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TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

OVERVIEW

The budget request contained $47,429.4 million for research, development, test, and evaluation (RDT&E), representing an increase to the amount of $41,008.6 million provided for fiscal year 2001. The committee recommends $47,735.2 million, an increase of $230.5 million to the budget request. The committee also recommends $65.3 million, the requested amount, for Defense Health Program RDT&E funding.

The committee notes that the fiscal year 2002 request for RDT&E funding represents the first significant increase in the past decade, and the first time in six years that the requested amount for RDT&E was greater than the amount provided by Congress in the previous year.

The committee strongly supports this much needed increase and notes that the Department of Defense and the military services have all initiated major efforts to transform military warfighting capabilities to better prepare for future threats and challenges. While supportive of these transformation efforts, the committee remains concerned that the largest portion of the total RDT&E request is contained in the fielded system development category, the area primarily dedicated to upgrades of existing systems. The committee reviewed these program increases and recommended a number of funding transfers specified in the report from mature systems development accounts to science & technology programs which are more representative of transformation.

The committee believes that the amount requested for RDT&E for fiscal year 2002 represents an appropriate level of funding to support initial transformation efforts, but this level of funding is insufficient to support both transformation of the services and continued modernization of legacy capabilities. The committee urges the Secretary of Defense to outline clearly the priorities for RDT&E investment strategies in consonance with the results of the Quadrennial Defense Review results and in coordination with Congress.

TITLE II - RESEARCH DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

ACCOUNT TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
TOTAL, RESEARCH DEVELOPMENT TEST & EVALUATION, ARMY	**6,693,920**	**55,105**	**6,749,025**
RESEARCH AND DEVELOPMENT	4,354,774	101,003	4,455,777
ENGINEERING AND MANUFACTURING DEVELOPMENT	2,339,146	(45,898)	2,293,248
TOTAL, RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY	**11,123,389**	**(260,115)**	**10,863,274**
RESEARCH AND DEVELOPMENT	7,006,175	160,981	7,167,156
ENGINEERING AND MANUFACTURING DEVELOPMENT	4,117,214	(421,096)	3,696,118
TOTAL, RESEARCH DEVELOPMENT TEST & EVALUATION, AIR FORCE	**14,343,982**	**111,671**	**14,455,653**
RESEARCH AND DEVELOPMENT	10,937,781	18,871	10,956,652
ENGINEERING AND MANUFACTURING DEVELOPMENT	3,406,201	92,800	3,499,001
TOTAL, RESEARCH DEVELOPMENT TEST & EVALUATION, DEFENSEWID	**15,050,787**	**323,836**	**15,374,623**
RESEARCH AND DEVELOPMENT	14,669,413	323,836	14,993,249
ENGINEERING AND MANUFACTURING DEVELOPMENT	381,374	0	381,374
TOTAL, OPERATIONAL TEST & EVAL, DEFENSE	**217,355**	**0**	**217,355**
RESEARCH AND DEVELOPMENT	217,355	0	217,355
ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
TOTAL, DEFENSE HEALTH PROGRAM	**65,304**		**65,304**
RESEARCH AND DEVELOPMENT	0	0	0
ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
TOTAL, RESEARCH DEVELOPMENT TEST & EVALUATION	**47,494,737**	**230,497**	**47,725,234**
RESEARCH AND DEVELOPMENT	**37,185,498**	**604,691**	**37,790,189**
ENGINEERING AND MANUFACTURING DEVELOPMENT	**10,243,935**	**(374,194)**	**9,869,741**

ARMY RDT&E

Overview

The budget request contained $6,693.9 million for Army RDT&E. The committee recommends authorization of $6,749.0 million, an increase of $235.8 million and the transfer of $180.7 million for missile defense programs from Army RDT&E to Defense-wide RDT&E.

The committee recommendations for the fiscal year 2002 Army RDT&E program are identified in the table below. Major changes to the Army request are discussed following the table.

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		RESEARCH, DEVELOPMENT, TEST & EVALUATION, ARMY			
		BASIC RESEARCH			
0601101A	1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	14,815		14,815
0601102A	2	DEFENSE RESEARCH SCIENCES	138,281		138,281
0601104A	3	UNIVERSITY AND INDUSTRY RESEARCH CENTERS	69,147	10,000	79,147
		Collaboration in biotechnology research			(+10,000)
		TOTAL, BASIC RESEARCH	**222,243**	**10,000**	**232,243**
		RESEARCH AND DEVELOPMENT	222,243	10,000	232,243
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		APPLIED RESEARCH			
0602104A	4	TRACTOR ROSE			
0602105A	5	MATERIALS TECHNOLOGY	13,794		13,794
0602120A	6	SENSORS AND ELECTRONIC SURVIVABILITY	25,797	5,000	30,797
		Passive millimeter-wave imaging			(+5,000)
0602122A	7	TRACTOR HIP	7,741		7,741
0602211A	8	AVIATION TECHNOLOGY	49,265		49,265
0602270A	9	EW TECHNOLOGY	17,449		17,449
0602303A	10	MISSILE TECHNOLOGY	40,112	25,000	65,112
		Low cost inertial guidance technology			(+20,000)
		Short-Range Missile Defense with Optimized Radar Distribution (SWORD)			(+5,000)
0602307A	11	ADVANCED WEAPONS TECHNOLOGY	19,043		19,043
0602308A	12	MODELING AND SIMULATION TECHNOLOGY	20,579		20,579
0602601A	13	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY	82,441		82,441
0602618A	14	BALLISTICS TECHNOLOGY	61,502		61,502
0602622A	15	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY	3,561		3,561
0602623A	16	JOINT SERVICE SMALL ARMS PROGRAM	5,611		5,611
0602624A	17	WEAPONS AND MUNITIONS TECHNOLOGY	35,549		35,549
0602705A	18	ELECTRONICS AND ELECTRONIC DEVICES	27,819	9,000	36,819
		Advanced Display Technology			(+4,000)
		Advanced Fuel Cell Technology			(+5,000)

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0602709A	19	NIGHT VISION TECHNOLOGY	20,598	2,000	22,598
		Combustion Driven Self-Powered Eye-Safe Laser			(+2,000)
0602712A	20	COUNTERMINE SYSTEMS	16,689		16,689
0602716A	21	HUMAN FACTORS ENGINEERING TECHNOLOGY	16,466	10,800	27,266
		MEDTEAMS			(+7,800)
		Soldier Centered Design Tools for the Army Transformation			(+3,000)
0602720A	22	ENVIRONMENTAL QUALITY TECHNOLOGY	16,150		16,150
0602782A	23	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY	24,342		24,342
0602783A	24	COMPUTER AND SOFTWARE TECHNOLOGY	6,154		6,154
0602784A	25	MILITARY ENGINEERING TECHNOLOGY	42,850	3,000	45,850
		Brooks AFB Energy and Sustainability lab			(+3,000)
0602785A	26	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY	16,315		16,315
0602786A	27	WARFIGHTER TECHNOLOGY	27,061	3,000	30,061
		Combat ready food safety			(+3,000)
0602787A	28	MEDICAL TECHNOLOGY	82,494	9,000	91,494
		Hemoglobin Based Oxygen Carrier			(+7,000)
		Metabolically Engineered Tissues for Trauma Care			(+2,000)
0602789A	29	ARMY ARTIFICIAL INTELLIGENCE TECHNOLOGY			0
0602805A	30	DUAL USE SCIENCE AND TECHNOLOGY	10,045		10,045
		TOTAL, APPLIED RESEARCH	**689,427**	**66,800**	**756,227**
		RESEARCH AND DEVELOPMENT	689,427	66,800	756,227
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		ADVANCED TECHNOLOGY DEVELOPMENT			
0603001A	31	WARFIGHTER ADVANCED TECHNOLOGY	60,332	26,093	86,425
		increase			(+2,500)
		Transfer from PE 0203761A			(+23,593)
0603002A	32	MEDICAL ADVANCED TECHNOLOGY	17,541	6,000	23,541
		Special operations medical diagnostic system			(+1,000)
		Volumetrically Controlled Manufacturing			(+5,000)
0603003A	33	AVIATION ADVANCED TECHNOLOGY	44,843	(9,000)	35,843
		decrease			(-9,000)
0603004A	34	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY	29,684	22,000	51,684

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		Large caliber training ammunition			(+5,000)
		Trajectory correctable munition			(+17,000)
0603005A	35	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY	193,858	8,000	201,858
		Army Medium Brigade Composite Bridge			(+9,000)
		Conversion of Technical Manuals			(+2,000)
		National Automotive center standardized exchange of product data			(+7,000)
		decrease			(-10,000)
0603006A	36	COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY	31,865		31,865
0603007A	37	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY	3,120		3,120
0603009A	38	TRACTOR HIKE	10,415		10,415
0603017A	39	TRACTOR RED			0
0603020A	40	TRACTOR ROSE	9,293		9,293
0603105A	41	MILITARY HIV RESEARCH	5,937		5,937
0603122A	42	TRACTOR HIP			0
0603238A	43	GLOBAL SURVEILLANCE/AIR DEFENSE/PRECISION STRIKE TECHNOLOGY DEMONSTRATIO	32,267		32,267
0603270A	44	EW TECHNOLOGY	13,868		13,868
0603313A	45	MISSILE AND ROCKET ADVANCED TECHNOLOGY	59,518	8,500	68,018
		Army Composites Manufacturing and Maintenance Program			(+5,000)
		VCM Composites Technology			(+3,500)
0603322A	46	TRACTOR CAGE	3,312		3,312
0603606A	47	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY	23,062		23,062
0603607A	48	JOINT SERVICE SMALL ARMS PROGRAM	5,828		5,828
0603654A	49	LINE-OF-SIGHT TECHNOLOGY DEMONSTRATION	57,384	13,072	70,456
		Transfer from Missile Procurement, Army			(+13,072)
0603710A	50	NIGHT VISION ADVANCED TECHNOLOGY	37,081	12,000	49,081
		Dual Use Vision Technology			(+3,000)
		Night Vision Fusion Technology			(+9,000)
0603728A	51	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS	4,826		4,826
0603734A	52	MILITARY ENGINEERING ADVANCED TECHNOLOGY	4,747		4,747
0603772A	53	ADVANCED TACTICAL COMPUTER SCIENCE AND SENSOR TECHNOLOGY	18,513		18,513

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	**667,294**	**86,665**	**753,959**
		RESEARCH AND DEVELOPMENT	667,294	86,665	753,959
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		DEMONSTRATION AND VALIDATION			
0603308A	54	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (DEM/VAL)	19,491	12,000	31,491
		Family of Systems Simulators (FOSSIM)			(+3,000)
		P3 Micro-Power devices for missile defense applications			(+3,000)
		Supercluster distributed memory technology demonstration			(+4,000)
		Thermionic Technology			(+3,000)
		decrease			(-1,000)
0603619A	55	LANDMINE WARFARE AND BARRIER - ADV DEV	21,651		21,651
0603639A	56	TANK AND MEDIUM CALIBER AMMUNITION	32,986	12,014	45,000
		XM 1007 Anti-Tank Round			(+15,000)
		decrease			(-2,986)
0603653A	57	ADVANCED TANK ARMAMENT SYSTEM (ATAS)	101,461		101,461
0603713A	58	ARMY DATA DISTRIBUTION SYSTEM			0
0603747A	59	SOLDIER SUPPORT AND SURVIVABILITY	17,482	(3,482)	14,000
		decrease			(-3,482)
0603766A	60	TACTICAL ELECTRONIC SURVEILLANCE SYSTEM - ADV DEV	16,749		16,749
0603774A	61	NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT	12,756	(2,756)	10,000
		decrease			(-2,756)
0603779A	62	ENVRONMENTAL QUALITY TECHNOLOGY DEM/VAL	7,536	6,500	14,036
		Asbestos Pilot Project			(+2,000)
		Porta Bella environmental technology			(+7,000)
		decrease			(-2,500)
0603782A	63	WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL	15,075	(5,000)	10,075
		decrease			(-5,000)
0603790A	64	NATO RESEARCH AND DEVELOPMENT	8,633		8,633
0603801A	65	AVIATION - ADV DEV	9,105	10,000	19,105
		Survival radios			(+10,000)
0603802A	66	WEAPONS AND MUNITIONS - ADV DEV	31,670		31,670
0603804A	67	LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV	7,456		7,456

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0603805A	68	COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION AND ANALYSIS	8,696		8,696
0603807A	69	MEDICAL SYSTEMS - ADV DEV	15,506	3,000	18,506
		International Medical Program Global Satellite System			(+3,000)
0603850A	70	INTEGRATED BROADCAST SERVICE (JMIP/DISTP)	1,985		1,985
0603851A	71	TRACTOR CAGE (DEM/VAL)	3,718		3,718
0603854A	72	ARTILLERY SYSTEMS - DEM/VAL	447,949		447,949
0603856A	73	SCAMP BLOCK II DEM/VAL	9,895		9,895
0603869A	74	MEADS CONCEPTS - DEM/VAL	73,645	(73,645)	0
		transfer to PE 63881C			(-73,645)
		TOTAL, DEMONSTRATION AND VALIDATION	**863,445**	**(41,369)**	**822,076**
		RESEARCH AND DEVELOPMENT	863,445	(41,369)	822,076
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT			
0604201A	75	AIRCRAFT AVIONICS	57,474		57,474
0604220A	76	ARMED, DEPLOYABLE OH-58D	2,345		2,345
0604223A	77	COMANCHE	787,866	28,500	816,366
		Transfer from Missile Procurement, Army			(+28,500)
0604270A	78	EW DEVELOPMENT	57,010	9,000	66,010
		Advanced Threat IR Countermeasures/Common Missile Warning System (ATIRCM/CMWS)			(+9,000)
0604280A	79	JOINT TACTICAL RADIO	80,449		80,449
0604321A	80	ALL SOURCE ANALYSIS SYSTEM	42,166	3,500	45,666
		All Source Analysis System - Light			(+3,500)
0604328A	81	TRACTOR CAGE	3,888		3,888
0604329A	82	COMMON MISSILE	16,731		16,731
0604601A	83	INFANTRY SUPPORT WEAPONS		5,000	5,000
		XM303			(+5,000)
0604604A	84	MEDIUM TACTICAL VEHICLES	1,962		1,962
0604609A	85	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ENG DEV	7,920		7,920
0604611A	86	JAVELIN	492	5,202	5,694
		Transfer from Missile Procurement, Army			(+5,202)
0604619A	87	LANDMINE WARFARE	18,938		18,938
0604622A	88	FAMILY OF HEAVY TACTICAL VEHICLES			0

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0604633A	89	AIR TRAFFIC CONTROL	2,197		2,197
0604641A	90	TACTICAL UNMANNED GROUND VEHICLE (TUGV)			0
0604642A	91	LIGHT TACTICAL WHEELED VEHICLES	2,523		2,523
0604645A	92	ARMORED SYSTEMS MODERNIZATION (ASM)-ENG. DEV.			0
0604649A	93	ENGINEER MOBILITY EQUIPMENT DEVELOPMENT	9,279		9,279
0604710A	94	NIGHT VISION SYSTEMS - ENG DEV	24,201		24,201
0604713A	95	COMBAT FEEDING, CLOTHING, AND EQUIPMENT	91,002		91,002
0604715A	96	NON-SYSTEM TRAINING DEVICES - ENG DEV	26,319		26,319
0604716A	97	TERRAIN INFORMATION - ENG DEV	8,840		8,840
0604726A	98	INTEGRATED METEOROLOGICAL SUPPORT SYSTEM	1,911		1,911
0604738A	99	JSIMS CORE PROGRAM	30,985		30,985
0604739A	100	INTEGRATED BROADCAST SERVICE			0
0604741A	101	AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE - ENG DEV	18,233		18,233
0604742A	102	CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT	66,164		66,164
0604746A	103	AUTOMATIC TEST EQUIPMENT DEVELOPMENT	11,582		11,582
0604760A	104	DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS) - ENGINEERING DEVELOPMENT	26,058		26,058
0604766A	105	TACTICAL SURVEILLANCE SYSTEMS - ENG DEV	68,205		68,205
0604768A	106	BRILLIANT ANTI-ARMOR SUBMUNITION (BAT)	123,899	9,000	132,899
		Transfer from Missile Procurement, Army			(+9,000)
0604770A	107	JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM	8,093		8,093
0604778A	108	POSITIONING SYSTEMS DEVELOPMENT (SPACE)			0
0604780A	109	COMBINED ARMS TACTICAL TRAINER (CATT) CORE	13,645		13,645
0604783A	110	JOINT NETWORK MANAGEMENT SYSTEM	26,130		26,130
0604801A	111	AVIATION - ENG DEV	2,263	2,500	4,763
		Cockpit Airbag System			(+2,500)
0604802A	112	WEAPONS AND MUNITIONS - ENG DEV	7,046	3,500	10,546
		M240D Testing & Certification			(+3,500)
0604804A	113	LOGISTICS AND ENGINEER EQUIPMENT - ENG DEV	30,673		30,673
0604805A	114	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - ENG DEV	122,644	15,000	137,644
		Applied Communications Information Networking Program			(+15,000)
0604807A	115	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT - ENG DEV	8,228		8,228
0604808A	116	LANDMINE WARFARE/BARRIER - ENG DEV	89,153	(20,000)	69,153
0604814A	117	ARTILLERY MUNITIONS - EMD	67,258		67,258

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0604817A	118	COMBAT IDENTIFICATION	3,014		3,014
0604818A	119	ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE	50,887		50,887
0604819A	120	LOSAT	21,596		21,596
0604820A	121	RADAR DEVELOPMENT	5,162		5,162
0604823A	122	FIREFINDER	26,956		26,956
0604854A	123	ARTILLERY SYSTEMS - EMD	62,481		62,481
0604865A	124	PATRIOT PAC-3 THEATER MISSILE DEFENSE ACQUISITION - EMD	107,100	(107,100)	0
		transfer to PE 63881C			(-107,100)
0605013A	125	INFORMATION TECHNOLOGY DEVELOPMENT	98,178		98,178
		TOTAL, ENGINEERING AND MANUFACTURING DEVELOPMENT	**2,339,146**	**(45,898)**	**2,293,248**
		RESEARCH AND DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT	2,339,146	(45,898)	2,293,248
		RDT&E MANAGEMENT SUPPORT			
0604256A	126	THREAT SIMULATOR DEVELOPMENT	16,011		16,011
0604258A	127	TARGET SYSTEMS DEVELOPMENT	25,212		25,212
0604759A	128	MAJOR T&E INVESTMENT	49,897		49,897
0605103A	129	RAND ARROYO CENTER	19,972	(3,000)	16,972
		decrease			(-3,000)
0605301A	130	ARMY KWAJALEIN ATOLL	150,071		150,071
0605326A	131	CONCEPTS EXPERIMENTATION PROGRAM	33,067	(7,500)	25,567
		MANPRINT Analysis			(+2,500)
		decrease			(-10,000)
0605502A	132	SMALL BUSINESS INNOVATIVE RESEARCH			0
0605601A	133	ARMY TEST RANGES AND FACILITIES	114,411		114,411
0605602A	134	ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS	34,259		34,259
0605604A	135	SURVIVABILITY/LETHALITY ANALYSIS	27,794	5,000	32,794
		Silent Sentry Surveillance Test			(+5,000)

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0605605A	136	DOD HIGH ENERGY LASER TEST FACILITY	14,570	20,000	34,570
		High Energy Laser - Low Aspect Target Tracking (HEL-LATT)			(+10,000)
		Tactical High Energy Laser			(+10,000)
0605606A	137	AIRCRAFT CERTIFICATION	3,582		3,582
0605702A	138	METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES	6,890		6,890
0605706A	139	MATERIEL SYSTEMS ANALYSIS	8,884		8,884
0605709A	140	EXPLOITATION OF FOREIGN ITEMS	3,525		3,525
0605712A	141	SUPPORT OF OPERATIONAL TESTING	89,047	10,000	99,047
		Hybrid track technology			(+10,000)
0605716A	142	ARMY EVALUATION CENTER	31,365		31,365
0605801A	143	PROGRAMWIDE ACTIVITIES	69,096	(9,000)	60,096
		decrease			(-9,000)
0605803A	144	TECHNICAL INFORMATION ACTIVITIES	33,749	(5,000)	28,749
		decrease			(-5,000)
0605805A	145	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY	16,072		16,072
0605856A	146	ENVIRONMENTAL COMPLIANCE			0
0605857A	147	ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT	1,733		1,733
0605898A	148	MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT)	7,268		7,268
0909999A	149	FINANCING FOR CANCELLED ACCOUNT ADJUSTMENTS			0
		TOTAL, RDT&E MANAGEMENT SUPPORT	**756,475**	**10,500**	**766,975**
		RESEARCH AND DEVELOPMENT	756,475	10,500	766,975
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		OPERATIONAL SYSTEMS DEVELOPMENT			
0603778A	150	MLRS PRODUCT IMPROVEMENT PROGRAM	111,389		111,389
0102419A	151	AEROSTAT JOINT PROJECT OFFICE	30,408	2,000	32,408
		Lightweight x-band radar antenna			(+2,000)
0203610A	152	DOMESTIC PREPAREDNESS AGAINST WEAPONS OF MASS DESTRUCTION			0
0203726A	153	ADV FIELD ARTILLERY TACTICAL DATA SYSTEM	36,969		36,969
0203735A	154	COMBAT VEHICLE IMPROVEMENT PROGRAMS	195,602	8,000	203,602
		decrease			(-12,000)
		Transfer from Missile Procurement, Army			(+20,000)
0203740A	155	MANEUVER CONTROL SYSTEM	40,231		40,231

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0203744A	156	AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS	143,631	(5,000)	138,631
		decrease			(-5,000)
0203752A	157	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	13,017	8,000	21,017
		Full authority digital engine control			(+8,000)
0203758A	158	DIGITIZATION	29,302	2,000	31,302
		Full Scale Testing for DISM			(+2,000)
0203759A	159	FORCE XXI BATTLE COMMAND, BRIGADE AND BELOW (FBCB2)	56,872		56,872
0203761A	160	RAPID ACQ PROGRAM FOR TRANSFORMATION	23,593	(23,593)	0
		transfer to PE 63001A			(-23,593)
0203801A	161	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM	8,539		8,539
0203802A	162	OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS	84,935	(6,000)	78,935
		decrease			(-6,000)
0203808A	163	TRACTOR CARD	6,551	5,000	11,551
		Transfer from Missile Procurement, Army			(+5,000)
0208010A	164	JOINT TACTICAL COMMUNICATIONS PROGRAM (TRI-TAC)	21,615		21,615
0208053A	165	JOINT TACTICAL GROUND SYSTEM	5,221		5,221
0301359A	166	SPECIAL ARMY PROGRAM	5,072		5,072
0303028A	167	SECURITY AND INTELLIGENCE ACTIVITIES	452		452
0303140A	168	INFORMATION SYSTEMS SECURITY PROGRAM	8,261		8,261
0303141A	169	GLOBAL COMBAT SUPPORT SYSTEM	94,177		94,177
0303142A	170	SATCOM GROUND ENVIRONMENT (SPACE)	47,647		47,647
0303150A	171	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM	13,501		13,501
0305114A	172	TRAFFIC CONTROL, APPROACH AND LANDING SYSTEM-FY 1987 AND PRIOR	785		785
0305204A	173	TACTICAL UNMANNED AERIAL VEHICLES	38,210	(20,000)	18,210
		decrease			(-20,000)
0305206A	174	AIRBORNE RECONNAISSANCE SYSTEMS	6,862	8,000	14,862
		Hyperspectral Long-Wave Imager			(+8,000)
0305208A	175	DISTRIBUTED COMMON GROUND SYSTEMS (JMIP)	85,242		85,242
0708045A	176	END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES	45,697	(10,000)	35,697
		decrease			(-10,000)
1001018A	177	NATO JOINT STARS	2,109		2,109
		TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	**1,155,890**	**(31,593)**	**1,124,297**
		RESEARCH AND DEVELOPMENT	1,155,890	(31,593)	1,124,297

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		TOTAL, RESEARCH, DEVELOPMENT, TEST & EVALUATION, ARMY	**6,693,920**	**55,105**	6,749,025
		RESEARCH AND DEVELOPMENT	4,354,774	101,003	4,455,777
		ENGINEERING AND MANUFACTURING DEVELOPMENT	2,339,146	(45,898)	2,293,248

Items of Special Interest

Advanced display technology

The budget request contained $27.8 million in PE 62705A for applied research in electronics and electronic devices; $71.3 million in PE 62236N for warfighter sustainment applied research; and $69.1 million in PE 62202F for human effectiveness applied research, including $4.4 million for applied research in advanced visual displays. No funds were included for advanced high definition displays in the budget request for the Defense Advanced Research Project Agency (DARPA).

The committee notes that the responsibility for supporting the development of advanced high definition display technologies for military applications, which cannot be met by commercial industry, has transitioned from DARPA to the research and development programs of the military departments. The committee report on H. R. 4205 (H. Rept. 106–616) directed the Secretary of Defense to develop a strategy for meeting the Department's requirement for advanced high definition displays and to report the proposed strategy and budget requirements to the congressional defense committees with the submission of the fiscal year 2002 budget request. The Secretary's report indicated that the Department of Defense will make use of global industrial capability where it is available, relying on an highly competitive and rapidly evolving global market. Research and development investments within the Department will be focused on those needs where industry is not yet leading the way and a military advantage is foreseen. DARPA funding for large area, high definition displays ends in fiscal year 2001. Service-funded work in micro-displays for cockpits and immersive head-mounted systems continues through 2005. New initiatives in 25 megapixel and true three-dimensional displays will support transition of the technology for both commercial and military applications.

The committee recommends an increase of $4.0 million in PE 62705A, an increase of $4.0 million in PE 62236N, and an increase of $5.0 million in PE 62202F for applied research in advanced high definition displays for military applications.

All source analysis system

The budget request included $42.2 million in PE 64321A for the All Source Analysis System (ASAS), but included no funds to develop a multi-discipline capability for the Army's stability and support operations.

The committee strongly endorses the Army's objective force concept and supports the effort to transform the current force to a lighter, leaner, stealthier, more lethal, and more mobile one. Further, the committee supports the plan to transition to the objective force by initially fielding interim brigade combat teams. However, the committee is concerned with the Department's lack of commitment to concurrently develop an open-architecture data-exchange capability suitable for both the interim and objective forces at all echelons of command. The committee is aware of the stated plans to develop ASAS-Light as the baseline automated support system for intelligence and electronic warfare for the interim brigades and

the First Digitized Division. To maintain interoperability between ASAS-Light and other automated battle management systems, the committee encourages the Army to develop a multi-discipline capability for the Army's stability and support operations.

Therefore, the committee recommends $45.7 million in PE 64321A, an increase of $3.5 million, to develop this capability.

Applied communications and information networking program

The budget request contained no funds in PE 64805A for the Applied Communications and Information Networking (ACIN) program.

The committee understands that the ACIN program includes projects aimed at integrating commercial off-the-shelf components and adapting commercial technologies to fulfill military communications applications for 21st century warfare. Consistent with its prior years actions to promote increased partnering with commercial industry, the committee recommends an increase of $15.0 million in PE 64805A for ACIN.

Army missile defense systems integration

The budget request contained $19.5 million in PE 63308A for Army missile defense systems integration, but did not include funds for super-cluster memory technology, or P3 micro-power devices. The committee notes that designing defensive missile systems requires sophisticated, powerful simulations that accurately characterize missile flight. The committee is aware that super-cluster distributed memory technology holds promise as a low-cost means to run required simulations quickly.

The committee is also aware that missile defense systems require micro-power devices for autonomous and remote applications.

The committee recommends $31.5 million in PE 63308A, an increase of $4.0 million for the Army Space and Missile Defense Command supervised super-cluster distributed memory technology demonstration, $3.0 million for P3 micro power devices, $3.0 million for family of systems simulators, $3.0 million for thermionics technology, and a decrease of $1.0 million for management savings.

Aviation engineering development

The budget request contained $2.3 million in PE 64801A for aviation engineering development but included no funds for the development of the cockpit air bag system (CABS) for CH–47 Chinook aircraft.

The committee is highly supportive of technological advances that contribute to improved aircraft crashworthiness and aircrew safety, and, therefore, recommends $4.8 million in PE 64801A, an increase of $2.5 million, for the integration of the CABS into the CH–47 Chinook upgrade program.

Brooks Air Force Base energy and sustainability laboratory

The budget request contained $42.9 million in PE 62784A for military engineering technology, but included no funds for the Energy and Sustainability Laboratory (ESL) at Brooks Air Force Base.

The laboratory is a consortium of Air Force and university partners working to improve life-cycle effectiveness of real assets and the infrastructure on the base.

The committee recommends $45.9 million in PE 62784A, an increase of $3.0 million for Army Corps of Engineers' Construction Research Laboratory collaboration with the ESL.

Collaboration in biotechnology research

The budget request contained $69.1 million in PE 61104A for university and industry research, including federated laboratories.

The committee notes that the federated laboratories program is a very successful peer reviewed program. The committee is aware that biotechnology is increasingly important and offers many potential applications in support of the Army's transition to the objective force, such as casualty reduction, improved nutrition, protection from infectious diseases, and chemical/biological agents.

The committee supports effective collaboration between the government, industry and academia and recommends $79.1 million in PE 61104A, an increase of $10.0 million for biotechnology collaborative research.

Combat ready food safety

The budget request contained $27.1 million in PE 62786A for warfighter technology, and included $5.0 million for joint service combat feeding technology.

The committee notes that continued improvement in food processing is important to ensure the safety of ready-to-eat meals.

The committee recommends $30.1 million in PE 62786A, an increase of $3.0 million for research and development of improved meal ready-to-eat processing.

Combustion-driven eye safe laser

The budget request contained $20.6 million in PE 62709A for night vision, but included no funds for combustion-driven eye-safe laser.

The committee is aware that eye-safe lasers are important for military applications, and that the combustion-driven eye-safe laser has potential to meet requirements for several applications.

The committee recommends $22.6 million in PE 2709A, an increase of $2.0 million to complete development of the combustion-driven eye-safe laser.

Comanche

The budget request contained $787.9 million in PE 64223A for Comanche.

The committee notes that the Comanche armed reconnaissance helicopter is the only new Army aviation system under development. The committee further notes that Comanche will provide key capability for the objective force with its state-of-the-art stealthy platform, multiple sensors, and advanced weapons.

The committee continues to support Comanche and recommends the budget request and increases described elsewhere in this report.

Combat vehicle and automotive advanced technology

The budget request contained $193.9 million in PE 63005A for combat vehicle and automotive advanced technology, but included no funds for standardized exchange of product data, document conversion, or the medium brigade composite bridge.

The committee notes that standardized exchange of product data has the potential to increase efficiency and reduce costs of parts, and is aware that the National Automotive Center standardized exchange of product data (N–STEP) initiative is intended to fill this void. The committee is aware that many existing documents require conversion to 2–dimension/3–dimension computer aided design format.

The committee is aware of the need for a lightweight bridge for medium brigades.

The committee recommends $201.9 million in PE 63005A, an increase of $7.0 million for N–STEP, an increase of $9.0 million for Army medium brigade composite bridge, an increase of $2.0 million for conversion of technical manuals, and an undistributed decrease of $10.0 million.

Crusader

The budget request contained $447.9 million in PE 63854A for Crusader.

The committee is aware that the Army considers the Crusader self-propelled howitzer an essential war fighting capability as it transforms itself to a lighter, more lethal, and more logistically efficient force.

The committee notes that developmental firing testing has clearly demonstrated a significantly increased capability. The committee further notes that many attributes such as the high degree of automation, imbedded diagnostics, and improved mobility are clearly technology carriers for future autonomous and semi-autonomous vehicles. The committee is concerned that funds allocated to management appear to be excessive, and directs that $17.9 million of the funds allocated within the program for management be redirected within the Crusader program to develop technology, in particular, to reduce Crusader weight and production costs.

The committee strongly supports continued Crusader development and recommends the budget request.

Dismounted situational awareness system

The budget request contained $29.3 million for digitization in PE 23758A, but included no funds for the dismounted situational awareness system.

