
		Spacecraft vehicles technology, deployable structures for SBR				[-4,000]	
0602602F	11	CONVENTIONAL MUNITIONS	52,251	52,251	52,251		52,251
0602605F	12	DIRECTED ENERGY TECHNOLOGY	36,532	46,532	36,532	5,000	41,532
		Ultra Short Pulse Laser Technology		[10,000]		[5,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602702F	13	COMMAND CONTROL AND COMMUNICATIONS	82,147	86,647	83,147	1,000	83,147
		Joint battlespace infosphere			[1,000]	[1,000]	
		Collaborative Information and Knowledge Management		[4,500]			
0602805F	14	DUAL USE SCIENCE AND TECHNOLOGY PROGRAM	5,151	5,151	5,151		5,151
0602890F	15	HIGH ENERGY LASER RESEARCH	45,333	45,333	45,333		45,333
0603112F	16	ADVANCED MATERIALS FOR WEAPON SYSTEMS	34,284	48,284	41,284	7,500	41,784
		Metals Affordability Initiative		[14,000]	[7,000]	[7,500]	
0603203F	17	ADVANCED AEROSPACE SENSORS	30,634	30,634	34,634	2,550	33,184
		Advanced sensors			[4,000]	[2,550]	
0603205F	18	FLIGHT VEHICLE TECHNOLOGY					
0603211F	19	AEROSPACE TECHNOLOGY DEV/DEMO	29,145	29,145	31,145		29,145
		Photonics technology			[2,000]		
0603216F	20	AEROSPACE PROPULSION AND POWER TECHNOLOGY	79,914	79,914	87,914	5,900	85,814
		Advanced turbine engine gas generators			[5,000]	[3,500]	
		Turbine engine program			[3,000]	[2,400]	
0603231F	21	CREW SYSTEMS AND PERSONNEL PROTECTION TECHNOLOGY	32,794	32,794	27,794		32,794
		Decision support and cognitive systems			[-5,000]		
0603270F	22	ELECTRONIC COMBAT TECHNOLOGY	28,282	40,282	28,282	5,600	33,882
		Day-Night Electro Optical Tracker Countermeasures		[6,000]			
		Light Weight Modular Support Jammer		[6,000]		[5,600]	
0603311F	23	BALLISTIC MISSILE TECHNOLOGY					
0603333F	24	UNMANNED AIR VEHICLE DEV/DEMO					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603401F	25	ADVANCED SPACECRAFT TECHNOLOGY	60,124	74,124	87,124	17,000	77,124
		AC coupled interconnect			[5,000]	[1,000]	
		Hardening technologies for satellites			[7,000]	[3,500]	
		Thin film amorphous solar arrays			[7,000]	[7,000]	
		Boron energy cell technology			[5,000]	[1,000]	
		Intelligent free space optical satellite communications node		[3,000]	[3,000]	[1,500]	
		Satellite Simulation Toolkit		[5,000]			
		Streaker Small Launch Vehicle		[6,000]		[3,000]	
0603444F	26	MAUI SPACE SURVEILLANCE SYSTEM (MSSS)	6,306	16,306	16,306	8,500	14,806
		High accuracy network determination system (HANDS)		[10,000]	[10,000]	[8,500]	
0603500F	27	MULTI-DISCIPLINARY ADVANCED DEVELOPMENT SPACE TECHNOLOGY	51,114	58,114	56,114		51,114
		Laser threat warning attack reporting for space			[5,000]		
		Upper Stage Engine Technology		[7,000]			
0603601F	28	CONVENTIONAL WEAPONS TECHNOLOGY	22,398	31,398	25,398	3,000	25,398
		Low Cost Autonomous Attack System			[3,000]		
		BLU-109H		[9,000]		[3,000]	
0603605F	29	ADVANCED WEAPONS TECHNOLOGY	31,103	31,103	31,103		31,103
0603723F	30	ENVIRONMENTAL ENGINEERING TECHNOLOGY					
0603789F	31	C3I ADVANCED DEVELOPMENT	28,524	33,524	28,524	1,500	30,024
		Identification of Time Critical Targets		[5,000]		[1,500]	
0603801F	32	SPECIAL PROGRAMS	320,503	320,503	320,503		320,503
0603850F	33	INTEGRATED BROADCAST SERVICE	2,294	2,294	2,294		2,294
0603924F	34	HIGH ENERGY LASER ADVANCED TECHNOLOGY PROGRAM	8,547	8,547	8,547		8,547

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0207423F	35	ADVANCED COMMUNICATIONS SYSTEMS	12,051	12,051	12,051		12,051
0401840F	36	AMC COMMAND AND CONTROL SYSTEM	6,038	6,038	6,038		6,038
0804757F	37	JOINT NATIONAL TRAINING CENTER	2,939	2,939	2,939		2,939
0603260F	38	INTELLIGENCE ADVANCED DEVELOPMENT	4,612	4,612	4,612		4,612
0603287F	39	PHYSICAL SECURITY EQUIPMENT	22,640	35,640	22,640	2,000	24,640
		Xray Base Protection System		[8,000]		[2,000]	
		Quick Reaction Perimeter Intrusion Detection		[5,000]			
0603421F	40	NAVSTAR GLOBAL POSITIONING SYSTEM III	40,568	40,568	40,568		40,568
0603430F	41	ADVANCED EHF MILSATCOM (SPACE)	612,049	612,049	612,049		612,049
0603432F	42	POLAR MILSATCOM (SPACE)	960	960	960		960
0603434F	43	NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLIT					
0603438F	44	SPACE CONTROL TECHNOLOGY	15,046	15,046	15,046		15,046
0603742F	45	COMBAT IDENTIFICATION TECHNOLOGY	19,582	19,582	19,582		19,582
0603790F	46	NATO RESEARCH AND DEVELOPMENT	3,930	3,930	3,930		3,930
0603791F	47	INTERNATIONAL SPACE COOPERATIVE R&D	552	552	552		552
0603845F	48	TRANSFORMATIONAL SATCOM (TSAT)	774,836	674,836	674,836	-300,000	474,836
		TSAT program risk		[-100,000]	[-100,000]	[-300,000]	
0603850F	49	INTEGRATED BROADCAST SERVICE	23,927	23,927	23,927		23,927
0603851F	50	INTERCONTINENTAL BALLISTIC MISSILE	72,503	72,503	72,503	-2,000	70,503
		Long range planning				[-2,000]	
0603854F	51	WIDEBAND GAPFILLER SYSTEM RDT&E (SPACE)	73,499	88,499	73,499		73,499
		Program increase		[15,000]			
0603856F	52	AIR FORCE/NATIONAL PROGRAM COOPERATION (AFNPC)					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603858F	53	SPACE-BASED RADAR	327,732	327,732	327,732	-252,732	75,000
		Technological risk reduction				[-252,732]	
0603859F	54	POLLUTION PREVENTION	2,692	2,692	2,692		2,692
0603860F	55	JOINT PRECISION APPROACH AND LANDING SYSTEMS	18,385	18,385	18,385		18,385
0604015F	56	NEXT GENERATION BOMBER		100,000		30,000	30,000
		Program increase		[100,000]		[30,000]	
0604327F	57	HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM (HDBTDS) PROGRA	6,383	6,383	6,383		6,383
0604731F	58	UNMANNED COMBAT AIR VEHICLE (UCAV)					
0604855F	59	OPERATIONALLY RESPONSIVE LAUNCH	35,362	45,362	42,862	-2,000	33,362
		Operationally responsive launch		[6,000]	[7,500]	[1,000]	
		Blue MAJIC		[4,000]		[2,000]	
		Program reduction				[-5,000]	
0604856F	60	COMMON AERO VEHICLE (CAV)	21,610	33,610	21,610	-5,000	16,610
		Program increase		[12,000]			
		Program reduction				[-5,000]	
0305178F	61	NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLIT	307,668	307,668	307,668		307,668
0603840F	62	GLOBAL BROADCAST SERVICE (GBS)	33,447	33,447	33,447	-7,000	26,447
		Reduce forward financing				[-7,000]	
0604012F	63	JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS)	2,867	2,867	2,867		2,867
0604222F	64	NUCLEAR WEAPONS SUPPORT	13,301	13,301	13,301		13,301
0604226F	65	B-1B	59,462	59,462	79,462	20,000	79,462
		B-1 data link and FLIR upgrades			[20,000]	[20,000]	
0604233F	66	SPECIALIZED UNDERGRADUATE FLIGHT TRAINING	3,359	3,359	3,359		3,359

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604239F	67	F-22	210,000	210,000	210,000		210,000
0604240F	68	B-2 ADVANCED TECHNOLOGY BOMBER	245,049	343,049	245,049	30,000	275,049
		Global Strike		[98,000]		[30,000]	
0604270F	69	ELECTRONIC WARFARE DEVELOPMENT	138,393	138,393	153,093	-32,000	106,393
		PLAID			[14,700]	[4,000]	
		AEA technology development				[-36,000]	
0604280F	70	JOINT TACTICAL RADIO	49,856	49,856	49,856	-10,000	39,856
		SDD contract award delay				[-10,000]	
0604287F	71	PHYSICAL SECURITY EQUIPMENT	9,744	9,744	9,744		9,744
0604329F	72	SMALL DIAMETER BOMB (SDB)	76,489	76,489	76,489		76,489
0604421F	73	COUNTERSPACE SYSTEMS	75,863	75,863	80,863	-49,500	26,363
		Space control test capabilities			[5,000]	[3,500]	
		Counter Surveillance Reconnaissance Sysytem				[-53,000]	
0604435F	74	ADVANCED POLAR MILSATCOM					
0604441F	75	SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD	508,448	543,448	543,448	35,000	543,448
		SBIRS development		[35,000]	[35,000]	[35,000]	
0604479F	76	MILSTAR LDR/MDR SATELLITE COMMUNICATIONS (SPACE)	1,380	1,380	1,380		1,380
0604600F	77	MUNITIONS DISPENSER DEVELOPMENT	28,048	28,048	28,048		28,048
0604602F	78	ARMAMENT/ORDNANCE DEVELOPMENT	8,353	8,353	8,353		8,353
0604604F	79	SUBMUNITIONS	4,824	4,824	4,824		4,824
0604617F	80	AGILE COMBAT SUPPORT	10,053	10,053	10,053		10,053
0604618F	81	JOINT DIRECT ATTACK MUNITION					
0604706F	82	LIFE SUPPORT SYSTEMS	6,630	6,630	6,630		6,630