The committee is aware that situational awareness is critical for dismounted soldiers. The committee notes that the dismounted situational awareness system (DISM), the result of a very successful commercial-off-the-shelf technology-based small business innovative research effort, is being transitioned to the Army's force XXI battle command brigade and below (FBCB2) as a dismounted extension of the vehicle based system.

The committee recommends $31.3 million in PE 23758A, an increase of $2.0 million, for full scale testing of DISM.

Electronics and electronic devices

The budget request contained $27.8 million in PE 62705A for electronics and electronic devices.

The committee notes that hybrid power systems and other fuel cell applications have the potential to provide more cost effective portable power for future military systems.

The committee recommends an increase of $5.0 million in PE 62705A for hybrid battery-fuel cell and other fuel cell power sources.

Electronic warfare (EW) development

The budget request contained $57.0 million in PE 64270A for the development of EW equipment, of which $43.8 million was for continued development of the Advanced Threat Infrared Countermeasures/Common Missile Warning System (ATIRCM/CMWS).

The ATIRCM system integrates defensive infrared (IR) countermeasures into currently fielded aircraft for more effective protection against a greater number of IR-guided missiles than is provided by currently fielded technology. The CMWS provides warning of a threat IR-guided missile on a variety of tactical aircraft and helicopters.

The committee is aware of a critical requirement to upgrade Army test facilities in order to perform effective tests on integrated helicopter self-protection systems installed on the AH–64D Apache Longbow against multi-mode missile seekers.

Accordingly, the committee recommends $66.0 million for PE 64270A, an increase of $9.0 million, for this purpose.

Environmental quality technology

The budget request contained $7.5 million in PE 63779A for environmental quality technology, but included no funds for either an asbestos removal pilot project or the Porta Bella environmental cleanup technology demonstration.

The committee is aware that asbestos remediation remains a problem within the Department of Defense and notes the need for research to find better, more cost-effective means of remediation, including asbestos conversion.

The committee also notes that while the cleanup of ordnance and explosive wastes at the Porta Bella site is important to the Army and the local community, it has much broader potential benefits because the new technology developed under this pilot program can be used at similar sites elsewhere.

The committee recommends $14.0 million in PE 63779A, an increase of $2.0 million for asbestos conversion research and technology development, an increase of $7.0 million for completion of the Porta Bella environmental cleanup technology demonstration, and a general decrease of $2.5 million.

Full authority digital engine control

The budget request contained $13.0 million in PE 23752A for aircraft engine component improvement, including $11.0 million for improvements to the T700 engine family.

The committee notes that full authority digital engine control (FADEC) improves capability and reliability of aircraft engines.

The committee further notes that development of a dual-channel FADEC will improve engine reliability and aircraft safety.

The committee recommends $21.0 million in PE 23752A, an increase of $8.0 million for completion of FADEC development.

Funding transfers to support transformation

The committee is concerned that the largest area of growth in Army research and development investments has occurred in the category of fielded system development and other mature technologies. While these programs are important, the committee does not believe they support the highest priority efforts directly related to Army transformation. Therefore, the committee recommends the following decreases to Army accounts, to be transferred to other programs within the Army that support higher transformation priorities:

63003A	$9,000,000
63639A	2,986,000
63747A	3,482,000
63774A	2,756,000
63782A	5,000,000
65103A	3,000,000
65326A	10,000,000
65801A	9,000,000
65803A	5,000,000
23735A	12,000,000
23744A	5,000,000
23802A	6,000,000
78045A	10,000,000

High energy laser—low aspect target tracking

The budget request contained no funds for the high energy laser—low aspect target tracking HEL–LATT program.

The committee is aware of the Navy's interest in high energy laser weapons systems for ship self defense. This application is particularly challenging because the inbound target presents a low aspect view to the defender, and the weapons system must track the target in the presence of intense laser reflection. The program will use an existing megawatt class high energy laser and beam director at the Department of Defense high energy laser test facility, and full size targets to verify that a small cross section low altitude target can be simultaneously engaged and tracked.

The committee recommends a $10.0 million increase to PE 65605A and a $10.0 million increase to PE 63114N to support this new start.

Hybrid track technology

The budget request contained $89.0 million in PE 65712A for support of operational testing, but included no funds for testing hybrid track technologies.

The committee is aware that the MATTRACKS program is a commercial version of a technologically advanced independent rubber track system. The committee notes MATTRACKS is a simple bolt-in-place replacement for wheels for vehicles, including the HMMWV, that provides increased traction.

The committee recommends $99.0 million in PE 65712A, an increase of $10.0 million for continued testing and evaluation of hybrid track technology.

Hyperspectral long-wave imager for the tactical environment

The budget request included $6.9 million for Airborne Reconnaissance Operational Systems Development in PE 35206A, but included no funds for hyperspectral long wave imager.

The committee notes the potential benefits of imagery intelligence, measurement and signature intelligence applications, and supports further development of hyperspectral sensors for these uses. The committee is aware of the unique day/night, all-terrain capability offered by the hyperspectral long wave imagery, and supports additional development of enhanced target detection algorithms and improved target detection hardware. The committee further notes the potential tactical applications of long wave infrared and medium wave infrared hyperspectral technology as a means for augmenting U–2 and Global Hawk platforms.

Accordingly, the committee authorizes $14.9 million in PE 35206A, an increase of $8 million for hyper-spectral long wave imager.

Infantry support weapons

The budget request contained no funds in PE 64601A for the development of infantry support weapons.

The XM303 prototype is a lightweight, multi-shot, magazine-fed, semi-automatic delivery system that attaches under both M–16 series and M–4 carbine barrels and launches a variety of non-lethal blunt-force, dye-marking, malodorant, or illuminating projectiles.

The committee understands that this system was initially developed by the Marine Corps, the Department of Defense's executive agent for non-lethal weapons development, but that the Army is now interested in the system's capabilities. Accordingly, the committee recommends an increase of $5.0 million in PE 64601A for accelerated development of the XM303 for Army units and so that it may enter into low-rate initial production sooner.

International medical program global satellite system

The budget request contained $15.5 million in PE 63807A medical systems, and included $1.6 million for telemedicine.

The committee is aware that the International Medical Program Global Satellite System (IMPGSS) successfully demonstrated the medical education component of its program in the Republic of Georgia. The integration of commercially reliable telecommunication capabilities, particularly 'spot-casting', with the education component, however, has yet to be proven.

As a result, the committee recommends $18.5 million in PE 63807A, an increase of $3.0 million for IMPGSS integrated development and delivery concept in at least two countries and strongly recommends that IMPGSS continue to be managed by the Telemedicine and Advanced Technology Research Center at Fort Detrick, Maryland.

Landmine warfare/barrier engineering development

The budget request contained $89.2 million in PE 64808A for landmine warfare/barrier engineering development, of which $21.2 million was for non-self-destruct anti-personnel landmine alternatives (NSD–A).

The committee understands that the Army does not plan to obligate $37.2 million of fiscal year 2001 NSD-A funds prior to the beginning of fiscal year 2002. As a result, the committee believes that these funds can be used to meet fiscal year 2002 requirements.

Accordingly, the committee recommends $69.2 million in PE 64808A for fiscal year 2002, a decrease of $20.0 million.

Lightweight x-band radar antenna

The budget request contained $30.4 million in PE 12419A for the Aerostat Joint Project, but included no funds for micro-mechanical electronics systems (MEMS) based lightweight radar antenna.

The committee is aware that development of a lightweight, MEMS based, electronically steerable x-band radar antenna has the potential to improve performance while reducing weight and power requirements for the joint elevated netted sensor (JLENS).

The committee recommends $32.4 million in PE 12419A, an increase of $2.0 million for design of a lightweight, MEMS based, and electronically steerable antenna.

Medical advanced technology

The budget request contained $17.5 million in PE 63002A for medical advanced technology, but included no funds for special operations medical diagnostic system (SOMDS), or volumetrically controlled manufacturing (VCM).

The committee is aware that the clinical assessment and recording environment (CARE) is being adapted to support special operations forces. The committee notes that the first SOMDS, a beta version of CARE, has undergone successful testing.

The committee also notes that VCM offers the potential to eliminate the current mode of failure in composites, de-lamination, and polymer-fiber interface breakdown, and may also improve composite applications in aerospace and other manufacturing

The committee recommends $23.5 million in PE 63002A, an increase of $1.0 million for SOMDS, and an increase of $5.0 million for VCM. The committee further recommends an increase of $3.5 million in PE 63313A for aerospace applications of VCM.

Medical technology

The budget request contained $82.5 million in PE 62787A for medical technology, but included no funds for hemoglobin-based oxygen carrier.

The committee notes that the military has identified a need for an oxygen carrier capability that is both readily and easily employed in the treatment of combat casualties, and stable at room temperature. The committee is aware that a recent Department of Defense (DOD) Inspector General audit of the Armed Services Blood program indicated that the DOD blood program cannot currently meet its stated requirements, and noted specifically that a hemoglobin-based oxygen carrier would minimize or eliminate the

storage and transportation problems identified in the report. The committee is also aware that unlike human blood, a hemoglobin-based oxygen carrier has an extended life, making it more adaptive to a wide range of military deployment conditions. The committee believes that a hemoglobin-based oxygen carrier offers significant potential benefits for the military.

The committee is also aware that a need exists to develop technologies that would permit the long-term storage of cells and tissues needed to treat battlefield casualties.

The committee recommends $91.5 million in PE 62787A, an increase of $7.0 million for room temperature stable oxygen therapeutic drugs, in particular hemoglobin-based oxygenated carriers, and an increase of $2.0 million for metabolically engineered tissues for trauma care.

MedTeams

The budget request contained $16.5 million in PE 62716A for human factors engineering, but included no funds for the Emergency Team Coordination program (MedTeams).

The committee notes that the Army MedTeams research in emergency departments showed an 80 percent reduction in clinically significant errors. The committee recognizes that MedTeams research has significant life saving potential in a broader base of medical settings.

The committee recommends an increase of $7.8 million in PE 62716A for MedTeams.

Missile and rocket advanced technology

The budget request contained $59.5 million in PE 63313A for missile and rocket advanced technology, but included no funds for the Army composites manufacturing program.

The committee notes that many existing weapon systems are being extended beyond their planned life. The committee is aware of new manufacturing and materials technologies that are being developed that have potential use to cost-effectively extend existing systems lives.

The committee recommends an increase of $5.0 million in PE 63313A for composites manufacturing and maintenance technology.

Missile technology

The budget request contained $40.1 million in PE 62303A for missile technology, including funds for integrated guidance systems, but no funds for short-range missile defense with optimized radar distribution (SWORD).

The committee notes that the Army has initiated a competitive development program for highly integrated, jam-proof, microelectromechanical systems (MEMS) based inertial measurement unit-geo positioning systems (IMU–GPS) that is essential to achieving the goal of affordable precision weapons. The committee also notes that development of these technologies including deep integration have the potential to reduce the cost of precision weapons and other devices, thereby saving billions of dollars for the Department of Defense.

The committee is also aware that the Army over the last ten years has investigated interferometry to develop a highly accurate radar system. The committee notes that the current SWORD concept uses this technology to support the counter air munitions defense mission to protect against saturation attacks.

Therefore, the committee recommends $65.1 million in PE 62303A, an increase of $20.0 million for continued development of a fully integrated IMU–GPS, and an increase of $5.0 million for continued evaluation of SWORD.

Night vision advanced technology

The budget request contained $37.1 million in PE 63710A for night vision.

The committee notes that superiority in night vision is fundamental to successful warfighting. The committee is aware that recent advances in digital fusion of image intensification and infrared have been demonstrated to significantly improve night vision.

The committee is also aware that the Army prototype helmet mounted infrared sensor has direct applicability to Department of Defense and civilian firefighting personnel, and increases safety in smoke and other obscurants.

The committee recommends $49.1 million in PE 63710A, an increase of $9.0 million for continued development of digital night vision fusion technology, and an increase of $3.0 million for helmet mounted infrared sensor.

Passive millimeter-wave imaging

The budget request contained $25.8 million in PE 62120A for sensors and electronic survivability, but included no funds for passive millimeter-wave (PMW) imaging.

The committee is aware that PMW imaging has demonstrated the potential to improve airborne remote sensing capability in the dark and obscurant environments such as smoke and fog. The committee notes that terrain and obstacle avoidance benefits have also been demonstrated.

The committee recommends $30.8 million in PE 62120A, an increase of $5.0 million for continued development of PMW advanced imaging technology.

Silent sentry surveillance test

The budget request contained $27.8 million in PE 65604A for survivability/lethality analysis, but included no funds for Silent Sentry, a passive medium range surveillance technology that exploits commercial radio and television signals.

The committee recommends $32.8 million in PE 65604A, an increase of $5.0 million for Silent Sentry surveillance testing.

Soldier-centered design tools for the Army transformation

The budget request included $16.5 million for Human Factors Engineering Technology in PE 62716A, but included no funding for the Army's manpower and personnel integration (MANPRINT) program.

The committee views MANPRINT modeling technologies as an excellent initiative for reducing the Department's operations and

maintenance costs through improvements in weapon systems design integrated of manpower, personnel, training, health hazard, safety, human factors and soldier survivability concerns. The committee further believes that MANPRINT modeling successes on the Comanche weapon system can serve as a basis for optimizing the performance of the Army's anticipated objective force. The committee encourages the Army to examine the full potential of MANPRINT's soldier-centered design that may enhance and improve objective force performance during a wider range of operations and in extreme environments.

Therefore, the committee recommends $19.5 million in PE 62716A, an increase of $3.0 million for MANPRINT.

Survival radios

The budget request contained $9.1 million in PE 63801A for aviation system improvement, but included no funds to continue improvement of survival radios.

The committee notes that the combat survivor evader locator (CSEL) is not yet fielded. The committee is aware that until CSEL is operational, the PRC–112 survival radio capability must be maintained to support the warfighter. The committee supports the Army's Sustainment Center program to provide reliability, supportability, and commercial technology insertion enhancements to improve the functionality of the PRC–112 survival radio until the replacement is fully fielded.

The committee therefore recommends $19.1million in PE 63801A, an increase of $10.0 million for the PRC–112 survival radio.

Tactical high energy laser

The budget request included no funds to the Tactical High Energy Laser (THEL), a high energy chemical laser system jointly developed by the United States and Israel, and designed to demonstrate the feasibility of defeating short range rockets using directed energy.

The committee is aware of THEL test activities at White Sands Missile Range, New Mexico, which have recently culminated in the simultaneous engagement of two targets. The committee understands that the original scope of work for THEL is complete, but believes options to develop a mobile version should be explored.

The committee recommends a $10.0 million increase to PE 65605A for THEL in fiscal year 2002, and urges the Secretary of Defense to continue cooperative development efforts with Israel for this important new capability.

Tactical unmanned aerial vehicle

The budget request contained $38.2 million in PE 35204A for tactical unmanned aerial vehicles.

The committee notes that despite a thorough competitive selection of a commercial-off-the-shelf tactical unmanned aerial vehicle (TUAV), development has been slowed by a series of seemingly unrelated mishaps. The committee is aware that an independent review panel, created to assess the program, is expected to make recommendations soon, and a six-month to a year delay in fielding is expected.

Therefore the committee recommends $18.2 million in PE 35204A, a reduction of $20 million, without prejudice.

Weapons and munitions

The budget request contained $7.0 million in PE 64802A for the development of weapons and munitions but included no funds for airworthiness testing and development and flight safety certification of M240D helicopter door-mounted machine guns.

The committee understands that the Army has a new requirement for M240D door guns for UH–60 Blackhawks. The committee also understands that the cost to complete the necessary airworthiness and flight safety certifications for the "D" variant to enter into low rate initial production is $3.5 million, and that without these funds a three to four year delay in fielding this weapon could occur.

In order to complete flight testing, airworthiness certification, and begin procuring new M240D helicopter door-mounted machine guns at low-rate initial production sooner, the committee recommends $10.5 million in PE 64802A, an increase of $3.5 million.

Weapons and munitions advanced technology

The budget request contained $29.7 million in PE 63004A for weapons and munitions advanced technology, but included no funds for a large caliber training round or the trajectory correctable munition.

The committee is aware that past efforts to develop large caliber training rounds with reduced explosive charges has been difficult due to production costs for small quantities of such rounds. The committee believes that new technology may offer a potential solution to this problem.

The committee is aware that the trajectory correctable munition being developed through the memorandum of understanding between the United States and Sweden has made significant progress and met key milestones. The committee notes that precision weapons are essential for the objective force.

The committee recommends $51.7 million in PE 63004A, an increase of $5.0 million in PE 63004A for development of affordable, low explosive 120mm and 155mm training rounds and an increase of $17.0 million for TCM.

NAVY RDT&E

Overview

The budget request contained $11,123.4 million for Navy RDT&E. The committee recommends authorization of $10,863.3 million, an increase of $128.4 million, and the transfer of $388.5 million for missile defense programs from Navy RDT&E to Defense-wide RDT&E.

The committee recommendations for the fiscal year 2002 Navy RDT&E program are identified in the table below. Major changes to the Navy request are discussed following the table.

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		RESEARCH, DEVELOPMENT, TEST & EVALUATION, NAVY			
		BASIC RESEARCH			
0601152N	1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	16,291		16,291
0601153N	2	DEFENSE RESEARCH SCIENCES	389,829		389,829
		TOTAL, BASIC RESEARCH	**406,120**	**0**	**406,120**
		RESEARCH AND DEVELOPMENT	406,120	0	406,120
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		APPLIED RESEARCH			
0602111N	3	AIR AND SURFACE LAUNCHED WEAPONS TECHNOLOGY			0
0602114N	4	POWER PROJECTION APPLIED RESEARCH	66,322	4,000	70,322
		Embedded Software Engineering Research Initiative			(+4,000)
0602121N	5	SHIP, SUBMARINE & LOGISTICS TECHNOLOGY			0
0602122N	6	AIRCRAFT TECHNOLOGY			0
0602123N	7	FORCE PROTECTION APPLIED RESEARCH	117,072	300	117,372
		Submarine Electrical Power			(+300)
0602131M	8	MARINE CORPS LANDING FORCE TECHNOLOGY	31,248		31,248
0602232N	9	MARINE CORPS LANDING FORCE TECHNOLOGY			0
0602233N	10	HUMAN SYSTEMS TECHNOLOGY			0
0602234N	11	MATERIALS, ELECTRONICS AND COMPUTER TECHNOLOGY			0
0602235N	12	COMMON PICTURE APPLIED RESEARCH	83,557	7,088	90,645
		Advanced Display Technology			(+4,000)
		Hybrid Fiber Optic Wireless Communication			(+2,000)
		SEADEEP			(+3,000)
		decrease			(-1,912)
0602236N	13	WARFIGHTER SUSTAINMENT APPLIED RESEARCH	71,294	11,000	82,294
		COTS Carbon Fiber Qualification			(+2,000)
		Formable Aligned Carbon Thermo Sets			(+4,000)
		Detection and Identification of Human Pathogens			(+2,000)
		Knowledge-Based Ship System Diagnosis and Repair			(+3,000)
0602270N	14	ELECTRONIC WARFARE TECHNOLOGY			0

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0602271N	15	RF SYSTEMS APPLIED RESEARCH	62,141	21,300	83,441
		Laser Welding and Cutting			(+4,300)
		Wideband Gap Semi-Conductor Technology			(+7,000)
		Vacuum Electronics			(+10,000)
0602314N	16	UNDERSEA WARFARE SURVEILLANCE TECHNOLOGY			0
0602315N	17	MINE COUNTERMEASURES, MINING AND SPECIAL WARFARE			0
0602435N	18	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH	50,738		50,738
0602633N	19	UNDERSEA WARFARE WEAPONRY TECHNOLOGY			0
0602747N	20	UNDERSEA WARFARE APPLIED RESEARCH	76,510	10,000	86,510
		Non-Acoustic Anti-Submarine Warfare			(+10,000)
0602782N	21	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH	57,668		57,668
0602805N	22	DUAL USE SCIENCE AND TECHNOLOGY PROGRAM	10,000	(8,000)	2,000
		decrease			(-8,000)
		TOTAL, APPLIED RESEARCH	**626,550**	**45,688**	**672,238**
		RESEARCH AND DEVELOPMENT	626,550	45,688	672,238
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		ADVANCED TECHNOLOGY DEVELOPMENT			
0603114N	23	POWER PROJECTION ADVANCED TECHNOLOGY	76,410	18,000	94,410
		Affordable Weapon			(+10,000)
		DP-2 Thrust Vectoring System Concept Demonstration			(+8,000)
		HEL-Low Aspect Target Tracking			(+10,000)
		decrease			(-10,000)
0603123N	24	FORCE PROTECTION ADVANCED TECHNOLOGY	85,297	46,703	132,000
		Advanced Water Jet AWJ-21			(+6,000)
		DC Homopolar Motor Program			(+4,000)
		Direct Ship Service Fuel Cell			(+7,000)
		Electric Propulsion/Ship Power Systems Distributed Test Bed			(+10,000)
		Littoral Support Craft-Experimental			[39,000]
		SEALs MkV patrol craft modification			(+6,000)
		decrease			(-5,297)
0603217N	25	AIR SYSTEMS AND WEAPONS ADVANCED TECHNOLOGY			0
0603235N	26	COMMON PICTURE ADVANCED TECHNOLOGY	48,583	2,000	50,583

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		Extending the Littoral Battlespace			(+2,000)
0603236N	27	WARFIGHTER SUSTAINMENT ADVANCED TECHNOLOGY	57,685	9,930	67,615
		decrease			(-5,000)
		Real Time Heart Rate Variability Technology			(+8,930)
		Naval Environmental Compliance Operations Monitoring System			(+6,000)
0603238N	28	PRECISION STRIKE AND AIR DEFENSE TECHNOLOGY			0
0603270N	29	ADVANCED ELECTRONIC WARFARE TECHNOLOGY			0
0603271N	30	RF SYSTEMS ADVANCED TECHNOLOGY	76,876	(10,000)	66,876
		Vacuum Electronics			(+5,000)
		decrease			(-15,000)
0603508N	31	SURFACE SHIP & SUBMARINE HM&E ADVANCED TECHNOLOGY			0
0603640M	32	MARINE CORPS ADVANCED TECHNOLOGY DEMONSTRATION (ATD)	51,310	21,000	72,310
		increase			(+21,000)
0603706N	33	MEDICAL DEVELOPMENT			0
0603707N	34	MANPOWER, PERSONNEL AND TRAINING ADV TECH DEV			0
0603712N	35	ENVIRONMENTAL QUALITY AND LOGISTICS ADVANCED TECHNOLOGY			0
0603727N	36	JOINT EXPERIMENTATION	118,802		118,802
0603729N	37	WARFIGHTER PROTECTION ADVANCED TECHNOLOGY	17,678	4,000	21,678
		Organ Transfer Technology			(+4,000)
0603747N	38	UNDERSEA WARFARE ADVANCED TECHNOLOGY	56,303	10,000	66,303
		Non-Acoustic Anti-Submarine Warfare			(+10,000)
0603758N	39	NAVY WARFIGHTING EXPERIMENTS AND DEMONSTRATIONS	43,277	42,000	85,277
		increase			(+42,000)
0603782N	40	MINE AND EXPEDITIONARY WARFARE ADVANCED TECHNOLOGY	48,279		48,279
0603792N	41	ADVANCED TECHNOLOGY TRANSITION			0
0603794N	42	C3 ADVANCED TECHNOLOGY			0
		TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	**680,500**	**143,633**	**824,133**
		RESEARCH AND DEVELOPMENT	680,500	143,633	824,133
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		DEMONSTRATION AND VALIDATION			
0603207N	43	AIR/OCEAN TACTICAL APPLICATIONS	32,332		32,332
0603216N	44	AVIATION SURVIVABILITY	25,572	(17,900)	7,672
		decrease			(-17,900)
0603237N	45	STALL/SPIN INHIBITORS (H)	50,000	(50,000)	0
		decrease			(-50,000)
0603254N	46	ASW SYSTEMS DEVELOPMENT	12,922	5,000	17,922
		Project Bear Trap			(+5,000)
0603261N	47	TACTICAL AIRBORNE RECONNAISSANCE	1,934		1,934
0603382N	48	ADVANCED COMBAT SYSTEMS TECHNOLOGY	3,458	(3,458)	0
		decrease			(-3,458)
0603502N	49	SURFACE AND SHALLOW WATER MINE COUNTERMEASURES	135,284	12,000	147,284
		Surface Navy Integrated UnderSea Tactical Technology			(+12,000)
0603506N	50	SURFACE SHIP TORPEDO DEFENSE	4,818	5,000	9,818
		Surface Ship Torpedo Defense			(+5,000)
0603512N	51	CARRIER SYSTEMS DEVELOPMENT	165,150		165,150
0603513N	52	SHIPBOARD SYSTEM COMPONENT DEVELOPMENT	288,382	(25,000)	263,382
		decrease			(-25,000)
0603525N	53	PILOT FISH	99,600		99,600
0603527N	54	RETRACT LARCH	50,441		50,441
0603536N	55	RETRACT JUNIPER			0
0603542N	56	RADIOLOGICAL CONTROL	1,056		1,056
0603553N	57	SURFACE ASW	3,724		3,724
0603559N	58	SSGN COVERSION	30,000		30,000
0603561N	59	ADVANCED SUBMARINE SYSTEM DEVELOPMENT	110,766	4,543	115,309
		Advanced Composite Sail Phase II			(+15,000)
		Advanced Submarine System Design, decrease			(-10,457)
0603562N	60	SUBMARINE TACTICAL WARFARE SYSTEMS	5,405		5,405
0603563N	61	SHIP CONCEPT ADVANCED DESIGN	1,949	(1,949)	0
		decrease			(-1,949)
0603564N	62	SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES	14,922	(10,000)	4,922
		decrease			(-10,000)
0603570N	63	ADVANCED NUCLEAR POWER SYSTEMS	175,176	(2,100)	173,076

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PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		decrease			(-2,100)
0603573N	64	ADVANCED SURFACE MACHINERY SYSTEMS	3,921		3,921
0603576N	65	CHALK EAGLE	35,313		35,313
0603582N	66	COMBAT SYSTEM INTEGRATION	42,915	25,000	67,915
		Common Command and Decision System			(+25,900)
		Wideband Optically Multiplexed Beamforming Architecture			(+4,000)
		decrease			(-4,900)
0603609N	67	CONVENTIONAL MUNITIONS	22,299		22,299
0603611M	68	MARINE CORPS ASSAULT VEHICLES	263,066	(23,066)	240,000
		decrease			(-23,066)
0603635M	69	MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM	25,957	15,000	40,957
		Lightweight 155MM howitzer			(+5,000)
		Low Observable Signature Ejection Technology			(+5,000)
		Marine Corps Urban Operations Environmental Laboratory			(+5,000)
0603654N	70	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	12,918		12,918
0603658N	71	COOPERATIVE ENGAGEMENT	74,231		74,231
0603713N	72	OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT	16,077		16,077
0603721N	73	ENVIRONMENTAL PROTECTION	46,117		46,117
0603724N	74	NAVY ENERGY PROGRAM	5,025		5,025
0603725N	75	FACILITIES IMPROVEMENT	1,728	2,400	4,128
		Photovoltaic Energy Savings Initiative			(+2,400)
0603734N	76	CHALK CORAL	48,187		48,187
0603739N	77	NAVY LOGISTIC PRODUCTIVITY	11,735	11,500	23,235
		Compatible processor upgrade program			(+6,500)
		Rapid Retargeting			(+5,000)
0603746N	78	RETRACT MAPLE	148,856	9,000	157,856
		Classified Programs			(+9,000)
0603748N	79	LINK PLUMERIA	62,601		62,601
0603751N	80	RETRACT ELM	22,200		22,200
0603755N	81	SHIP SELF DEFENSE - DEM/VAL	8,353		8,353
0603764N	82	LINK EVERGREEN	26,151		26,151
0603787N	83	SPECIAL PROCESSES	58,858		58,858
0603790N	84	NATO RESEARCH AND DEVELOPMENT	11,551		11,551

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		VECTOR Study and Analysis			[1,000]
0603795N	85	LAND ATTACK TECHNOLOGY	130,993	45,200	176,193
		Advanced Land Attack Missile Program			(+20,000)
		Distributed Common Ground Station			(+25,200)
0603800N	86	JOINT STRIKE FIGHTER (JSF) - DEM/VAL			0
0603851M	87	NONLETHAL WEAPONS - DEM/VAL	34,008	(10,000)	24,008
		decrease			(-10,000)
0603857N	88	ALL SERVICE COMBAT IDENTIFICATION EVALUATION TEAM (ASCIET)	13,530		13,530
0603879N	89	SINGLE INTEGRATED AIR PICTURE (SIAP) SYSTEM ENGINEER (SE)	43,140		43,140
0603889N	90	COUNTERDRUG RDT&E PROJECTS			0
0604327N	91	HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM (HDBTDS) PROGRAM			0
0604707N	92	SPACE AND ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINEERING SUPPORT	32,259		32,259
		TOTAL, DEMONSTRATION AND VALIDATION	**2,414,880**	**(8,830)**	**2,406,050**
		RESEARCH AND DEVELOPMENT	2,414,880	(8,830)	2,406,050
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT			
0603208N	93	TRAINING SYSTEM AIRCRAFT			0
0604212N	95	OTHER HELO DEVELOPMENT	64,392	2,000	66,392
		Laser Aim Scoring System			(+2,000)
0604214N	96	AV-8B AIRCRAFT - ENG DEV	32,897		32,897
0604215N	97	STANDARDS DEVELOPMENT	120,552	6,500	127,052
		Metrology Projects			(+6,500)
0604216N	98	MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT	149,418		149,418
0604217N	99	S-3 WEAPON SYSTEM IMPROVEMENT	428		428
0604218N	100	AIR/OCEAN EQUIPMENT ENGINEERING	6,346		6,346
0604221N	101	P-3 MODERNIZATION PROGRAM	3,220		3,220
0604231N	102	TACTICAL COMMAND SYSTEM	64,832		64,832
0604234N	103	COMMON STRATEGIC ROTARY LAUNCHER (H)	96,000		96,000

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(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0604235N	104	NAVY AREA MISSILE DEFENSE	388,496	(388,496)	0
		transfer to PE 63881C			(-388,496)
0604245N	105	H-1 UPGRADES	170,068		170,068
0604261N	106	ACOUSTIC SEARCH SENSORS	16,825		16,825
0604262N	107	V-22A	546,735	(100,000)	446,735
0604264N	108	AIR CREW SYSTEMS DEVELOPMENT	7,717		7,717
0604270N	109	EW DEVELOPMENT	112,473	14,000	126,473
		Follow-on Support Jammer			(+10,000)
		LOCO GPSI			(+4,000)
0604300N	110	SC-21 TOTAL SHIP SYSTEM ENGINEERING	355,093		355,093
0604307N	111	SURFACE COMBATANT COMBAT SYSTEM ENGINEERING	262,037	14,900	276,937
		Operational Readiness Testing System Network			(+6,000)
		Peripheral Consolidation Program			(+8,900)
0604311N	112	LPD-17 CLASS SYSTEMS INTEGRATION	1,001		1,001
0604312N	113	TRI-SERVICE STANDOFF ATTACK MISSILE	1,946		1,946
0604366N	114	STANDARD MISSILE IMPROVEMENTS	1,309		1,309
0604373N	115	AIRBORNE MCM	52,041		52,041
0604503N	116	SSN-688 AND TRIDENT MODERNIZATION	43,706	25,000	68,706
		Multipurpose Processor			(+25,000)
0604504N	117	AIR CONTROL	12,821		12,821
0604507N	118	ENHANCED MODULAR SIGNAL PROCESSOR	1,013		1,013
0604512N	119	SHIPBOARD AVIATION SYSTEMS	16,375	5,000	21,375
		Aviation-Shipboard Information Technology Initiative			(+5,000)
0604518N	120	COMBAT INFORMATION CENTER CONVERSION	5,392		5,392
0604524N	121	SUBMARINE COMBAT SYSTEM			0
0604528N	122	SWATH (SMALL WATERPLANE AREA TWIN HULL) OCEANOGRAPHIC SHIP			0
0604558N	123	NEW DESIGN SSN	201,596		201,596
0604561N	124	SSN-21 DEVELOPMENTS	5,770		5,770
0604562N	125	SUBMARINE TACTICAL WARFARE SYSTEM	29,246		29,246
0604567N	126	SHIP CONTRACT DESIGN/ LIVE FIRE T&E	130,388		130,388
0604574N	127	NAVY TACTICAL COMPUTER RESOURCES	3,836		3,836
0604601N	128	MINE DEVELOPMENT			0
0604603N	129	UNGUIDED CONVENTIONAL AIR-LAUNCHED WEAPONS	12,890		12,890

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PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0604610N	130	LIGHTWEIGHT TORPEDO DEVELOPMENT	10,310		10,310
0604618N	131	JOINT DIRECT ATTACK MUNITION	56,285		56,285
0604654N	132	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT	8,123		8,123
0604703N	133	PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS	1,300		1,300
0604710N	134	NAVY ENERGY PROGRAM	3,157		3,157
0604721N	135	BATTLE GROUP PASSIVE HORIZON EXTENSION SYSTEM	8,130		8,130
0604727N	136	JOINT STANDOFF WEAPON SYSTEMS	26,852		26,852
0604755N	137	SHIP SELF DEFENSE - EMD	52,163		52,163
0604756N	138	ADVANCED DISTRIBUTED LEARNING	33,530		33,530
0604757N	139	MEDICAL CHEMICAL DEFENSE LIFE MATERIAL (H)	41,670		41,670
0604771N	140	MEDICAL DEVELOPMENT	5,455		5,455
0604777N	141	NAVIGATION/ID SYSTEM	23,884		23,884
0604784N	142	DISTRIBUTED SURVEILLANCE SYSTEM	34,711		34,711
0604800N	143	JOINT STRIKE FIGHTER (JSF) - EMD	767,259		767,259
0604805N	144	COMMERCIAL OPERATIONS AND SUPPORT SAVINGS INITIATIVE			0
0604910N	145	SMART CARD	896		896
0605013M	146	INFORMATION TECHNOLOGY DEVELOPMENT	11,031		11,031
0605013N	147	INFORMATION TECHNOLOGY DEVELOPMENT	49,333		49,333
0605014N	148	DEFENSE INTEGRATED MILITARY HUMAN RESOURCES SYSTEM (DIMHRS) - RDT&E	47,184		47,184
0605015N	149	JOINT COUNTER-INTELLIGENCE ASSESSMENT GROUP (JCAG) - RDT&E	6,000		6,000
0508713N	150	NAVY STANDARD INTEGRATED PERSONNEL SYSTEM (NSIPS)	13,082		13,082
		TOTAL, ENGINEERING AND MANUFACTURING DEVELOPMENT	**4,117,214**	**(421,096)**	**3,696,118**
		RESEARCH AND DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT	4,117,214	(421,096)	3,696,118
		RDT&E MANAGEMENT SUPPORT			
0604256N	151	THREAT SIMULATOR DEVELOPMENT	30,110		30,110
0604258N	152	TARGET SYSTEMS DEVELOPMENT	49,511		49,511
0604759N	153	MAJOR T&E INVESTMENT	41,804		41,804
0605152N	154	STUDIES AND ANALYSIS SUPPORT - NAVY	6,679	(2,679)	4,000
		decrease			(-2,679)
0605154N	155	CENTER FOR NAVAL ANALYSES	44,891		44,891
0605155N	156	FLEET TACTICAL DEVELOPMENT	2,912		2,912

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PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0605502N	157	SMALL BUSINESS INNOVATIVE RESEARCH			0
0605804N	158	TECHNICAL INFORMATION SERVICES	951	12,000	12,951
		Commercialization of Advanced Technology			(+6,000)
		Supply Chain Best Practices			(+6,000)
0605853N	159	MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT	21,628	(3,000)	18,628
		decrease			(-3,000)
0605856N	160	STRATEGIC TECHNICAL SUPPORT	2,391		2,391
0605861N	161	RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT	54,825		54,825
0605862N	162	RDT&E INSTRUMENTATION MODERNIZATION	11,601		11,601
0605863N	163	RDT&E SHIP AND AIRCRAFT SUPPORT	71,735		71,735
0605864N	164	TEST AND EVALUATION SUPPORT	277,414	(7,414)	270,000
		decrease			(-7,414)
0605865N	165	OPERATIONAL TEST AND EVALUATION CAPABILITY	11,649		11,649
0605866N	166	NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT	3,433		3,433
0605867N	167	SEW SURVEILLANCE/RECONAISSANCE SUPPORT	12,693		12,693
0605873M	168	MARINE CORPS PROGRAM WIDE SUPPORT	9,614		9,614
0305885N	169	TACTICAL CRYPTOLOGIC ACTIVITIES	85,000		85,000
0909999N	170	FINANCING FOR CANCELLED ACCOUNT ADJUSTMENTS			0
		TOTAL, RDT&E MANAGEMENT SUPPORT	**738,841**	**(1,093)**	**737,748**
		RESEARCH AND DEVELOPMENT	738,841	(1,093)	737,748
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		OPERATIONAL SYSTEMS DEVELOPMENT			
0604227N	174	HARPOON MODIFICATIONS			0
0604805N	175	COMMERCIAL OPERATIONS AND SUPPORT SAVINGS INITIATIVE			0
0101221N	176	STRATEGIC SUB & WEAPONS SYSTEM SUPPORT	43,322	9,800	53,122
		Radiation Hardened Electronics Applications Programs			(+9,800)
0101224N	177	SSBN SECURITY TECHNOLOGY PROGRAM	34,091		34,091
0101226N	178	SUBMARINE ACOUSTIC WARFARE DEVELOPMENT	996		996

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(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0101402N	179	NAVY STRATEGIC COMMUNICATIONS	4,205	(4,205)	0
		decrease			(-4,205)
0204136N	180	F/A-18 SQUADRONS	253,257	(39,000)	214,257
		Fuel Cell Second Source			(+1,000)
		Joint Helmet Mounted Cueing System (JHMCS)			(+10,000)
		decrease			(-50,000)
0204152N	181	E-2 SQUADRONS	20,583	10,000	30,583
		E2-C2 Eight Blade Composite Propeller			(+10,000)
0204163N	182	FLEET TELECOMMUNICATIONS (TACTICAL)	21,136	(10,900)	10,236
		decrease			(-10,900)
0204229N	183	TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC)	76,036	(2,222)	73,814
		decrease			(-2,222)
0204311N	184	INTEGRATED SURVEILLANCE SYSTEM	20,041		20,041
0204413N	185	AMPHIBIOUS TACTICAL SUPPORT UNITS	24,387	0	24,387
		decrease			(-10,000)
		Expeditionary Warfare Testbed - Supporting Arms Technology Insertion			(+10,000)
0204571N	186	CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT	22,407		22,407
0204575N	187	ELECTRONIC WARFARE (EW) READINESS SUPPORT	7,659	(2,300)	5,359
		decrease			(-2,300)
0205601N	188	HARM IMPROVEMENT	13,630	10,000	23,630
		AARGM			(+10,000)
0205604N	189	TACTICAL DATA LINKS	39,362	(7,700)	31,662
		decrease			(-7,700)
0205620N	190	SURFACE ASW COMBAT SYSTEM INTEGRATION	28,119	(3,900)	24,219
		decrease			(-3,900)
0205632N	191	MK-48 ADCAP	17,130	10,000	27,130
		Torpedo Rapid COTS Insertion			(+10,000)
0205633N	192	AVIATION IMPROVEMENTS	41,430		41,430
0205658N	193	NAVY SCIENCE ASSISTANCE PROGRAM	4,945		4,945
0205667N	194	F-14 UPGRADE			0
0205675N	195	OPERATIONAL NUCLEAR POWER SYSTEMS	55,202		55,202
0206313M	196	MARINE CORPS COMMUNICATIONS SYSTEMS	104,835		104,835
0206623M	197	MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS	43,935		43,935

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0206624M	198	MARINE CORPS COMBAT SERVICES SUPPORT	8,483		8,483
0207161N	199	TACTICAL AIM MISSILES	16,402		16,402
0207163N	200	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)	10,795	(1,000)	9,795
		decrease			(-1,000)
0303109N	203	SATELLITE COMMUNICATIONS (SPACE)	54,230	(10,000)	44,230
		decrease			(-10,000)
0303140N	204	INFORMATION SYSTEMS SECURITY PROGRAM	20,942	25,000	45,942
		Navy's Intelligent Agent Security Module			(+25,000)
0305160N	206	NAVY METEOROLOGICAL AND OCEAN SENSORS-SPACE (METOC)	23,492	(1,900)	21,592
		decrease			(-1,900)
0305188N	207	JOINT C4ISR BATTLE CENTER (JBC)	13,618	(13,618)	0
		decrease			(-13,618)
0305192N	208	JOINT MILITARY INTELLIGENCE PROGRAMS	7,179		7,179
0305204N	209	TACTICAL UNMANNED AERIAL VEHICLES	66,349		66,349
0305206N	210	AIRBORNE RECONNAISSANCE SYSTEMS	5,736	9,500	15,236
		Electro-optical Framing Reconnaissance			(+9,500)
0305207N	211	MANNED RECONNAISSANCE SYSTEMS	29,232	5,000	34,232
		Advanced Multiband Surveillance Systems			(+5,000)
0305208N	212	DISTRIBUTED COMMON GROUND SYSTEMS	4,467	1,000	5,467
		Precision Targeting Systems Modernization & Enhancement			(+1,000)
0305927N	213	NAVAL SPACE SURVEILLANCE	4,237		4,237
0308601N	214	MODELING AND SIMULATION SUPPORT	7,828	3,000	10,828
		SPAWAR Enhanced Modeling and Simulation Initiatives			(+3,000)
0702207N	215	DEPOT MAINTENANCE (NON-IF)	13,569	(4,972)	8,597
		decrease			(-4,972)
0708011N	216	INDUSTRIAL PREPAREDNESS	70,605		70,605
0708730N	217	MARITIME TECHNOLOGY (MARITECH)	20,065		20,065
XXXXXX	999	Classified Programs	885,347		885,347
		TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	**2,139,284**	**(18,417)**	**2,120,867**
		RESEARCH AND DEVELOPMENT	2,139,284	(18,417)	2,120,867
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		TOTAL, RESEARCH, DEVELOPMENT, TEST & EVALUATION, NAVY	**11,123,389**	**(260,115)**	**10,863,274**

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		RESEARCH AND DEVELOPMENT	7,006,175	160,981	7,167,156
		ENGINEERING AND MANUFACTURING DEVELOPMENT	4,117,214	(421,096)	3,696,118

Items of Special Interest

Advanced anti-radiation guided munition (AARGM)

The budget request contained $13.6 million in PE 25601N for improvements in the High-speed Anti-radiation Missile, but included no funds for the advanced anti-radiation guided munition (AARGM) program.

The committee notes the AARGM program development of advanced seeker, guidance and control technologies that, when integrated on the existing High-speed Anti-Radiation Missile (HARM) airframe, should provide a significant improvement in the U.S. capability for suppression of enemy air defenses (SEAD). The committee understands that AARGM test firings indicate substantial progress to date and that four additional test firings in 2001 will complete the demonstration program. The committee further understands that the AARGM program will compete for funding and entry into the system design and development phase in the Navy's fiscal year 2003 program objective memorandum.

The committee has strongly supported the development and demonstration of AARGM and believes that this Small Business Innovative Research (SBIR) program and the Quick Bolt Advanced Concept Technology Demonstration program utilizing AARGM both offer the potential to satisfy critical military requirements for lethal SEAD and attack of time-critical targets. The committee recommends $23.6 million in PE 25601N, an increase of $10.0 million for continuation of the risk reduction and productibility phase of the AARGM program.

Advanced composite sail phase II

The budget request contained $110.8 million in PE 63561N for advanced submarine system development, demonstration, and validation, including $6.1 million for continued development of the advanced composite sail.

The committee notes that the Navy's technology insertion plan for the Virginia class submarine includes installation of an advanced sail on the seventh Virginia class submarine. The advanced sail program is intended to provide substantial additional payload capacity and stealth improvements over conventional submarine sails. Program milestones include completion of advanced composite sail development and transition of the project to the Virginia class submarine program. The committee understands that the results of the program and lessons learned from other Navy composites programs have identified the need for a phase II advanced composite sail development program that will incorporate full-scale design features and meet the complete spectrum of full-scale load specifications that were not addressed in phase I of the program.

The committee recommends an increase of $15.0 million in PE 63561N for Phase II of the Advanced Composite Sail development program.

Advanced multi-band surveillance systems

The budget request contained $29.2 million in PE 35207N for manned reconnaissance systems operational systems development.

The committee recommends $34.2 million in PE 35207N, an increase of $5.0 million to accelerate the development of advanced multi-band surveillance systems as discussed in the classified annex.

Aegis combat systems engineering

The budget request contained $262.0 million in PE 64307N for Aegis combat systems engineering, of which $345 thousand was included for continued development of the operational readiness test system (ORTS) on Aegis combat systems.

The ORTS is the primary testing and condition assessment system for the Aegis SPY 1 radar and the Aegis Mk99 fire control radar system.

The committee also notes the need for system engineering and development of equipment upgrades and replacements for major Aegis weapon system computer peripheral subsystems. For example, Aegis Baselines 1–6, Phase III, utilize several types and variants of obsolete peripheral equipment to upload computer programs to the critical UYK–7 and UYK–43 tactical computers used for command and decision, weapons control, and fire control processing. The committee believes that technology refreshment and consolidation of this peripheral equipment will ensure the continued operational integrity of the Aegis weapon system, as well as reduce its ownership cost.

Therefore, the committee recommends $276.9 million in PE 64307N, an increase of $6.0 million to accelerate ORTS upgrades for the Aegis SPY 1 radar and Mk99 fire control radar system, and an increase of $8.9 million for additional computer peripheral technology refreshment and consolidation in the Aegis weapon system. In total, the committee recommends an increase of $14.9 million for Aegis combat systems engineering.

Aviation-shipboard information technology initiative

The budget request contained $16.4 million in PE 64512N for shipboard aviation systems development but included no funds for development of the integrated aviation-shipboard information technology initiative (IAS/ITI), which would upgrade and integrate aircraft carrier information systems to improve the effectiveness of carrier aircraft launch and recovery operations.

The committee notes that the Navy views the IAS/ITI as a promising technology for both its next-generation aircraft carriers and those currently in service which can enhance accuracy and minimize latency of information, distribute information where required, improve shipboard aircraft sortie rates and safety, and reduce carrier operating costs.

Accordingly, the committee recommends $21.4 million in PE 64512N, an increase of $5.0 million, for development of the IAS/ITI.

Combat systems integration

The budget request contained $42.9 million in PE 63582N for combat systems integration demonstration and validation.

Common command and decision system

The common command and decision (CC&D) program is a preplanned product improvement (P3I) to the Aegis Weapon System (AWS) and the Ship Self Defense System (SSDS) Mk2 that replaces the command and decision capability presently in these systems with a common set of application computer programs and associated supporting software infrastructure which will perform selected command and decision functions in an identical manner across multiple Surface Navy ships. The committee report on H.R. 4205 (H. Rept. 106–616) directed the Secretary of the Navy to report to the congressional defense committees on the Navy's program plan and funding for the CC&D P3I program.

The committee notes that the Navy has established a collaborative development program involving the AWS and SSDS Mk 2 combat systems integrators, innovative small business experts in the use of middleware, and Navy combat system development experts all working together in an integrated process team. The phased program will build on the Advanced Processor Build techniques developed and proven in the Submarine Acoustic Rapid Commercial-off-the-shelf Insertion (A–RCI) program. The program of record would result in initial introduction of the CC&D system in the fleet in 2010. The Secretary's report, however, notes that it is technically and programmatically possible to develop an executable CC&D capability by early calendar year 2005 but funding constraints do not currently support this timeline.

The committee strongly believes that the Navy should accelerate the program for upgrade and insertion of advanced technology in combat systems of legacy surface ships of the battle fleet. Accordingly, the committee recommends an increase of $25.9 million in PE 63582N to accelerate development of the CC&D system.

Wideband optically multiplexed beam-forming architecture

The committee notes that Congress previously provided funds for a cooperative program for research, development, and demonstration of a prototype optically multiplexed, wideband, radar beamforming array that uses optical wavelength-division multiplexing (WDM). The committee also notes that the use of optical WDM is expected to reduce hardware complexity and system cost in a wideband electronically-steered active radar antenna that has high instantaneous bandwidth and the resolution necessary for theater ballistic missile defense and ship self defense in a littoral environment.

The committee recommends an increase of $4.0 million in PE 63582N to complete the demonstration project for the wideband optically multiplexed beam-forming architecture.

Common picture applied research

The budget request contained $83.6 million in PE 62235N for common picture applied research.

Hybrid fiber optic wireless communication

The committee notes the progress in the development of an advanced hybrid fiber optic/wireless communication system with very high bandwidth, mobility, and low probability of intercept. The

overall goal of the program is to develop a versatile, mobile, secure communication system for military and commercial use, which combines the most desirable features of fiber optic and wireless communications technologies. The first year effort resulted in production of critical components of the system and a proof of concept demonstration.

The committee recommends an increase of $2.0 million in PE 62235N to continue the program for applied research in hybrid fiber optic wireless communications.

SEADEEP

The committee recognizes that integration of the submarine into emerging naval tactical missions requires a rapid transfer of large volumes of data that is not currently available to submarines operating at speed and depth in the ocean. This limitation severely constrains the submarine's tactical operational role in support of expeditionary and strike operations. The committee believes that the advent of new technology and new communications architectures presents the opportunity to revisit the concept of submarine laser communications.

The committee recommends an increase of $3.0 million in PE 62235N for SEADEEP, a project to develop a system concept of operations and demonstrate the feasibility of high-speed data transmission using laser communications between a high altitude aircraft and submarine.

E–2/C–2 eight-blade composite propeller

The budget request contained $20.6 million in PE 24152N for E–2 squadrons operational systems development, including $7.1 million for E–2C improvements, but included no funds for completion of an eight-blade composite propeller for E–2C and C–2A aircraft.

The committee notes that the Navy is seeking solutions to operational limitations encountered with the propeller systems used on E–2C and C–2A aircraft. In response to directions contained in the committee report on H.R. 1110 (H. Rept. 105–132) the Navy began a program for design, development, test, and production of the eight-blade composite propeller for the E–2C and C–2A. Congress provided an additional $4.0 million for the program in fiscal year 2001 to flight test the new propeller system on the C–2A aircraft sequentially with the E–2C flight test program.

The committee recommends $30.6 million in PE 24152N, an increase of $10.0 million to complete the program for development and evaluation of an eight bladed composite propeller system for the E–2C and C–2A aircraft.

Electronic warfare (EW) development

The budget request contained $112.5 million in PE 64270N for electronic warfare development, but included no funds to evaluate the location of global positioning system interferers (LOCO GPSI) system in fleet operations or for follow-on support jamming aircraft pre-engineering and manufacturing development (EMD) risk reduction activities.

LOCO GPSI is a state-of-the-art precision surveillance and targeting system for location of global positioning systems interferers

that is designed to protect global positioning system-guided weapons against jamming and interference. The committee understands that naval operational fleet commanders have requested that the LOCO GPSI system participate in several fleet exercises in fiscal year 2002 to demonstrate and evaluate the military utility of this system. Accordingly, the committee recommends an increase of $4.0 million to evaluate LOCO GPSI capabilities in fleet operations.

The committee understands that the Airborne Electronic Attack Analysis of Alternatives is scheduled to be complete in December 2001 and believes that this analysis will conclude that development of a follow-on support jamming aircraft will be required to replace the aging EA–6B. To accelerate the development of an EA–6B successor, the committee recommends an increase of $10.0 million for pre-EMD risk reduction activities.

In total, the committee recommends $126.5 million in PE 64270N, an increase of $14.0 million.

Electro optical framing reconnaissance

The budget request contained $5.7 million in PE 35206N for airborne reconnaissance, but included no funds for electro-optical (EO) framing.

The committee is aware of developmental EO framing processing techniques that will provide real-time precision strike targeting capability.

The committee recommends an increase of $9.5 million in PE 35206N for continuation of F–14 TARPS/CD precision strike hardware development, continued development of integrated electronic shutter upgrade to SHARP sensors, and evaluation and systems engineering of cellular neural network technology in support of EO framing processing techniques.

Embedded software engineering research initiative

The budget request contained $66.3 million in PE 62114N for power projection applied research.

The committee notes that a majority of all current computer applications are embedded systems and almost all defense systems have one or more embedded computers. While embedded software is becoming increasingly large and complex, advances in technology for development of embedded software systems is lagging, resulting in high development costs, long development cycles, and error-prone products.

The committee recommends $70.3 million in PE 62114N, an increase of $4.0 million to begin an initiative in Embedded Software Engineering Research, focused on the development of structured design and manufacturing capabilities for the deployment, control, integration and utilization of embedded software systems.

Expeditionary warfare testbed—supporting arms technology insertion

The budget request contained $24.4 million in PE 24413N for amphibious tactical support units operational systems development.

The committee recognizes the need for better integration and interoperability of expeditionary forces. Force commanders have

identified the need for additional development and integration in the supporting arms coordinating center (SACC) of the force headquarters. The committee understands that the Naval Sea Systems Command's expeditionary warfare test bed will be used to develop applications of new technologies and refine technology requirements for SACC systems used in expeditionary operations.

To support this initiative the committee recommends an increase of $10.0 million in PE 24413N for supporting arms technology insertion in the expeditionary warfare testbed.

The committee encourages the Assistant Secretary of the Navy (Research, Development, and Acquisition) to oversee and guide this expeditionary warfare program and to use the Navy's National Technology Alliance in support of technology development.

Extending the littoral battlespace

The budget request contained $48.6 million in PE 63235N for common picture advanced technology development, including $1.0 million for the extended littoral battlespace project.

The committee notes that the Office of Naval Research sponsored the Extending The Littoral Battlespace Advanced Concept Technology Demonstration (ELB ACTD) to provide command, control, communications and intelligence in an extended littoral battlespace. The ELB ACTD integrates commercial-off-the-shelf and government-furnished technology in a military setting to showcase the benefits of advanced networking, global positioning systems, and other information technology applications. The committee notes that the budget request supports the transition of technologies, hardware, and software to the military user; demonstration/post-demonstration analysis and assessment of the military utility of the ELB system concept; and residual support of equipment fielded with the Amphibious Ready Group/Marine Expeditionary Unit that participated in the ACTD.

The committee recommends $50.6 million in PE 63235N, an increase of $2.0 M for support and upgrade/technical refreshment of the ELB ACTD equipment fielded with the ARG/MEU.

F/A–18 improvements

The budget request contained $253.3 million in PE 24136N for F/A–18 squadrons operational systems development.

Fuel cell second source

The committee understands that the Navy currently has only a single vendor that is qualified to manufacture polyurethane fuel cells for the F/A–18 aircraft. Due to the increased demand for fuel cells for the aircraft and insufficient production capacity, the Navy is not able to meet all operational requirements and is investigating additional manufacturing capability for F/A–18 fuel cells.

The committee recommends an increase of $1.0 million in PE 24136N for qualification of an additional production source for F/A–18 fuel cells.

Joint helmet mounted cueing system (JHMCS)

The budget request included $0.4 million to complete development of the Joint Helmet Mounted Cueing System.

The committee notes that the joint helmet mounted cueing system, when combined with state of the art missile systems currently in development provides a significant improvement in air-to-air combat capability and survivability. The committee is also aware that this improved capability is essential to the success of the Navy's F/A–18 E/F strike fighter aircraft currently being deployed. For fiscal year 2001, Congress provided $3.5 million for continued development of the joint helmet mounted cueing systems for the F/A–18C/D fighter.

The committee recommends an increase of $10.0 million in PE 24136N to accelerate the completion of development, evaluation, and fielding of the Joint Helmet Mounted Cueing System for the F/A–18 and other aircraft.

Force protection advanced technology

The budget request contained $85.3 million in PE 63123N for force protection advanced technology development.

Advanced water jet AWJ–21

The committee notes that the advanced waterjet propulsor (AWJ–21) was originally developed in a three-year industry/government cost-shared project under the Maritime Technology (MARITECH) program. The committee also notes that potential applications of the advanced water jet propulsor technology are being considered for the Navy's small combat craft program. The committee understands that the AWJ–21 has the potential for being a low-cost/high-performance propulsor option for future ships that require reduced signature and increased operational maneuverability. The committee also understands that additional testing at a one-fourth-scale level demonstrator at sea and testing in the large cavitation tunnel will be required to validate analytical predictions of critical performance parameters.

The committee recommends an increase of $6.0 million in PE 63123N for continuation of the AWJ–21 development and demonstration project.

DC Homopolar Motor

The budget request included $60.3 million for advanced development of surface ship and submarine hull, mechanical, and electrical technology that includes the development of superconducting and permanent magnetic ship-propulsion electric motors.

The committee understands that the Office of Naval Research has initiated a project for development of a 5000 shaft-horsepower superconducting, direct current, homopolar motor that may be used in the experimental littoral support craft program.

The committee recommends an increase of $4.0 million in PE 63123N to complete development and at-sea testing of the DC homopolar motor.

Direct ship service fuel cell

The committee recommends an increase of $7.0 million in PE 63123N for development of a direct ship service fuel cell technology demonstrator for technology validation and training of ship sys-

tems engineers, designers, system integrators, operators and engineering students.

Electric propulsion/ship power systems distributed test bed

The committee notes that the Navy's next generation surface combatants will rely heavily on the use of electrical power and its applications to naval ship systems including integrated power systems, electric drive, and configurable zonal systems. New technologies, manufacturing processes, innovative approaches, techniques and method, and advanced materials will be on the critical path for the development and integration of these high power, electricity-based systems. The committee notes that an understanding of these factors and the interactions of the various components, and the ability to design and evaluate the performance of the system, both in simulation and with hardware-in-the-loop will be critical to the design of efficient and cost-effective electrical propulsion systems that meet naval requirements and of the all-electric ship itself. As a part of the Navy's program leading to the development of an all-electric ship, the committee continues to support the development of a virtual, distributed test bed which will provide the software and hardware modeling tools for shipboard machinery design and allow government and industry ship designers and engineers to evaluate machinery alternatives in a virtual prototype before committing to full-scale development.

The committee recommends an increase of $10.0 million in PE 63123N to continue the program for advanced development of a distributed test bed for electric propulsion and ship power systems.

Littoral support craft—experimental

The budget request in PE 63123N contained $85.3 million for force protection advanced technology development, including $20.0 million for the development and demonstration of experimental craft for littoral support operations.

The committee notes progress made by the Office of Naval Research in the development of designs and operational concepts for a littoral support craft: a fast (above 40 knots), high performance, low cost platform that could be an effective adjunct to the major surface combatant and carrier battle group. The craft would be compliant with the Navy concept for operations in the littoral and would fulfill fleet requirements for providing supporting command, control, communications and combat systems in the region from the shore to other surface combatants operating 75 miles or greater from the shore. The committee also notes the progress that ONR has made in the development and evaluation of important components and sub-systems that might be used on a littoral support craft. The committee strongly supports ONR proposals for a phased program for development of an experimental littoral support craft demonstrator (LSC–X) that would provide the basis for operational experiments on the contribution that such a craft and its variants could make to naval operations in the littoral.

Accordingly, the committee recommends a total of $39.0 million in PE 63123N for development and demonstration of the LSC–X, including an increase of $19.0 million to the ONR program for de-

velopment and demonstration of experimental craft for littoral support operations.

SEALs Mark V patrol craft modification

The committee report on H.R. 4205 (H. Rept. 106–616) directed the Secretary of the Navy to report to the congressional defense committees on the Navy's plan for transition of Project M (an active noise and vibration cancellation system developed in the advanced submarine technology program) from the Navy's science and technology base to potential applications in Navy propulsion and other machinery systems. Subsequently, the Office of Naval Research advised the committee that a project had been established to evaluate the ability of Project M technology to mitigate the high shock and vibration experienced by the Navy SEALs Mark V patrol craft crew and passengers in high-speed special operations.

The committee recommends an increase of $6.0 million in PE 63123N for continuation of the program for application of Project M technology to mitigate physical shock to crew and passengers in the Mark V patrol craft.

Funding transfers to support transformation

The committee is concerned that the largest area of growth in Navy research and development investments has occurred in the category of fielded system development and other mature technologies. While these programs are important, the committee does not believe they support the highest priority efforts directly related to Navy transformation. In light of the delay in the program downselect decision, the committee also notes its concerns about the ability of the Navy to execute the DD–21 land attack destroyer. Finally, the committee notes that no justification was provided for an apparent new program start in PE 63237N.

Therefore, the committee recommends the following decreases to Navy accounts to be transferred to other programs within the Navy that support higher transformation priorities.

62235N	$1,912,000
62805N	8,000,000
63114N	10,000,000
63123N	5,297,000
63236N	5,000,000
63271N	15,000,000
63216N	17,900,000
63237N	50,000,000
63382N	3,458,000
63513N	25,000,000
63561N	10,457,000
63563N	1,949,000
63564N	10,000,000
63570N	2,100,000
63582N	4,900,000
63611M	23,066,000
63851M	10,000,000
64262N	100,000,000
65152N	2,679,000
65853N	3,000,000
65864N	7,414,000
11402N	4,205,000
24136N	50,000,000

24163N	10,900,000
24229N	2,222,000
24413N	10,000,000
24575N	2,300,000
25604N	7,700,000
25620N	3,900,000
27163N	1,000,000
33109N	10,000,000
35160N	1,900,000
35188N	13,618,000
72207N	4,972,000

Land attack standard missile

The budget request contained $131.0 million in PE 63795N for Land Attack Technology, including $34.5 million for development of the Land Attack Standard Missile (LASM). The committee recommends the budget request for LASM. As addressed elsewhere in this report, the committee notes that the Department of Defense has decided to endorse the Navy's proposal to acquire LASM as an interim capability for the Navy land attack mission and to develop an Advanced Land Attack Missile (ALAM) as soon as possible for the DD–21 land attack destroyer and for other Navy combatants. LASM, an adaptation of the Navy's Standard Missile, entered engineering and manufacturing development in July 2000, completed a preliminary design review in December 2000, and also conducted a successful warhead test in February 2001. Initial operational capability for LASM is planned in fiscal year 2004. The committee also notes a number of informal proposals for development of more advanced warheads for LASM.

The committee has strongly supported the LASM program, as well as the development of ALAM. Elsewhere in this report, the committee has recommended a legislative provision (Sec. 212) that would require the Secretary of Defense to establish a competitive program for the development of ALAM, would provide $20.0 million for that program, and would require the Secretary to report the program plan, schedule, and funding required for the Advanced Land Attack Missile program to the congressional defense committees with the submission of the fiscal year 2003 budget request. The committee directs that the Secretary also provide a report that describes the operational requirement for LASM and the program plan, schedule, and funding for development and acquisition of LASM with the submission of the fiscal year 2003 budget request.

Laser aim scoring system (LASS)

The budget request contained $64.4 million in PE 64212N for anti-submarine warfare (ASW) and other helicopter development but included no funds for the sea-target LASS.

The sea-target LASS would be mounted on a Navy remote-controlled target boat, which, when lased by a pilot practicing delivery of a Hellfire missile, would provide immediate aiming feedback to the pilot that would inform where the missile would have hit or why it would have missed. The committee understands that combat delivery of the Hellfire missile requires considerable pilot laser aiming skill since it is conducted in a moving helicopter and directed at a moving at-sea target. The committee further understands that the Navy's SH–60 and HH–60 pilots have limited pro-

ficiency in this skill since Hellfire pilot laser aiming training is accomplished in a ground-based flight trainer which lacks the both the helicopter and target motion and the ability to determine why a missile would have been ineffective against its intended target. The committee notes that Army helicopter pilots maintain Hellfire laser aiming proficiency by using a stationary LASS on their target practice ranges, and believes that a similar sea-target LASS could address the Navy training deficiency by allowing in-flight practice laser designation against a moving at-sea target while also providing immediate laser aiming result feedback to the pilot.

Accordingly, the committee recommends $66.4 million in 64212N, an increase of $2.0 million, to develop the sea-target LASS.

Laser welding and cutting

The budget request contained $62.1 million in PE 62271N for radio frequency systems applied research.

The committee understands that the technology of laser welding and cutting applied to ship construction is anticipated to reduce ship construction costs significantly and afford greater design flexibility. The committee encourages the development of laser welding technologies that have demonstrated the potential to provide higher quality and lower costs for building Navy ships.