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604731F	83	UNMANNED COMBAT AIR VEHICLE (UCAV)					
0604735F	84	COMBAT TRAINING RANGES	18,714	18,714	18,714		18,714
0604740F	85	INTEGRATED COMMAND & CONTROL APPLICATIONS (IC2A)	258	6,258	258	5,600	5,858
		Distributed Mission Interoperability Tool Kit		[6,000]		[5,600]	
0604750F	86	INTELLIGENCE EQUIPMENT	1,349	1,349	1,349		1,349
0604754F	87	TACTICAL DATA LINK INFRASTRUCTURE					
0604762F	88	COMMON LOW OBSERVABLES VERIFICATION SYSTEM (CLOVERS)	10,303	10,303	10,303		10,303
0604800F	89	JOINT STRIKE FIGHTER (JSF)	2,307,420	2,307,420	2,307,420	-134,000	2,173,420
		F135 engine development				[-49,000]	
		Reprogramming activity				[-25,000]	
		Manufacturing, tooling and materials				[-60,000]	
0604851F	90	INTERCONTINENTAL BALLISTIC MISSILE	91,687	91,687	91,687		91,687
0604853F	91	EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE)	27,000	27,000	27,000		27,000
0605011F	92	RDT&E FOR AGING AIRCRAFT	15,665	19,665	15,665	3,000	18,665
		Enterprise Availability and Cost Optimization System		[2,000]		[2,000]	
		Program increase		[2,000]		[1,000]	
0207131F	93	A-10 SQUADRONS					
0207256F	94	UNMANNED COMBAT AIR VEHICLE JOINT PROGRAM OFFICE	2,911	2,911	2,911		2,911
0207434F	95	LINK-16 SUPPORT AND SUSTAINMENT	141,012	141,012	141,012	-10,800	130,212
		Data Links Facility - fiscal year 2006 contract award				[-10,800]	
0207443F	96	FAMILY OF INTEROPERABLE OPERATIONAL PICTURES (FIOP)	44,947	49,947	44,947	-200	44,747
		Command-and-control service level management (H. Amdt 10)		[5,000]		[3,800]	
		Program growth				[-4,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0207450F	97	MULTI-SENSOR C2 AIRCRAFT (MC2A)	538,860	538,860	498,860	-40,000	498,860
		Reduction - MC2A (late delivery of test bed aircraft)			[-40,000]	[-40,000]	
0207701F	98	FULL COMBAT MISSION TRAINING	5,894	5,894	5,894		5,894
0305176F	99	COMBAT SURVIVOR EVADER LOCATOR					
0401318F	100	CV-22	16,439	16,439	16,439		16,439
XXXXXXX	100a	Tanker Replacement Transfer Fund		80,000		80,000	80,000
0604256F	101	THREAT SIMULATOR DEVELOPMENT	34,517	34,517	34,517		34,517
0604759F	102	MAJOR T&E INVESTMENT	58,933	58,933	58,933		58,933
0605101F	103	RAND PROJECT AIR FORCE	24,970	24,970	24,970		24,970
0605306F	104	RANCH HAND II EPIDEMIOLOGY STUDY	4,813	4,813	4,813		4,813
0605502F	105	SMALL BUSINESS INNOVATION RESEARCH					
0605712F	106	INITIAL OPERATIONAL TEST & EVALUATION	28,839	28,839	28,839		28,839
0605807F	107	TEST AND EVALUATION SUPPORT	356,266	356,266	356,266		356,266
0605860F	108	ROCKET SYSTEMS LAUNCH PROGRAM (SPACE)	7,984	7,984	30,484	15,000	22,984
		Ballistic missile range safety technology			[15,000]	[15,000]	
		Microsatellite launch capability			[7,500]		
0605864F	109	SPACE TEST PROGRAM (STP)	44,521	44,521	44,521		44,521
0605976F	110	FACILITIES RESTORATION AND MODERNIZATION - TEST AND EVALUATIC	58,936	58,936	58,936		58,936
0605978F	111	FACILITIES SUSTAINMENT - TEST AND EVALUATION SUPPORT	23,067	23,067	23,067		23,067
0804731F	112	GENERAL SKILL TRAINING	323	323	323		323
0909900F	113	FINANCING FOR EXPIRED ACCOUNT ADJUSTMENTS					
0909980F	114	JUDGMENT FUND REIMBURSEMENT	100,000	100,000	100,000		100,000
1001004F	115	INTERNATIONAL ACTIVITIES	3,945	3,945	3,945		3,945

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0605024F	116	ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY	7,858	7,858	7,858		7,858
0101113F	117	B-52 SQUADRONS	25,766	25,766	25,766		25,766
0101120F	118	ADVANCED CRUISE MISSILE	7,740	7,740	7,740		7,740
0101122F	119	AIR-LAUNCHED CRUISE MISSILE (ALCM)	11,837	11,837	11,837		11,837
0101313F	120	STRAT WAR PLANNING SYSTEM - USSTRATCOM	23,391	23,391	23,391	-5,000	18,391
		ISPAN contractor costs				[-5,000]	
0101314F	121	NIGHT FIST - USSTRATCOM	4,987	4,987	4,987		4,987
0101815F	122	ADVANCED STRATEGIC PROGRAMS	8,393	8,393	8,393		8,393
0102326F	123	REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION PROGI	19,047	19,047	19,047		19,047
0203761F	124	WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRANSITION F	24,935	24,935	24,935		24,935
0207028F	125	JOINT EXPEDITIONARY FORCE EXPERIMENT					
0207131F	126	A-10 SQUADRONS	22,590	22,590	32,590	5,000	27,590
		A-10 propulsion modernization			[10,000]	[5,000]	
0207133F	127	F-16 SQUADRONS	99,606	99,606	99,606		99,606
0207134F	128	F-15E SQUADRONS	115,246	132,446	132,446	14,600	129,846
		Active Electronically Scanned Array Radar		[17,200]	[17,200]	[14,600]	
0207136F	129	MANNED DESTRUCTIVE SUPPRESSION	16,976	16,976	16,976		16,976
0207138F	130	F/A-22 SQUADRONS	354,528	354,528	354,528	-10,000	344,528
		Execution				[-10,000]	
0207141F	131	F-117A SQUADRONS	29,661	29,661	29,661		29,661
0207161F	132	TACTICAL AIM MISSILES	5,558	5,558	5,558		5,558
0207163F	133	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)	33,266	33,266	33,266		33,266
0207224F	134	COMBAT RESCUE AND RECOVERY	12,342	12,342	12,342		12,342

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0207247F	135	AF TENCAP	10,673	10,673	15,673	3,300	13,973
		GPS jammer detection and locator system			[5,000]	[3,300]	
0207248F	136	SPECIAL EVALUATION PROGRAM	199,040	199,040	199,040		199,040
0207253F	137	COMPASS CALL	3,990	3,990	3,990		3,990
0207268F	138	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	165,609	165,609	165,609		165,609
0207277F	139	CSAF INNOVATION PROGRAM	1,879	1,879	1,879		1,879
0207325F	140	JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM)	45,777	45,777	45,777		45,777
0207410F	141	AIR & SPACE OPERATIONS CENTER (AOC)	27,695	27,695	27,695		27,695
0207412F	142	CONTROL AND REPORTING CENTER (CRC)	11,634	11,634	11,634		11,634
0207417F	143	AIRBORNE WARNING AND CONTROL SYSTEM (AWACS)	288,787	288,787	288,787		288,787
0207423F	144	ADVANCED COMMUNICATIONS SYSTEMS	20,066	20,066	20,066		20,066
0207424F	145	EVALUATION AND ANALYSIS PROGRAM					
0207433F	146	ADVANCED PROGRAM TECHNOLOGY	249,391	249,391	249,391		249,391
0207438F	147	THEATER BATTLE MANAGEMENT (TBM) C4I	37,210	37,210	37,210		37,210
0207445F	148	FIGHTER TACTICAL DATA LINK	50,976	50,976	50,976		50,976
0207446F	149	BOMBER TACTICAL DATA LINK	120,256	120,256	120,256	-39,000	81,256
		B-52 program growth				[-39,000]	
0207448F	150	C2ISR TACTICAL DATA LINK	25,441	25,441	25,441		25,441
0207449F	151	COMMAND AND CONTROL (C2) CONSTELLATION	44,035	44,035	44,035		44,035
0207581F	152	JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM (JSTARS)	89,247	100,247	89,247		89,247
		Blue Force Combat ID Upgrades		[11,000]			
0207590F	153	SEEK EAGLE	23,159	23,159	23,159		23,159

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0207591F	154	ADVANCED PROGRAM EVALUATION	474,734	474,734	474,734	-40,000	434,734
		Classified program				[-40,000]	
0207601F	155	USAF MODELING AND SIMULATION	18,693	18,693	18,693		18,693
0207605F	156	WARGAMING AND SIMULATION CENTERS	6,377	6,377	6,377		6,377
0208006F	157	MISSION PLANNING SYSTEMS	136,701	136,701	136,701	-30,000	106,701
		Program growth				[-30,000]	
0208021F	158	INFORMATION WARFARE SUPPORT	7,230	7,230	7,230		7,230
0208160F	159	TECHNICAL EVALUATION SYSTEM					
0208161F	160	SPECIAL EVALUATION SYSTEM					
0301310F	161	NATIONAL AIR INTELLIGENCE CENTER	[ ]				
0301314F	162	COBRA BALL	[ ]				
0301315F	163	MISSILE AND SPACE TECHNICAL COLLECTION	[ ]				
0301324F	164	FOREST GREEN	[ ]				
0301398F	165	MANAGEMENT HEADQUARTERS GDIP	[ ]				
0302015F	166	E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC)	11,172	11,172	11,172		11,172
0303110F	167	DEFENSE SATELLITE COMMUNICATIONS SYSTEM (SPACE)					
0303131F	168	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEEC	33,183	33,183	33,183		33,183
0303140F	169	INFORMATION SYSTEMS SECURITY PROGRAM	79,625	87,625	87,625	6,500	86,125
		Cyber security research			[5,000]	[2,500]	
		Info systems security research			[3,000]	[2,000]	
		Worldwide Infrastructure Security Environment		[8,000]		[2,000]	
0303141F	170	GLOBAL COMBAT SUPPORT SYSTEM	18,637	18,637	18,637		18,637

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0303150F	171	GLOBAL COMMAND AND CONTROL SYSTEM	3,611	5,611	11,611	1,800	5,411
		Global awareness presentation system			[8,000]		
		Applied Research in Computing Enterprise Services		[2,000]		[1,800]	
0303401F	172	COMMUNICATIONS SECURITY (COMSEC)					
0303601F	173	MILSATCOM TERMINALS	272,149	272,149	272,149		272,149
0304111F	174	SPECIAL ACTIVITIES	[ ]				
0304311F	175	SELECTED ACTIVITIES	[ ]				
0305099F	176	GLOBAL AIR TRAFFIC MANAGEMENT (GATM)	7,291	7,291	7,291		7,291
0305110F	177	SATELLITE CONTROL NETWORK (SPACE)	17,833	17,833	20,833	2,500	20,333
		Civil reserve space service			[3,000]	[2,500]	
0305111F	178	WEATHER SERVICE	16,526	16,526	16,526		16,526
0305114F	179	AIR TRAFFIC CONTROL, APPROACH, AND LANDING SYSTEM (ATCALS)	7,371	7,371	7,371		7,371
0305116F	180	AERIAL TARGETS	5,178	5,178	5,178		5,178
0305128F	181	SECURITY AND INVESTIGATIVE ACTIVITIES	484	484	484		484
0305142F	182	APPLIED TECHNOLOGY AND INTEGRATION	[ ]				
0305148F	183	AIR FORCE TACTICAL MEASUREMENT AND SIGNATURE INTELLIGENCE (M	7,905	7,905	7,905		7,905
0305159F	184	DEFENSE RECONNAISSANCE SUPPORT ACTIVITIES (SPACE)	219,345	219,345	219,345	-30,000	189,345
		Classified adjustment				[-30,000]	
0305160F	185	DEFENSE METEOROLOGICAL SATELLITE PROGRAM (SPACE)					
0305164F	186	NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT) (SPACE)	104,114	104,114	104,114		104,114
0305165F	187	NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE AND CONTROL SEGMEN	148,344	148,344	148,344		148,344
0305172F	188	COMBINED ADVANCED APPLICATIONS	[ ]				
0305174F	189	SPACE WARFARE CENTER	411	411	411		411