The committee recommends an increase of $4.3 million in PE 62271N for the development and application to naval ship construction of laser welding and cutting technology and techniques.

Marine Corps ground combat/support system

The budget request contained $26.0 million in PE 63635M combat supporting arms systems and included $18.2 million for the lightweight 155mm towed howitzer, but no funds for the Marine Corps urban environmental laboratory for low observable signature ejection technology.

The committee continues to support development of the lightweight 155mm towed howitzer for the Marine Corps and Army. The committee is aware that a Marine Corps urban environmental laboratory has been established to provide assessment, analysis and remediation of capabilities to ensure predictable and minimum environmental damage from traditional and non-traditional capabilities used in urban missions. The committee also notes that the Marine Corps needs weapons with low observable ejection signatures.

The committee recognizes that the Marine Corps will require a capability non-explosive fire from enclosures in order to operate effectively in military operations in urbanized terrain engagements. Innovative standoff door-breaching munition (ISOD) technology will enable forces engaged in the urban battleground to breach doors and other similar structures from a standoff distance of up to 100 meters without exposing Marines to direct hostile fire. The committee is encouraged by the Marine Corps' pursuit of this technology and supports the Marine Corps' efforts to examine the broad application of ISOD to both regular and special operations forces. The committee requests that the Commandant of the Marine Corps keep the defense committees informed of the progress of this initiative.

The committee recommends $41.0 million in PE 63635M, an increase of $5.0 million for the lightweight 155mm towed howitzer, an increase of $5.0 million for the urban environmental laboratory, and an increase of $5.0 million for low observable signature ejection technology.

Metrology projects

The budget request contained $120.6 million in PE 64215N for standards development, but included no funds for the Navy metrology program. The budget request also included $1.5 million in PE 72207F for Air Force metrology program research and development. The metrology program develops new measurement standards and capabilities to support the development, test, evaluation, and maintenance of the leading-edge technology deployed in emerging military systems.

The committee understands that shortfalls in metrology budgets have led to the erosion of critical calibration standards development and measurement services and that this situation negatively affects the development and support of new weapons systems.

Consequently, the committee recommends $127.1 million in PE 64215N, an increase of $6.5 million for the Navy metrology program. The committee also recommends $5.5 million in PE 72207F, an increase of $4.0 million for the Air Force metrology program.

Multipurpose processor

The budget request contained $43.7 million in PE 64503N for submarine system equipment development, including $36.0 million for submarine sonar improvements that also included the acoustic rapid commercial-off-the-shelf insertion (A–RCI) program.

The A–RCI program upgrades current submarine sonar systems with open architecture commercial-off-the-shelf computer technology that uses advanced processing builds (APB) and multipurpose processor (MPP) middleware architecture developed under small business innovative research to provide continued upgrades as technology develops. Full implementation is currently planned for fiscal year 2008, but conversion of all submarines can be accelerated to fiscal year 2004 with additional funds.

The committee notes that the Chief of Naval Operations identified $225.0 million in fiscal year 2002 unfunded requirements for A–RCI in submarine sonar systems. The committee believes that this technology upgrade is essential for the submarine fleet and, therefore, recommends $68.7 million in PE 64503N, an increase of $25.0 million to accelerate the A-RCI program for application of the APB/MPP technology insertion process in submarine and other naval sonar systems.

Navy's intelligent agent security module

The budget request contained $20.9 million in PE 33140N for the Navy's information systems security program.

The committee notes the progress being made in the development of intelligent agent security modules (IASM) in the Navy's information systems security program, but also notes the need to improve IASM system capability to identify and respond to attacks on the information network. The Navy has stated that the IASM is in-

tended for deployment at the tactical network operations center, shipboard, and at the fleet information warfare center. The IASM will enhance network security by correlating information from multiple security products; derive a concise, accurate assessment of malicious actions and unauthorized use; and recommend actions to respond to and terminate an attack to network administrators.

Accordingly, the committee recommends $45.9 million in PE 33140N, an increase of $25.0 million to increase the capability of the IASM system to identify and respond to attacks on the network, expand the period through which attack trends can be assessed, and provide enhanced countermeasures to respond to a specific type of attack.

Navy logistics productivity

The budget request contained $11.7 million in PE 63739N for Navy logistics productivity demonstration and validation.

Compatible processor upgrade program

The committee understands that compatible processor upgrade program (CPUP) system-on-a-chip processor products are used to modernize existing computer systems while preserving legacy software and infrastructure, adapt commercial designs for high radiation environments, and optimize system designs. Congress provided $3.5 million in fiscal year 2001 to initiate a program for the development of application-specific CPUP processors to upgrade the capability of the Navy's AN/AYK–14, AN/AYK–44, and AN/UYK–20 computers at a fraction of the cost and time required to reengineer legacy software for new computer systems.

The committee recommends an increase of $6.5 million in PE 63739N for continuation of the compatible processor upgrade program (CPUP).

Rapid retargeting

The committee notes that, within the logistics productivity program, the Navy has implemented a rapid retargeting project to address obsolete designs in electronic systems.

The project provides the technology to eliminate obsolete components and reduce multiple electronic modules to single programmable designs. The committee understands that the rapid retargeting process is also being employed to replace different types of standard electronic modules with programmable commercial-off-the-shelf components, thereby reducing the requirements for spare parts on board naval vessels.

The committee recommends an increase of $5.0 million in PE 63739N to continue the rapid retargeting project.

Non-acoustic anti-submarine warfare

The budget request contained $76.5 million in PE 62747N for undersea warfare applied research and $56.3 million in PE 63747N for undersea warfare advanced technology development.

The committee recommends $86.5 million in PE 62747N, an increase of $10.0 million for applied research in non-acoustic anti-submarine warfare technology and $66.3 million in PE 63747N, an increase of $10.0 million for advanced development in non-acoustic

anti-submarine warfare technology. Elsewhere in this report the committee has recommended an increase of $10.0 million to investigate the ability of the JSTARS radar to image the ocean surface.

Oceanographic survey of continental shelf beyond U.S. exclusive economic zone

The committee notes that Articles 76 and 77 of the United Nations Convention on the Law of the Sea secure coastal States' sovereign rights over the natural resources of the continental shelf and establish a formula for determining whether and how a State may claim an outer shelf limit beyond the State's exclusive economic zone (EEZ). The United Nations Commission on the Limits of the Continental Shelf has established guidelines on the scientific and technical evidence, including undersea bathymetric and seismic data from the continental shelf, that will be considered with respect to coastal State submissions. The outer limits based on the commission's recommendations will be final and binding under the Convention. The committee also notes that, although the United States is not now a party to the Convention, should it accede to the treaty in the future, it should be able to establish final and binding limits to two areas adjacent to its EEZ off the coast of Alaska, the Chukchi Cap and part of the Donut Hull, and smaller areas in the Gulf of Mexico and the Atlantic Ocean. The committee believes that the United States should have the data available that would be necessary to determine whether claims from other coastal States might overlap with potential U.S. claims.

The committee encourages the Secretary of the Navy, in conjunction with the Administrator of the National Oceanic and Atmospheric Administration, to identify the scope of the bathymetric, seismic, and other data that would need to be gathered to support United States' claims for establishment of outer shelf limits under the Convention, develop a plan for gathering that data, and determine the surface and subsurface oceanographic survey resources that would need to be committed to the effort.

Organ transfer technology

The budget request contained $17.7 million in PE 63729N for warfighter protection advanced technology development.

The committee notes developments in immune therapies by investigators at the Naval Medical Research Center that have been shown to prevent the rejection of tissue and organ transplants without the need for continuous use of immunosuppressive drugs. The committee believes that the ability to transplant massive tissue segments without rejection could revolutionize the treatment of combat casualties who suffer significant tissue loss or organ damage from blast, missile fragments, or burns. In fiscal year 2001, the Chief of Naval Research initiated a program to capitalize on these newly developed methods of treatment and Congress provided $3.0 million to initiate a clinical trials program.

The committee recommends $21.7 million in PE 63729N, an increase of $4.0 million to continue the program for clinical trials in organ transplant and transfer technology. The committee urges the Chief of Naval Research to include funding for completion of the clinical trials program in future budget requests.

Photovoltaic energy savings initiative

The budget request contained $1.7 million in PE 63725N for demonstration and validation of improvements in naval facilities.

The committee notes that rising energy costs and increased concerns among the military services about the effect of gaseous emissions on the environment have sparked greater interest in developing renewable energy sources. The committee understands that proposals have been made for development of a multi-megawatt photovoltaic energy park on naval installations to generate electricity from the sun for this purpose. Under the proposal, a cooperative agreement would be established between industry and the federal government that would result in fuel savings under the federally funded share of the program being returned to the federal government.

The committee recommends $4.1 million in PE 63725N, including an increase of $2.4 million in PE 63725N for demonstration of the photovoltaic energy savings initiative.

Power projection advanced technology

The budget request contained $76.4 million in PE 63114N for power projection advanced technology development.

Affordable weapon

The Office of Naval Research (ONR) affordable weapons program is an advanced technology demonstration to design, develop and build a 600 mile range, 200lbs. payload, precision strike missile with global positioning system/inertial navigation system guidance and control and a data link. The missile is built using commercial-off-the-shelf components (COTS) and will have an estimated cost in production of approximately $30,000 per missile and fly within two years of contract initiation. The objective of the ONR program is to demonstrate the breakthroughs in (1) technology and systems integration that permit the development of a low-cost, precision guided missile using primarily COTS components and (2) acquisition reform that permits definition of costs within the first ten production units and manufacturing changes that can be accomplished at low cost with small unit buys. The committee notes that ONR initiated the program in July 1999 and accomplished air vehicle first flight in September 2000. The committee believes that, if successful, the ONR affordable missile program will establish a new paradigm for the development and production of precision strike missile systems.

The committee recommends an increase of $10.0 million in PE 63114N for advanced technology development and demonstration of the affordable weapon.

DP–2 thrust vectoring system concept demonstration

The budget request contained no funds for continuation of the DP–2 thrust vectoring system proof-of-concept demonstration.

DP–2 is a proof-of-concept program to demonstrate the use of thrust vector control to achieve vertical takeoff and conventional takeoff capabilities in a one-half scale flight test vehicle. The technology offers the potential for a low cost, medium range aircraft of advanced composite construction.

The committee notes the progress to date in the DP–2 program in the design and fabrication of large, precise composite structures, the design of the flight control system, and ground test of the system leading to the initial hover test in June 2001. The committee also notes technical issues that were encountered during the hover test that will necessitate additional analysis and potential redesign before a successful hover test can be accomplished. The committee believes that the potential of the DP–2 proof-of-concept program justifies these efforts.

Accordingly, the committee recommends an increase of $8.0 million in PE 63114N to continue the project for development and demonstration of the DP–2 thrust vectoring system in an affordable airframe.

Precision targeting systems modernization and enhancement

The budget request contained $4.5 million in PE 35208N for distributed ground systems operational systems development.

The committee notes that the Joint Service Imagery Processing System—Navy (JSIPS–N), the Navy's portion of the distributed common ground system, is being installed on aircraft carriers, amphibious assault ships, selected fleet flagships, and shore sites to receive and exploit imagery reports from multiple sensors and assist strike and amphibious operations planners and tactical aviators in planning the delivery of precision weapons. The committee understands that the digital imagery workstation suite (DIWS) component of JSIPS–N should be upgraded to provide a state-of-the-art targeting capability, smaller equipment footprint aboard ship, and increased reliability.

The committee recommends $5.5 million in PE 35208N, an increase of $1.0 million to accelerate the program for development, testing, and integration of the upgraded DIWS.

Project Bear Trap

The budget request contained $12.9 million in PE 63254N for anti-submarine warfare systems demonstration and validation, including support for Project Bear Trap.

The budget request supports hardware and software development for the rapid prototyping of advanced capability acoustic and non-acoustic ASW sensors, as well as data collection and analysis for threat assessment and environmental characterization. The committee notes the progress being made in the evaluation and development of the phenomena of nonlinear dynamics and stochastic resonance (NDSR) for acoustic, magnetic, and other ASW sensor and signal processing applications.

The committee recommends $17.9 million in PE 63254N, an increase of $5.0 million for Project Beartrap to continue the development, demonstration, and evaluation of NDSR technology for ASW applications and to continue the Beartrap environmental characterization program.

Radiation-hardened electronics applications

The budget request contained $43.3 million in PE 11221N for strategic submarine and weapons systems support.

Radiation-hardened integrated circuits are necessary for systems such as the guidance system for the Trident missile. The radiation-hardened electronics application program (RHEAP) is a Navy-sponsored initiative to improve the efficiency of production of critical, radiation-hardened integrated circuits through the use of advanced simulation and modeling tools. The program addresses the transition between the science and technology that develops more capable integrated circuit chips and the commercial production of those next generation chips. Benefits of RHEAP include improving the return on the science and technology investment in the development of advanced microelectronics, reducing the cost of production by commercial laboratories, and reducing the time and effort required to mature a research and development semi-conductor wafer prototype to a production-ready product

The committee recommends $53.1 million in PE 11221N, including an increase of $9.8 million for development of advanced RHEAP tools for modeling, simulation and fabrication of radiation-hardened circuits.

SPAWAR enhanced modeling and simulation initiatives

The budget request contained $7.8 million in PE 38601N for support of Navy modeling and simulation.

The committee notes continued advances in modeling and simulation for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems. These advances demonstrate the use of efficient systems engineering and business practices and leverage simulation-based acquisition applied to the assessment, planning, testing, and technology insertion for C4ISR systems. The committee also notes continuing progress in modeling and simulation systems engineering initiatives that aid operations analysis, and engineering assessment. The committee supports the development and understanding of new modeling and simulation tools that will assist in more effective decision-making and in the design of C4ISR systems and information architectures.

Accordingly, the committee recommends $10.8 million in PE 38601N, an increase of $3.0 million to continue initiatives for the development of improvements in C4ISR modeling and simulation.

Submarine electrical power

The budget request contained $117.1 million in PE 62123N for force protection applied research.

The committee notes that some nuclear submarines, which are nearing the end of their hull service life and being decommissioned may still have significant life remaining in the submarine nuclear reactor core that could, with appropriate modification to the steam generating system, provide a source of power for on-shore activities when connected to the on-shore power grid. Such a capability would be useful in augmenting the power grid in an area where there is a submarine basing and support capability.

The committee recommends $117.4 million in PE 62123N, an increase of $300 thousand to initiate a study on the potential utility and application of submarine-generated steam and electrical power for augmentation of on-shore power grids.

Supply chain best practices

The budget request contained $1.0 million in PE 65804N for technical information services that support cooperative advanced technology initiatives between the Navy and U.S. industry with the goals of improving affordability and reducing life cycle costs of new and modernized Navy systems.

The committee recommends an increase of $6.0 million in PE 654804N to continue the program for development and adoption of industrial and logistical best business and management practices among government and industry in support of defense systems. The committee expects that the Office of Naval Research will include funding for this program in future Navy budgets.

Surface navy integrated undersea tactical technology

The budget request contained $135.3 million in PE 63502N for surface and shallow water mine countermeasures systems demonstration and validation.

The committee understands that in order to effectively conduct the Navy's core anti-submarine warfare (ASW) and mine warfare (MIW) missions, naval forces must be able to reliably detect, locate, and target mines and enemy submarines, respond rapidly and decisively to these hostile contacts, and provide all commanders with a common picture of the undersea battlespace. The committee notes the need for development of a common undersea picture that would incorporate input data from existing and enhanced undersea warfare systems.

The committee recommends $147.3 million in PE 63502N, an increase of $12.0 million for the Surface Navy Integrated Undersea Tactical Technology project. The committee expects that this effort will be coordinated with other Navy and joint programs for development of technology and systems to provide a common picture of the tactical undersea battlespace.

Surface ship torpedo defense

The budget request contained $4.8 million in PE 63506N for surface ship torpedo defense (SSTD) demonstration and validation.

The committee understands that the fiscal year 2002 plan for the SSTD program includes continued development of the tripwire torpedo defense system for large deck ships and DDG–51 Flight IIA ships and continued development of the anti-torpedo torpedo countermeasure for surface ships.

The committee recommends $9.8 million in PE 63506N, an increase of $5.0 million to accelerate the program for development and fielding of SSTD systems to the fleet.

Telemedicine for minimally invasive surgery

The committee notes the progress made in the application of telemedicine to surgical procedures that allow an experienced surgeon to perform a procedure from a remote location using telecommunications technology and sophisticated robotic systems. The committee believes that the technology has the potential to increase significantly the availability of specialized surgical skills to deployed military personnel and the civilian community throughout the world. The committee directs the Secretary of the Navy, in con-

sultation with the Secretary of Health and Human Services, to review the telemedicine program and consider the establishment of a pilot project for further application of telemedicine technology to minimally invasive surgical procedures. The committee believes that such a project would provide valuable data on human subject outcomes, equipment use and set-up, the quality of data transmission for remote applications, and the infrastructure required to support such telesurgery. The committee directs that the Secretary of the Navy report the results of the review and recommendations regarding the establishment of such a pilot project with the submission of the fiscal year 2003 budget request.

Titanium watertight door and hatch cover

The budget request contained $130.4 million in PE 64567N for ship contract design/live fire test and evaluation but included no funds for evaluating a watertight door or hatch cover made from titanium.

The committee is concerned about the continuing high cost to maintain weather decks of surface combatants and notes that the use of titanium, rather than steel, to construct these decks could produce potentially significant life-cycle cost savings, since titanium is lighter, stronger, and easier to maintain than steel, as well non-corrosive in seawater. Therefore, from within the funds requested, which the committee recommends, the committee strongly urges the Secretary of the Navy to use $1.0 million to initiate a pilot program, using titanium, to produce a watertight door and hatch cover on a flight 2A DDG–51 destroyer.

Torpedo rapid COTS insertion

The budget request contained $17.1 million in PE 25632N for MK–48 Advanced Capability Torpedo operational systems development, but included no funding for insertion of advanced commercial-off-the-shelf (COTS) technology into the Mk 48 ADCAP torpedo.

The committee is concerned that the performance of the MK–48 submarine-launched torpedo in littoral waters is far less than desired. The committee is that the advanced rapid COTS insertion (A–RCI) program, which uses advanced processing builds (APB) and a multi-purpose processor (MPP) hardware architecture developed under small business innovative research, has successfully and very cost effectively improved the performance of submarine sonar systems. The committee believes that a similar A–RCI program for the MK–48 torpedo, which leverages the experience gained in the submarine sonar program, could have significant potential to cost effectively improve performance of the MK–48 torpedo in the demanding littoral waters sonar environment.

Therefore, the committee recommends $27.1 million in PE 25632N, an increase of $10.0 million to extend the application of the advanced processing build/multipurpose processor technology insertion process to the MK–48 ADCAP torpedo.

Vacuum electronics

The budget request contained $62.1 million in PE 62271N for applied research in radio frequency technology, including $6.5 million

for vacuum electronics; and $76.9 million in PE 63271N for radio frequency advanced technology development.

The committee report on H.R. 1402 (H. Rept. 106–162) noted the committee's support for a robust vacuum electronics research and development program in the Department of Defense and other federal agencies. The committee has reviewed the results of the Secretary of the Navy's recent report to Congress on the DOD vacuum electronics program and the DOD's April 2001 Technology Area Review and Assessment (TARA) on creating a balanced tri-service investment strategy for RF vacuum electronics and solid state power technologies. The committee endorses the TARA views on the criticality of support for both vacuum electronics and solid-state power technologies. The committee notes the TARA review's recommendations for increased funding in the tri-service vacuum electronics program and for establishment of a combined tri-service initiative to rapidly advance wide bandgap semiconductor device technology to enable advanced military radar and other systems requiring power electronics in the mid-to-long term.

The committee recommends $16.5 million in PE 62271N for applied research in vacuum electronics, an increase of $10.0 million; and an increase of $5.0 million in PE 63271N for vacuum electronics advanced technology development. The committee has recommended a legislative provision (Section 244) that would accelerate the program for development of advanced solid state, wide bandgap semiconductor technology. The committee expects the Under Secretary of Defense (Acquisition, Technology, and Logistics) through the Director of Defense Research and Engineering to ensure a balanced investment strategy for vacuum electronics and solid state power technologies that will meet DOD requirements for current and future systems that use radio frequency power electronics.

VECTOR study and analysis

The budget request contained $11.6 million in PE 63790N for the cooperative NATO research and development program.

The committee is aware that a funding shortfall has developed in the VECTOR program, which is due in large part to a lower-than-expected contribution provided by the Federal Republic of Germany for fiscal year 2002. The committee is concerned with the numerous executability problems experienced in this program and remains concerned about the feasibility and follow-on applications of this technology.

The committee recommends that the Secretary of the Navy review VECTOR's technological feasibility, assess its potential follow-on applications in accordance with the Navy's future force structure plans, and examine in particular the possible incorporation of VECTOR technology applied to manned and unmanned naval aircraft in the inventory.

The committee recommends $11.6 million in PE 63790 N, including $1.0 million for the VECTOR study and analysis program.

Warfighter sustainment advanced technology

The budget request contained $48.6 million in PE 63236N for warfighter sustainment advanced technology development.

Naval environmental compliance operations monitoring system

The committee understands that proposals have been made for establishment of a naval environmental compliance operations monitoring system (NECOSM), a two-pronged effort to increase capabilities for situational awareness and pollution prevention. The first effort would involve implementing monitoring and control technology modules that were identified during a previously funded baseline survey and cost analysis. The second effort would use environmental analysis, cost, and compliance driven needs assessment to identify high priority projects for implementation of NECOSM. The committee recommends an increase of $6.0 million in PE 63236N for development and application of advanced technology leading to a Naval Environmental Compliance Operations Monitoring System.

Real time heart rate variability monitor

The committee understands that real time heart rate variability technology has the potential for enhancing on-site assessment of disease and trauma by enabling physiological measurement of nervous system functioning and balance. The committee believes that improvements in these areas can lead to improved treatment and victim survivability. The committee also believes that the technology may permit the early detection and treatment of the effects of weapons of mass destruction.

The committee recommends an increase of $8.9 million in PE 63236N for advanced development and demonstration of applications for real time heart rate variability technology.

Warfighter sustainment applied research

The budget request contained $71.3 million in PE 62236N for warfighter sustainment applied research.

Commercial off-the-shelf (COTS) carbon fiber qualification

The committee notes that Navy and other DOD aircraft and weapons systems must use a high-priced carbon fiber available only from a single source to reinforce composite structures. As a result of the development of a new qualification protocol, the Navy and the Joint Strike Fighter program now have the means to qualify new commercially available fibers for use in advanced composite structures.

The committee recommends an increase of $2.0 million in PE 62236N for qualification of commercially available carbon fibers for aircraft and missile applications.

Detection and identification of human pathogens

Recent advances and maturing of design and technology have enabled portable, cost-effective fabrication and demonstration of high-sensitivity, high spectral-resolution sensors for the detection and identification of spectral signatures emitted by pathogens. The committee believes that such sensors provide the potential for the development of active, high-resolution, broadband spectral sensing instruments for real-time in vivo detection and identification of human pathogens.

The committee recommends an increase of $2.0 million in PE 62236N for applied research in the detection and identification of human pathogens.

Formable aligned carbon thermo sets

The committee understands that a new composite technology known as formable aligned carbon thermo sets (FACTS) has the potential for markedly reducing the cost of composites and for enabling the production of more complex composite structures in aircraft structures and other applications where flexibility in design and fabrication of the structure is needed. Successful development of the technology will lead to reductions in the cost of production of existing composite structures, increase the percentage of composites in the system design, and significantly reduce operations and maintenance costs.

The committee recommends an increase of $4.0 million in PE 62236N to accelerate the Navy's program research and development program in formable aligned carbon thermo sets.

Knowledge-based ship system diagnosis and repair

The committee notes the establishment by the Navy of a collaborative program for the development of a new system to remotely monitor Navy ships and enable off-board technical experts to assist on-board technicians that are part of the ship's crew in ship maintenance and repair. The committee believes that successful development and implementation of this new approach to knowledge-based system diagnosis and repair could be increasingly important as the Navy make the transition to ships with reduced number of personnel and as electronic equipment and other ships systems continues to be more complex and powerful.

The committee recommends an increase of $3.0 million in PE 62236N for applied research in knowledge-based ship system diagnosis and repair.

AIR FORCE RDT&E

Overview

The budget request contained $14,344.0 million for Air Force RDT&E. The committee recommends authorization of $14,455.6 million, an increase of $111.7 million.

The committee recommendations for the fiscal year 2002 Air Force RDT&E program are identified in the table below. Major changes to the Air Force request are discussed following the table.

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		RESEARCH, DEVELOPMENT, TEST & EVALUATION, AIR FORCE			
		BASIC RESEARCH			
0601102F	1	DEFENSE RESEARCH SCIENCES	220,869		220,869
		TOTAL, BASIC RESEARCH	**220,869**	**0**	**220,869**
		RESEARCH AND DEVELOPMENT	220,869	0	220,869
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		APPLIED RESEARCH			
0602102F	2	MATERIALS	77,164	12,500	89,664
		Free Electron Laser			(+5,500)
		Special Aerospace Materials and Manufacturing Processes			(+$4,500)
		Thermal Management for Space Structures			(+2,500)
0602201F	3	AEROSPACE VEHICLE TECHNOLOGIES	97,465		97,465
0602202F	4	HUMAN EFFECTIVENESS APPLIED RESEARCH	69,080	4,000	73,080
		Advanced Display Technology			(+4,000)
0602203F	5	AEROSPACE PROPULSION	149,211	15,500	164,711
		Integrated High Payoff Rocket Propulsion Tech			(+9,500)
		Pulse Detonation Engine			(+6,000)
0602204F	6	AEROSPACE SENSORS	84,149	(14,100)	70,049
		decrease			(-14,100)
0602269F	7	HYPERSONIC TECHNOLOGY PROGRAM			0
0602601F	8	SPACE TECHNOLOGY	61,086		61,086
0602602F	9	CONVENTIONAL MUNITIONS	49,270		49,270
0602605F	10	DIRECTED ENERGY TECHNOLOGY	36,678	(5,700)	30,978
		decrease			(-5,700)
0602702F	11	COMMAND CONTROL AND COMMUNICATIONS	61,659	(5,200)	56,459
		decrease			(-5,200)
0602805F	12	DUAL USE SCIENCE AND TECHNOLOGY PROGRAM	10,417		10,417
		TOTAL, APPLIED RESEARCH	**696,179**	**7,000**	**703,179**
		RESEARCH AND DEVELOPMENT	696,179	7,000	703,179
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		ADVANCED TECHNOLOGY DEVELOPMENT			

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0603106F	13	LOGISTICS SYSTEMS TECHNOLOGY			0
0603112F	14	ADVANCED MATERIALS FOR WEAPON SYSTEMS	32,748	10,500	43,248
		Ceramic matrix composites for engines			(+2,000)
		Materials Technologies for Aging Aircraft			(+4,000)
		Special Aerospace Materials and Manufacturing Processes			(+$4,500)
0603202F	15	AEROSPACE PROPULSION SUBSYSTEMS INTEGRATION			0
0603203F	16	ADVANCED AEROSPACE SENSORS	55,809	5,000	60,809
		Advanced Aerospace Sensors			(+5,000)
0603205F	17	FLIGHT VEHICLE TECHNOLOGY			0
0603211F	18	AEROSPACE TECHNOLOGY DEV/DEMO	26,269	2,000	28,269
		Access-to-Space Joint System Program Office			(+2,000)
0603216F	19	AEROSPACE PROPULSION AND POWER TECHNOLOGY	114,335		114,335
0603227F	20	PERSONNEL, TRAINING AND SIMULATION TECHNOLOGY			0
0603231F	21	CREW SYSTEMS AND PERSONNEL PROTECTION TECHNOLOGY	32,356		32,356
0603245F	22	FLIGHT VEHICLE TECHNOLOGY INTEGRATION			0
0603253F	23	ADVANCED SENSOR INTEGRATION			0
0603270F	24	ELECTRONIC COMBAT TECHNOLOGY	28,221		28,221
0603302F	25	SPACE AND MISSILE ROCKET PROPULSION		19,100	19,100
		Air Force Research Laboratory Test Stands			(+12,600)
		Integrated High Payoff Rocket Propulsion Tech			(+6,500)
0603311F	26	BALLISTIC MISSILE TECHNOLOGY			0
0603401F	27	ADVANCED SPACECRAFT TECHNOLOGY	54,528	15,000	69,528
		Low cost launch technology (Scorpious)			(+15,000)
0603410F	28	SPACE SYSTEMS ENVIRONMENTAL INTERACTIONS TECHNOLOGY			0
0603444F	29	MAUI SPACE SURVEILLANCE SYSTEM (MSSS)	6,484		6,484
0603601F	30	CONVENTIONAL WEAPONS TECHNOLOGY	37,617	8,000	45,617
		Low Cost Autonomous Attack System (LOCAAS)			(+8,000)
0603605F	31	ADVANCED WEAPONS TECHNOLOGY	43,758	(5,000)	38,758
		decrease			(-5,000)
0603723F	32	ENVIRONMENTAL ENGINEERING TECHNOLOGY		3,000	3,000
		Texas Regional Institute for Environmental Studies			(+3,000)
0603726F	33	AEROSPACE INFO TECH SYS INTEGRATION			0
0603789F	34	C3I ADVANCED DEVELOPMENT	32,644		32,644

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0603876F	35	SPACE-BASED LASER			0
0603XXXF	XX	WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRANSITION FUND		74,200	74,200
		increase			(+24,000)
		transfer from PE 23761F			(+50,200)
		TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	**464,769**	**131,800**	**596,569**
		RESEARCH AND DEVELOPMENT	464,769	131,800	596,569
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		DEMONSTRATION AND VALIDATION			
0603260F	36	INTELLIGENCE ADVANCED DEVELOPMENT	4,482		4,482
0603319F	37	AIRBORNE LASER PROGRAM			0
0603421F	38	NAVSTAR GLOBAL POSITIONING SYSTEM III	78,358		78,358
0603430F	39	ADVANCED EHF MILSATCOM (SPACE)	549,659	(27,000)	522,659
		decrease			(-27,000)
0603432F	40	POLAR MILSATCOM (SPACE)	18,724	(5,000)	13,724
		decrease			(-5,000)
0603434F	41	NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE SYS (SPACE)	157,394		157,394
0603438F	42	SPACE CONTROL TECHNOLOGY	33,022	(10,000)	23,022
		decrease			(-10,000)
0603617F	43	COMMAND, CONTROL, AND COMMUNICATION APPLICATIONS			0
0603742F	44	COMBAT IDENTIFICATION TECHNOLOGY	11,523		11,523
0603790F	45	NATO RESEARCH AND DEVELOPMENT	5,616		5,616
0603800F	46	JOINT STRIKE FIGHTER			0
0603850F	47	INTEGRATED BROADCAST SERVICE (DEM/VAL)	20,529	(3,000)	17,529
		decrease			(-3,000)
0603851F	48	INTERCONTINENTAL BALLISTIC MISSILE - DEM/VAL	44,484		44,484
0603854F	49	WIDEBAND GAPFILLER SYSTEM RDT&E (SPACE)	96,670		96,670
0603856F	50	AIR FORCE/NATIONAL PROGRAM COOPERATION (AFNPC)	4,433	(4,433)	0
		decrease			(-4,433)

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0603859F	51	POLLUTION PREVENTION (DEM/VAL)	2,688	(2,688)	0
		decrease			(-2,688)
0603860F	52	JOINT PRECISION APPROACH AND LANDING SYSTEMS - DEM/VAL	9,554	5,000	14,554
		JPALS			(+5,000)
0604327F	53	HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM (HDBTDS) PROGRAM			0
		TOTAL, DEMONSTRATION AND VALIDATION	**1,037,136**	**(47,121)**	**990,015**
		RESEARCH AND DEVELOPMENT	1,037,136	(47,121)	990,015
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT			
0603840F	54	GLOBAL BROADCAST SERVICE (GBS)	34,544		34,544
0604012F	55	JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS)	5,960		5,960
0604201F	56	INTEGRATED AVIONICS PLANNING AND DEVELOPMENT			0
0604222F	57	NUCLEAR WEAPONS SUPPORT	13,120		13,120
0604226F	58	B-1B	194,507	(42,000)	152,507
		Transfer to O&M Air National Guard			(-42,000)
0604227F	59	DISTRIBUTED MISSION TRAINING (DMT)			0
0604233F	60	SPECIALIZED UNDERGRADUATE PILOT TRAINING	4,885		4,885
0604239F	61	F-22 EMD	865,464		865,464
0604240F	62	B-2 ADVANCED TECHNOLOGY BOMBER	155,004	90,000	245,004
		Link 16/CID/IFR			(+63,000)
		EGBU-28			(+27,000)
0604251F	63	SPACE-BASED RADAR EMD	50,000		50,000
0604270F	64	EW DEVELOPMENT	41,267	13,300	54,567
		PLAID			(+13,300)
0604328F	65	EXTENDED RANGE CRUISE MISSILE (ERCM)	40,235		40,235
0604329F	66	SMALL DIAMETER BOMB (SDB) (DEM/VAL)	40,000		40,000
0604441F	67	SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD	405,229		405,229
0604442F	68	SPACE BASED INFRARED SYSTEM (SBIRS) LOW EMD			0
0604479F	69	MILSTAR LDR/MDR SATELLITE COMMUNICATIONS (SPACE)	232,084	6,500	238,584
		Satellite Planning & Information Network			(+6,500)
0604600F	70	MUNITIONS DISPENSER DEVELOPMENT			0
0604602F	71	ARMAMENT/ORDNANCE DEVELOPMENT	3,838		3,838

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0604604F	72	SUBMUNITIONS	4,809		4,809
0604617F	73	AGILE COMBAT SUPPORT	6,674		6,674
0604618F	74	JOINT DIRECT ATTACK MUNITION	27,956		27,956
0604703F	75	AEROMEDICAL/CHEMICAL DEFENSE SYSTEMS			0
0604706F	76	LIFE SUPPORT SYSTEMS	4,586		4,586
0604708F	77	CIVIL, FIRE, ENVIRONMENTAL, SHELTER ENGINEERING			0
0604727F	78	JOINT STANDOFF WEAPONS SYSTEMS			0
0604735F	79	COMBAT TRAINING RANGES	25,943		25,943
0604740F	80	INTEGRATED COMMAND &; CONTROL APPLICATIONS (IC2A)	224		224
0604750F	81	INTELLIGENCE EQUIPMENT	1,323		1,323
0604754F	82	TACTICAL DATA LINK INFRASTRUCTURE	17,648		17,648
0604762F	83	COMMON LOW OBSERVABLES VERIFICATION SYSTEM (CLOVERS)	6,713		6,713
0604779F	84	TACTICAL DATA LINK INTEROPERABILITY	5,677		5,677
0604800F	85	JOINT STRIKE FIGHTER EMD	769,511	10,000	779,511
		Alternative Engine Program			(+10,000)
0604805F	86	COMMERCIAL OPERATIONS AND SUPPORT SAVINGS INITIATIVE			0
0604851F	87	INTERCONTINENTAL BALLISTIC MISSILE - EMD	81,086		81,086
0604853F	88	EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE) - EMD	320,321		320,321
0605011F	89	RDT&E FOR AGING AIRCRAFT	20,115	15,000	35,115
		Aging Landing Gear Life Extension			(+15,000)
0207249F	90	PRECISION ATTACK SYSTEMS PROCUREMENT	5,984		5,984
0305176F	91	COMBAT SURVIVOR EVADER LOCATOR	11,486		11,486
0401318F	92	CV-22	10,008		10,008
		TOTAL, ENGINEERING AND MANUFACTURING DEVELOPMENT	**3,406,201**	**92,800**	**3,499,001**
		RESEARCH AND DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT	3,406,201	92,800	3,499,001
		RDT&E MANAGEMENT SUPPORT			
0604256F	93	THREAT SIMULATOR DEVELOPMENT	38,153		38,153

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0604759F	94	MAJOR T&E INVESTMENT	49,857	10,000	59,857
		Laser Induced Surface Improvement			(+6,000)
		Propulsion Wind Tunnel (PWT) Upgrade			(+4,000)
0605101F	95	RAND PROJECT AIR FORCE	25,098	(5,000)	20,098
		decrease			(-5,000)
0605306F	96	RANCH HAND II EPIDEMIOLOGY STUDY	10,950		10,950
0605502F	97	SMALL BUSINESS INNOVATION RESEARCH			0
0605712F	98	INITIAL OPERATIONAL TEST & EVALUATION	28,998		28,998
0605807F	99	TEST AND EVALUATION SUPPORT	396,583	(13,600)	382,983
		decrease			(-13,600)
0605854F	100	POLLUTION PREVENTION			0
0605860F	101	ROCKET SYSTEMS LAUNCH PROGRAM (SPACE)	8,538	11,000	19,538
		Missile Technology Demonstration (MTD)-3B			(+11,000)
0605864F	102	SPACE TEST PROGRAM (STP)	50,523	5,000	55,523
		High Accuracy Network Demonstration System			(+5,000)
0804731F	103	GENERAL SKILL TRAINING	309		309
0909900F	104	FINANCING FOR EXPIRED ACCOUNT ADJUSTMENTS			0
0909980F	105	JUDGMENT FUND REIMBURSEMENT	10,000	(10,000)	0
		decrease			(-10,000)
1001004F	106	INTERNATIONAL ACTIVITIES	3,846		3,846
		TOTAL, RDT&E MANAGEMENT SUPPORT	**622,855**	**(2,600)**	**620,255**
		RESEARCH AND DEVELOPMENT	622,855	(2,600)	620,255
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		OPERATIONAL SYSTEMS DEVELOPMENT			
0101113F	107	B-52 SQUADRONS	66,874		66,874
0101120F	108	ADVANCED CRUISE MISSILE	2,487		2,487
0101122F	109	AIR-LAUNCHED CRUISE MISSILE (ALCM)	6,841		6,841
0102325F	110	ATMOSPHERIC EARLY WARNING SYSTEM			0
0102326F	111	REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION PROGRAM			0
0102411F	112	NORTH ATLANTIC DEFENSE SYSTEM			0

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0203761F	113	WARFIGHTER RAPID ACQUISITION PROCESS (WRAP) RAPID TRANSITION FUND	30,247	(30,247)	0
		transfer to PE 63XXXF			(-30,247)
0207027F	114	AC2ISR CENTER			0
0207028F	115	JOINT EXPEDITIONARY FORCE EXPERIMENT	64,005	(29,400)	34,605
		decrease			(-29,400)
0207131F	116	A-10 SQUADRONS	3,049		3,049
0207133F	117	F-16 SQUADRONS	110,797	(30,000)	80,797
		decrease			(-30,000)
0207134F	118	F-15E SQUADRONS	101,439	(25,500)	75,939
		decrease			(-25,500)
0207136F	119	MANNED DESTRUCTIVE SUPPRESSION	22,239		22,239
0207138F	120	F-22 SQUADRONS	16,092	(15,100)	992
		decrease			(-15,100)
0207141F	121	F-117A SQUADRONS	2,305		2,305
0207161F	122	TACTICAL AIM MISSILES	5,771		5,771
0207163F	123	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)	57,702		57,702
0207247F	124	AF TENCAP	10,811	3,000	13,811
		GPS - Jammer Detection and Location System			(+3,000)
0207248F	125	SPECIAL EVALUATION PROGRAM	100,027	3,500	103,527
		classified			(+3,500)
0207253F	126	COMPASS CALL	3,908		3,908
0207268F	127	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	175,101	(25,500)	149,601
		decrease			(-25,500)
0207277F	128	CSAF INNOVATION PROGRAM	1,961	(1,961)	0
		decrease			(-1,961)
0207320F	129	SENSOR FUSED WEAPONS			0
0207325F	130	JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM)	79,197		79,197
0207410F	131	AEROSPACE OPERATIONS CENTER (AOC)	19,514	(10,000)	9,514
		decrease			(-10,000)
0207412F	132	CONTROL AND REPORTING CENTER (CRC)	7,047		7,047
0207417F	133	AIRBORNE WARNING AND CONTROL SYSTEM (AWACS)	39,787		39,787
0207423F	134	ADVANCED COMMUNICATIONS SYSTEMS	9,324		9,324
0207424F	135	EVALUATION AND ANALYSIS PROGRAM	204,467		204,467

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0207433F	136	ADVANCED PROGRAM TECHNOLOGY	107,716	10,500	118,216
		classified			(+10,500)
0207438F	137	THEATER BATTLE MANAGEMENT (TBM) C4I	37,331		37,331
0207581F	138	JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM (JOINT STARS)	147,859	99,000	246,859
		JSTARS Ocean Surveillance			(+10,000)
		Multi-Platform Radar Technology Insertion Program			(+89,000)
0207590F	139	SEEK EAGLE	17,833		17,833
0207591F	140	ADVANCED PROGRAM EVALUATION	82,397		82,397
0207601F	141	USAF MODELING AND SIMULATION	25,345	2,000	27,345
		Synthetic Theater Operations Research Model (STORM)			(+2,000)
0207605F	142	WARGAMING AND SIMULATION CENTERS	5,033		5,033
0207701F	143	FULL COMBAT MISSION TRAINING	3,763		3,763
0208006F	144	MISSION PLANNING SYSTEMS	16,904		16,904
0208021F	145	INFORMATION WARFARE SUPPORT	1,803		1,803
0208031F	146	WAR RESERVE MATERIEL - EQUIPMENT/SECONDARY ITEMS			0
0208060F	147	THEATER MISSILE DEFENSES			0
0208160F	148	TECHNICAL EVALUATION SYSTEM	154,621		154,621
0208161F	149	SPECIAL EVALUATION SYSTEM	42,334		42,334
0301357F	154	NUDET DETECTION SYSTEM			0
0302015F	156	E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC)	23,359		23,359
0303110F	157	DEFENSE SATELLITE COMMUNICATIONS SYSTEM (SPACE)	3,895		3,895
0303112F	158	AIR FORCE COMMUNICATIONS (AIRCOM)	31,828		31,828
0303131F	159	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEECN)	5,982		5,982
0303140F	160	INFORMATION SYSTEMS SECURITY PROGRAM	7,936		7,936
0303141F	161	GLOBAL COMBAT SUPPORT SYSTEM	48,911		48,911
0303150F	162	GLOBAL COMMAND AND CONTROL SYSTEM	3,521		3,521
0303401F	163	COMMUNICATIONS SECURITY (COMSEC)	4,131		4,131
0303601F	164	MILSATCOM TERMINALS	41,763		41,763
0304311F	166	SELECTED ACTIVITIES	79,208		79,208
0305099F	167	GLOBAL AIR TRAFFIC MANAGEMENT (GATM)	9,331		9,331
0305110F	168	SATELLITE CONTROL NETWORK (SPACE)	56,349		56,349
0305111F	169	WEATHER SERVICE	11,452		11,452
0305114F	170	AIR TRAFFIC CONTROL, APPROACH, AND LANDING SYSTEM (ATCALS)	26,982		26,982

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0305128F	171	SECURITY AND INVESTIGATIVE ACTIVITIES	472		472
0305144F	173	TITAN SPACE LAUNCH VEHICLES (SPACE)	21,293		21,293
0305159F	174	DEFENSE RECONNAISSANCE SUPPORT ACTIVITIES (SPACE)	46,578		46,578
0305160F	175	DEFENSE METEOROLOGICAL SATELLITE PROGRAM (SPACE)	12,259		12,259
0305164F	176	NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT) (SPACE)	53,093		53,093
0305165F	177	NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE AND CONTROL SEGMENTS)	186,459		186,459
0305182F	179	SPACELIFT RANGE SYSTEM (SPACE)	65,097		65,097
0305202F	180	DRAGON U-2 (JMIP)	32,804		32,804
0305205F	181	ENDURANCE UNMANNED AERIAL VEHICLES	190,237		190,237
0305206F	182	AIRBORNE RECONNAISSANCE SYSTEMS	77,766	19,500	97,266
		Combat Sent Passive Airborne Ranging			(+4,500)
		Theater Airborne Reconnaissance Systems			(+15,000)
0305207F	183	MANNED RECONNAISSANCE SYSTEMS			0
0305208F	184	DISTRIBUTED COMMON GROUND SYSTEMS	11,429	22,500	33,929
		Distributed Common Ground Station			(+22,500)
0305906F	185	NCMC - TW/AA SYSTEM	15,797		15,797
0305910F	186	SPACETRACK (SPACE)	32,591	(20,000)	12,591
		decrease			(-20,000)
0305911F	187	DEFENSE SUPPORT PROGRAM (SPACE)	6,363		6,363
0305913F	188	NUDET DETECTION SYSTEM (SPACE)	18,823		18,823
0305917F	189	SPACE ARCHITECT			0
0308601F	190	MODELING AND SIMULATION SUPPORT			0
0308699F	191	SHARED EARLY WARNING (SEW)	3,697		3,697
0401115F	192	C-130 AIRLIFT SQUADRON	80,533		80,533
0401119F	193	C-5 AIRLIFT SQUADRONS	166,508	(30,000)	136,508
		decrease			(-30,000)
0401130F	194	C-17 AIRCRAFT	110,619		110,619
0401134F	195	LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM)	62,530	(22,500)	40,030
		decrease			(-22,500)
0401214F	196	AIR CARGO MATERIAL HANDLING (463-L) (NON-IF)			0
0401218F	197	KC-135S	5,416		5,416
0401219F	198	KC-10S	22,774		22,774
0404011F	199	SPECIAL OPERATIONS FORCES			0

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0702207F	200	DEPOT MAINTENANCE (NON-IF)	1,542	4,000	5,542
		Joint Service Metrology R&D Support			(+4,000)
0708011F	201	INDUSTRIAL PREPAREDNESS	53,782	6,000	59,782
		Bipolar Wafer Cell Nickel-Metal Hydride Battery			(+2,500)
		Special Aerospace Materials and Manufacturing Processes			(+3,500)
0708026F	202	PRODUCTIVITY, RELIABILITY, AVAILABILITY, MAINTAIN. PROG OFC (PRAMPO)	20,689		20,689
0708071F	203	JOINT LOGISTICS PROGRAM - AMMUNITION STANDARD SYSTEM	106		106
0708611F	204	SUPPORT SYSTEMS DEVELOPMENT	24,221		24,221
0708612F	205	COMPUTER RESOURCES SUPPORT IMPROVEMENT PROGRAM (CRSIP)	2,376		2,376
0901218F	206	CIVILIAN COMPENSATION PROGRAM	7,019		7,019
1001018F	207	NATO JOINT STARS			0
XXXXXX	999	Classified Programs	4,424,521		4,424,521
		TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	**7,895,973**	**(70,208)**	**7,825,765**
		RESEARCH AND DEVELOPMENT	7,895,973	(70,208)	7,825,765
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		TOTAL, RESEARCH, DEVELOPMENT, TEST & EVALUATION, AIR FORCE	**14,343,982**	**111,671**	**14,455,653**
		RESEARCH AND DEVELOPMENT	10,937,781	18,871	10,956,652
		ENGINEERING AND MANUFACTURING DEVELOPMENT	3,406,201	92,800	3,499,001

Items of Special Interest

Access to space

The budget request included $26.3 million for the demonstration and transition of Aerospace Structures in PE 63211F.

The committee recognizes the growing significance of space operational capability and that dependable and low-cost access to space may require the use of highly-specialized aerospace vehicles and structures. To address these evolving challenges, the committee urges the Secretary of the Air Force to establish a joint program office with Army and Navy representation to define required technology investments for access-to-space, to perform current and future Air Force capability assessments, to develop an integrated plan for low-cost access to space, and initiate studies and development activities in support of such a plan. Further, the committee strongly urges coordination between the Aeronautical Systems Center, the Space and Missile Center, the Air Force Research Laboratory, and the National Aeronautics and Space Administration (NASA).

Accordingly, the committee authorizes $28.3 million in PE 63211F, an increase of $2.0 million to address this access-to-space priority.

Advanced aerospace sensors

The budget request contained $55.8 million in PE 63203F for advanced aerospace sensors.

The committee believes that advanced sensors are essential to support future warfighter requirements and therefore recommends $60.8 million in PE 63203F, an increase of $5.0 million for advanced aerospace sensors.

Aerospace propulsion

The budget request contained $149.2 million in PE 62203F for aerospace propulsion.

The committee notes the recent efforts by the Department of Defense to ensue adequate funding in this critical Air Force applied research account. The committee is aware of a small business innovative research effort, the Pulse Detonation Engine (PDE), which has been in development for several years and appears ready for fabrication and test of a flight-worthy PDE. The committee recommends an increase of $6.0 million in PE 62203F to contain PDE efforts.

The committee also continues to support Air Force investments in Integrated High Payoff Rocket Propulsion Technology (IHPRPT) and recommends an increase of $9.5 million in PE 62203F and an increase of $6.5 million on PE 63302F for continued investments in IHPRPT.

Aging landing gear life extension (ALGLE) program

The budget request contained $20.1 million in PE 65011F for development of products and services to improve the performance of aging aircraft systems but included no funds for the ALGLE program.

The ALGLE program addresses the operational, safety and maintenance consequences of increased mishaps resulting from landing gear failures as well as unacceptable mission incapable rates for KC–135, C–130, C–5 and F–16 aircraft that are attributable to either unavailable or unreliable landing gear assets. The committee notes that the ALGLE program is prototyping new landing gear component modifications, developing new repair techniques, and exploiting new technologies. The committee understands that these efforts have already resulted in life cycle cost reductions of over $46.0 million and believes that this program should continue to address the Air Force's aging landing gear problems in fiscal year 2002 and in subsequent years.

Accordingly, the committee recommends $35.1 million in PE 65011F, an increase of $15.0 million, for continuation of the ALGLE program.

Airborne reconnaissance system

The budget request contained $77.8 million in PE 35206F for airborne systems, but included no funds for theater airborne reconnaissance system (TARS) or Combat Sent passive airborne ranging.

The committee recommends $97.3 million in PE 35206F, an increase of $4.5 million for Combat Sent passive airborne ranging and an increase of $15.0 million for TARS development.

Assessment relating to gasoline and diesel engine fuel systems

The committee encourages the Secretary of Defense to assess the potential for developing a program that would require all military services to maintain gasoline and diesel engine fuel systems using engine decarbonizing systems. The assessment should address the costs and benefits of a requirement that the equipment and cleaning agents used in decarbonizing engines be tested and approved by entities such as the Management and Equipment Evaluation Program (MEEP) of the Department of the Air Force or similar testing entities in the other military services. Consideration should be given to requirements that cleaning agents are non-carcinogenic, non-flammable, and non-hazardous, as documented by the Material Safety Data Sheets (MSDS) required by the U.S. Environmental Protection Agency, and that the use of transmission fluid exchange equipment that is capable of exchanging virtually all contaminated automatic transmission fluid (ATF) with new ATF.

Bipolar wafer cell nickel-metal hydride battery

The budget request contained $53.8 million in PE 78011F for the Air Force's manufacturing technology program.

The committee notes that the Air Force has been developing a bipolar wafer-cell nickel-metal hydride (NiMH) replacement battery for the F–16 aircraft that has the potential to provide significantly higher power than nickel-cadmium batteries. The committee understands that the use of bipolar wafer-cell NiMH batteries could lead to significant savings from reduced procurement and maintenance of existing nickel-cadmium batteries.

The committee recommends an increase of $2.5 million in PE 78011F for to complete manufacturing technology development and testing of a bipolar wafer-cell NiMH battery for the F–16 aircraft.

Commercial imagery strategy

The committee believes that the United States should prioritize the use of commercial remote sensing as envisioned in Presidential Decision Directive–23. Moreover, the committee believes that allocating certain imagery requirements to the U.S. commercial remote sensing industry will permit National Technical Means to focus on high priority intelligence requirements. Thus, the committee continues to support use of commercial satellite imagery and geo-spatial products and services to satisfy the non-time-critical low and medium resolution requirements of the Secretary of Defense, including the regional Commanders-in-Chief, and the Intelligence Community.

The committee also understands that the Administration is developing a commercial imagery strategy to support these requirements and strongly endorses the development and implementation of such a strategy. The committee believes, however, that the U.S. government must become a reliable, long-term customer of commercial imagery if the strategy is to be successful. The committee recognizes that there are budgetary and contract authority issues, but does not believe they are beyond solution.

Therefore, the committee directs the Secretary of Defense, in consultation with the Director of Central Intelligence, to plan and carry out a program to purchase a majority of their non-time-critical low and medium resolution imagery requirements from the U.S. commercial remote sensing industry by 2005.

Free electron laser

The budget request contained $77.2 million in PE 62102F for Materials, but included no funds for free electron laser.

The committee notes the progress achieved in Navy free electron laser (FEL) development and urges the Secretary of the Air Force to continue collaborative efforts including the addition of ultra violet capability to the Navy's FEL demonstration to examine aerospace applications.

The committee recommends an increase of $5.5 million in PE 62102F for FEL.

Funding transfers to support transformation

The committee is concerned that the largest area of growth in Air Force research and development (R&D) investments has occurred in the category of fielded system development and other mature technologies. Other areas included increases greater than previously forecast, apparently excessive management funding, or unobligated prior year funding. The committee believes that the highest priority for R&D investments should be to fund efforts directly related to transformation and future capabilities. Therefore, the committee recommends the following decreases to Air Force accounts, to be transferred to other programs within the Air Force that support transformation and future system development:

62204F	$14,100,000
62605F	5,700,000
62702F	5,200,000
63605F	5,000,000
63430F	27,000,000

63432F	5,000,000
63438F	10,000,000
63850F	3,000,000
63856F	4,433,000
63859F	2,688,000
65101F	5,000,000
65807F	13,600,000
99980F	10,000,000
27028F	29,400,000
27133F	30,000,000
27134F	25,500,000
27138F	15,100,000
27268F	25,500,000
27277F	1,961,000
27410F	10,000,000
35910F	20,000,000
41119F	30,000,000
41134F	22,500,000

GPS jammer detection and location system

The budget request contained $10.8 million in 27247F for Air Force tactical exploitation of national capabilities, but included no funds for GPS jammer detection and location system (GPS–JLOC).

The committee notes that mission planning tools, tactics, and procedures must be developed for countering jamming of GPS. The committee is aware that a GPS jammer detection and location system has been developed under a Phase II small business innovative research (SBIR) program and further notes that GPS–JLOC appears ready to transition to an operational capability under SBIR Phase III.

The committee recommends $3.8 million in PE 27247F, an increase of $3.0 million for GPS–JLOC.

High accuracy network demonstration system

The budget program included $50.5 million in PE 65864F for the Space Test Program (STP).

The committee supports the STP initiative as an effort for advancing space technology and enabling future U.S. space superiority in a cost effective manner. The committee is aware of an orbit-identification and determination capability that may reduce errors and costs in the current space-object maintenance catalog. The technology may improve ephemeris determination for Defense Support Program satellites by as much as 50 percent through the use of highly accurate angular observations from a family of low-cost optical sensors called the High Accuracy Network Determination System (HANDS). The committee notes the expected low-cost nature of HANDS and encourages the Air Force to pursue opportunities in this area.

Accordingly, the committee authorizes $55.5 million in PE 65864F for HANDS, an increase of $5.0 million over the request.

Joint precision approach landing system

The budget request contained $9.6 million in PE 63860F for joint precision approach landing systems (JPALS).

The committee is aware that the basic requirement for joint precision approach landing system is to provide a rapidly deployable, adverse weather and terrain, survivable, maintainable, interoperable precision approach and landing system for land and sea. The

committee notes that JPALS will replace existing, obsolete landing systems in the fleet and ashore.

The committee recommends $14.6 million in PE 63860F for JPALS.

Joint STARS multi-platform radar technology insertion program

The budget request contained $147.8 million in PE 27581F for Joint STARS system development, but contained no funds for Multi-Platform Radar Technology Insertion Program (RTIP).

The committee notes the tremendous contributions of Joint STARS aircraft to ground warfare and warfighter situational awareness and fully supports the planned improvements inherent in the RTIP effort that will enhance ground surveillance, precision targeting, and battlefield coordination. However, the committee is concerned with the operational limitations experienced by the Joint STARS fleet refurbished airframes and believes that the Air Force should thoroughly assess utilization of RTIP technology on other, more modern, airframes.

Therefore, the committee recommends $246.8 million in PE 27581F, an increase of $89.0 million for Multi-Platform RTIP and an increase of $10.0 million for Joint STARS ocean surveillance capability testing.

Joint strike fighter (JSF) alternate engine

The budget request contained $769.5 million in PE 64800F to begin the engineering and manufacturing development phase of the JSF program, but included no funds to reduce development schedule risk of the alternate engine common hardware components.

The JSF program will develop and field a family of aircraft that meets the needs of the Navy, Air Force, Marine Corps, and allies with commonality among the variants to minimize life cycle costs. The committee notes that the JSF joint program office (JPO) has encouraged two engine manufacturers to work together on the co-development of propulsion components which are common to both the JSF's current F–119 engine and the F–120 alternate engine and understands that this effort will develop two interchangeable propulsion systems while preserving the proprietary interests of each manufacturer. The committee also understands that the JPO supports production of the F–120 alternate engine as part of the low-rate initial JSF production scheduled for fiscal year 2009 but believes that increased funding in fiscal year 2002 is required to reduce development schedule risk of the common hardware components.

Accordingly, the committee recommends $779.5 million in PE 64800F, an increase of $10.0 million, to reduce development schedule risk of the JSF alternate engine common hardware components.

Low cost autonomous attack system

The budget request contained $37.6 million in PE 63601F, including $8.0 million for the Low Cost Autonomous Attack System (LOCAAS).

The committee supports continued development of precision guided munitions (PGMs) such as LOCAAS and notes that the LOCAAS program is preparing for final development to address the

PGM requirements for area search weapons not addressed by the Air Force Small Diameter Bomb development program.

The committee recommends an increase of $8.0 million in PE 63601F to continue LOCAAS development.

Low cost launch technology

The budget request contained $54.5 million in PE 63401F for advanced spacecraft technology, but included no funds for low cost launch technology. The committee is aware of several low cost launch concepts and technologies that offer the potential to reduce space launch costs tremendously. The committee notes that the Scorpius program has successfully demonstrated reduced cost launch capabilities.

The committee recommends $69.5 million in PE 63401F, an increase of $15.0 million for low cost launch technologies, including Scorpius.

Major T&E investment

The budget request contained $49.9 million in PE 64759F for test & evaluation investments, but included no funds for the Propulsion Wind Tunnel (PWT) Upgrade project or the Laser Induced Surface Improvement (LISI) project.

The committee notes that previous year budget requests by the Air Force included funding to initiate the PWT Upgrade project, but sufficient funding has not yet been committed to complete this project. The committee also notes that the Air Force has explored the cost savings and improved wear and corrosion resistance demonstrated by components treated with the LISI process.

Therefore, the committee recommends $59.9 million in PE 64759F, an increase of $4.0 million, for completion of the PWT Upgrade project and an increase of $6.0 million for continued development of the LISI project.

Materials technologies for aging aircraft

The budget request included $32.7 million in PE 63112F for Advanced Materials for Weapon Systems.

The committee recognizes that future aeronautical capability will largely depend on significant improvements in advanced materials technologies that promise to extend the lifespan and reduce the total life cycle costs of future aerospace vehicles. While the committee notes that the Air Force has experienced some success in developing and implementing new aging aircraft technologies, it encourages the service to increase overall effort in this area.

Therefore, the committee recommends an increase of $4.0 million in PE 63112F to address this priority.

Missile Technology demonstration-3B

The budget request contained $8.5 million in PE 65860F for rocket systems launch programs, but included no funds for the Missile Technology Demonstration (MTD)–3B.

The committee notes that the MTD effort represents the primary high-speed weapon system technology platform within the Department of Defense and urges the Secretary of the Air Force to reas-

sess funding priorities giving full weight to the importance of the MTD program.

The committee recommends an increase of $11.0 million to PE 65860F for continued support of MTD–3B.

Non-space SIGINT architecture

The committee notes that the programs that make up the Joint SIGINT Architecture Family (JSAF) continue to experience significant programmatic setbacks despite the efforts of program officials and their industry partners. The Low Band Subsystem (LBSS) program was recently terminated after a seemingly endless series cost, schedule and performance difficulties and the High Band Subsystem program is reportedly facing similar difficulties with eventual termination possible. Moreover, the reported ability of the JSAF programs to allow full interoperability within emerging Department of Defense command, control, communications and intelligence architectures as originally envisioned was never realized and was not even possible without coordinated wide-band communications improvements throughout all the ISR platforms. The committee is concerned that the JSAF efforts have drained funding from reasonable alternatives for the near term.

The committee believes the JSAF program has failed with respect to its original objectives. The committee believes that this is not just another case of poor program performance, but indeed, this was a management approach failure that has denied the Department an achievable joint SIGINT architecture and the very objectives it was to solve. As a result, an adequate joint SIGINT architecture is still not available, critical SIGINT modernization efforts have not occurred, and interoperability is limited. The committee is convinced a joint architecture, replete with the ability to share system upgrades is achievable. But, it will have to be done by the platform program offices working together in a collaborative set of efforts. The committee believes that this cannot be realized by a program office independent of the platform developers, nor can it be done without a plan for achieving system-level interoperability.

Accordingly, the committee directs that Secretary of the Air Force, as principal acquisition executive for JSAF programs, to develop a comprehensive, non-space SIGINT system architecture plan for the post 2007 time frame. This plan shall provide for a digital, open architecture that uses only non-proprietary commercial standards and standardized, well-defined interfaces. Further, the systems in this architecture must include the ability to be reprogrammed through software changes to be periodically upgraded as well as to meet emerging time-critical requirements. The non-space SIGINT architecture plan shall be provided to the congressional defense and intelligence committees not later than May 31, 2002.

Precision location and identification (PLAID)

The budget request contained $41.3 million in PE 64270F for electronic warfare (EW) development, of which $1.8 million was included for the PLAID technology program.

The PLAID technology program will enhance aircrew situational awareness by providing accurate ground emitter location and unambiguous identification. The committee understands that the Air

Force plans to conduct a competition to advance the engineering manufacturing and development (EMD) phase of the PLAID technology program and further understands that, upon completion of the EMD phase, the PLAID upgrade will be installed on over 1,800 Air Force aircraft. Due to its successful flight and ground test evaluations, the committee believes that the PLAID technology EMD phase should be accelerated.

Therefore, the committee recommends $54.6 million in PE 64270F, an increase of $13.3 million, to accelerate the PLAID technology EMD phase.

Satellite planning information network (SPIN)

The budget request contained $232.1 million in PE 64479F for development of the military strategic and tactical relay (MILSTAR) communications satellite, but included no funds for the SPIN development.

The SPIN is a web-based satellite communications management technology that utilizes the Department's existing secret internet protocol router to expand the flexibility and efficiency of military satellite communications. The committee notes that the demand for military satellite communications continues to rise, and believes that development efforts of programs such as the SPIN should be undertaken to more efficiently use these resources.

Consequently, the committee recommends $238.6 million in PE 64479F, an increase of $6.5 million, to develop the SPIN technology.

Space and missile rocket propulsion

The budget request contained no funds in PE 63302F for Space and Missile Rocket Propulsion.

The committee notes the importance of continued investments in advanced space and missile propulsion technology and recommends an increase of $12.6 million in PE 63302F to modernize Air Force Research Laboratory large rocket test stands for higher pressure requirements and improved instrumentation.

Special aerospace metals and manufacturing processes

The budget request contained $77.2 million in PE 62102F for applied research and $32.7 million in PE 63122F for advanced development of materials technologies for aerospace systems and $53.8 million in PE 78011F for the Air Force's manufacturing technology program.

The committee continues to support the need for advances in special aerospace metals and metal alloys for aircraft and space vehicle structures, propulsion, components, and weapon systems. The Department of Defense needs materials that are lightweight, high strength, high performance, and capable of withstanding the stressing environments that are experienced by terrestrial and aerospace systems, and for the development and optimization of manufacturing processes for these materials.

The committee recommends increases of $4.5 million in PE 62102F, $4.5 million in PE 63112F, and $3.5 million in PE 78011F to continue the program for the development and demonstration of

special aerospace materials and materials manufacturing processes.