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0305182F	190	SPACELIFT RANGE SYSTEM (SPACE)	47,253	47,253	47,253		47,253
0305191F	191	PERSONNEL SECURITY INVESTIGATIONS PROGRAM - AIR FORCE	118,787	118,787	118,787		118,787
0305193F	192	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)	1,097	1,097	1,097		1,097
0305202F	193	DRAGON U-2 (JMIP)	87,745	81,445	87,745		87,745
		ASIP Sensor Development		[-6,300]			
0305205F	194	ENDURANCE UNMANNED AERIAL VEHICLES		-2,000			
		Network Centric Collaborative Targeting		[-2,000]			
0305206F	195	AIRBORNE RECONNAISSANCE SYSTEMS	55,464	55,464	55,464		55,464
0305207F	196	MANNED RECONNAISSANCE SYSTEMS	13,283	24,783	13,283	3,200	16,483
		Geo Processor		[4,000]			
		COBRA BALL		[7,500]		[3,200]	
0305208F	197	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS	21,232	21,232	21,232		21,232
0305219F	198	PREDATOR UAV (JMIP)	81,346	81,346	81,346		81,346
0305220F	199	GLOBAL HAWK UAV (JMIP)	336,159	318,159	336,159		336,159
		Program decrease		[-18,000]			
0305887F	200	INTELLIGENCE SUPPORT TO INFORMATION WARFARE	963	963	963		963
		Program decrease					
0305906F	201	NCMC - TW/AA SYSTEM	64,822	64,822	64,822		64,822
0305910F	202	SPACETRACK (SPACE)	161,838	170,838	172,538	-21,600	140,238
		Air Force Space Surveillance System		[9,000]	[10,700]	[5,400]	
		Block 10 contract savings				[-7,000]	
		SBSS delay				[-20,000]	
0305911F	203	DEFENSE SUPPORT PROGRAM (SPACE)					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0305913F	204	NUDET DETECTION SYSTEM (SPACE)	35,398	35,398	35,398		35,398
0305917F	205	SPACE ARCHITECT	12,907	12,907	12,907		12,907
0308601F	206	MODELING AND SIMULATION SUPPORT					
0308699F	207	SHARED EARLY WARNING (SEW)	3,345	3,345	3,345		3,345
0401115F	208	C-130 AIRLIFT SQUADRON	150,242	153,242	150,242	2,000	152,242
		Realtime Weight and Balance Measurement		[3,000]		[2,000]	
0401119F	209	C-5 AIRLIFT SQUADRONS (IF)	332,982	332,982	332,982		332,982
0401130F	210	C-17 AIRCRAFT (IF)	199,692	199,692	199,692		199,692
0401132F	211	C-130J PROGRAM	36,305	36,305	36,305		36,305
0401134F	212	LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM)	73,684	73,684	73,684		73,684
0401218F	213	KC-135S	1,079	1,079	1,079		1,079
0401219F	214	KC-10S	18,452	9,352	18,452	-18,452	
		KC-10 GATM		[-9,100]		[-18,452]	
0408011F	215	SPECIAL TACTICS / COMBAT CONTROL	1,067	1,067	1,067		1,067
0702207F	216	DEPOT MAINTENANCE (NON-IF)	1,431	1,431	1,431		1,431
0702806F	217	ACQUISITION AND MANAGEMENT SUPPORT	1,596	1,596	1,596		1,596
0708011F	218	INDUSTRIAL PREPAREDNESS	38,012	38,012	42,512	3,200	41,212
		Aircraft batteries			[2,000]	[1,300]	
		Advanced nanomaterials research			[2,500]	[1,900]	
0708012F	219	LOGISTICS SUPPORT ACTIVITIES					
0708026F	220	PRODUCTIVITY, RELIABILITY, AVAILABILITY, MAINTAIN. PROG OFC (PRA					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0708611F	221	SUPPORT SYSTEMS DEVELOPMENT	50,238	50,238	57,238	3,000	53,238
		Modular fuel cell architecture development			[5,000]	[2,000]	
		Unmanned aging aircraft maintenance			[2,000]	[1,000]	
0708612F	222	COMPUTER RESOURCES SUPPORT IMPROVEMENT PROGRAM (CRSIP)					
0808716F	223	OTHER PERSONNEL ACTIVITIES	110	110	110		110
0901212F	224	SERVICE-WIDE SUPPORT (NOT OTHERWISE ACCOUNTED FOR)					
0901218F	225	CIVILIAN COMPENSATION PROGRAM	7,272	7,272	7,272		7,272
0901538F	226	FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT	15,732	15,732	15,732		15,732
XXXXXXXX	999	CLASSIFIED PROGRAMS	5,551,279	5,551,279	5,551,279		5,551,279
		Financial information systems			-11,500		
		Total, RDT&E Air Force	**21,114,667**	**21,532,967**	**21,264,267**	**-681,734**	**20,432,933**

Transformational satellite communications

The budget request included $674.8 million in PE 63845F for transformational military satellite communications (TSAT).

The House bill would authorize a decrease of $100.0 million in PE 63845F.

The Senate amendment would authorize a decrease of $100.0 million in PE 63845F.

The conferees agree to authorize $374.8 million in PE 63845F, a decrease of $300.0 million.

The conferees strongly support the objectives of the TSAT program, including much higher communications capacity, assured connectivity for a much larger number of mobile and fixed forces, and the ability to protect these capabilities against emerging threats. The conferees, however, have had continuing concerns related to the risk of the current acquisition approach and potential program delays, which the conferees believe could elevate operational risks resulting from gaps in the military satellite communications (MILSATCOM) architecture.

The conferees are aware of program options that could leverage both current MILSATCOM program investments and TSAT development efforts. The conferees believe that such an approach could accelerate the deployment of advanced communications capabilities, provide the opportunity to incrementally demonstrate advanced satellite communications technology, and provide a lower risk path to meeting TSAT requirements. The conferees believe that such an approach is potentially more consistent with spiral development and capabilities-based acquisition.

The conferees direct the Secretary of Defense to evaluate modified TSAT acquisition strategies that streamline the program structure and leverage current MILSATCOM investment, and to provide a report to the congressional defense committees on that evaluation by March 1, 2005.

Space based radar

The budget request included $327.7 million in PE 63858F for space based radar (SBR).

The House bill would authorize the budget request.

The Senate amendment would authorize the budget request.

The conferees agree to authorize $75.0 million in PE 63858F for SBR, a decrease of $252.7 million.

The conferees believe that the United States must continue to improve its space-based and airborne intelligence, reconnaissance, and surveillance (ISR) systems; and believe that persistent surveillance will be critical to future U.S. military and intelligence capabilities. The conferees note that space based radar can make a significant contribution to persistent surveillance and that radars provide the only all weather, day/night ISR capabilities.

While strongly supportive of radar satellites, the conferees are concerned that the Air Force cost estimates for the notional SBR architecture that served as the basis for the fiscal year 2005 budget request were very high. If accurate, these estimates could render the system unaffordable.

The conferees believe that affordability will be critically dependent on the development and deployment of a single radar sat-

ellite system to meet both military and intelligence community needs and the thorough integration of space based radar ISR capabilities into a system of systems architecture that includes air assets, other national technical means, responsive space assets, and possibly near-space assets. Such an integration will have direct and significant implications for the capabilities needed in any one element of a system of systems. The conferees believe that an integrated architecture, that leverages and evolves existing architectures as well as innovative technologies, will provide greater capabilities earlier and at a more affordable cost.

Consequently, the conferees believe that the number of satellites and technical capabilities needed in an SBR system, and how an SBR system might evolve over time, is critically dependent on a more complete understanding of an integrated ISR system. The conferees direct that the SBR effort be restructured to focus on continued technology maturation (including satellite integration), architectural analysis, and system evolution. The conferees further direct the Secretary of Defense to submit a report to the congressional defense committees no later than March 1, 2005, outlining the key features and programmatic implications of an ISR system of systems architecture that includes national technical means and other space, air, responsive space, near-space and terrestrial systems.

Space based infrared system

The budget request included $508.4 million in PE 64441F for the space based infrared system (SBIRS).

The House bill would authorize the budget request.

The Senate amendment would authorize the budget request.

The conferees agree to authorize an increase of $35.0 million in PEG 4441F.

The conferees remain concerned with continued SBIRS cost increases, schedule delays, and technical problems. The conferees note that the initial 1996 cost estimate for SBIRS was $3.6 billion; that estimate has increased by nearly $4 billion in the last three years and is now $10.0 billion. While strongly supportive of the development of next generation early warning capabilities, the conferees do not believe that continuation of this program can be justified if such increases continue in the future. The conferees direct the Secretary of Defense to provide a report in classified and unclassified form to the congressional defense committees no later than February 1, 2005 on the cause of the most recent SBIRS cost increases, schedule delays, and technical problems; the most recent Defense Support Program gap analysis and any effect that further delays will have on U.S. early warning, technical intelligence, and missile defense capabilities; steps taken to address the most recent SBIRS technical difficulties; any adjustments in management and contract arrangements with the contractor to reflect the most recent program challenges; remaining risk areas; and an assessment of the confidence level in the SBIRS schedule and cost estimates current as of October 1, 2004.

DEFENSE—WIDE

Research, Development, Test and Evaluation, Defense-wide Overview

The budget request for fiscal year 2005 included an authorization of $20,739.8 million in Research, Development, Test and Evaluation, Defense-wide for the Department of Defense.

The House bill would authorize $20,721.3 million.

The Senate amendment would authorize $20,654.4 million.

The conferees recommend an authorization of $20,252.9 million. Unless noted explicitly in the statement of managers, all changes are made without prejudice.

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
		RESEARCH, DEVELOPMENT, TEST & EVALUATION, DEFENSE-WIDE					
0601101D8Z	1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH					
0601101E	2	DEFENSE RESEARCH SCIENCES	143,729	148,729	151,229	9,900	153,629
		Molecular electronics			[2,500]	[1,900]	
		Infectious disease research			[2,000]	[1,000]	
		Nanophotonics systems research			[2,000]	[2,000]	
		Novel energetic materials			[1,000]		
		Optoelectronics and Optical Communications		[3,000]		[3,000]	
		Super Lattice Nanotechnology		[2,000]		[2,000]	
0601103D8Z	3	UNIVERSITY RESEARCH INITIATIVES					
0601105D8Z	4	FORCE HEALTH PROTECTION					
0601108D8Z	5	HIGH ENERGY LASER RESEARCH INITIATIVES					
0601111D8Z	6	GOVERNMENT/INDUSTRY COSPONSORSHIP OF UNIVERSITY RESEARCH			7,000	7,000	7,000
		Focus center research program			[7,000]	[7,000]	
0601114D8Z	7	DEFENSE EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESE/	9,590	9,590	9,590		9,590
0601384BP	8	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	36,769	51,769	36,769	11,000	47,769
		Basic Research Initiative		[15,000]		[11,000]	
0602227D8Z	9	MEDICAL FREE ELECTRON LASER	9,668	19,668	17,668	9,000	18,668
		Medical free electron laser		[10,000]	[8,000]	[9,000]	
0602228D8Z	10	HISTORICALLY BLACK COLLEGES AND UNIVERSITIES (HBCU) SCIENCE	14,192	14,192	14,192		14,192
0602234D8Z	11	LINCOLN LABORATORY RESEARCH PROGRAM	25,441	25,441	25,441		25,441
0602301E	12	COMPUTING SYSTEMS AND COMMUNICATIONS TECHNOLOGY	342,614	322,614	342,614		342,614
0602302E	13	EMBEDDED SOFTWARE AND PERVASIVE COMPUTING					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602383E	14	BIOLOGICAL WARFARE DEFENSE	147,533	157,533	150,533	3,000	150,533
		Biodefense research			[3,000]	[1,000]	
		Asymmetric Protocols		[10,000]		[2,000]	
0602384BP	15	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	104,385	129,385	114,285	33,350	137,735
		Mustard gas antidote			[3,000]	[3,000]	
		Bioinformatics			[2,000]	[2,000]	
		Chemical agent persistence models			[2,900]	[2,900]	
		Neurotoxin mitigation research (S. Amdt 3241)			[2,000]	[1,000]	
		Applied Research Initiative		[25,000]		[24,450]	
0602702E	16	TACTICAL TECHNOLOGY	339,175	300,175	314,175	-12,200	326,975
		Stimulated Isomer Energy Release		[-4,000]	[-4,000]	[-4,000]	
		Automated battle management			[-10,000]		
		Novel sensors			[-3,000]	[-3,200]	
		HEDlight			[-5,000]		
		Laser star			[-3,000]	[-3,000]	
		Walrus Hybrid Airlift Vehicle		[-10,000]			
		High-speed/Hypersonic reusable demonstration		[-15,000]			
		Program Reduction		[-10,000]			
		Combat zones that see				[-2,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0602712E	17	MATERIALS AND ELECTRONICS TECHNOLOGY	502,044	492,044	479,044	-3,500	498,544
		Bio-based nanosensors			[2,000]	[2,000]	
		Unjustified growth			[-25,000]		
		Program Reduction		[-10,000]			
		BioFabrication				[-5,500]	
0602716BR	18	WMD DEFEAT TECHNOLOGY	249,786	259,786	249,786		249,786
		Nuclear Weapons Effects		[10,000]			
0602717BR	19	WMD DEFENSE TECHNOLOGIES	116,113	116,113	116,113		116,113
0602787D8Z	20	MEDICAL TECHNOLOGY	10,084	10,084	10,184		10,084
		Pseudofolliculitis Barbae			[100]		
0602890D8Z	21	HIGH ENERGY LASER RESEARCH					
1160401BB	22	SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT	13,109	16,109	13,109	2,500	15,609
		Spike Missile Development and Production		[3,000]		[2,500]	
1160407BB	23	SOF MEDICAL TECHNOLOGY DEVELOPMENT	2,162	2,162	2,162		2,162
0603002D8Z	24	MEDICAL ADVANCED TECHNOLOGY	2,063	7,063	5,063	1,500	3,563
		Anti-radiation Drug and Trials Program		[5,000]		[1,500]	
		Radiation casualty research (S. Amdt 3157)			[3,000]		
0603104D8Z	25	EXPLOSIVES DEMILITARIZATION TECHNOLOGY					
0603121D8Z	26	SO/LIC ADVANCED DEVELOPMENT	32,682	32,682	32,682		32,682
0603122D8Z	27	COMBATING TERRORISM TECHNOLOGY SUPPORT	46,719	74,219	56,719	13,500	60,219
		Blast mitigation			[10,000]	[7,000]	
		SVS Collaborative and Virtual Reality Training Pilot		[2,500]		[1,500]	
		Advanced Combating Terrorism Technology		[25,000]		[5,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603160BR	28	COUNTERPROLIFERATION INITIATIVES - PROLIFERATION PREVENTION A	74,456	74,456	79,456	5,000	79,456
		Portable radiation search tool			[5,000]	[5,000]	
0603175C	29	BALLISTIC MISSILE DEFENSE TECHNOLOGY	204,320	208,320	211,120	6,100	210,420
		Massively parallel optical interconnects		[4,000]	[4,000]	[3,400]	
		Radiation hardened CMOS			[3,300]	[2,700]	
		Radiation hardened CMOS (S. Amdt 3228)			[-500]		
0603225D8Z	30	JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT	23,319	23,319	23,319		23,319
0603232D8Z	31	AUTOMATIC TARGET RECOGNITION					
0603285E	32	ADVANCED AEROSPACE SYSTEMS	361,067	306,067	321,067	-37,500	323,567
		Unjustified growth			[-25,000]		
		Reduction - Orbital Express project			[-15,000]	[-10,000]	
		Program Reduction		[-20,000]			
		Walrus Hybrid Airlift Vehicle		[-10,000]		[-10,000]	
		Transfer to 63122D8Z		[-25,000]			
		RASCAL				[-5,000]	
		CAV				[-12,500]	
0603384BP	33	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - ADVANCED DEVELOI	117,343	152,343	126,843	38,250	155,593
		Anthrax and plague oral vaccine development			[6,000]	[2,800]	
		Water quality sensors			[3,500]	[2,600]	
		Advanced Technology Development Initiative		[35,000]		[32,850]	
0603400D8Z	34	JOINT UNMANNED COMBAT AIR SYSTEMS (J-UCAS) ADVANCED TECHNOI	284,617	284,617	284,617		284,617
0603704D8Z	35	SPECIAL TECHNICAL SUPPORT					
0603711BR	36	ARMS CONTROL TECHNOLOGY					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603712S	37	GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS	27,542	29,542	47,042	18,150	45,692
		Ferrite technology			[2,500]	[2,500]	
		Support of legacy systems			[2,000]	[2,000]	
		Multi-purpose airframe support system			[2,500]	[1,400]	
		Vehicle fuel cell program			[7,000]	[5,250]	
		Supply chain surge/shortage			[2,500]	[2,500]	
		Microelectronics testing and technology			[3,000]	[3,000]	
		Connectory for Rapid ID of Tech Resources		[2,000]		[1,500]	
0603716D8Z	38	STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM	56,936	56,936	56,936		56,936
0603727D8Z	39	JOINT WARFIGHTING PROGRAM	9,936	9,936	9,936		9,936
0603739E	40	ADVANCED ELECTRONICS TECHNOLOGIES	218,151	213,151	207,151		218,151
		Unjustified growth			[-11,000]		
		Program Reduction		[-5,000]			
0603750D8Z	41	ADVANCED CONCEPT TECHNOLOGY DEMONSTRATIONS	213,901	213,901	215,901	2,000	215,901
		Hardware encryption device			[2,000]	[2,000]	
0603755D8Z	42	HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM	186,666	192,666	190,666	4,000	190,666
		High performance computing visualization			[2,000]	[2,000]	
		Simulation center upgrade		[6,000]	[2,000]	[2,000]	
0603760E	43	COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS	225,784	205,784	214,784	-4,000	221,784
		Unjustified growth			[-11,000]		
		Program Reduction		[-20,000]			
		Space Based Networking				[-4,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603762E	44	SENSOR AND GUIDANCE TECHNOLOGY	337,117	312,117	322,117	-3,000	334,117
		Unjustified growth			[-15,000]		
		Program Reduction		[-25,000]			
		ISIS				[-3,000]	
0603763E	45	MARINE TECHNOLOGY					
0603764E	46	LAND WARFARE TECHNOLOGY	63,121	63,121	63,121		63,121
0603765E	47	CLASSIFIED DARPA PROGRAMS	238,131	213,131	238,131		238,131
		Program Reduction		[-25,000]			
0603766E	48	NETWORK-CENTRIC WARFARE TECHNOLOGY	125,124	110,124	125,124		125,124
		Program Reduction		[-15,000]			
0603769SE	49	DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT	13,756	13,756	13,756		13,756
0603781D8Z	50	SOFTWARE ENGINEERING INSTITUTE	21,599	21,599	21,599		21,599
0603805S	51	DUAL USE APPLICATION PROGRAMS					
0603826D8Z	52	QUICK REACTION SPECIAL PROJECTS	64,389	169,389	74,389	5,300	69,689
		IED Electronic Counter Measures and Jammers		[30,000]			
		Optical Surveillance Systems		[25,000]			
		Quick Reaction Counter Rocket and Mortar Capability		[50,000]			
		Combat casualty technologies (S. Amdt 3264)			[10,000]	[5,300]	
0603832D8Z	53	JOINT WARGAMING SIMULATION MANAGEMENT OFFICE	46,017	46,017	46,017		46,017
0603924D8Z	54	HIGH ENERGY LASER ADVANCED TECHNOLOGY PROGRAM					
0603942D8Z	55	TECHNOLOGY LINK	1,934	1,934	1,934		1,934
0605160D8Z	56	COUNTERPROLIFERATION SUPPORT	1,958	1,958	7,958		1,958
		Nuclear physical security			[6,000]		

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
1160402BB	57	SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT	48,803	64,803	48,803	7,000	55,803
		Remote Sensor Power Source		[4,000]			
		Advanced ID Capability for AC-130U		[3,000]			
		ANGELFIRE Active Protection		[6,000]		[6,000]	
		Surveillance Augmentation Vehicle - Insertable on Request		[3,000]		[1,000]	
0603228D8Z	58	PHYSICAL SECURITY EQUIPMENT					
0603709D8Z	59	JOINT ROBOTICS PROGRAM	11,771	11,771	11,771		11,771
0603714D8Z	60	ADVANCED SENSOR APPLICATIONS PROGRAM	17,581	35,581	17,581	9,150	26,731
		Program increase		[10,000]		[5,550]	
		Multi-Wavelength Surface Scanning Biologics Sensor		[3,000]		[1,500]	
		Advanced Solid State Dye Laser		[5,000]		[2,100]	
0603736D8Z	61	CALS INITIATIVE					
0603851D8Z	62	ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM	32,546	32,546	40,246		32,546
		Unexploded ordnance detection using airborne GPR			[4,700]		
		Enhanced techniques for the detection of explosives (ETDE)			[3,000]		
0603869C	63	MEADS CONCEPTS					
0603879C	64	ADVANCED CONCEPTS, EVALUATIONS AND SYSTEMS	256,159	206,159	256,159	-25,000	231,159
		Reduce programmed growth		[-50,000]		[-25,000]	
0603880C	65	BALLISTIC MISSILE DEFENSE SYSTEM SEGMENT					
0603881C	66	BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT	937,748	984,748	937,748		937,748
		Arrow coproduction (non-additive)			[80,000]	[68,000]	
		Program increase		[47,000]			

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603882C	67	BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT	4,384,775	4,414,775	4,424,775	62,000	4,446,775
		GMD enhancements			[75,000]	[75,000]	
		GMD long lead			[-35,000]		
		Solid State S Band Radar		[30,000]		[15,000]	
		Long lead materials for interceptors #31-40				[-28,000]	
0603883C	68	BALLISTIC MISSILE DEFENSE BOOST DEFENSE SEGMENT	492,614	492,614	492,614		492,614
0603884BP	69	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	104,195	104,195	104,195		104,195
0603884C	70	BALLISTIC MISSILE DEFENSE SENSORS	591,957	540,957	611,957	9,000	600,957
		Airborne infrared system			[15,000]	[9,000]	
		E-2C infrared search and track (IRST)			[5,000]		
		Program decrease		[-56,000]			
		Post Ramos Project		[5,000]			
0603886C	71	BALLISTIC MISSILE DEFENSE SYSTEM INTERCEPTOR	511,262	396,262	311,262	-163,000	348,262
		Kinetic energy interceptor			[-200,000]		
		Program decrease		[-75,000]			
		BMD System Interceptor Program (H. Amdt 10)		[-48,000]			
		Boost Phase Hit-to-Kill		[8,000]			
		Reduce programmed growth				[-163,000]	
0603888C	72	BALLISTIC MISSILE DEFENSE TEST & TARGETS	713,658	713,658	713,658		713,658
0603889C	73	BALLISTIC MISSILE DEFENSE PRODUCTS	418,608	358,608	423,608	-13,500	405,108
		Joint National Integration Center			[5,000]	[2,500]	
		Program decrease		[-60,000]			
		Reduce programmed growth				[-16,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603890C	74	BALLISTIC MISSILE DEFENSE SYSTEMS CORE	479,764	449,764	474,764	-74,000	405,764
		Corporate lethality program			[-5,000]		
		Program decrease		[-30,000]			
		Wide Bandwidth Technology (non-additive)		[4,000]		[1,000]	
		System engineering and integration national team unjustified growth				[-75,000]	
0603910D8Z	75	STRATEGIC CAPABILITY MODERNIZATION					
060xxxxD8Z	75A	Operationally responsive satellite payloads			25,000		
0603920D8Z	76	HUMANITARIAN DEMINING	13,747	13,747	13,747		13,747
0603923D8Z	77	COALITION WARFARE	5,886	5,886	5,886		5,886
0604400D8Z	78	JOINT UNMANNED COMBAT AIR SYSTEMS (J-UCAS) ADVANCED COMPON	422,873	422,873	422,873	-200,000	222,873
		Program restructure				[-200,000]	
0604722D8Z	79	JOINT SERVICE EDUCATION AND TRAINING SYSTEMS DEVELOPMENT					
0605017D8Z	80	REDUCTION OF TOTAL OWNERSHIP COST	27,351	27,351	27,351	-27,351	
		Lack of program justification				[-27,351]	
0303191D8Z	81	JOINT ELECTROMAGNETIC TECHNOLOGY (JET) PROGRAM	6,679	6,679	6,679		6,679
	81a	Joint Experimentation		167,626			
	81b	Joint Warfare Experiments		26			
	81c	Joint Warfare Transformation Programs		22,450			
0604384BP	82	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	152,379	165,379	159,379	-11,500	140,879
		Joint Biological Point Detection System		[5,000]	[5,000]	[3,500]	
		JSLSCAD			[2,000]		
		Joint Service Lightweight Standoff Chemical Agent Detector		[8,000]			
		JCAD - Cancellation				[-15,000]	