Synthetic Theater Operations Research Model

The budget request included $25.3 million in PE 27601F for Modeling and Simulation, but included no funding for the Synthetic Theater Operations Research Model (STORM).

The committee supports the Air Force Modeling and Simulation program and recognizes the potential savings and enhanced training levels associated with these initiatives. As training costs escalate, the committee continues to encourage alternative cost-saving training techniques particularly as potential threats continue to evolve. The committee is aware that STORM, a program in its fifth year of development, is a next generation simulation designed specifically to meet needs for a greater understanding of the impact of information technology on force structure and operational concepts.

Therefore, the committee recommends $27.3 million in PE 27601F, an increase of $2.0 million for the continued development of STORM.

Texas regional institute for environmental studies

The budget request contained no funds in PE 63723F for environmental engineering technology.

The committee continues to support the ongoing Texas regional institute for environmental studies (TRIES) research and development demonstration program, and recommends $3.0 million in PE 63723F for a joint TRIES—Brooks Air Force Base Institute of Environment, Safety and Occupational Health Risk environmental demonstration program addressing environmental issues unique to the southwest border region.

DEFENSE-WIDE RDT&E

Overview

The budget request contained $15,050.8 million for Defense-Wide RDT&E. The committee recommends authorization of $15,374.6 million, a decrease of $245.2 million and the transfer of $569.2 million for missile defense programs from Army and Navy RDT&E to Defense-wide RDT&E.

The committee recommendations for the fiscal year 2002 Defense-Wide RDT&E program are identified in the table below. Major changes to the Defense-Wide request are discussed following the table.

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		RESEARCH, DEVELOPMENT, TEST & EVAL, DEFENSEWIDE			
		BASIC RESEARCH			
0601101D8Z	1	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	2,097		2,097
0601101E	2	DEFENSE RESEARCH SCIENCES	121,003		121,003
0601103D8Z	3	UNIVERSITY RESEARCH INITIATIVES	240,374	3,000	243,374
		MEMS Sensors			(+3,000)
0601105D8Z	4	FORCE HEALTH PROTECTION	26,952		26,952
0601108D8Z	5	HIGH ENERGY LASER RESEARCH INITIATIVES	11,877		11,877
0601111D8Z	6	GOVERNMENT/INDUSTRY COSPONSORSHIP OF UNIVERSITY RESEARCH	3,421		3,421
0601114D8Z	7	DEFENSE EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEAR	9,901		9,901
0601384BP	8	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	39,066	2,000	41,066
		Chemical and Biological Agent Detection via Optical Computing			(+2,000)
		TOTAL, BASIC RESEARCH	**454,691**	**5,000**	**459,691**
		RESEARCH AND DEVELOPMENT	454,691	5,000	459,691
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		APPLIED RESEARCH			
0602110E	9	NEXT GENERATION INTERNET			0
0602173C	10	SUPPORT TECHNOLOGIES - APPLIED RESEARCH			0
0602227D8Z	11	MEDICAL FREE ELECTRON LASER	14,660	5,000	19,660
		Medical free electron laser			(+5,000)
0602228D8Z	12	HISTORICALLY BLACK COLLEGES AND UNIVERSITIES (HBCU) SCIENCE	14,484		14,484
0602234D8Z	13	LINCOLN LABORATORY RESEARCH PROGRAM	21,969		21,969
0602301E	14	COMPUTING SYSTEMS AND COMMUNICATIONS TECHNOLOGY	382,294	(70,000)	312,294
		decrease			(-70,000)
0602302E	15	EMBEDDED SOFTWARE AND PERVASIVE COMPUTING	75,561	(5,000)	70,561
		decrease			(-5,000)
0602383E	16	BIOLOGICAL WARFARE DEFENSE	140,080	10,000	150,080
		Asymmetric Protocols for Biological Defense			(+10,000)
0602384BP	17	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	125,481	(16,000)	109,481
		CB Regenerative Air Filtration Systems			(+4,000)
		decrease			(-20,000)
0602702E	18	TACTICAL TECHNOLOGY	173,885	(9,000)	164,885

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		decrease			(-9,000)
0602708E	19	INTEGRATED COMMAND AND CONTROL TECHNOLOGY			0
0602712E	20	MATERIALS AND ELECTRONICS TECHNOLOGY	358,254	(8,500)	349,754
		Materials and Electronics Technology			(+9,500)
		decrease			(-18,000)
0602715BR	21	NUCLEAR SUSTAINMENT &; COUNTERPROLIFERATION TECHNOLOGIES	295,132	(30,000)	265,132
		Thermobaric Warhead Development			(+5,000)
		decrease			(-35,000)
0602787D8Z	22	MEDICAL TECHNOLOGY	8,971		8,971
0602890D8Z	23	HIGH ENERGY LASER RESEARCH	36,005		36,005
0305108K	24	COMMAND AND CONTROL RESEARCH			0
		TOTAL, APPLIED RESEARCH	**1,646,776**	**(123,500)**	**1,523,276**
		RESEARCH AND DEVELOPMENT	1,646,776	(123,500)	1,523,276
		ENGINEERING AND MANUFACTURING	0	0	0
		ADVANCED TECHNOLOGY DEVELOPMENT			
0603002D8Z	25	MEDICAL ADVANCED TECHNOLOGY	2,086		2,086
0603104D8Z	26	EXPLOSIVES DEMILITARIZATION TECHNOLOGY	8,815	5,000	13,815
		Tactical Missile Recycling			(+5,000)
0603121D8Z	27	SO/LIC ADVANCED DEVELOPMENT	8,799		8,799
0603122D8Z	28	COMBATING TERRORISM TECHNOLOGY SUPPORT	42,243	10,000	52,243
		Facial Recognition Technology			(+2,000)
		Electrostatic Decontamination System			(+8,000)
0603160BR	29	COUNTERPROLIFERATION ADVANCED DEVELOPMENT TECHNOLOGIES	89,772	3,000	92,772
		Counterproliferation Analysis and Planning System			[12,000]
0603173C	30	SUPPORT TECHNOLOGIES - ADVANCED TECHNOLOGY DEVELOPMENT			0
0603174C	31	SPACE BASED LASERS (SBL)			0
0603175C	32	BALLISTIC MISSILE DEFENSE TECHNOLOGY	112,890		112,890
0603225D8Z	33	JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT	19,178		19,178
0603232D8Z	34	AUTOMATIC TARGET RECOGNITION	7,716		7,716

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0603285E	35	ADVANCED AEROSPACE SYSTEMS	153,700	(25,000)	128,700
		decrease			(-25,000)
0603384BP	36	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - ADVANCED DEVELOPMENT	69,249	(10,000)	59,249
		decrease			(-10,000)
0603704D8Z	37	SPECIAL TECHNICAL SUPPORT	11,019	10,000	21,019
		Complex systems design			(+10,000)
0603711BR	38	ARMS CONTROL TECHNOLOGY	52,474		52,474
0603712S	39	GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS	30,373		30,373
0603716D8Z	40	STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM	69,376	(30,000)	39,376
		decrease			(-30,000)
0603727D8Z	41	JOINT WARFIGHTING PROGRAM	7,613		7,613
0603728D8Z	42	AGILE PORT DEMONSTRATION			0
0603738D8Z	43	COOPERATIVE DOD/VA MEDICAL RESEARCH		5,000	5,000
		Implantable cardioverter defibrillator			(+5,000)
0603739E	44	ADVANCED ELECTRONICS TECHNOLOGIES	177,264	(8,000)	169,264
		decrease			(-8,000)
0603750D8Z	45	ADVANCED CONCEPT TECHNOLOGY DEMONSTRATIONS	148,917	(20,000)	128,917
		decrease			(-20,000)
0603755D8Z	46	HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM	188,376	(20,000)	168,376
		decrease			(-20,000)
0603760E	47	COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS	117,451		117,451
0603762E	48	SENSOR AND GUIDANCE TECHNOLOGY	203,095	(4,000)	199,095
		decrease			(-4,000)
0603763E	49	MARINE TECHNOLOGY	41,497		41,497
0603764E	50	LAND WARFARE TECHNOLOGY	153,067		153,067
0603765E	51	CLASSIFIED DARPA PROGRAMS	142,395	(5,000)	137,395
		decrease			(-5,000)
0603781D8Z	52	SOFTWARE ENGINEERING INSTITUTE	21,091		21,091
0603805S	53	DUAL USE APPLICATION PROGRAMS			0
0603826D8Z	54	QUICK REACTION PROJECTS	25,000	41,000	66,000
		increase			(+41,000)
0603832D8Z	55	JOINT WARGAMING SIMULATION MANAGEMENT OFFICE	45,065		45,065
0603924D8Z	56	HIGH ENERGY LASER ADVANCED TECHNOLOGY PROGRAM	16,005		16,005

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0605160D8Z	57	COUNTERPROLIFERATION SUPPORT	1,781		1,781
		TOTAL, ADVANCED TECHNOLOGY DEVELOPMENT	**1,966,307**	**(48,000)**	**1,918,307**
		RESEARCH AND DEVELOPMENT	1,966,307	(48,000)	1,918,307
		ENGINEERING AMD MANUFACTURING DEVELOPMENT	0	0	0
		DEMONSTRATION AND VALIDATION			
0603228D8Z	59	PHYSICAL SECURITY EQUIPMENT	33,543	16,000	49,543
		Backscatter Mobile Truck System			(+16,000)
0603709D8Z	60	JOINT ROBOTICS PROGRAM	11,302		11,302
0603714D8Z	61	ADVANCED SENSOR APPLICATIONS PROGRAM	15,780		15,780
0603736D8Z	62	CALS INITIATIVE	1,614		1,614
0603851D8Z	63	ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM	25,314	(3,000)	22,314
		decrease			(-3,000)
0603861C	64	THEATER HIGH-ALTITUDE AREA DEFENSE SYSTEM - TMD - DEM/VAL			0
0603868C	65	NAVY THEATER WIDE MISSILE DEFENSE SYSTEM			0
0603869C	66	MEADS CONCEPTS - DEM/VAL			0
0603870C	67	BOOST PHASE INTERCEPT THEATER MISSILE DEFENSE ACQUISITION - DEM/VAL			0
0603871C	68	NATIONAL MISSILE DEFENSE - DEM/VAL			0
0603872C	69	JOINT THEATER MISSILE DEFENSE - DEM/VAL			0
0603873C	70	FAMILY-OF SYSTEMS ENGINEERING AND INTEGRATION (FOS E&I)			0
0603874C	71	BMD TECHNICAL OPERATIONS			0
0603875C	72	INTERNATIONAL COOPERATIVE PROGRAMS			0
0603876C	73	THREAT AND COUNTERMEASURES			0
0603880C	74	BALLISTIC MISSILE DEFENSE SYSTEM SEGMENT	779,584	(25,000)	754,584
		Systems Integration and Engineering			(-25,000)
0603881C	75	BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT	988,180	589,241	1,577,421
		Arrow System Improvement Program increase			(+30,000)
		transfer from PE 64235N for Navy Area			(+388,496)
		transfer from PE 63869A for MEADS			(+73,645)
		transfer from PE 64865A for Patriot PAC=3 Theater Missile Defense Acquisition			(+107,100)
		decrease to Navy Area			(-10,000)
0603882C	76	BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT	3,940,534	(30,000)	3,910,534
		Mid-Course Concept Definition			(-30,000)

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0603883C	77	BALLISTIC MISSILE DEFENSE BOOST DEFENSE SEGMENT	685,363	(75,000)	610,363
		decrease			(-75,000)
0603884BP	78	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - DEM/VAL	82,636	19,000	101,636
		Chemical and Biological Mass Spectrometer			(+10,000)
		Mobile Chemical Agent Detector			(+9,000)
0603884C	79	BALLISTIC MISSILE DEFENSE SENSORS	495,600	(25,000)	470,600
		SBIRS-Low			(-25,000)
0603892D8Z	80	ASAT			0
0603920D8Z	81	HUMANITARIAN DEMINING	13,512		13,512
0603923D8Z	82	COALITION WARFARE	12,943	(3,000)	9,943
		decrease			(-3,000)
0604722D8Z	83	JOINT SERVICE EDUCATION AND TRAINING SYSTEMS DEVELOPMENT			0
0901585C	84	PENTAGON RESERVATION			0
		TOTAL, DEMONSTRATION AND VALIDATION	**7,085,905**	**463,241**	**7,549,146**
		RESEARCH AND DEVELOPMENT	7,085,905	463,241	7,549,146
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT			
0604384BP	85	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM - EMD	159,943		159,943
0604709D8Z	86	JOINT ROBOTICS PROGRAM - EMD	13,197		13,197
0604764K	87	ADVANCED IT SERVICES JOINT PROGRAM OFFICE (AITS-JPO)	14,254		14,254
0604771D8Z	88	JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)	16,572		16,572
0604805D8Z	89	COMMERCIAL OPERATIONS AND SUPPORT SAVINGS INITIATIVE			0
0604861C	90	THEATER HIGH-ALTITUDE AREA DEFENSE SYSTEM - TMD - EMD			0
0604865C	91	PATRIOT PAC-3 THEATER MISSILE DEFENSE ACQUISITION - EMD			0
0604867C	92	NAVY AREA THEATER MISSILE DEFENSE - EMD			0
0605013BL	93	INFORMATION TECHNOLOGY DEVELOPMENT	2,469		2,469
0605013D8Z	94	INFORMATION TECHNOLOGY DEVELOPMENT			0
0605014S	95	INFORMATION TECHNOLOGY DEVELOPMENT (DHRA)			0
0605014SE	96	INFORMATION TECHNOLOGY DEVELOPMENT			0
0605015BL	97	INFORMATION TECHNOLOGY DEVELOPMENT-STANDARD PROCUREMENT SYSTEM (SPS)	9,747		9,747
0605016D8Z	98	FINANCIAL MANAGEMENT MODERNIZATION PROGRAM	100,000		100,000
0303129K	99	DEFENSE MESSAGE SYSTEM	11,423		11,423

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0303140K	100	INFORMATION SYSTEMS SECURITY PROGRAM	11,767		11,767
0303141K	101	GLOBAL COMBAT SUPPORT SYSTEM	16,483		16,483
0305840K	102	ELECTRONIC COMMERCE	25,519		25,519
		TOTAL, ENGINEERING AND MANUFACTURING DEVELOPMENT	**381,374**	**0**	**381,374**
		RESEARCH AND DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT	381,374	0	381,374
		RDT&E MANAGEMENT SUPPORT			
0603858D8Z	103	UNEXPLODED ORDNANCE DETECTION AND CLEARANCE	1,165		1,165
0604943D8Z	104	THERMAL VICAR	5,952		5,952
0605104D8Z	105	TECHNICAL STUDIES, SUPPORT AND ANALYSIS	33,805	(2,000)	31,805
		Joint Technology Applications Analysis Pilot Program			(+1,000)
		decrease			(-3,000)
0605110BR	106	CRITICAL TECHNOLOGY SUPPORT	3,313		3,313
0605114E	107	BLACK LIGHT	5,000		5,000
0605116D8Z	108	GENERAL SUPPORT TO C3I	21,061	(5,000)	16,061
		decrease			(-5,000)
0605117D8Z	109	FOREIGN MATERIAL ACQUISITION AND EXPLOITATION	31,951		31,951
0605123D8Z	110	INTERAGENCY EXPORT LICENSE AUTOMATION	10,559		10,559
0605124D8Z	111	DEFENSE TRAVEL SYSTEM	29,955	(10,000)	19,955
		decrease			(-10,000)
0605126J	112	JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION	26,865		26,865
0605128D8Z	113	CLASSIFIED PROGRAM USD(P)			0
0605130D8Z	114	FOREIGN COMPARATIVE TESTING	30,907		30,907
0605160BR	115	COUNTERPROLIFERATION SUPPORT			0
0605384BP	116	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM	31,276		31,276
0605502D8Z	117	SMALL BUSINESS INNOVATIVE RESEARCH			0
0605502E	118	SMALL BUSINESS INNOVATIVE RESEARCH			0
0605710D8Z	119	CLASSIFIED PROGRAMS - C3I	56,653		56,653
0605790D8Z	120	SMALL BUSINESS INNOVATION RESEARCH/CHALLENGE ADMINISTRATION	2,068		2,068
0605798S	121	DEFENSE TECHNOLOGY ANALYSIS	5,109		5,109
0605801K	122	DEFENSE TECHNICAL INFORMATION SERVICES (DTIC)	44,228		44,228
0605803S	123	R&D IN SUPPORT OF DOD ENLISTMENT, TESTING AND EVALUATION			0

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0605803SE	124	R&D IN SUPPORT OF DOD ENLISTMENT, TESTING AND EVALUATION	8,834		8,834
0605804D8Z	125	DEVELOPMENT TEST AND EVALUATION	46,382		46,382
0605898E	126	MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT)DARPA	36,937		36,937
0901585C	127	PENTAGON RESERVATION	6,571		6,571
0901598C	128	MANAGEMENT HEADQUARTERS-BMDO	27,758		27,758
		TOTAL, RDT&E MANAGEMENT SUPPORT	**466,349**	**(17,000)**	**449,349**
		RESEARCH AND DEVELOPMENT	466,349	(17,000)	449,349
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		OPERATIONAL SYSTEMS DEVELOPMENT			
0604805D8Z	129	COMMERCIAL OPERATIONS AND SUPPORT SAVINGS INITIATIVE	10,805	6,195	17,000
		Transfer			(-10,805)
		Aircraft Affordability Initiative (EW Digital PIP)			(+17,000)
0605127T	130	PARTNERSHIP FOR PEACE (PFP) INFORMATION MANAGEMENT SYSTEM	1,922		1,922
0208045K	131	C4I INTEROPERABILITY	41,389		41,389
0208052J	132	JOINT ANALYTICAL MODEL IMPROVEMENT PROGRAM	12,163		12,163
0300205R	133	INFORMATION TECHNOLOGY SYSTEMS	550		550
0302016K	137	NATIONAL MILITARY COMMAND SYSTEM-WIDE SUPPORT	1,014		1,014
0302019K	138	DEFENSE INFO INFRASTRUCTURE ENGINEERING AND INTEGRATION	6,544		6,544
0303126K	139	LONG HAUL COMMUNICATIONS (DCS)	10,744		10,744
0303127K	140	SUPPORT OF THE NATIONAL COMMUNICATIONS SYSTEM	4,968		4,968
0303131K	141	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEECN)	6,988		6,988
0303140G	142	INFORMATION SYSTEMS SECURITY PROGRAM	414,844		414,844
0303149J	143	C4I FOR THE WARRIOR	9,622		9,622
0303149K	144	C4I FOR THE WARRIOR			0
0303153K	145	JOINT SPECTRUM CENTER	8,849		8,849
0303610K	146	TELEPORT PROGRAM	14,371		14,371
0304210BB	147	SPECIAL RECONNAISSANCE CAPABILITIES (SRC) PROGRAM	4,422		4,422
0305102BQ	149	DEFENSE IMAGERY AND MAPPING PROGRAM	115,209	24,200	139,409
		Commercial joint mapping and visualization toolkit			(+15,000)
		Geographic synthetic aperture radar airborne mapping system			(+9,200)
0305127V	150	FOREIGN COUNTERINTELLIGENCE ACTIVITIES	664		664
0305146D8Z	151	DEFENSE JOINT COUNTERINTELLIGENCE PROGRAM (JMIP)	5,977		5,977

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
0305190D8Z	152	C3I INTELLIGENCE PROGRAMS	10,552		10,552
0305191D8Z	153	TECHNOLOGY DEVELOPMENT	40,000		40,000
0305202G	154	DRAGON U-2 (JMIP)	4,019		4,019
0305206G	155	AIRBORNE RECONNAISSANCE SYSTEMS	16,515		16,515
0305207G	156	MANNED RECONNAISSANCE SYSTEMS	4,556		4,556
0305208L	159	DISTRIBUTED COMMON GROUND SYSTEMS	1,006		1,006
0305885G	161	TACTICAL CRYPTOLOGIC ACTIVITIES	105,455		105,455
0305889G	162	COUNTERDRUG INTELLIGENCE SUPPORT			0
0708011S	163	INDUSTRIAL PREPAREDNESS	17,544		17,544
0902298J	164	MANAGEMENT HEADQUARTERS (OJCS)	11,312		11,312
0902740J	165	JOINT SIMULATION SYSTEM			0
1160279BB	166	SMALL BUSINESS INNOVATIVE RESEARCH/SMALL BUS TECH TRANSFER PILOT PROG			0
1160401BB	167	SPECIAL OPERATIONS TECHNOLOGY DEVELOPMENT			0
1160402BB	168	SPECIAL OPERATIONS ADVANCED TECHNOLOGY DEVELOPMENT			0
1160404BB	169	SPECIAL OPERATIONS TACTICAL SYSTEMS DEVELOPMENT			0
1160405BB	170	SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT			0
1160407BB	171	SOF MEDICAL TECHNOLOGY DEVELOPMENT			0
1160408BB	172	SOF OPERATIONAL ENHANCEMENTS	85,109		85,109
1160444BB	173	SOF ACQUISITION	252,334	13,700	266,034
		Lightweight Counter-Mortar Radar			(+3,000)
		Solid-state synthetic aperture radar			(+7,500)
		Special Reconnaissance Tool Kit			(+3,200)
XXXXXXX	999	Classified Programs	1,829,938		1,829,938
		TOTAL, OPERATIONAL SYSTEMS DEVELOPMENT	**3,049,385**	**44,095**	**3,093,480**
		RESEARCH AND DEVELOPMENT	3,049,385	44,095	3,093,480
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		TOTAL. RESEARCH, DEVELOPMENT, TEST & EVALUATION, DEFENSE WIDE	**15,050,787**	**323,836**	**15,374,623**
		RESEARCH AND DEVELOPMENT	14,669,413	323,836	14,993,249
		ENGINEERING AND MANUFACTURING DEVELOPMENT	381,374	0	381,374

Items of Special Interest

Aircraft affordability initiative

The budget request contained $10.8 million in PE 64805D8Z for the Department of Defense Commercial Operations and Support Savings Initiative (COSSI).

The committee notes that the stated goal of COSSI is to adapt commercial technologies to reduce operations and support (O&S) costs and improve overall weapons systems performance.

The committee is aware of a promising technology for improving electronic warfare (EW) performance and reducing the overall cost of future and existing aircraft. Initiated in fiscal year 2001, the digital EW product improvement program (EW PIP) has utilized recent technological advancements to permit the conversion of analogue-based EW receivers to digital electronics. The committee understands that digital receivers will substantially decrease the supportability cost and risk of an aircraft's EW system and simultaneously increase combat performance. The committee further understands that if introduced to the F–22 fighter, the digital EW PIP should reduce aircraft weight by more than 30 pounds and power consumption by more than 600 watts. The committee is encouraged by these anticipated gains and improvements and urges the Department to also consider the introduction of digital EW PIP on other aircraft, such as the Joint Strike Fighter, F–15s, and as well as other military and space platforms.

The committee recommends $17.0 million in PE 6480D8Z to complete requisite systems software development and to design, build, and bench-test the F–22 RW/DF Digital Receiver and two associated modules.

Backscatter mobile truck system

The budget request contained $33.5 million in PE 63228D8Z for demonstration and validation of physical security equipment.

The committee notes the requirement for deployed forces to be capable of detecting explosives, weapons, or other systems or items of potential use in acts of terrorism. The committee also notes that there are commercial-off-the-shelf (COTS) mobile truck-mounted systems capable of detecting organic materials in confused and cluttered operational environments using both backscatter and standard transmission x-ray technology, that, if successful and cost-effective in comparison to other cargo screening and surveillance systems, could be used to improve the anti-terrorism posture of U.S. military bases and forces.

The committee recommends $49.5 million in PE 63228D8Z, an increase of $16.0 million to test and evaluate COTS mobile truck-mounted cargo screening and surveillance systems that employ backscatter and standard transmission x-ray technology.

Ballistic Missile Defense Organization (BMDO)

The budget request contained $7,036.5 million for the RDT&E program elements of BMDO.

The committee recommends $7,470.7 million, an increase of $434.2 million. The increase results from disapproving the requested transfer of RDT&E activities for Patriot Advanced Capa-

bility-3 (PAC–3), Medium Extended Air Defense System (MEADS), and Navy Area to the military departments.

Technology

The budget request contained $112.0 million in PE 63175C for advanced technology development.

The committee recommends the budget request for technology. The committee strongly believes that a robust technology development program is the key to enhanced future capabilities to counter more sophisticated threats. The committee notes that BMDO investment in technology is only 1.5 percent of the total budget request, and strongly recommends significantly increasing this investment in future budget cycles.

Ballistic missile defense system

The budget request contained $779.6 million in PE 63880C for ballistic missile defense (BMD) system development.

The committee recommends $754.6 million, a decrease of $25.0 million. The committee believes that two systems engineering and integration fourth quarter starts, for updates to the manufacturing technology program and the threat systems engineering library, can be deferred to fiscal year 2003.

The committee notes that the BMD system segment consolidates activities conducted under a number of program elements in previous years. They include battle management command and control development, family of systems integration activities, threat representative target development, and countermeasures programs. The committee is especially encouraged by the increased priority given to assessment of countermeasures, and specifically the Hercules project, which provides a venue for vetting potential countermeasures against projected system capabilities.

The committee observes that this program element, which includes target development and countermeasures assessment, is essential to the implementation of an operationally realistic test capability.

Terminal defense segment

The budget request contained $988.2 million in PE 63881C for the terminal defense segment.

The committee recommends $1,577.4 million, an increase of $589.2 million. This increase reflects incorporation of RDT&E activities for PAC–3, MEADS, and Navy Area into this program element as a result of the committee's recommendation to disapprove the transfer of those programs to the services. The committee also recommends an increase of $30.0 million to accelerate development of the Arrow System Improvement Program to counter advanced threats to the national security of Israel posed by emerging systems, as represented by the Shahab series of ballistic missiles. The committee believes that technical development of missile defense by the Department of Defense benefits from continued cooperation with the government of Israel.

The budget request included $73.6 million for MEADS in Army research and development. The committee recommends transfer of MEADS back to BMDO, but supports the objective of providing a

mobile theater defense capability for the U.S. and the allies, and encourages greater participation in the program by the members of North Atlantic Treaty Organization.

The committee is concerned by the significant projected cost overrun and schedule slip recently announced in the Navy Area program. Production delivery of the Navy Area interceptor appears to be delayed by approximately 20 months until fiscal year 2007. The committee notes that Navy Area is the Navy's "first to field" antiballistic missile capability and first unit equipped was to have closely followed the fielding schedule of PAC–3. Further, the committee is disturbed by the absence of Navy commitment to vigorously pursue this effort given other demands on its budget, and disapproves the transfer of Navy Area from BMDO to the Navy. The committee recommends a decrease of $10.0 million for this program.

Midcourse defense segment

The budget request contained $3,940.5 million in PE 63882C for the midcourse defense segment.

The committee recommends $3,910.5 million for the midcourse defense segment, including a decrease of $30.0 million to the sea-based midcourse project. Within the sea-based mid-course project, the committee recommends the budget request of $260.0 million for the Aegis LEAP Interceptor demonstration program, the precursor to a Navy theater wide capability to defeat ballistic missiles. The committee recommends $30.0 million, a decrease of $30.0 million, for concept definition studies related to a new sea-based midcourse capability against intermediate and long range threats. The committee believes that ongoing, competitive radar development activities will greatly influence the course this effort will take.

The committee recommends $3,230.7 million, the budget request, for the ground based midcourse project, including $786.5 million for the fiscal year 2004 Pacific missile defense test bed, including infrastructure upgrades and construction at Fort Greely, Kodiak Island, Shemya Island, and Kwajelein Atoll. The committee believes that such improvements to the infrastructure that add operational realism to testing, coupled with an aggressive test program, are crucial to the expeditious development and demonstration of a viable ground-based midcourse defense. The committee notes that the upgraded test infrastructure will also, in the near term, support testing of sea-based and integrated "family of systems" concepts.

Boost defense segment

The budget request contained $685.4 million in PE 63883C for the boost phase defense segment.

The committee recommends $610.4 million, a decrease of $75.0 million, for this program element. The committee recommends $25.0 million, a decrease of $25.0 million, for the sea-based boost project, reflecting the committee's view that concept definition and operational assessment should precede hardware design, development, and testing. The committee recommends $400.0 million for the air-based boost project (airborne laser), a decrease of $10.0 million. The block 2008 full power optics for the airborne laser are not required for the fiscal year 2003 half power shoot down demonstra-

tion, which the committee sees as a critical indicator of the continued viability of the effort. The committee recommends $152.0 million, a decrease of $38.0 million, for the space-based boost defense project. The committee is concerned that the space-based laser (SBL) integrated flight experiment, has requested funding of $200 million this year, with the experiment a decade or more out. The committee recommends a decrease of $28.0 million to hold SBL to the level of the original fiscal year 2002 program of record, and suggests that BMDO consider other, more near term space-based demonstrations. The committee recommends $5.0 million for space-based kinetic energy boost phase intercept concept definition, a decrease of $10.0 million, and believes $2.0 million in savings can be found in program operations savings in this program element.

Sensors segment

The budget request contained $495.6 million in PE 63884C for sensor development.

The committee recommends $470.6 million, a decrease of $25.0 million from the budget request. The committee notes that the Space-based Infrared System-low (SBIRS) has experienced significant growth over the level forecast for fiscal year 2001. The committee fully supports SBIRS-low, but places lower near term priority on SBIRS than other elements in the budget request as the first satellites will not be available to begin supporting test activities until fiscal year 2007.

The committee recommends the budget request of $75.3 million to complete detailed design for the Russian-American Observation Satellite program. The committee believes that cooperative threat reduction should include missile defense activities that reduce the risk of an undetected launch event.

Chemical/biological defense research, development, test and evaluation program

The budget request contained a total of $507.7 million for chemical/biological defense, including $39.1 million in PE 61384BP for basic research, $125.5 million in PE 62384BP for applied research, $69.2 million in PE 63384BP for advanced technology development, $82.6 million in PE 63884BP for demonstration/validation, $159.9 million in PE 64384BP for engineering and manufacturing development, and $31.3 million in PE 65384BP for RDT&E management support. The budget request also contained $140.1 million in PE 62383E for the Defense Advanced Research Projects Agency (DARPA) biological defense research program.

The committee recommends a total of $502.7 million for chemical/biological defense RDT&E, a decrease of $5.0 million to the budget request. The committee also recommends a total of $150.1 million in PE 62383E for the DARPA biological warfare defense program, an increase of $10.0 million. Elsewhere in this report the committee has recommended an increase of $13.0 million for the procurement of collective protection shelters, and has also provided guidance regarding the contracts for procurement of anthrax vaccine.

In order to insure an integrated chemical/biological defense program within the Department of Defense (DOD), section 1793 of the

National Defense Authorization Act for Fiscal Year 1994 (Public Law 103–160) mandated the coordination and integration of all DOD chemical/biological defense programs and the funding of these programs in a defense-wide account, separate from the accounts of the military departments. The committee believes that the Department has made considerable progress in improving cooperation among the military departments. The committee has previously noted a growing tendency to fund individual chemical/biological defense projects within the military services and again emphasizes that this practice violates the intent and purpose of Congress in establishing the consolidated program.

The committee also emphasizes the necessity for the objectives of the DARPA biological defense program to be coordinated closely and integrated with the overall Department of Defense chemical and biological defense program, and expects the Secretary of Defense to ensure that such an integrated program is established and maintained.

The committee continues to support initiatives for research, development, and demonstration of advanced chemical and biological defense technologies and systems. These initiatives should compete for funding within the appropriate program elements of the joint chemical and biological defense program and the DARPA biological defense program on the basis of technical merit and the anticipated ability of the technology or system to meet joint and service unique needs.

Research in percutaneous, optical, and pulmonary effects of mustard agent

The committee notes that the United States concentrated its research in the effects of mustard agent on the human body on the percutaneous effects of mustard on the skin, while U.S. allies focused on the effects of mustard agent and agent vapors on the eyes and on the pulmonary system. The committee understands that the research activities of U.S. allies in these areas have been reduced and that the U.S. research program in the effects of mustard agent now focuses on all three areas: percutaneous, optical, and pulmonary. The committee encourages a balanced, threat-focused research effort on the effects of mustard and other chemical agents on the human body and the identification and development of promising technologies for protection and treatment against such agents.