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0604618D8Z	83	MANPADS DEFENSE PROGRAM	14,135		14,135	-6,500	7,635
		Program decrease		[-14,135]		[-6,500]	
0604709D8Z	84	JOINT ROBOTICS PROGRAM	13,845	13,845	13,845		13,845
0604764K	85	ADVANCED IT SERVICES JOINT PROGRAM OFFICE (AITS-JPO)	18,183	18,183	18,183		18,183
0604771D8Z	86	JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)	18,515	18,515	18,515		18,515
0604861C	87	THEATER HIGH-ALTITUDE AREA DEFENSE SYSTEM - TMD					
0604865C	88	PATRIOT PAC-3 THEATER MISSILE DEFENSE ACQUISITION					
0605013BL	89	INFORMATION TECHNOLOGY DEVELOPMENT	10,683	10,683	10,683		10,683
0605013D8Z	90	PROTOTYPE ACCOUNTING SYSTEMS					
0605014SE	91	INFORMATION TECHNOLOGY DEVELOPMENT	52,407	52,407	52,407		52,407
0605015BL	92	INFORMATION TECHNOLOGY DEVELOPMENT-STANDARD PROCUREMEN	6,690	6,690	6,690		6,690
0605016D8Z	93	FINANCIAL MANAGEMENT SYSTEM IMPROVEMENTS	94,767	45,767	94,767	-45,000	49,767
		Program decrease		[-49,000]		[-45,000]	
0303129K	94	DEFENSE MESSAGE SYSTEM	6,623	6,623	6,623		6,623
0303140K	95	INFORMATION SYSTEMS SECURITY PROGRAM	2,493	2,493	2,493		2,493
0303141K	96	GLOBAL COMBAT SUPPORT SYSTEM	17,867	17,867	17,867		17,867
0303158K	97	JOINT COMMAND AND CONTROL PROGRAM (JC2)	3,000	3,000	3,000		3,000
0305840K	98	ELECTRONIC COMMERCE	3,466	3,466	3,466		3,466
0305840S	99	ELECTRONIC COMMERCE	2,345	2,345	2,345		2,345
0901200D8Z	100	BMMP DOMAIN MANAGEMENT AND SYSTEMS INTEGRATION	7,472	7,472	7,472		7,472
0603704D8Z	101	SPECIAL TECHNICAL SUPPORT	19,274	19,274	19,274	8,000	27,274
		Classified Adjustment				[8,000]	
0603757D8Z	102	TRAINING TRANSFORMATION (T2)					

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0603835D8Z	103	TRANSFORMATION INITIATIVES PROGRAM	9,977	9,977	9,977	-9,977	
		Program reduction				[-9,977]	
0603858D8Z	104	UNEXPLODED ORDNANCE DETECTION AND CLEARANCE					
0604774D8Z	105	DEFENSE READINESS REPORTING SYSTEM (DRRS)	19,691	19,691	19,691		19,691
0604875D8Z	106	JOINT SYSTEMS ARCHITECTURE DEVELOPMENT	4,989	4,989	4,989		4,989
0604943D8Z	107	THERMAL VICAR	7,263	7,263	7,263		7,263
0605104D8Z	108	TECHNICAL STUDIES, SUPPORT AND ANALYSIS	30,618	31,618	25,618	1,000	31,618
		Unjustified growth			[-5,000]		
		NDU Technology Pilot Program		[1,000]		[1,000]	
0605110BR	109	CRITICAL TECHNOLOGY SUPPORT	1,937	1,937	1,937		1,937
0605114D8Z	110	BLACK LIGHT	21,535	21,535	21,535		21,535
0605116D8Z	111	GENERAL SUPPORT TO C3I					
0605117D8Z	112	FOREIGN MATERIAL ACQUISITION AND EXPLOITATION	35,572	35,572	35,572		35,572
0605123D8Z	113	INTERAGENCY EXPORT LICENSE AUTOMATION	5,882	5,882	5,882		5,882
0605124D8Z	114	DEFENSE TRAVEL SYSTEM	28,508	28,508	28,508		28,508
0605126J	115	JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION	86,409	86,409	86,409		86,409
0605128D8Z	116	CLASSIFIED PROGRAM USD(P)					
0605130D8Z	117	FOREIGN COMPARATIVE TESTING	35,633	37,183	35,633	1,000	36,633
		Weather SCOUT UAV		[1,550]		[1,000]	
0605170D8Z	118	SUPPORT TO NETWORKS AND INFORMATION INTEGRATION	11,490	11,490	13,690	1,100	12,590
		Command Information Superiority Architectures Program			[2,200]	[1,100]	
0605200D8Z	119	GENERAL SUPPORT TO USD (INTELLIGENCE)	4,830	4,830	4,830		4,830

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0605384BP	120	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	42,652	42,652	42,652	-5,000	37,652
		Management support cost growth				[-5,000]	
0605502BR	121	SMALL BUSINESS INNOVATION RESEARCH					
0605502C	122	SMALL BUSINESS INNOVATIVE RESEARCH - MDA					
0605502D8Z	123	SMALL BUSINESS INNOVATIVE RESEARCH					
0605502E	124	SMALL BUSINESS INNOVATIVE RESEARCH					
0605710D8Z	125	CLASSIFIED PROGRAMS - C3I			10,000	3,000	3,000
		Foreign Supplier Assessment Center			[10,000]	[3,000]	
0605790D8Z	126	SMALL BUSINESS INNOVATION RESEARCH/CHALLENGE ADMINISTRATIO	1,999	1,999	1,999		1,999
0605798S	127	DEFENSE TECHNOLOGY ANALYSIS	7,279	7,279	8,279		7,279
		Global research watch			[1,000]		
0605799D8Z	128	FORCE TRANSFORMATION DIRECTORATE	19,591	44,591	19,591	20,000	39,591
		Operationally Responsive Satellite		[25,000]		[20,000]	
		Operationally Responsive Satellite (line 75A)					
0605801K	129	DEFENSE TECHNICAL INFORMATION SERVICES (DTIC)	45,203	45,203	45,203		45,203
0605803SE	130	R&D IN SUPPORT OF DOD ENLISTMENT, TESTING AND EVALUATION	10,598	10,598	10,598		10,598
0605804D8Z	131	DEVELOPMENT TEST AND EVALUATION	8,882	8,882	8,882		8,882
0605898E	132	MANAGEMENT HQ - R&D	46,689	46,689	46,689		46,689
0303169D8Z	133	INFORMATION TECHNOLOGY RAPID ACQUISITION	19,958	2,958	19,958	-14,958	5,000
		Rapid Acquisition Process		[-17,000]		[-14,958]	
0305193D8Z	134	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)	12,878	12,878	12,878		12,878
0305193G	135	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)	[ ]				
0901585C	136	PENTAGON RESERVATION	13,884	13,884	13,884		13,884

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0901598C	137	MANAGEMENT HQ - MDA	141,923	141,923	141,923	-25,000	116,923
		Reduce programmed growth				[-25,000]	
0901598D8W	138	IT SOFTWARE DEV INITIATIVES	1,700	1,700	1,700		1,700
0909999E	139	FINANCING FOR CANCELLED ACCOUNT ADJUSTMENTS					
XXXXXXX	999	Classified Programs increase		20,400			
0604805D8Z	140	COMMERCIAL OPERATIONS AND SUPPORT SAVINGS INITIATIVE					
0605127T	141	PARTNERSHIP FOR PEACE (PFP) INFORMATION MANAGEMENT SYSTEM	6,995	6,995	6,995		6,995
0607384BP	142	CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS DEVEL(	2,178	2,178	2,178		2,178
0208043J	143	CLASSIFIED PROGRAMS	1,663	1,663	1,663		1,663
0208045K	144	C4I INTEROPERABILITY	41,074	41,074	41,074		41,074
0208052J	145	JOINT ANALYTICAL MODEL IMPROVEMENT PROGRAM	5,577	5,577	5,577		5,577
0300205R	146	INFORMATION TECHNOLOGY SYSTEMS					
0301011G	147	CRYPTOLOGIC ACTIVITIES	[ ]				
0301301L	148	GENERAL DEFENSE INTELLIGENCE PROGRAM	[ ]				
0301318BB	149	HUMINT (CONTROLLED)	[ ]				
0301398L	150	MANAGEMENT HEADQUARTERS GDIP, DIA	[ ]				
0301555BB	151	CLASSIFIED PROGRAMS	[ ]				
0301556BB	152	SPECIAL PROGRAM	[ ]				
0302016K	153	NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT	1,240	1,240	1,240		1,240
0302019K	154	DEFENSE INFO INFRASTRUCTURE ENGINEERING AND INTEGRATION	2,517	2,517	2,517		2,517
0303126K	155	LONG-HAUL COMMUNICATIONS - DCS	11,401	11,401	11,401		11,401
0303127K	156	SUPPORT OF THE NATIONAL COMMUNICATIONS SYSTEM					
0303131K	157	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEEC	7,261	7,261	7,261		7,261

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0303140D8Z	158	INFORMATION SYSTEMS SECURITY PROGRAM	11,135	11,135	11,135		11,135
0303140G	159	INFORMATION SYSTEMS SECURITY PROGRAM	477,846	477,846	477,846		477,846
0303149J	160	C4I FOR THE WARRIOR	4,177	4,177	4,177		4,177
0303149K	161	C4I FOR THE WARRIOR	24,712	24,712	24,712		24,712
0303150K	162	GLOBAL COMMAND AND CONTROL SYSTEM	43,693	43,693	43,693		43,693
0303153K	163	JOINT SPECTRUM CENTER	18,941	18,941	18,941		18,941
0303165K	164	DEFENSE COLLABORATION TOOL SUITE (DCTS)	8,503	8,503	8,503		8,503
0303170K	165	NET-CENTRIC ENTERPRISE SERVICES (NCES)	52,059	52,059	52,059		52,059
0303610K	166	TELEPORT PROGRAM	10,272	10,272	10,272		10,272
0304210BB	167	SPECIAL APPLICATIONS FOR CONTINGENCIES	20,758	20,758	20,758		20,758
0304345BQ	168	NATIONAL IMAGERY AND MAPPING PROGRAM	[ ]				
0305102BQ	169	DEFENSE IMAGERY AND MAPPING PROGRAM	[ ]	-200			
		TPED of SYERS-2		[3,000]			
		National Geospatial-Intelligence Agency		[-3,200]			
0305125D8Z	170	CRITICAL INFRASTRUCTURE PROTECTION (CIP)	28,021	28,021	28,021		28,021
0305127BZ	171	FOREIGN COUNTERINTELLIGENCE ACTIVITIES	[ ]				
0305127V	172	FOREIGN COUNTERINTELLIGENCE ACTIVITIES					
0305146BZ	173	DEFENSE JOINT COUNTERINTELLIGENCE PROGRAM (JMIP)	32,939	32,939	32,939		32,939
0305146D8Z	174	DEFENSE JOINT COUNTERINTELLIGENCE PROGRAM (JMIP)					
0305183L	175	DEFENSE HUMINT PROGRAM (DHIP)	[ ]				
0305190D8Z	176	C3I INTELLIGENCE PROGRAMS					
0305191D8Z	177	TECHNOLOGY DEVELOPMENT					
0305193G	178	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)	[ ]				

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
0305193L	179	INTELLIGENCE SUPPORT TO INFORMATION OPERATIONS (IO)	[ ]				
0305199D8Z	180	NET CENTRICITY	214,222	144,222	214,222	-80,000	134,222
		Program decrease		[-70,000]			
		Horizontal Fusion program reduction				[-80,000]	
0305202G	181	DRAGON U-2 (JMIP)	[ ]				
0305206G	182	AIRBORNE RECONNAISSANCE SYSTEMS	[ ]				
0305207G	183	MANNED RECONNAISSANCE SYSTEMS	[ ]				
0305208BQ	184	DISTRIBUTED COMMON GROUND SYSTEMS	[ ]				
0305208G	185	DISTRIBUTED COMMON GROUND SYSTEMS	[ ]				
0305208L	186	DISTRIBUTED COMMON GROUND SYSTEMS	[ ]				
0305883L	187	HARD AND DEEPLY BURIED TARGET INTEL SUPPORT	[ ]		10,000		
		Enhanced ISR			[10,000]		
0305884L	188	INTELLIGENCE PLANNING AND REVIEW ACTIVITIES	[ ]	10,000			
		Measures and Signatures Intelligence Consortium		[10,000]			
0305885G	189	TACTICAL CRYPTOLOGIC ACTIVITIES	[ ]				
0305889G	190	COUNTERDRUG INTELLIGENCE SUPPORT	[ ]				
0305917D8Z	191	NATIONAL SECURITY SPACE ARCHITECT (NSSA)					
0708011S	192	INDUSTRIAL PREPAREDNESS	11,005	23,205	16,005	4,500	15,505
		Advanced manufacturing technologies			[3,000]	[4,500]	
		Advanced manufacturing technologies (S Amdt 3157)			[2,000]		
		Smart Machine Platform Initiative		[12,200]			
0708012S	193	LOGISTICS SUPPORT ACTIVITIES	11,389	11,389	11,389		11,389
0902298J	194	MANAGEMENT HEADQUARTERS (JCS)	22,421	22,421	22,421		22,421

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
1001018D8Z	195	NATO JOINT STARS	30,399	30,399	30,399		30,399
1160279BB	196	SMALL BUSINESS INNOVATIVE RESEARCH/SMALL BUS TECH TRANSFER I					
1160401BB	197	SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT					
1160402BB	198	SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT					
1160404BB	199	SPECIAL OPERATIONS TACTICAL SYSTEMS DEVELOPMENT	311,966	311,966	316,866	-28,500	283,466
		LAW confined space			[4,900]		
		Underexecution				[-10,000]	
		CAAP Program				[-18,500]	
1160405BB	200	SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT	25,015	25,015	32,015	5,800	30,815
		Wireless management and control project			[5,000]	[3,800]	
		Joint Threat Warning System maritime variants (S. Amdt 3471)			[2,000]	[2,000]	
1160407BB	201	SOF MEDICAL TECHNOLOGY DEVELOPMENT					
1160408BB	202	SOF OPERATIONAL ENHANCEMENTS	57,643	57,643	61,643	1,400	59,043
		Tactical computer system development			[4,000]	[1,400]	
XXXXXXX	999	CLASSIFIED PROGRAMS	3,578,082	3,583,082	3,578,082		3,578,082
		Program Increase		[5,000]			
		Financial information systems			-10,500		
		Total, RDT&E Defense-Wide	**20,739,837**	**20,721,254**	**20,654,437**	**-486,986**	**20,252,851**

Chemical and biological defense basic research program

The budget request included $36.8 million in PE 61384BP for chemical and biological defense program basic research.

The House bill would authorize an increase of $15.0 million in PE 61384BP for a chemical and biological defense basic research initiative.

The Senate amendment would authorize the budget request.

The conferees agree to authorize an increase of $11.0 million in PE 61384BP for a chemical and biological defense basic research initiative. The conferees note that projects and technologies to be considered for funding under the chemical and biological defense basic research initiative should be selected on the basis of technical merit and potential operational utility. The conferees recommend that the projects and technologies to be considered for funding under the chemical and biological defense basic research initiative should include, but not be limited to, the following: engineered pathogen identification and countermeasures, multipurpose biodefense immunoarrays and fluorescence activated sensing technologies.

Chemical and biological defense applied research program

The budget request included $104.4 million in PE 62384BP for chemical and biological defense program applied research.

The House bill would authorize an increase of $25.0 million in PE 62384BP for a chemical and biological defense applied research initiative.

The Senate amendment would authorize an increase of $8.9 million in PE 62384BP, including $3.0 million for mustard gas antidotes; $2.0 million for bioinformatics; $2.0 million for neurotoxin mitigation research; and $2.9 million for chemical agent persistence models.

The conferees agree to authorize an increase of $33.4 million in PE 62384BP for chemical and biological defense program applied research, including $3.0 million for mustard gas antidote; $2.0 million for bioinformatics; $1.0 million for neurotoxin mitigation research; $2.9 million chemical agent persistence models; and $24.5 million for a chemical and biological applied research initiative.

The conferees note that projects and technologies to be considered for funding under the chemical and biological defense program applied research initiative should be selected on the basis of technical merit and potential operational utility. The conferees recommend that the projects and technologies to be considered for funding under the chemical and biological defense applied research initiative should include, but not be limited to, the following: air contamination monitoring systems; hand-held detectors; heat shock protein vaccine creation processes; low-cost chemical-biological protective shelters; membrane research for next generation chemical-biological protective suits; rapid anti-body based biological countermeasures; and rapid decontamination systems for nerve agents.

Stimulated isomer energy release

The budget request included $339.2 million in PE 62702E for tactical technology applied research, including $4.0 million for the

Defense Advanced Research Project Agency's (DARPA) stimulated isomer energy release (SIER) project.

The House bill and the Senate amendment would reduce the budget request for the SIER project by $4.0 million. The House bill also directed the Secretary of Defense to terminate the project.

The conferees agree to authorize no funds for continuation of the DARPA SIER project and direct that the DARPA project be terminated.

Combating terrorism technology support

The budget request included $46.7 million in PE 63122D8Z for combating terrorism technology support programs.

The House bill would authorize an increase of $27.5 million in PE 63122D8Z for combating terrorism technology support programs, including $25.0 million for advanced combating terrorism technology support.

The Senate amendment would authorize an increase of $10.0 million in PE 63122D8Z for blast mitigation research. The conferees agree to authorize an increase of $13.5 million in PE 63122D8Z for combating terrorism technology support, including $7.0 million for blast mitigation; $5.0 million for advanced combating terrorism technology support; and $1.5 million for combating terrorism intelligence, surveillance, and reconnaissance research.

Chemical and biological defense program advanced technology development

The budget request included $117.3 million in PE 63384BP for the chemical and biological defense program for advanced technology development.

The House bill would authorize an increase of $35.0 million in PE 63384BP for a chemical and biological defense program advanced technology initiative.

The Senate amendment would authorize an increase of $9.5 million for chemical and biological defense program advanced technology development, including $6.0 million for anthrax and plague oral vaccine development; and $3.5 million for water quality sensors.

The conferees agree to authorize an increase of $38.3 million for chemical and biological defense program for advanced technology development, including $32.9 million for an advanced technology development initiative; $2.8 million for anthrax and plague oral vaccine development; and $2.6 million for water quality sensors.

The conferees note that projects and technologies to be considered for funding under the chemical and biological defense advanced technology development initiative should be selected on the basis of technical merit and potential operational utility. The conferees recommend that the projects and technologies to be considered for funding under the chemical and biological defense basic research initiative should include, but not be limited to, the following: hand-held biological detection systems; immuno biological/chemical threat agent detectors; non-invasive vectored vaccine development; and recombinant protein vaccines.

Airborne laser

The budget request included $474.3 million in PE 63883C for the airborne laser (ABL).

The House bill would authorize the budget request.

The Senate amendment would authorize the budget request.

The conferees agree to authorize the budget request.

The conferees remain convinced of the importance of boost phase intercept in the ballistic missile defense architecture, and note that ABL has potentially revolutionary capabilities. The conferees also note that, in response to consistent cost overruns and schedule delays, the program has been restructured to reflect these difficulties and its developmental nature. The conferees applaud this restructuring and are aware of progress in recent months toward achieving key milestones in the ABL program, particularly first light from conjoined laser modules. The conferees note that demonstrated progress in these areas will be critical to the continuation of the ABL effort.

The conferees direct the Secretary of Defense to provide a report to the congressional defense committees by February 15, 2005 that provides the status of ABL laser tests and the beam control/fire control system and recommendations on the future of the ABL program.

Kinetic energy interceptor

The budget request included $511.3 million in PE 63886C for the kinetic energy interceptor (KEI) and associated boost phase intercept efforts.

The House bill authorized a decrease of $75.0 million in PE 63886C.

The Senate amendment authorized a decrease of $200.0 million in PE 63886C.

The conferees agree to authorize $348.3 million in PE 63886C, a decrease of $163.0 million.

The conferees remain convinced that the KEI could be an important aspect of the overall ballistic missile defense architecture, potentially contributing intercept capabilities in boost, midcourse, and terminal phases of the threat missile flight. The conferees are concerned, however, with the lack of progress in defining basing modes. The conferees note that:

(1) Recent justifications for the KEI ground-based variant suggest that it might serve as the basis for midcourse intercept capability in Europe. At the same time, however, the budget request included $35.0 million for additional ground-based interceptors (GBI) for the ground-based midcourse defense element that could be deployed in Europe; and

(2) Consideration of sea-based concepts of operations and platforms do not appear to be progressing.

The conferees direct the Director of the Missile Defense Agency to provide a report to the congressional defense committees by February 1, 2005 that includes planned ground- and sea-basing modes for KEI (including specific sea-based platforms) and the concept of operations for each basing mode; how KEI will enhance ballistic missile defense system capabilities; the role KEI may play in European missile defense and how that role relates to the fielding of ad-

ditional GBIs; and a comparison of anticipated sea-based KEI capabilities with other sea-based missile defense options.

Operationally responsive space

The budget request included $19.6 million in PE 65799D8Z for the force transformation directorate, but no funds for operationally responsive satellite payloads and busses.

The House bill would authorize an increase of $25.0 million in PE 65799D8Z for operationally responsive satellite payloads.

The Senate amendment would authorize $25.0 million in a new program element for operationally responsive satellite payloads.

The conferees believe that smaller, less expensive satellites may provide a means of achieving more rapid and effective deployment of space-based military capabilities than is now possible. The conferees are encouraged by Air Force efforts to develop small, low-cost space launch vehicles as an essential step for enabling the launch of such satellites, but are concerned that the effort to develop viable payloads for these rockets is not adequately funded. The conferees note that the Office of Transformation is working with the Air Force Research Laboratory to develop lightweight, experimental tactical satellites (TACSATs), but that this effort lacks dedicated funding. The conferees also believe that the development of standards, protocols, and interfaces for common satellite bus components will be key to producing affordable small satellites. The conferees agree to authorize $39.6 million in PE 65799D8Z, an increase of $20.0 million, for further development of TACSATs and common small satellite bus components. The conferees expect, consistent with section 913 of this Act, that future funding requests for operationally responsive payloads will be forwarded in a separate and dedicated program element.

TEST AND EVALUATION

Operational Test and Evaluation, Defense Overview

The budget request for fiscal year 2005 included an authorization of $305.1 million in Operational Test and Evaluation, Defense for the Department of Defense.

The House bill would authorize $305.1 million.

The Senate amendment would authorize $309.1 million.

The conferees recommend an authorization of $304.1 million. Unless noted explicitly in the statement of managers, all changes are made without prejudice.

Title II-RDT and E

(Dollars in Thousands)

Account	Line	Program Title	FY2005 Request	House Authorized	Senate Authorized	Conference Change	Conference Authorized
		OPERATIONAL TEST & EVALUATION, DEFENSE					
0603941D8Z	1	TEST & EVALUATION SCIENCE & TECHNOLOGY	16,295	16,295	16,295	-1,500	14,795
		Execution/delays				[-1,500]	
0604940D8Z	2	CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT (CTEIP)	123,562	123,562	126,562	1,500	125,062
		Autonomous unmanned surface vessel			[3,000]	[1,500]	
0605118D8Z	3	OPERATIONAL TEST AND EVALUATION	42,390	42,390	42,390		42,390
0605131D8Z	4	LIVE FIRE TESTING	10,209	10,209	11,209	1,000	11,209
		Joint Test and Training Rapid Advanced Capabilities			[1,000]	[1,000]	
0605804D8Z	5	DEVELOPMENT TEST AND EVALUATION	112,679	112,679	112,679	-2,000	110,679
		Threat systems				[-2,000]	
		Total, Operational Test & Evaluation, Defense	**305,135**	**305,135**	**309,135**	**-1,000**	**304,135**
		TOTAL RDT&E	**67,772,288**	**68,090,361**	**68,608,688**	**-1,274,530**	**66,497,758**

ITEMS OF SPECIAL INTEREST

Department of Defense—National Aeronautics and Space Administration coordination

The conferees note that in the areas of aeronautics and space research technology development, the Department of Defense and the National Aeronautics and Space Administration (NASA) must coordinate closely in order to ensure that the nation continues its global leadership in these technologies.