Optical computing device materials for chemical sensors

The committee recommends $41.1 million in PE 61384BP, an increase of $2.0 million to continue the basic research program in organic and inorganic optical computing device materials for use in standoff sensors for detection and identification of chemical agents.

Chemical/biological regenerative air filtration systems

The committee recommends an increase of $4.0 million in PE 62384BP to accelerate the program for applied research in chemical/biological regenerative air filtration technology.

Chemical and biological mass spectrometer

The committee understands that the Army's Chemical and Biological Mass Spectrometer (CBMS II) upgrade project will provide the capability to detect and identify chemical and biological warfare agents in very low concentrations. The committee recommends an increase of $10.0 million in PE 63884BP to continue the capability assessment, system optimization, and enhanced field-testing the chemical and biological agent mass spectrometer upgrade.

Mobile chemical agent detector

The committee notes the progress made in the development of a mobile chemical agent detector (MCAD) for the Marine Corps' Chemical/Biological Incident Response Force (CBIRF) and the recent testing of the system. The committee also notes the Marine Corps Systems Command's efforts to integrate, test and develop concepts for an aerial chemical agent detection system for manned and unmanned air platforms in support of the CBIRF and strongly recommends that the technology be assessed for application to the operational requirements for standoff chemical and biological agent detectors for all the military services as an integral part of the Defense-wide chemical/biological defense program.

The committee recommends an increase of $9.0 million in PE 63884BP for continued development, demonstration, and validation of the MCAD for support of the Marine Corps CBIRF and for the other military services.

Asymmetric protocols for biological defense

The committee recommends $150.1 million in PE 62383E for the DARPA biological defense research program, including $10.0 million for research, development, and demonstration of asymmetric protocols for biological defense with emphasis on enhancing individual non-specific immunities to and blocking pathogens from biological threat agents.

Complex systems design

The budget request contained $11.0 million in PE 63704D8Z for special technical support, but included no funds for complex systems design.

The committee notes that the effort to develop an integrated digital environment for complex systems design has progressed significantly and remains ahead of schedule. The committee is aware that this development is fundamental to improving the acquisition process and minimizing life-cycle costs for future systems. The committee further notes that manpower, personnel, training, health hazard, human factors, and personnel survivability (MANPRINT) are among important factors to be addressed during the complex design process.

The committee strongly supports improvements in the acquisition process and recommends $21.0 million in PE 63704D8Z, an increase of $10.0 million for complex systems design, and an increase of $2.5 million in PE 65326A for MANPRINT activities within complex system design.

Counterproliferation analysis and planning system

The budget request contained $89.8 million in PE 63160BR for advanced development of counterproliferation technologies, including $9.0 million for the counterproliferation and analysis system (CAPS).

The CAPS program responds to the need for a comprehensive and timely counterproliferation target planning tool to assist combatant commanders in the conduct of their contingency plan targeting responsibilities and provides a thorough description of nuclear, biological, chemical, and means of delivery proliferation program in countries of specific concern to the combatant commanders. The budget request would complete detailed analysis on the first group of countries identified by the combatant commanders and begin analysis on the second group of countries.

The committee recommends $92.8 million in PE 63160BR, an increase of $3.0 million to the budget request and providing a total of $12.0 million for continued development of the CAPS program to meet the requirements of the combatant commanders.

Defense imagery and mapping program

The budget request contained $115.2 million in PE 35102BQ for the Defense imagery and mapping program, but included no funds for the commercial joint mapping and visualization toolkit, or for the geographic synthetic aperture radar (GeoSAR).

The committee is aware that applying commercial technology to defense and intelligence applications, has potential to reduce costs and while increasing performance. The committee is also aware that software commonality also offers many potential savings.

The committee is aware that the airborne GeoSAR is being developed to provide a dual band interferometric radar that is able to provide the military high resolution, three dimensional maps of the earth, above, through, and below the vegetation canopy.

The committee recommends $139.4 million in PE 35102BQ, an increase of $15 million for development of a common commercial technology-based joint mapping toolkit interface to enhance and customize intelligence, navigation and mission planning functions, and an increase of $9.2 million for completion of GeoSAR development and demonstration.

Distributed common ground station/networking ISR assets

The budget request included $85.2 million in PE 35208A, $131.0 million in PE 63795N, and $11.4 million in PE 35208F for continued development of the Services' efforts with respect to networking Intelligence Surveillance and Reconnaissance (ISR) assets, especially the Distributed Common Ground Station (DCGS).

The committee strongly supports network-centric ISR developments that lead to the objective of network-centric warfare. The committee believes that a fully networked ISR enterprise will allow the more effective use of existing ISR platforms and systems, dramatically reducing the time required to prosecute time critical targets. The committee believes the technologies and techniques pursued under efforts such as the Network-Centric Collaborative Targeting (NCCT) initiative, the Naval Fires Network (NFN), the Dynamic Time Critical War Capability "5 Minute War," and the Com-

mand and Control, Sensor and Reconnaissance Tasking System (CSMARTS) are some of the most critical developments for the Department's transformation activities. Each of these initiatives use existing platforms to produce a more capable effects-based warfighting outcome. Therefore, the committee believes these network-centric approaches must be given highest priority.

The committee recommends that funding requested within the foregoing program elements be focused on developing the infrastructure for network-centric ISR solutions and prototyping these solutions. The committee directs the Service Secretaries to provide the congressional defense and intelligence committees a report no later that February 1, 2002 on how each plans to prioritize DCGS developmental efforts on network-centric ISR warfare.

The committee recommends an increase of $25.2 million in PE 63795N for rapidly transitioning the Naval Fires Network, or a similar capability, from an experimental system to a float prototype aboard the USS LINCOLN and/or the USS STENNIS. Further, the committee recommends $33.9 million in PE 35208F, an increase of $22.5 million, for the development and deployment of the NCCT functionality in the Air Force's DCGS to promote network-centric ISR capabilities for use within the Air Operations Center.

Distributed operational testing capabilities

The committee is concerned that resurgence in acquisition spending over the next decade will place unacceptable pressure on an already downsized Test & Evaluation infrastructure. The committee is aware of the potential of a small investment on distributed testing capabilities to significantly increase the capacity and responsiveness of Department of Defense major test facilities in meeting new demands for operational testing for concept development and experimentation, and to ensure interoperability, suitability, and effectiveness of deployed systems. The committee urges the Secretary of Defense to request increased funds in Defense-wide Central Test and Evaluation Investment Development (CTEIP) in fiscal year 2003 for distributed operational test infrastructure. This increase in funding should support standards and protocols being developed in the Army's Virtual Proving Ground, the Navy's Distributed Engineering Plant, and the Joint Synthetic Battle Space and Foundation Initiatives 2010.

Electrostatic decontamination system

The budget request contained $42.2 million in PE 63122D8Z for advanced technology development under the interagency combating terrorism technology support program.

The committee notes the progress being made in the development and limited evaluation of an initial laboratory prototype electrostatic decontamination system that could provide an environmentally-safe, non-corrosive, and affordable chemical and biological agent decontamination capability for the military services.

The committee recommends an increase of $8.0 million in PE 63122D8Z to complete advanced technology development of the electrostatic decontamination system, including testing against chemical and live biological warfare agents, independent laboratory confirmation of performance, and delivery of a field prototype sys-

tem for testing and evaluation by Department of Defense and interagency users.

Facial recognition technology

The budget request contained $42.2 million in PE 63122D8Z for combating terrorism technology support (CTTS).

The committee supports aggressive development of advanced technology to control access to critical facilities, in particular biometric technology such as the principal component method of facial recognition.

The committee recommends an increase of $2.0 million in PE 63122D8Z for facial recognition.

Funding transfers to support transformation DW

The committee is concerned that the largest area of growth in Defense-wide research and development (R&D) investments, far exceeding increases proposed by the military services, has occurred in the Defense Threat Reduction Agency and in the Defense Advanced Research Project Agency. Several other defense-wide programs appear to have excessive management funding, non-specific programs, or support fielded system development and other mature technologies. Other programs included un-forecast increases, apparently excessive management funding or unobligated prior year funding. The committee believes that the highest priority for R&D investments in fiscal year is 2002 to fund activities directly related to transformation and future capabilities. Therefore, the committee recommends the following decreases to Defense-wide accounts, to be transferred to other programs within the Services that support transformation and future system development:

62301E	$70,000,000
62302E	5,000,000
62384BP	20,000,000
62702E	9,000,000
62712E	18,000,000
62715BR	35,000,000
63285E	25,000,000
63384BP	10,000,000
63716D8Z	30,000,000
63739E	8,000,000
63750D8Z	20,000,000
63755D8Z	20,000,000
63762E	4,000,000
63765E	5,000,000
63851D8Z	3,000,000
63923D8Z	3,000,000
65104D8Z	3,000,000
65116D8Z	5,000,000
65124D8Z	10,000,000
64805D8Z	10,805,000

DARPA "Exoskeleton Project"

The committee recommends that $4.0 million of the decrease in PE 62712E be assessed against the DARPA exoskeleton project for enhancement of soldier physical performance. The committee finds the project of questionable value and largely duplicative of work done in the 1950s and the 1970s that was subsequently discarded because of limited operational utility and adverse impact on the human body.

Global infrastructure data conversion initiative & document exploitation

The committee is aware that the Department of Defense (DOD) has a substantial requirement to standardize document exploitation material that is resident at various DOD departments and agencies. This legacy material, which includes foreign language and analytical reports, is currently in non-useable form, and needs to be normalized into a formatted database. The committee believes the Department should move forward to convert sensitive, legacy Document Exploitation (Doc Ex) material into a standard useable format, database, and media construct for use within the Department.

In addition, the committee encourages the Department to continue with its Global Infrastructure Data Conversion initiative, which converts engineering data into a digital form to ensure that critical worldwide infrastructure information can be utilized by military analysts, mission planners, and counterintelligence specialists in support of the warfighter. The committee recommends that the Department continue this effort, which supports Technology Protection and Counter-Intelligence communities.

High energy laser research and development

The committee recognizes the potential of directed energy in general, and high energy lasers (HEL) in particular, for future military applications across the services. The committee is encouraged by the progress shown by the technical community, but also understands some of the shortfalls of currently proposed concepts, and believes it is necessary to proceed on a broad and coordinated front to develop a wide range of technologies for weapons applications.

Accordingly, Subtitle D of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398) included a number of provisions governing the funding, organization, management, and oversight of the high energy laser programs of the Department of Defense. Among them, section 242 directed implementation of the High Energy Laser Master Plan establishing a Joint Technology Office (JTO). Section 243 directed designation of a single senior civilian official in the Office of the Secretary of Defense (the "designated official") with broad authority and responsibility for management of high energy laser research. Section 248 required an annual report assessing management structure, funding, technical progress, and performance. Section 250 directed the Secretary of Defense, in consultation with the Deputy Undersecretary of Defense for Science and Technology, to evaluate the expansion of the HEL management structure to encompass directed energy programs based on other physics principals.

In response to section 250 of Public Law 106–398, the Deputy Undersecretary of Defense for Science and Technology (also the "designated official") provided to the congressional defense committees the Report of the Directed Energy Review Panel, dated March 15, 2001, which recommended that HEL JTO not be expanded at this time to encompass directed energy programs based on other physics principals, citing scarce resources and a potentially detrimental diffusion of focus. The Panel also recommended revisiting this issue on a regular basis.

The committee concurs, believing that it is valuable to continue to assess the potential of other directed energy technologies for military applications as they develop, and to reconsider inclusion of those programs in the HEL management structure. Therefore, the committee directs the Secretary of Defense to revise the Panel's recommendations on an annual basis, and include those recommendations in the annual report required under section 248 of Public Law 106–398. In addition, the committee encourages the "designated official" to coordinate HEL programs with those overseeing other directed energy programs, including the High Power Microwave Steering Group.

Implantable cardioverter defibrillator

The budget request contained no funds in PE 63738D8Z for cooperative medical research between the Department of Defense and the Department of Veterans Affairs.

The committee notes that implantation of cardioverter defibrillators was pioneered by clinical research in conjunction with veterans centers, where trials using the defibrillators have reduced cardiac death by a factor of five. The committee is aware that additional research is required on the efficacy of antiarrhythmic drugs with implantable cardioverter defibrillators.

The committee recommends an increase of $5.0 million and directs that it only be used for a joint research program on efficacy of antiarrythmic drugs with implantable cardioverter defibrillators conducted at the Washington, D.C. Veterans Center.

Joint technology applications analysis pilot program

The budget request contained $33.8 million in PE 65104D8Z for technical studies, support, and analysis.

The committee notes that the National Defense University has established a Center for National Security Policy to investigate the implications of technological innovation on U.S. national security policy and military plans. The committee also notes the findings of a recent study conducted by the Center for Strategic and International Studies that concluded that the Department of Defense can "no longer depend on a dedicated defense industrial base, but will need to find ways to link advanced commercial technologies to improved military capabilities." To meet these goals the President of the National Defense University has indicated that the military services and defense agencies will need to rely more directly on the commercial information technology industry to gain prompt access to leading-edge capabilities and has proposed a pilot program between the university and the commercial information technology industry. The purpose of the program is to find practical ways in which the defense information technology community can gain a mutual understanding of defense needs and industry capabilities and identify opportunities to integrate information technology innovations into the U.S. military strategy.

The committee recommends an increase of $1.0 million in PE 65104D8Z for a pilot program in joint technology applications analysis to establish a pilot program to enhance communications between the Department of Defense and the information technology industry.

Medical free electron laser

The budget request contained $14.7 million in PE 62227D8Z for the medical free electron laser (MFEL).

The committee is aware that the MFEL program is a peer-reviewed program that has continued to make significant advances in medical applications ranging from painless burn debreeding to bone cutting and improved cancer detection.

The committee supports the MFEL program and recommends $19.7 million in PE 62227D8Z, an increase of $5.0 million for MFEL.

Microelectromechanical systems (MEMS) sensors

The budget request contained $240.4 million in PE 61103D8Z for university research initiatives.

The committee notes that the ability to accurately estimate temperature, vibration, strain and angular rotation in a bearing during the operation of the machine in which the bearing is installed would provide the capability for identifying inordinate wear, operating anomalies, or impending failure of a critical bearing assembly and permit replacement of the assembly before the bearing failed or adversely affected the performance of the machine. Such a capability in critical roller bearing assemblies in aircraft engines, tank transmissions, and ship and submarine propulsors should result in increased performance, extended life, and reduced life cycle maintenance and support costs for the weapon system in which the bearing assemblies would be installed. The committee believes that roller bearings with integrated sensors that incorporate microelectromechanical systems technology have great potential for providing such a capability.

The committee recommends $243.4 million in PE 61103D8Z, an increase of $3.0 million for the development of integrated MEMS sensors for the determination of temperature, vibration, strain, and angular rotation in rolling element bearings.

More efficient science and technology investment

The committee is aware that defense science & technology (S&T) investment is critical to maintaining U.S. military superiority. The committee notes that an efficient investment strategy, especially in view of the diversity of the technology challenges and fiscally constrained S&T funding, should focus on those technologies that are identified as critical to defense transformation. The committee that S&T originated by the Department of Defense must avoid duplication of efforts ongoing in the private sector as well as unnecessary duplication of effort between government laboratories and research centers.

Therefore, the committee directs the secretaries of the military departments to assess their S&T investments in service laboratories and research centers, as well as industry and academia, to ensure that these investments fully support the ongoing transformation of the force. The committee further directs the Secretary of Defense to assess/integrate the findings of the service secretaries and to report to the congressional defense committees upon submission of the President's budget, the results of the assessments and how investments judged inappropriate have been redirected within

the S&T programs of the Department of Defense for the budget request for fiscal year 2003.

Special operations forces acquisition

The budget request contained $252.3 million in PE 116444BB for SOF acquisition programs, but included no funds for several important development efforts. The committee notes that low-cost solid-state synthetic aperture radar is to be optimized to meet special operations requirements for target detection in high sea states and high ground clutter environments. The committee is also aware of a radar development to automatically detect and locate enemy mortar firing positions. Additionally, the committee is aware that the Special Operations Command (SOCOM) is developing a reconnaissance tool kit to allow special operations forces (SOF) to tailor communications and other capabilities to specific mission requirements.

The committee recommends $266.0 million PE 116444BB, an increase of $7.5 million for solid-state synthetic aperture radar, an increase of $3.0 million for lightweight counter-mortar radar, and an increase of $3.2 million for the special reconnaissance tool kit.

Tactical missile recycling

The budget request contained $8.8 million in PE 63104D8Z for advanced development of explosives demilitarization technology.

The committee notes the development by the Army's Aviation and Missile Command of technologies for recycling of tactical missiles, including: disassembly, energetics removal, warhead processing, energetics size reduction, energetics processing, slurry explosive manufacturing, hardware decontamination, and shipping and receiving modules. The committee believes that the missile recycling capabilities (MRC) efforts should be transitioned to establish an organic MRC at an appropriate Army depot with a tactical missile disposal and recycling mission.

The committee recommends $13.8 million in PE 63104D8Z, an increase of $5.0 million to support the transition of the tactical missile recycling capabilities developed by the Army's Aviation and Missile Command to an appropriate Army depot.

Thermobaric warhead development

The budget request contained $295.1 million in PE 62715BR for applied research in nuclear sustainment and counterproliferation technologies, including $40.5 million for applied research in technologies including thermobaric warheads defeat hard targets. The budget request also contained $2.9 million in PE 63609N for the Navy's insensitive munitions advanced development program.

The committee notes that the Russians developed thermobaric materials and have weaponized thermobaric explosive formulations that demonstrate impressive capabilities to generate pressure and thermal effects much greater than conventional high explosives. Parallel work in research and development of these materials has been proceeding in the United States. Defense Threat Reduction Agency (DTRA) applied research for fiscal year 2002 focuses on the development of a thermobaric warhead payload that is optimized

for hard and deeply buried targets and destruction of weapons of mass destruction.

The committee believes that thermobaric warheads offer the potential for greater performance and lower cost than conventional high explosives while providing a more insensitive warhead and therefore a safer option to conventional warheads.

The committee recommends an increase of $5.0 million in PE 62715BR in applied research for thermobaric warheads. The committee recommends coordination of the DTRA program with the Navy's insensitive munitions program.

U.S.-Israel boost phase intercept

The committee considers boost phase intercept programs to be of the highest importance for the protection of the United States, our forces overseas, and American allies and friends. In previous years, Congress provided funds for a U.S.-Israel boost phase intercept study, and in fiscal year 2000, the Director of the Ballistic Missile Defense Organization (BMDO) reported positively on the technical and operational feasibility of a joint U.S.-Israel boost phase intercept program utilizing unmanned aerial vehicles to destroy ballistic missile launchers following a missile launch. The Director has indicated that a decision on whether to fund the U.S. share of such a cooperative program with Israel would be made in conjunction with preparation of the fiscal year 2003 budget.

The committee encourages the Department of Defense to negotiate an agreement with and undertake a joint-Boost Phase Launcher Intercept program with Israel at the earliest possible date and to consider other cooperative programs involving sea-based or space-based programs. The committee believes this program and other joint cooperative programs would make an important contribution to Israel and the security of American forces deployed in the Middle East. It would also enhance regional deterrence. The lessons of such a program could be applied to other American missile defense efforts.

The committee also urges the Secretary of Defense to examine whether we can include American allies and Russia in future joint missile defense programs. This cooperation could both enhance protection to our forces overseas and build international support and understanding for our ballistic missile defense efforts.

Warfighter rapid acquisition programs

The budget request contained $23.6 million in PE 23761A for Rapid Acquisition Program for Transformation (RAPT), $51.3 million in PE 63640M for Marine Corps Advanced Technology Demonstration, $43.3 million in PE 63758N for Navy Warfighting Experiments and Demonstrations, $50.2 million in PE 23761F for the Warfighter Rapid Acquisition Process (WRAP) rapid transition fund, and $25.0 million in PE 63826D8Z for Quick Reaction Projects.

The committee notes the significant funding commitments for rapid acquisition programs by the military services and strongly supports the efforts of the Secretary of Defense and the service secretaries of the military departments to accelerate the delivery of new technologies and increased capability to the warfighter. Al-

though all of the rapid acquisition programs share similar goals of shortening acquisition time and rapid fielding of new technologies, the committee notes variations in approaches and believes that all of the programs should contain several common but essential elements. Candidates for rapid acquisition programs should be reviewed at the secretariat and service chief level, using competitive selection criteria, and assessed on business-based analyses including cost savings and impact on current acquisition programs, as well as improved capability. If selected for transition to acquisition, the services must ensure that sufficient funding is programmed to fully develop and acquire the selected candidates.

The committee supports the tremendous potential for cost savings and increased capability through the use of the Army RAPT and recommends $86.4 million in PE 63001A, an increase of $2.5 million and a transfer of $23.6 million from PE 23761A. The committee urges the Secretary of the Army to review the following projects for consideration as candidates for the Army RAPT:

Hybrid Battery-Fuel Cell
Joint Service Metrology R&D Support
Trajectory Optimized High Altitude Targeting (Top Hat)
Warfighter Advanced Technology Expandable Shelter

The committee also supports the Marine Corps Advanced Technology Demonstration and recommends $72.3 million in PE 63640M, an increase of $21.0 million. The committee urges the Commandant to review the following projects for consideration as candidates:

Fast Refueling System
Improved Long Range Rifle
Mobile Counter Fire System
Modular Ride-Along Air Filter Cleaning System
Quadrupole Resonance/Landmine Detection

The committee supports the initiation of the Navy Warfighting Experiments and Demonstrations and recommends authorization of $85.3 million in PE 63758N, an increase of $42.0 million. The committee urges the Secretary of the Navy to review the following projects for consideration as candidates for the Navy Warfighting Experiments and Demonstrations program:

Air Crane
Geotrak Positioning Technology
Interrogator for High-Speed Retro-Reflectometer Communication
Transportable Anti-Intrusion Pontoon Barrier System (TABS)
Web Centric ASW Net

The committee supports the pursuit of cost savings and increased capability through the use of the Air Force WRAP rapid transition funding and recommends authorization of $74.2 million in PE 63XXXF, an increase of $24.0 million and a transfer of $50.2 million from PE 23761F. The committee urges the Secretary of the Air Force to review the following projects for consideration as candidates for the Air Force WRAP:

Imaging and Target Support
TechSat 21/MicroSat

The committee believes that each of the service programs should conduct reviews of candidate projects using procedures defined for the defense-wide Challenge Program outlined in the legislative provision Sec. 244 described elsewhere in this report. The committee directs the service secretaries to provide a report outlining their rapid acquisition candidate review process, plan for transition of selected candidates, level of leadership represented on the review panel, and plan to ensure that sufficient funding is programmed to support acquisition. The reports shall be submitted with budget request justification materials accompanying the fiscal year 2003 defense budget request.

OPERATIONAL TEST AND EVALUATION, DEFENSE

Overview

The budget request contained $217.4 million for Operational Test and Evaluation RDT&E. The committee recommends authorization of $217.4 million.

The committee recommendations for the fiscal year 2002 Operational Test and Evaluation RDT&E program are identified in the table below. Major changes to the Operational Test and Evaluation request are discussed following the table.

TITLE II - RESEARCH, DEVELOPMENT, TEST & EVALUATION

(Dollars in Thousands)

PROGRAM ELEMENT NUMBER	R-1 LINE	PROGRAM TITLE	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
		OPERATIONAL TEST & EVAL, DEFENSE			
0603941D8Z	1	TEST, EVALUATION SCIENCE AND TECHNOLOGY	16,000		16,000
0604940D8Z	2	CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT (CTEIP)	113,642		113,642
0605118D8Z	3	OPERATIONAL TEST AND EVALUATION	17,379		17,379
0605131D8Z	4	LIVE FIRE TESTING	9,887		9,887
0605804D8Z	5	DEVELOPMENT TEST AND EVALUATION	59,447		59,447
0605806D8Z	6	IMPLEMENTING DSB RECOMMENDATIONS	1,000		1,000
		TOTAL, OPERATIONAL TEST & EVAL, DEFENSE	**217,355**	**0**	**217,355**
		RESEARCH AND DEVELOPMENT	217,355	0	217,355
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0
		Defense Health Plan			
		TOTAL, DEFENSE HEALTH PLAN	**0**	**0**	**0**
		RESEARCH AND DEVELOPMENT	0	0	0
		ENGINEERING AND MANUFACTURING DEVELOPMENT	0	0	0

LEGISLATIVE PROVISIONS

SUBTITLE A—AUTHORIZATION OF APPROPRIATIONS

Section 201—Authorization of Appropriations

This section would establish RDT&E funding levels for the Department of Defense for fiscal year 2002.

Section 202—Amount for Basic and Applied Research

This section would establish basic and applied research funding levels for the Department of Defense for fiscal year 2002.

SUBTITLE B—PROGRAM REQUIREMENTS, RESTRICTIONS, AND LIMITATIONS

Section 211—Cooperative Department of Defense-Department of Veterans Affairs Medical Research Program

This section would require that of the funds authorized to be appropriated by Section 201(4), $5,000,000 shall be available only for Cooperative Department of Defense-Department of Veterans Affairs medical research program. This section would also require the Secretary of Defense to transfer such amount to the Secretary of Veterans Affairs for such purposes after 30 days of the date of enactment of this Act.

Section 212—Advanced Land Attack Missile Program

This provision would direct the Secretary of Defense to establish a competitive program for the development of an advanced land attack missile (ALAM) for the DD–21 Land Attack Destroyer and other naval combatants and would recommend authorization of $20.0 million in PE 63795 for that purpose. The provision would also direct the Secretary of Defense to submit to the congressional defense committees with the fiscal year 2003 budget request a report providing the program plan, schedule and funding required for the ALAM program.

The committee notes the letter from the Under Secretary of Defense (Acquisition and Technology) to the Chairman, House Armed Services Committee, dated August 25, 1999, that endorsed the Navy's proposal to acquire the Land Attack Standard Missile (LASM) as an interim capability and to develop an ALAM as soon as possible. The letter also stated that the Navy would pursue a multi-team industry competition for development of ALAM. The committee also notes the Milestone 0 Acquisition Decision Memorandum, dated February 22, 2000, that designated the ALAM as a major defense acquisition program. The committee further notes that the Navy's ALAM program plan and funding included in the fiscal year 2001 budget request provided for completion of an ALAM analysis of alternatives and entry into the program risk and reduction phase in fiscal year 2001, competition and early prototyping by three to four contractors leading to an ALAM down-select/"fly-off" by the end of fiscal year 2003, with delivery of the ALAM system to the fleet in early fiscal year 2009.

In the statement of managers that accompanied the conference report on H.R. 4205 (H. Rept. 106–945), the conferees placed a high priority on completing the analysis of alternatives to determine the appropriate course of action for providing Naval fire support and directed the Secretary of the Navy to report to the congressional defense committees with the submission of the fiscal year 2002 budget request on recommended revisions to the ALAM program. The committee is concerned that the report has not been received.

The committee further notes that in April 2002 the Comptroller of the Navy executed a below-threshold reprogramming which redirected funds authorized and appropriated for ALAM and effectively halted the ALAM program.

The committee believes that in the absence of a program review appropriate to a major defense acquisition program the Navy's redirection of fiscal year 2001 funding for ALAM and failure to request funding to continue the program in the fiscal year 2002 budget request contravenes the direction previously provided to the Navy and reported to Congress by the Under Secretary of Defense (Acquisition, Technology, and Logistics) to develop ALAM as soon as possible and pursue a multi-team industry competition for that development.

Section 213—Collaborative Program for Development of Advanced Radar Systems for Naval Applications

This section would require the Secretary of Defense to carry out a program to develop and demonstrate advanced technologies and concepts leading to advanced radar systems for naval and other applications. The program would be carried out under a memorandum of agreement between the Director of Defense Research and Engineering (DDR&E), the Secretary of the Navy, and the Director of the Defense Advanced Research Projects Agency (DARPA), and would include activities needed to develop and deploy advanced electronics materials needed to extend the range and sensitivity of naval radars. The joint effort would place particular emphasis on the development and maturation of high frequency and high power wide bandgap semi-conductor materials and devices and the identification of the weapon and sensor systems that would use the new technology.

The committee notes that the Navy's June 2000 report to the congressional defense committees on the Surface Navy Radar Roadmap identified increased demands on radar performance and performance goals to meet the operational requirements expected in 2015 and cited advances in wide bandgap semi-conductor materials, such as silicon carbide and gallium nitride, that would be required to achieve increased range, advanced discrimination, and signal processing capabilities needed for advanced theater ballistic missile defense radars. The committee understands that the March 2001 Technology Assessment for the Surface Navy Radar Roadmap concluded that to achieve these capabilities in fiscal year 2009 to meet the 2015 operational capability requires a generational change in high power amplifiers, device and array thermal management, digital radar, processing algorithms, and processor independent system software. The committee notes that advances in wide bandgap semi-conductor materials and devices are key to that

technology development. The committee also understands that the December 2000 Special Technology Review on RF Applications for Wide Bandgap Technology by the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics recommended an increased science and technology investment in wide bandgap materials, devices, circuits, and packaging that would total approximately $50 million per year over a five-year period beginning in fiscal year 2002.

The budget request contained $41.0 million in PE 62712E for the DARPA applied research program in high frequency wide bandgap semiconductor electronics and high power wide bandgap semiconductor electronics. The committee understands that the budget request contained $5.0 million in PE 61153N and $3.5 million in PE 62271N for the Navy's applied research program in wide bandgap semiconductor technology. The provision would authorize $41.0 million for DARPA for research and maturation of high frequency and high power wide bandgap semiconductor electronics technology to carry out the collaborative program established under the memorandum of agreement and $15.5 million for the Navy to carry out its responsibilities under the memorandum of agreement for the collaborative program, an increase of $7.0 million to the budget request.

Finally, the committee encourages the Director of the Ballistic Missile Defense Organization to become a party to the memorandum of agreement for the collaborative program and to identify the BMDO's contribution to the program in the joint report to be submitted to the congressional defense committees by January 31, 2002.

SUBTITLE C—BALLISTIC MISSILE DEFENSE

Section 231—Transfer of Responsibility for Procurement for Missile Defense Programs from Ballistic Missile Defense Organization to Military Departments

The section would amend section 224 of title 10, United States Code to require that the budget submitted to Congress by the Department of Defense for research, development, test and evaluation (RDT&E) of any Department of Defense missile defense program be set forth under the account for Defense-wide RDT&E, and within that account, under the sub-account for BMDO.

This section would further require the Secretary of Defense to establish, and submit to Congress, criteria for transferring missile defense programs from BMDO to the military departments. The criteria would be developed to ensure the viability of the program as it passes to the military departments.

The section would also require the Secretary of Defense to notify the congressional defense committees of the Secretary's intent to transfer a missile defense program to the military departments 60 days in advance of such action.

Section 232—Repeal of Program Element Requirements for Ballistic Missile Defense Programs

This section would strike section 223 of title 10, United States Code, which defines the statutory program element structure for budget justification materials submitted to Congress by the Department of Defense for activities of the Ballistic Missile Defense Organization (BMDO).

Section 233—Support of Ballistic Missile Defense Activities of the Department of Defense by the National Laboratories of the Department of Energy

This section would, at the discretion of the director of BMDO, make available from funds authorized to be appropriated pursuant to section 201(4) up to $25.0 million for research, development, and demonstration activities at the national laboratories of the Department of Energy (DOE) in support of missions of BMDO. The provision would make available to the Director of BMDO, acting in consultation with the Administrator of the Nuclear National Security Administration (NNSA), the resources of the national laboratories of the DOE to address critical missile defense needs. The availability of the funds would be subject to provision of matching funds by NNSA. Activities would be conducted under the terms of a memorandum of understanding between the Secretary of Defense and the Secretary of Energy for the use of national laboratories for ballistic missile defense programs.

The committee believes that the national laboratories of the National Nuclear Security Administration present a largely untapped source of experience and expertise relevant to one of the nation's highest priorities, ballistic missile defense. The committee further believes that activities in support of missile defense are consistent with the laboratories' national security mission, will not significantly impede the laboratories in carrying out their important role of guaranteeing the safety, reliability and performance of nuclear weapons, and may in fact present new opportunities as the strategic stockpile draws down. The committee is disturbed by the apparent lack of interest shown by the laboratories in the last several years, especially given their unique qualifications to address certain aspects of missile defense. The committee strongly urges the Departments of Defense and the Department of Energy to move beyond the negotiation of memoranda, and begin to apply the resources of the national laboratories to this great challenge in a meaningful way.