The conferees believe that as NASA evaluates its future plans for aeronautics, it is essential that the Department and NASA provide for the continued availability of unique wind tunnels and other research, test, and evaluation facilities and services critical to the development of military systems. The conferees direct the Under Secretary of Defense for Acquisition, Technology and Logistics to identify and analyze aeronautics facilities currently managed by NASA that are considered by the Department to be critical to the accomplishment of defense missions and to the maintenance of U.S. leadership in aeronautics.

The conferees also endorse the Secretary of Defense's emphasis on transformational technologies. One of the more promising technologies under development is hypersonic propulsion, which when further developed will provide significantly improved operational capabilities for both manned and unmanned flight, missile defense and a single-stage-to-flight capability that could provide rapid access to space. Unfortunately, due to changing priorities within both the Air Force and NASA, funding for such efforts has been reduced to insignificant levels.

The conferees direct the Secretary of Defense to submit a report to the congressional defense committees by March 15, 2005, which details the Department's plans to provide the required funding to pursue a development program for transition of hypersonic technologies to an integrated demonstration system that validates their affordability and effectiveness to support prompt global strike and assured space access missions. The report should analyze the results and technological advances enabled by the X–43 series of programs and other efforts to develop a detailed technology roadmap and investment strategy consistent with meeting future military needs in hypersonics. The conferees believe the capabilities to be realized through a successful hypersonic development program justify the sustained and full support of the Department and NASA.

Enterprise Resource Planning for Army Combat Logistics

The Army logistics systems arm, fuel, repair, move, and sustain combat forces. The Army's goals for modernization of its legacy logistics systems include improved sustainment of combat forces using fewer soldiers, increased readiness and operational availability, and significantly lowering cost. The Army plans to modernize its logistics systems using enterprise resource planning systems, which will provide essential information for timely decision making and accurate performance measurement. They use no custom software code and only commercial, off-the-shelf computer technology. They are also web-based with a robust telecommuni-

cations infrastructure and have been tested at thousands of sites outside the Army.

The conferees encourage the Army to leverage existing Army information technology assets and expertise to augment funds within the Global Combat Support System account to complete the blueprinting and accelerate fielding of the system, wherever feasible, to replace 20–year-old systems which are unable to fully support combat operations.

Patriot air and missile defense system

The conferees note that the Patriot air and missile defense system destroyed all nine theater ballistic missiles launched at coalition forces during Operation Iraqi Freedom (OIF) for which intercept was attempted. The conferees also note, however, that the Patriot was also involved in three "friendly fire" incidents during that conflict and that electromagnetic interference (EMI) between Patriot and other systems contributed to these incidents. Similar interference problems with the Patriot occurred during the Gulf War in 1991.

The conferees strongly support the Patriot system, note with approval that the Army has reprogrammed funding to fix the known "friendly-fire" problems associated with the Patriot, and are encouraged at the level of attention given to this problem since the OIF incidents. The conferees expect, however, that as more radars, communications systems, and other emitting systems are added to the battlefield in the future, EMI problems will continue to grow in complexity.

The conferees direct the Secretary of Defense to submit a report to the congressional defense committees by March 1, 2005 summarizing the tests, exercises, and changes to operational procedures and requirements that are planned or being implemented to prevent or reduce future EMI problems with the Patriot system. The conferees also direct the Director of Operational Test and Evaluation to include an assessment of the Department's plans to reduce EMI problems with the Patriot system in his Annual Report to Congress, required by section 139 of title 10, United States Code.

Russian-American missile defense cooperation

The conferees understand that the Secretary of Defense desires to explore opportunities for missile defense cooperative programs with the Russian Federation that build upon the experience gained in the Russian-American Observation Satellite (RAMOS) program that was terminated earlier this year. The conferees recognize the potential importance of such cooperative efforts, both to the technical success of the U.S. missile defense effort and to the establishment of a cooperative strategic relationship with the Russian Federation.

The conferees urge the Secretary to engage in serious negotiations with the Russian Federation as soon as possible on joint missile defense programs. The conferees believe that previous efforts under the RAMOS program, including Russian Presidential and Government decrees and the U.S.-Russian Federation technical agreement, should be leveraged to help ensure the successful initiation of such efforts.

LEGISLATIVE PROVISIONS ADOPTED

Subtitle A—Authorization of Appropriations

Authorization of appropriations (sec. 201)

The House bill contained a provision (sec. 201) that would authorize the recommended fiscal year 2005 funding levels for the Research, Development, Test and Evaluation accounts for the Army, Navy, Marine Corps, Air Force, Defense-wide activities and the Director of Operational Test and Evaluation.

The Senate amendment contained a similar provision (sec. 201).

The conference agreement includes this provision.

Amount for defense science and technology (sec. 202)

The budget request included $10,550.3 million for Department of Defense science and technology (S&T) programs.

The House bill would authorize $11,067.7 million for defense S&T programs.

The Senate amendment would authorize $11,012.4 million for defense S&T programs.

The conferees agree to authorize $11,191.6 million for S&T programs, an increase of $641.3 million over the request. The increase provided by the conferees brings the Department closer to 3 percent of total spending, the goal stated by the Department and outside experts as the desired investment for these programs. In recognition of the key role played by S&T in maintaining the best equipped, best protected fighting force in the world, the conferees have targeted increases to project areas which improve current capabilities, while focusing on basic research and long-term projects that ensure future innovation.

The conferees note that current operations in Iraq, Afghanistan, and elsewhere continue to demonstrate how technologies transitioned from the Department's S&T programs are enhancing the combat effectiveness of warfighters, reducing casualties, and improving the efficiency and flexibility of our military forces. The conferees commend the Department for mobilizing its technical capabilities in the science and technology community to support these current global operations.

The conferees expect to see an increased commitment by the Department to robustly fund S&T in the fiscal year 2006 budget, along with an appropriate balance within the accounts that acknowledges the importance of long-term research in an era of immediate and pressing needs.

Conferees also urge continued attention to a key component of ensuring the U.S. military's technological edge—development, recruitment and retention of skilled scientists and engineers.

Subtitle B—Program Requirements, Restrictions, and Limitations

Future Combat Systems program strategy (sec. 211)

The House bill contained a provision (sec. 211) that would direct the Secretary of the Army to establish and implement a program strategy for the Future Combat Systems (FCS) acquisition

program. The provision limits authorization of appropriations for FCS in fiscal year 2005 to $2.2 billion until the Secretary of the Army certifies that elements of the program strategy includes certain technical and performance criteria before production facilitization and long lead items are placed on contract. The provision also requires the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) to submit to the Congress: (1) an independent program cost estimate; (2) a report, prepared by an independent panel, on the maturity levels of critical technologies; (3) a report on the status of the network and command, control, communications, computers, intelligence, surveillance, and reconnaissance components; and (4) key performance parameters, prior to the Milestone B update required by the FCS acquisition decision memorandum.

The Senate amendment contained no similar provision.

The Senate recedes with an amendment that limits the authorization of appropriations for FCS in fiscal year 2005 to $2.2 billion until the Secretary of the Army certifies that elements of the program strategy includes certain technical and performance criteria before production facilitization and long lead items are placed on contract. The amendment requires the USD(AT&L) to submit to Congress: (1) a program cost estimate; (2) a report, prepared by an independent panel, on the maturity levels of critical technologies; (3) a report on the status of the network and command, control, communications, computers, intelligence, surveillance, and reconnaissance components; and (4) key performance parameters, prior to the Milestone B update required by the FCS acquisition decision memorandum. The amendment also requires the USD (AT&L) submit to Congress an independent cost estimate of the FCS program not later than March 1, 2005.

The conferees continue to support FCS and believe that the Army has made a sound decision to restructure the FCS program. With this restructure, the Army will reduce FCS program risk while providing increased capabilities for the current force.

Collaborative program for research and development of vacuum electronics technologies (sec. 212)

The House bill contained a provision (sec. 212) that would require the Secretary of Defense to establish a program for research and development in advanced vacuum electronics technology to meet Department of Defense requirements.

The Senate amendment contained no similar provision.

The Senate recedes with an amendment that would require the Director, Defense Research and Engineering to submit a report on establishment of a collaborative vacuum electronics research and development program that: identifies a department lead to carry out the effort; assesses the role of investing in vacuum electronics technologies as part of the overall strategy of the Department's investments to meet electronic technology needs; provides a management plan and schedule for the program; identifies required funding and a list of program capability goals and objectives; outlines the role of basic and applied research in support of the program; and assesses global capabilities in the technology area.

The conferees note that vacuum electronics are utilized in a variety of the Department's systems, particularly many legacy systems. While there is a trend toward solid state electronics in most defense systems, the Department must ensure that systems which depend on the use of vacuum electronics will have access to the most advanced technologies available.

Annual Comptroller General report on Joint Strike Fighter program (sec. 213)

The House bill contained a provision (sec. 213) that would require the Comptroller General to conduct an annual review of the Joint Strike Fighter (JSF) aircraft program, and submit a report of that review to Congress by March 15 of each year from fiscal year 2005 through fiscal year 2009.

Senate amendment contained no similar provision.

The Senate recedes with an amendment that would require the annual report to be submitted to the congressional defense committees.

The conferees are aware of the recently conducted study by a senior independent review team on the JSF program, and believe that the first report submitted by March 15, 2005 should place emphasis on the degree to which the program office and contractor have incorporated the recommendations of that team.

Amounts for U.S. Joint Forces Command to be derived only from Defense-wide accounts (sec. 214)

The House bill contained a provision (sec. 214) that would transfer funding for the joint warfare experimentation programs of U.S. Joint Forces Command (JFCOM) from Research, Development, Test and Evaluation (RDT&E), Navy accounts to an RDT&E, Defense-wide account.

The Senate amendment contained a similar provision (sec. 216).

The Senate recedes with an amendment that would require, beginning in fiscal year 2007, all RDT&E funds for JFCOM be derived from Defense-wide RDT&E funds, and that this be clearly reflected in the budget request.

The conferees note that this provision does not take effect until fiscal year 2007. The conferees direct, however, that the amounts requested for JFCOM joint warfare experimentation programs be separately identified in the fiscal year 2006 budget request, and distinguished within any executive agent account in which they are included. The conferees also note that JFCOM is responsible for a number of critical efforts directly related to increasing the joint warfighting capability of the military services, and that funding those efforts through executive agents does not provide Congress with clear visibility into the amounts dedicated to those key joint initiatives. The practice of requesting funding through executive agents also distorts the amount of funding for military service activities that carry funding for joint initiatives. The conferees have strong interest not only in joint experimentation, which is addressed by this provision, but in JFCOM joint training initiatives as well. Therefore the conferees direct the Department of Defense, when submitting its fiscal year 2006 budget request, to clearly

identify funding for joint training activities in Defense-wide and executive agent accounts to enhance congressional visibility into funding dedicated to joint training in future budgets.

The conferees further note the unique, important role that JFCOM plays in developing doctrine and capabilities for other combatant commanders, and in developing and monitoring joint training standards for elements of the Armed Forces and coalition partners. The conferees believe that the Department should consider the establishment of a major force program or similar consolidation of related budget activities for joint experimentation, procurement, and training activities.

Global Positioning System III satellite (sec. 215)

The Senate amendment contained a provision (sec. 212) that would prohibit the obligation or expenditure of any more than 80 percent of the funds authorized to be appropriated for the Global Positioning System III (GPS) until the Secretary of Defense completes an analysis of alternatives and submits a report on that analysis to the congressional defense committees.

The House bill contained no similar provision.

The House recedes.

The conferees expect the analysis of alternatives to include an assessment of architectures that take advantage of smaller, lighter weight, and potentially less expensive GPS satellites.

Initiation of concept demonstration of Global Hawk high altitude endurance unmanned aerial vehicle (sec. 216)

The Senate amendment contained a provision (sec. 213) that would amend section 221(c) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398) by changing the date by which the Secretary of Defense is to initiate the demonstration of the Global Hawk high altitude endurance unmanned aerial vehicle from March 1, 2001 to March 1, 2005.

The House bill contained no similar provision.

The House recedes.

Joint unmanned combat air systems program (sec. 217)

The Senate amendment contained a provision (sec. 214) that would require the Secretary of Defense to establish an executive committee, which would provide guidance and recommendations for the management of the joint unmanned combat air systems program to the Director of the Defense Advanced Research Projects Agency (DARPA) for as long as the program is managed by DARPA.

The House bill contained no similar provision.

The House recedes.

Subtitle C—Missile Defense Programs

Fielding of ballistic missile defense capabilities (sec. 231)

The House bill contained a provision (sec. 221) that would authorize the Department of Defense to use Research, Development, Test and Evaluation funds appropriated in fiscal years 2005 and

2006 for the Missile Defense Agency to develop and field ballistic missile defense capabilities.

The Senate amendment contained a similar provision (sec. 231) that would authorize the use of Research, Development, Test and Evaluation funds appropriated in fiscal year 2005 for the development and fielding of an initial set of missile defense capabilities.

The Senate recedes.

Integration of Patriot Advanced Capability-3 and Medium Extended Air Defense System into ballistic missile defense system (sec. 232)

The Senate amendment contained a provision (sec. 232) that would require the Secretary of the Army to obtain approval of the Director of the Missile Defense Agency (MDA) prior to making changes to system level specifications or establishing new system level specifications for the combined Patriot Advanced Capability–3 (PAC–3) and Medium Extended Air Defense System (MEADS) program. It would also require such approval prior to making any significant change in procurement quantities or the baseline schedule for the PAC–3/MEADS combined program.

The House bill contained no similar provision.

The House recedes with an amendment that would define the PAC–3/MEADS air and missile defense program as part of the integrated ballistic missile defense system (BMDS), and require that the Director of MDA, in consultation with the Secretary of the Army (acting through the Assistant Secretary of the Army for Acquisition, Logistics and Technology), ensure that any configuration change to the PAC–3/MEADS program is subject to MDA's configuration control processes. The amendment would also require that the Secretary of the Army (acting through the Assistant Secretary of the Army for Acquisition, Logistics and Technology) make significant changes to the baseline technical specifications and schedule for the PAC–3/MEADS program only with the concurrence of the Director of the Missile Defense Agency. The amendment would further require the Secretary of Defense to establish procedures to determine the effect of significant changes proposed by the Secretary of the Army to planned PAC–3/MEADS procurement quantities on BMDS capabilities; to provide for reviews of the proposed procurement changes by all relevant Department of Defense commands and agencies; to obtain the concurrence or nonconcurrence of those commands and agencies with the proposed procurement changes; and to submit a report to the congressional defense committees on the procedures the Secretary of Defense establishes.

Comptroller General assessments of ballistic missile defense programs (sec. 233)

The Senate amendment contained a provision (sec. 233) that would require assessments by the Comptroller General of the extent to which missile defense programs met their cost, schedule, test, and performance goals for the years 2004 through 2009. The provision also requires the Comptroller General to submit reports on those assessments to the congressional defense committees.

The House bill contained no similar provision.

The House recedes with an amendment that would require assessments by the Comptroller General of the extent to which missile defense programs met their cost, schedule, test, and performance goals for the years 2004 through 2006.

Baselines and operational test and evaluation for ballistic missile defense system (sec. 234)

The Senate amendment contained a provision (sec. 234) that would require: (1) the Secretary of Defense, in consultation with the Director of Operational Test and Evaluation (DOT&E), to prepare appropriate criteria for operationally realistic testing of the ballistic missile defense system (BMDS); (2) the conduct of a test consistent with those criteria not later than October 1, 2005; (3) the conduct of tests consistent with those criteria for each block configuration of the BMDS; (4) evaluation of those tests by the DOT&E; (5) the establishment of baselines for each block configuration of the BMDS; and (6) the Director of the Missile Defense Agency to report variances in program performance from those baselines to Congress and the reasons for any changes made to the baselines.

The House bill contained no similar provision.

The House recedes.

Subtitle D—Other Matters

Annual report on submarine technology insertion (sec. 241)

The Senate amendment contained a provision (sec. 241) that would require the Secretary of Defense to submit an annual report on available or potentially available technologies for insertion into submarines for each of fiscal years 2006, 2007, 2008, and 2009.

The House bill contained no similar provision.

The House recedes.

Sense of the Congress regarding funding of the Advanced Shipbuilding Enterprise under the National Shipbuilding Research Program of the Navy (sec. 242)

The Senate amendment contained a provision (sec. 242) that would express the sense of the Senate in support of continued funding for the Advanced Shipbuilding Enterprise under the National Shipbuilding Research Program of the Navy, citing it as a method for exploring and collaborating on innovation in shipbuilding and ship repair that collectively benefits all components of the industry.

The House bill contained no similar provision.

The House recedes with an amendment that would change the provision to a sense of the Congress.

LEGISLATIVE PROVISIONS NOT ADOPTED

Program increases

The House bill contained a provision (sec. 203) that would authorize an increase of $5.0 million in PE 25633N for Research, Development, Test and Evaluation, Navy, for nano composite hardcoat for aircraft canopies, and an increase of $5.0 million in PE

27443F for Research, Development, Test and Evaluation, Air Force, for command and control service-level management.

The Senate amendment contained no similar provision.

The House recedes.

The conferees agree to authorize an increase of $2.3 million in PE 25633N for nano composite hard-coat for aircraft canopies, and an increase of $3.8 million in PE 27443F for command and control service-level management. DD(X)-class destroyer program.

The Senate amendment contained a provision (sec. 211) that would authorize the Secretary of the Navy to fund the second destroyer of the DD(X)-class with Research, Development, Test and Evaluation, Navy funds, and would direct that $99.4 million be authorized for detail design of the second ship.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize a total of $1,471.5 million in PE 64300N for the DD(X) destroyer, including $84.4 million to begin detail design of the second ship of the class.

The conferees have strongly supported both the DD(X) program and the Navy's acquisition strategy, which uses the construction and test of engineering development models (EDMs) to mitigate technical risk.

The conferees are aware of the assessment by the Government Accountability Office (GAO) of the maturity of 12 technologies critical to DD(X), as the program entered the system development and demonstration (SDD) phase, and the GAO's further assessment that DD(X) technology maturity and design stability will not be demonstrated before the Milestone B decision scheduled for March 2005. Many of the tests to demonstrate technical maturity will occur around the time of the critical design review (CDR) late in fiscal year 2005. Program officials acknowledge the risks associated with the advanced technologies, but the conferees believe that taking such risks is warranted to ensure that the DD(X) technologies are not obsolete, and that the Navy has taken adequate steps to mitigate the risks before ship construction begins. These steps include the identification of fall back options if new technologies are not available.

In particular, the conferees note the concerns expressed in the House report (H. Rept. 108–491) regarding the schedule for land-based testing of the integrated power system and advanced gun system EDMs. These two system EDMs are not scheduled to complete land-based testing until late in fiscal year 2005, coincident with the DD(X) CDR.

The conferees agree that the integrated power system and advanced gun system are key elements which drive much of the DD(X) design, and that land-based testing of these systems should be essentially complete prior to the DD(X) CDR. The conferees direct the Secretary of the Navy, in coordination with the Under Secretary of Defense for Acquisition, Technology and Logistics, to report to the congressional defense committees following completion of the DD(X) CDR. That report should include the results of the CDR and an assessment of the readiness of the program to proceed beyond the SDD phase of the program.

The conferees share the concerns raised in the Senate Report (S. Rept. 108–260) regarding maintaining the viability of a competitive industrial base for the design and construction of Navy surface combatants. As noted in that report, the Navy had originally planned to compete the construction phase of the DD(X), but made a decision to award that contract on a sole-source basis to the shipyard with lead design responsibility. The conferees expect the Navy to take all actions necessary to ensure the viability of the second shipyard in order to maintain a healthy and competitive industrial base for surface combatants.

Joint Strike Fighter aircraft program

The Senate amendment contained a provision (sec. 215) that would require the Secretary of Defense to have the Defense Science Board (DSB) conduct a study of the Joint Strike Fighter (JSF) aircraft program, which would be delivered to the congressional defense committees with the budget request for fiscal year 2006. This study would focus primarily on the issue of excess weight in the aircraft, the potential performance penalties that would be incurred, and the technical approaches to solve these issues.

The House bill amendment contained no similar provision.

The Senate recedes.

The conferees have been made aware of the results of a recently completed study by a senior-level independent review team which reviewed almost identical areas of the JSF program, and believe another study by the DSB would be redundant at this time.

Space based radar

The House bill contained a provision (sec. 215) that would prohibit the Department of Defense from proceeding to Milestone B in the Space Based Radar program until 30 days after meeting a requirement to provide the congressional defense committees and intelligence committees a report that includes independent cost and technology maturity and readiness assessments and the system design concept for the program.

The Senate amendment contained no similar provision.

The House recedes.

Mark–54 torpedo product improvement program

The House bill contained a provision (sec. 216) that would make available $2.0 million of the funds in PE 64610N for Research, Development, Test, and Evaluation, Navy for the Mark–54 torpedo product improvement program.

The Senate amendment contained no similar provision.

The House recedes.

The conferees agree to authorize an increase of $1.5 million in PE 64610N for the Mark–54 torpedo product improvement program.

Infrastructure system security engineering development for the Navy

The Senate amendment contained a provision (sec. 217) that would authorize an increase of $3.0 million in PE 26313M for Research, Development, Test and Evaluation, Navy, for infrastructure system security engineering development.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize an increase of $1.5 million in PE 26313M for infrastructure system security engineering at the Critical Infrastructure Protection Center.

Neurotoxin Mitigation Research

The Senate amendment contained a provision (sec. 218) that would authorize an increase of $2.0 million in PE 62384BP for Research, Development, Test and Evaluation, Defense-wide activities for neurotoxin mitigation research.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize an increase of $1.0 million in PE 62384BP for neurotoxin mitigation research.

Spiral development of Joint Threat Warning System maritime variants

The Senate amendment contained a provision (sec. 219) that would authorize an increase of $2.0 million in PE 116405BB for the development of maritime variants for the Joint Threat Warning System (JTWS), to be offset by a decrease of $2.0 million of the amount authorized to be appropriated for military personnel (sec. 421), with the amount of the reduction to be derived from excess amounts provided for military personnel of the Air Force.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize an increase of $2.0 million in PE116405BB for spiral development of maritime variants for JTWS.

Advanced ferrite antenna

The Senate amendment contained a provision (sec. 220) that would authorize an increase of $3.0 million in PE 26313M for Research, Development, Test, and Evaluation, Navy, for advanced ferrite antenna development.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize an increase of $2.1 million in PE 26313M for advanced ferrite antenna development.

Prototype littoral array system for operating submarines

The Senate amendment contained a provision (sec. 221) that would authorize an increase of $5.0 million in PE 64503N for Research, Development, Test and Evaluation, Navy for the design, development, and testing of a prototype littoral array system for operating submarines.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize an increase of $3.3 million in PE 64503N for the design, development, and testing of a prototype littoral array system for operating submarines.

Advanced manufacturing technologies and radiation casualty research

The Senate amendment contained a provision (sec. 222) that would authorize an increase of $2.0 million in PE 78011S for advanced manufacturing technologies and $3.0 million in PE 63002D8Z for radiation casualty research.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize an increase of $4.5 million in PE 78011S for advanced manufacturing technologies.

Research and development for improved prevention of leishmaniasis

The Senate amendment contained a provision (sec. 328) that would authorize an increase of $0.5 million in the Defense Health Program and $4.5 million in PE 64807A for research and development for improved prevention of leishmaniasis.

The House bill contained no similar provision.

The Senate recedes.

The conferees agree to authorize an increase of $0.5 million in the Defense Health Program, $1.4 million in PE 63002A, and $4.5 million in PE 64807A for research and development for the prevention and treatment of leishmaniasis.