Section 234—Missile Defense Testing Initiative

This section would require the Secretary of Defense to develop necessary infrastructure and to implement a rigorous test regimen for ballistic missile defense programs. This section would require testing in as realistic a manner as is practicable, taking into consideration the planned operational concepts for each system, and continued testing after deployment.

The committee is aware of shortfalls in testing of ballistic missile defense systems, including those recently expressed by the Director of Operational Test and Evaluation and the Panel on Reducing

Risk in Ballistic Missile Defense Flight Test Programs. The committee is similarly concerned about both the realism of the geometry that the current test infrastructure can support, as well as the limited range of engagement conditions (speed, altitude, crossing angle, etc.) accommodated. The committee also believes that test planning and infrastructure has not been adequate to support operationally realistic testing of the ground-based midcourse system, such as engagement of a single target with multiple interceptors ("shoot-look-shoot") or engagement of multiple targets with multiple interceptors, nor has it fully exploited opportunities for demonstration of interoperability ("family of systems") concepts. The committee notes that much more can, and must, be accomplished prior to flight testing, and strongly endorses ground testing at the highest level of integration as possible.

While recognizing the necessity of extensive testing, the committee places a high priority on value and believes that approaches, such as "campaign testing" where multiple tests are conducted in rapid succession, can significantly reduce the average cost per test, delivering more realistic data for less cost. Historically, missile systems have required extensive and rigorous testing to ensure performance and reliability, often suffering high failure rates initially. Rigorous testing is especially crucial in missile defense due to the magnitude of the technical challenges and the complexity of the systems required to meet those challenges. The committee expects that there will be failures in a rigorous test program, and cautions against placing great significance on either the success or failure of any single event.

Section 235—Missile Defense System Test Bed Facilities

This section would clarify section 2353 of title 10, United States Code governing the use of Research, Development, Test, and Evaluation (RDT&E) funds in fiscal year 2002 for the specific purpose of construction of a missile defense test bed. This section would authorize the Secretary of Defense to use funds made available to the Department of Defense for RDT&E to acquire, improve, or construct missile defense system test bed facilities that also have general utility. The provision limits the total cost of such activities to not more than $500.0 million. The section would also authorize the use of RDT&E funds to mitigate the impact on local community services or facilities resulting from the construction or operation of missile defense system test bed facilities, provided that the Secretary of Defense determines that there is an immediate and substantial need as a direct result of such activities.

SUBTITLE D—OTHER MATTERS

Section 241—Establishment of Unmanned Aerial Vehicle Joint Operational Test Bed System

This section would require the Secretary of the Defense to establish of a Joint Forces Command (JFCOM) Unmanned Aerial Vehicle (UAV) Joint Operational Test Bed System (JOTBS) and to transfer two Predator UAVs, tactical control system (TCS) ground station and assorted equipment from the Navy to JFCOM within

90 days of enactment of this Act. This section would further provide for the transfer of two Predator UAVs from JFCOM to the Air Force when no longer required for the JFCOM JOTBS.

The committee notes that the report accompanying the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398), directed the Secretary of the Navy to transfer custody of two Predator unmanned aerial vehicles (UAV) and the associated TCS ground station to the Joint Forces Command (JFCOM) for use in the joint operational test bed system (JOTBS).

The committee is seriously concerned that the Secretary has not carried out this transfer. Therefore, the committee recommends a provision (Sec. 241) that would require that this transfer be made promptly, and that the Commander-in-Chief, JFCOM complete establishment of an independent JOTBS. The committee is aware that JFCOM promulgated a JOTBS Strategic Plan May 2000 that provides clear direction for such an independent test bed.

The committee observes that Congress established JFCOM because the services do not inherently have a joint perspective and that joint interoperability of intelligence, reconnaissance and surveillance (ISR) and other systems is essential for an enhanced future military capability. Therefore, the committee believes that in order to be fully successful, the JOTBS must be independent of the services.

The committee further observes that CINC JFCOM's failure to complete establishment of the independent JOTBS raises questions over the ability of JFCOM to effectively carry out its mission in the face of resistance by a service. The Predator UAV is an Air Force platform and therefore, when and if Joint Forces Command no longer requires the two Predator UAVs, the committee directs that custody shall be transferred to the Air Force.

Section 242—Demonstration Project to Increase Small Business and University Participation in Office of Naval Research Efforts to Extend Benefits of Science and Technology Research to Fleet

This section would authorize that the Secretary of the Navy, acting through the Chief of Naval Research, to carry out a demonstration project to explore ways to increase and expand small business and university participation in research efforts beneficial to the fleet. This section would require that the Secretary establish a Navy Technology Extension Center at a location to be selected and would permit participants in the Small Business Innovation Research Program (SBIR) and Small Business Technology Transfer Program (STTR) that are awarded contracts by the Office of Naval Research to access and use Navy facilities without charge for the purpose of carrying out those contracts. This section would also permit universities, institutions of higher learning, and Federally Funded Research and Development Centers collaborating with SBIR and STTR participants to use Navy facilities.

The committee notes a number of initiatives to encourage small business and university participation in the Department of Defense (DOD) program to extend the benefits of research in science and technology to the military components. However, the committee is concerned that there is no overall program to develop a comprehensive science and technology partnership between small businesses,

universities, and Department of Defense research facilities. The committee believes that there is much that could be gained by all participants in such partnerships, and that the lesson learned in the demonstration project might be applied to other DOD research programs to the benefit of all the military departments and defense agencies.

Section 243—Management Responsibility for Navy Mine Countermeasures Programs

This section would amend section 216 of the National Defense Authorization Act for Fiscal Years 1992 and 1993 (Public Law 102–190), and would extend the implementation of the Management Responsibility for Navy Mine Countermeasures Programs through fiscal year 2008.

The committee believes that the requirement that the Secretary of Defense and the Chairman of the Joint Chiefs of Staff provide an annual certification of the adequacy of the Navy's mine countermeasures program has had a positive impact on the program, increasing the visibility of and attention paid to the program by officials in the Department of Defense and the Department of the Navy. The committee notes the direction contained in the committee report on H.R. 3616 (H. Rept. 105–532) that the annual certification by the Secretary of Defense and the Chairman of the Joint Chiefs of Staff address the adequacy of funding for the mine countermeasures program for the budget year through the end of the future years defense program and also include objective measures against which the Navy's progress in enhancing its mine countermeasures capabilities can be evaluated.

Section 244—Program to Accelerate the Introduction of Innovative Technology in Defense Acquisition Programs

This section would direct the Secretary of Defense to establish a program to provide increased opportunities for the introduction of innovative technology in acquisition programs of the Department of Defense and would provide $40.0 million in PE 63826D8Z for the program.

The committee notes the actions taken by the Department in response to section 818 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (Public Law 105–261) and initial improvements in facilitating the rapid transition into Defense acquisition programs of technologies developed in successful Small Business Innovative Research (SBIR) phase two projects. The committee also notes the initial actions taken by the Department in response to section 812 of the National Defense Authorization Act for Fiscal Year 2000 (Public Law 106–65) with the objective of fostering competition wherever possible to create incentives for the development and rapid insertion into Defense acquisition programs of technological innovations developed by commercial firms, including small technology companies.

This section would place increased emphasis on the program for introduction of innovative and cost-saving technology into Defense acquisition programs by requiring the Secretary of Defense to establish a "Challenge Program" to provide individuals or activities

within or outside the Department of Defense the opportunity to propose alternatives ("challenge proposals") at the component, subsystem, or system level of an existing Defense acquisition program that would result in improvements in the program. This section would also require the Secretary to establish a panel of highly qualified scientists and engineers to review and evaluate challenge proposals and make recommendations to the Under Secretary of Defense (Acquisition, Technology, and Logistics) regarding the incorporation of the challenge proposal in the challenged Defense acquisition program. This section would also require that, in the event the panel finds that the challenge proposal will result in improvements in performance, affordability, manufacturability, or operational capability at the component, subsystem, or system level of the challenged acquisition program, which are substantially superior to the incumbent component, subsystem, or system, the Secretary would carry out a plan to acquire and implement the challenge proposal. This section would also require the Secretary to ensure the elimination of conflicts of interest in carrying out each review and evaluation of challenge proposals that are submitted to the panel. Finally, the provision would require the Secretary to submit a report to Congress on the implementation of the "Defense Challenge" program.

The budget request contained $25.0 million in PE 63826D8Z for the Quick Reaction Projects initiative. The committee recommends $66.0 million in PE63826D8Z, including $40.0 million for the Defense Challenge program. The committee believes that the introduction of innovative technology into Defense systems through the Defense Challenge program and the Quick Reaction Projects Initiative possess a tremendous potential for achievement of cost-savings and increased operational capability for U.S. armed forces. The committee urges the Under Secretary of Defense (Acquisition, Technology, and Logistics) to review the following projects for consideration as candidates for the Quick Reaction Projects and Defense Challenge program:

Microwave Ferrite Components
Miniature Interceptor Technology
Pacific Fleet Force Protection Technology Testbed
Radio Frequency Vulnerability
"Spray Cooling" Optimizing Electronics for Advanced Controlled Environment Systems

TITLE III—OPERATION AND MAINTENANCE

OVERVIEW

The budget request for operation and maintenance represents an increase of $17.8 billion (38.4 percent) over spending levels authorized and appropriated for fiscal year 2001. Although the committee is encouraged by this increased level of attention to the critical readiness accounts, the committee is concerned that savings assumptions presented in the amended budget request are unattainable. As an example, of the nearly $1.0 billion in savings assumed through the enacting of management reforms, $140.0 million is based on a change in the operation of the maintenance and repair depots, and $190.0 million is based on a change to section 276a of title 40, United States Code, (46 Stat. 1494) commonly referred to as the Davis-Bacon Act. Both of these proposals would require legislation that has been historically unsuccessful. The committee is troubled by the decision to assume substantial savings associated with proposed legislation, prior to Congress being afforded an opportunity to debate and enact into law the requested proposals. The legislative changes assumed in the amended budget request are significant policy changes that need complete and thorough debate within Congress. The committee believes that these proposed savings initiatives are premature and, therefore, recommends an undistributed reduction of $330.0 million in the operation and maintenance accounts to offset these assumed savings. The committee further expects the Secretary of Defense to apply this reduction within the defense-wide operation and maintenance accounts and not to the individual military services.

The committee understands that a significant portion of the proposed increases for operation and maintenance funding is related to increased fuel, spare parts, energy costs, along with an attempt at arresting the decline in military installation infrastructure. In addition, the committee notes that even with the increases recommended in the amended budget request, the chiefs of the military services reported nearly a $10.0 billion shortfall in operation and maintenance funding for fiscal year 2002. Despite increased funding, there is no significant increase in planned operations by the military services in fiscal year 2002. In fact, the Department of the Army is decreasing its normal operation tempo for its combat vehicles. Although the budget request provided increased funding for the historically under-funded real property maintenance accounts, this increase merely arrests the decline that has occurred over many years. The committee believes that the Department of Defense must sustain this offset by devoting significant resources over a multi-year program to facility sustainment and renovations.

The committee conducted a series of hearings in an effort to obtain a more accurate and detailed assessment of current and near-

term readiness and to determine to what extent the amended budget request supports readiness requirements. As in the past recent years, the evidence received during the hearings was of an overextended force struggling to maintain acceptable readiness levels in an environment of declining human and budgetary resources. The committee continues to hear significant complaints about lack of spare parts, aging equipment, decaying infrastructure, growing equipment and facilities' backlogs, and the difficulties of conducting quality training and operational deployments with significant personnel shortages.

The committee continues to believe that DOD must continue to take steps to reduce costs in non-readiness related accounts. At the same time, DOD must provide more aggressive oversight of the military departments' proposals to reduce costs through contracting out and privatization. The committee fully supports well developed and justified programs that will reduce costs; but, at a time when readiness shortfalls continue to grow, the committee does not believe that poorly developed and uncoordinated new programs, or funding for administrative and support activities, such as headquarters management, should be increasing. As an example, the committee believes the Navy-Marine Corps Intranet (NMCI) program to be a well-intentioned and potentially beneficial program. However, again this year, the Department of the Navy has failed to adequately provide the committee with the specific funding and budgetary data necessary for the committee to provide full approval of this program. Consistent with past practice, the committee has identified spending that does not directly support military readiness and has reprioritized it into other areas.

TITLE III - OPERATION AND MAINTENANCE

(Dollars in Thousands)

ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
OPERATION AND MAINTENANCE, ARMY	21,191,680	(176,400)	21,015,280
OPERATION AND MAINTENANCE, NAVY	26,961,382	(373,420)	26,587,962
OPERATION AND MAINTENANCE, MARINE CORPS	2,892,314	5,800	2,898,114
OPERATION AND MAINTENANCE, AIR FORCE	26,146,770	(335,308)	25,811,462
OPERATION AND MAINTENANCE, DEFENSE-WIDE	12,518,631	(596,500)	11,922,131
OPERATION AND MAINTENANCE, ARMY RESERVE	1,787,246	27,000	1,814,246
OPERATION AND MAINTENANCE, NAVY RESERVE	1,003,690	-	1,003,690
OPERATION AND MAINTENANCE, MARINE CORPS RESERVE	144,023	-	144,023
OPERATION AND MAINTENANCE, AIR FORCE RESERVE	2,029,866	(12,000)	2,017,866
OPERATION AND MAINTENANCE, ARMY NATIONAL GUARD	3,677,359	28,000	3,705,359
OPEATIONS AND MAINTENANCE, AIR NATIONAL GUARD	3,867,361	100,000	3,967,361
ENVIRONMENTAL RESTORATION, ARMY	389,800	-	389,800
ENVIRONMENTAL RESTORATION, NAVY	257,517	-	257,517
ENVIRONMENTAL RESTORATION, AIR FORCE	385,437	-	385,437
ENVIRONMENTAL RESTORATION, DEFENSE-WIDE	23,492	-	23,492
ENVIRONMENTAL RESTORATION, FORMERLY USED DEFENSE SITES	190,255	-	190,255
DRUG INTERDICTION AND COUNTER-DRUG ACTIVITIES	820,381	-	820,381
OVERSEAS CONTINGENCIES	2,844,226	-	2,844,226
PENTAGON RENOVATION	-		-
OFFICE OF THE INSPECTOR GENERAL	152,021	-	152,021
UNITED STATES COURT OF APPEALS FOR THE ARMED FORCES	9,096	-	9,096
OVERSEAS HUMANITARIAN, DISASTER, AND CIVIC AFFAIRS	49,700	-	49,700
SUPPORT OF INTERNATIONAL SPORTING COMPETITIONS	15,800		15,800
PAYMENT TO KAHO'OLAWE ISLAND	25,000	-	25,000

TITLE III - OPERATION AND MAINTENANCE

(Dollars in Thousands)

ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
DEFENSE HEALTH PROGRAM	17,565,750	5,000	17,570,750
COOPERATIVE THREAT REDUCTION	403,000	-	403,000
TOTAL OPERATION & MAINTENANCE	**125,351,797**	**(1,327,828)**	**124,023,969**
DEFENSE WORKING CAPITAL FUNDS	1,951,986	-	1,951,986
NATIONAL DEFENSE SEALIFT FUND	506,408	(98,700)	407,708
TOTAL WORKING CAPTIAL FUNDS	**2,458,394**	**(98,700)**	**2,359,694**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	OPERATION AND MAINTENANCE, ARMY			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	LAND FORCES	**3,303,009**	**0**	**3,303,009**
1	DIVISIONS	1,171,981		1,171,981
2	CORPS COMBAT FORCES	341,802		341,802
3	CORPS SUPPORT FORCES	315,109		315,109
4	ECHELON ABOVE CORPS SUPPORT FORCES	476,280		476,280
5	LAND FORCES OPERATIONS SUPPORT	997,837		997,837
	LAND FORCES READINESS	**2,410,691**	**0**	**2,410,691**
6	FORCE READINESS OPERATIONS SUPPORT	1,132,933		1,132,933
7	LAND FORCES SYSTEMS READINESS	467,197		467,197
8	LAND FORCES DEPOT MAINTENANCE	810,561		810,561
	LAND FORCES READINESS SUPPORT	**4,554,852**	**0**	**4,554,852**
9	BASE OPERATIONS SUPPORT	2,799,321		2,799,321
10	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION (OPERATING FORCES)	1,178,502		1,178,502
11	MANAGEMENT & OPERATIONAL HEADQUARTERS	234,907		234,907
12	UNIFIED COMMANDS	77,907		77,907
13	MISCELLANEOUS ACTIVITIES	264,215		264,215
	TOTAL, BA 01: OPERATING FORCES	**10,268,552**	**0**	**10,268,552**
	BUDGET ACTIVITY 02: MOBILIZATION			

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	MOBILITY OPERATIONS	**581,884**	**0**	**581,884**
14	STRATEGIC MOBILIZATION	385,289		385,289
15	ARMY PREPOSITIONED STOCKS	133,675		133,675
16	INDUSTRIAL PREPAREDNESS	46,442		46,442
17	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION (MOBILITY OPERATIONS)	16,478		16,478
	TOTAL, BA 02: MOBILIZATION	**581,884**	**0**	**581,884**
	BUDGET ACTIVITY 03: TRAINING AND RECRUITING			
	ACCESSION TRAINING	**439,240**	**0**	**439,240**
18	OFFICER ACQUISITION	79,842		79,842
19	RECRUIT TRAINING	17,265		17,265
20	ONE STATION UNIT TRAINING	20,485		20,485
21	SENIOR RESERVE OFFICERS' TRAINING CORPS	183,376		183,376
22	BASE OPERATIONS SUPPORT (ACCESSION TRAINING)	80,840		80,840
23	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION (ACCESSION TRAINING)	57,432		57,432
	BASIC SKILL/ ADVANCE TRAINING	**2,564,753**	**0**	**2,564,753**
24	SPECIALIZED SKILL TRAINING	261,446		261,446
25	FLIGHT TRAINING	403,105		403,105
26	PROFESSIONAL DEVELOPMENT EDUCATION	114,373		114,373
27	TRAINING SUPPORT	485,815		485,815
28	BASE OPERATIONS SUPPORT (BASIC SKILL/ADVANCED TRAINING)	898,129		898,129
29	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION (BASIC SKILL/ADV TRAINING)	401,885		401,885

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	RECRUITING/OTHER TRAINING	1,094,314	0	1,094,314
30	RECRUITING AND ADVERTISING	442,612		442,612
31	EXAMINING	78,260		78,260
32	OFF-DUTY AND VOLUNTARY EDUCATION	142,515		142,515
33	CIVILIAN EDUCATION AND TRAINING	82,563		82,563
34	JUNIOR RESERVE OFFICERS' TRAINING CORPS	88,873		88,873
35	BASE OPERATIONS SUPPORT (RECRUIT/OTHER TRAINING)	259,491		259,491
	TOTAL, BA 03: TRAINING AND RECRUITING	**4,098,307**	**0**	**4,098,307**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	SECURITY PROGRAMS	479,506	0	479,506
36	SECURITY PROGRAMS	479,506		479,506
	LOGISTICS OPERATIONS	1,899,844	(2,640)	1,897,204
37	SERVICEWIDE TRANSPORTATION	517,218	(21,000)	496,218
38	CENTRAL SUPPLY ACTIVITIES	454,682		454,682
39	LOGISTICS SUPPORT ACTIVITIES	570,911		570,911
	MAINTENANCE AIT/RFID		9,000	9,000
	REPLACEMENT CONTAINERS, FT. DRUM		1,000	1,000
	ELECTRONIC MAINTENANCE & POINT-TO-POINT WIRING		4,000	4,000
	WAGE GRADE EMPLOYEES		4,360	4,360
40	AMMUNITION MANAGEMENT	357,033		357,033
	SERVICEWIDE SUPPORT	3,628,431	(80,000)	3,548,431
41	ADMINISTRATION	536,030	(30,000)	506,030

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
41	SERVICEWIDE COMMUNICATIONS	532,013	(12,600)	519,413
42	MANPOWER MANAGEMENT	160,159	(6,400)	153,759
43	OTHER PERSONNEL SUPPORT	175,429		175,429
44	OTHER SERVICE SUPPORT	615,653	(11,800)	603,853
45	ARMY CLAIMS	112,947		112,947
46	REAL ESTATE MANAGEMENT	51,431		51,431
47	BASE OPERATIONS SUPPORT (SERVICEWIDE SUPPORT)	1,167,160	(19,200)	1,147,960
48	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION (SERVICEWIDE SUPPORT)	277,609		277,609
	SUPPORT OF OTHER NATIONS	**235,156**	**(47,000)**	**188,156**
500	INTERNATIONAL MILITARY HEADQUARTERS	180,812	(47,000)	133,812
510	MISC. SUPPORT OF OTHER NATIONS	54,344		54,344
51	EXPANSION OF NATO			
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**6,242,937**	**(129,640)**	**6,113,297**
	UNDISTRIBUTED			
	REDUCTION IN STRATEGIC SOURCING (A-76 STUDIES)		(8,360)	(8,360)
	M-GATORS		6,600	6,600
	INFORMATION TECHNOLOGY SYSTEM, ARMY		(20,000)	(20,000)
	CONSULTANTS, ARMY		(25,000)	(25,000)
	TOTAL, UNDISTRIBUTED		**(46,760)**	**(46,760)**
	TOTAL OPERATION AND MAINTENANCE, ARMY	**21,191,680**	**(176,400)**	**21,015,280**
	OPERATION AND MAINTENANCE, NAVY			

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	BUDGET ACTIVITY 01: OPERATING FORCES			
	AIR OPERATIONS	**5,232,152**	**0**	**5,232,152**
1	MISSION AND OTHER FLIGHT OPERATIONS	3,206,849		3,206,849
2	FLEET AIR TRAINING	950,969		950,969
3	INTERMEDIATE MAINTENANCE	62,487		62,487
4	AIR OPERATIONS AND SAFETY SUPPORT	103,355		103,355
5	AIRCRAFT DEPOT MAINTENANCE	854,298		854,298
6	AIRCRAFT DEPOT OPERATIONS SUPPORT	54,194		54,194
	SHIP OPERATIONS	**7,496,086**	**0**	**7,496,086**
7	MISSION AND OTHER SHIP OPERATIONS	2,315,172		2,315,172
8	SHIP OPERATIONAL SUPPORT AND TRAINING	545,279		545,279
9	INTERMEDIATE MAINTENANCE	387,282		387,282
10	SHIP DEPOT MAINTENANCE	2,917,829		2,917,829
11	SHIP DEPOT OPERATIONS SUPPORT	1,330,524		1,330,524
	COMBAT OPERATIONS/SUPPORT	**1,798,072**	**0**	**1,798,072**
12	COMBAT COMMUNICATIONS	384,534		384,534
13	ELECTRONIC WARFARE	15,466		15,466
14	SPACE SYSTEMS & SURVEILLANCE	182,165		182,165
15	WARFARE TACTICS	163,864		163,864
16	OPERATIONAL METEOROLOGY & OCEANOGRAPHY	258,051		258,051
17	COMBAT SUPPORT FORCES	618,874		618,874
18	EQUIPMENT MAINTENANCE	173,381		173,381

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
19	DEPOT OPERATIONS SUPPORT	1,737		1,737
	WEAPONS SUPPORT	**1,381,683**	**0**	**1,381,683**
20	CRUISE MISSILE	124,342		124,342
21	FLEET BALLISTIC MISSILE	812,743		812,743
22	IN-SERVICE WEAPONS SYSTEMS SUPPORT	47,762		47,762
23	WEAPONS MAINTENANCE	396,836		396,836
	WORKING CAPITAL FUND SUPPORT	**1,421**	**0**	**1,421**
24	NWCF SUPPORT	1,421		1,421
	BASE SUPPORT	**3,591,983**	**0**	**3,591,983**
25	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	1,019,891		1,019,891
26	BASE SUPPORT	2,572,092		2,572,092
	TOTAL, BA 01: OPERATING FORCES	**19,501,397**	**0**	**19,501,397**
	BUDGET ACTIVITY 02: MOBILIZATION			
	READY RESERVE AND PREPOSITIONING FORCES	**506,394**	**0**	**506,394**
27	SHIP PREPOSITIONING AND SURGE	506,394		506,394
	ACTIVATIONS/INACTIVATIONS	**267,155**	**0**	**267,155**
28	AIRCRAFT ACTIVATIONS/INACTIVATIONS	5,506		5,506
29	SHIP ACTIVATIONS/INACTIVATIONS	261,649		261,649

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	MOBILIZATION PREPAREDNESS	**42,470**	**0**	**42,470**
30	FLEET HOSPITAL PROGRAM	23,803		23,803
31	INDUSTRIAL READINESS	1,177		1,177
32	COAST GUARD SUPPORT	17,490		17,490
	TOTAL, BA 02: MOBILIZATION	**816,019**	**0**	**816,019**
	BUDGET ACTIVITY 03: TRAINING AND RECRUITING			
	ACCESSION TRAINING	**182,831**	**0**	**182,831**
33	OFFICER ACQUISITION	96,581		96,581
34	RECRUIT TRAINING	6,724		6,724
35	RESERVE OFFICERS TRAINING CORPS	79,526		79,526
	BASIC SKILLS AND ADVANCED TRAINING	**977,690**	**2,000**	**979,690**
36	SPECIALIZED SKILL TRAINING	306,012		306,012
37	FLIGHT TRAINING	367,343		367,343
38	PROFESSIONAL DEVELOPMENT EDUCATION	111,404		113,404
	Aviation Depot Apprenticeship Program		2,000	
39	TRAINING SUPPORT	192,931		192,931
	RECRUITING, AND OTHER TRAINING AND EDUCATION	**428,948**	**0**	**428,948**
40	RECRUITING AND ADVERTISING	238,727		238,727
41	OFF-DUTY AND VOLUNTARY EDUCATION	97,957		97,957
42	CIVILIAN EDUCATION AND TRAINING	59,745		59,745
43	JUNIOR ROTC	32,519		32,519

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	BASE SUPPORT	**561,364**	**0**	**561,364**
44	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	195,939		195,939
45	BASE SUPPORT	365,425		365,425
	TOTAL, BA 03: TRAINING AND RECRUITING	**2,150,833**	**2,000**	**2,152,833**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	SERVICEWIDE SUPPORT	**1,702,647**	**(40,000)**	**1,662,647**
46	ADMINISTRATION	692,748	(40,000)	652,748
47	EXTERNAL RELATIONS	4,131		4,131
48	CIVILIAN MANPOWER & PERSONNEL MGT	111,789		111,789
49	MILITARY MANPOWER & PERSONNEL MGT	94,896		94,896
50	OTHER PERSONNEL SUPPORT	195,729		195,729
51	SERVICEWIDE COMMUNICATIONS	603,354		603,354
52	MEDICAL ACTIVITIES	0		
	LOGISTICS OPERATIONS AND TECHNICAL SUPPORT	**1,801,745**	**(49,600)**	**1,752,145**
53	SERVICEWIDE TRANSPORTATION	185,483		185,483
54	ENVIRONMENTAL PROGRAMS	0		0
55	PLANNING, ENGINEERING & DESIGN	343,754	(6,600)	337,154
56	ACQUISITION AND PROGRAM MANAGEMENT	723,156	(43,000)	680,156
57	AIR SYSTEMS SUPPORT	400,955		400,955
58	HULL, MECHANICAL & ELECTRICAL SUPPORT	52,908		52,908
59	COMBAT/WEAPONS SYSTEMS	40,850		40,850
60	SPACE & ELECTRONIC WARFARE SYSTEMS	54,639		54,639

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	SECURITY PROGRAMS	**673,912**	**0**	**673,912**
61	SECURITY PROGRAMS	673,912		673,912
	SUPPORT OF OTHER NATIONS	**9,994**	**0**	**9,994**
62	INTERNATIONAL HDQTRS & AGENCIES	9,994		9,994
	BASE SUPPORT	**304,835**	**2,000**	**306,835**
63	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	102,588		102,588
64	BASE SUPPORT	202,247		204,247
	ATC Corrosion Control		2,000	
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**4,493,133**	**(87,600)**	**4,405,533**
	UNDISTRIBUTED			
	REDUCTION IN STRATEGIC SOURCING (A-76 STUDIES)		(53,560)	(53,560)
	NMCI REDUCTION		(125,000)	(125,000)
	INFORMATION THCHNOLOGY CENTER		(35,000)	(35,000)
	ENTERPRISE RESOURCE PLANNING		(33,000)	(33,000)
	WAGE GRADE EMPLOYEES		3,560	3,560
	INFORMATION TECHNOLOGY SYSTEM, NAVY		(20,000)	(20,000)
	CONSULTANTS, NAVY		(25,000)	(25,000)
	UNITED THROUGH READING PROGRAM		180	180
	TOTAL, UNDISTRIBUTED		**(287,820)**	**(287,820)**
	TOTAL OPERATION AND MAINTENANCE, NAVY	**26,961,382**	**(373,420)**	**26,587,962**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	OPERATION AND MAINTENANCE, MARINE CORPS			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	EXPEDITIONARY FORCES	2,031,699	0	2,031,699
1	OPERATIONAL FORCES	459,739		459,739
2	FIELD LOGISTICS	257,952		257,952
3	DEPOT MAINTENANCE	107,849		107,849
4	BASE SUPPORT	842,631		842,631
5	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	363,528		363,528
	USMC PREPOSITIONING	88,675	0	88,675
6	MARITIME PREPOSITIONING	83,506		83,506
7	NORWAY PREPOSITIONING	5,169		5,169
	TOTAL, BA 01: OPERATING FORCES	2,120,374	0	2,120,374
	BUDGET ACTIVITY 03: TRAINING AND RECRUITING			
	ACCESSION TRAINING	95,710	0	95,710
8	RECRUIT TRAINING	11,053		11,053
9	OFFICER ACQUISITION	317		317
10	BASE SUPPORT	62,055		62,055
11	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	22,285		22,285
	BASIC SKILLS AND ADVANCED TRAINING	229,287	0	229,287

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
12	SPECIALIZED SKILLS TRAINING	32,280		32,280
13	FLIGHT TRAINING	170		170
14	PROFESSIONAL DEVELOPMENT EDUCATION	8,553		8,553
15	TRAINING SUPPORT	95,066		95,066
16	BASE SUPPORT	65,140		65,140
17	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	28,078		28,078
	RECRUITING AND OTHER TRAINING EDUCATION	**158,667**	**0**	**158,667**
18	RECRUITING AND ADVERTISING	109,012		109,012
19	OFF-DUTY AND VOLUNTARY EDUCATION	21,994		21,994
20	JUNIOR ROTC	12,808		12,808
21	BASE SUPPORT	12,209		12,209
22	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	2,644		2,644
	TOTAL, BA 03: TRAINING AND RECRUITING	**483,664**	**0**	**483,664**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	SERVICEWIDE SUPPORT	**288,276**	**5,800**	**294,076**
23	SPECIAL SUPPORT	209,125		209,125
24	SERVICEWIDE TRANSPORTATION	31,118		31,118
25	ADMINISTRATION	29,895		29,895
26	BASE SUPPORT	16,335		16,335
27	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	1,803		1,803
	FULL SPECTRUM BATTLE EQUIPMENT		6,800	6,800
	REDUCTION IN STRATEGIC SOURCING (A-76 STUDIES)		(1,000)	(1,000)

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**288,276**	**5,800**	**294,076**
	TOTAL OPERATION AND MAINTENANCE, MARINE CORPS	**2,892,314**	**5,800**	**2,898,114**
	OPERATION AND MAINTENANCE, AIR FORCE			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	AIR OPERATIONS	**10,800,750**	**0**	**10,800,750**
1	PRIMARY COMBAT FORCES	3,247,230		3,247,230
2	PRIMARY COMBAT WEAPONS	325,948		325,948
3	COMBAT ENHANCEMENT FORCES	234,838		234,838
4	AIR OPERATIONS TRAINING	1,227,042		1,227,042
5	DEPOT MAINTENANCE	1,361,089		1,361,089
6	COMBAT COMMUNICATIONS	1,356,865		1,356,865
7	BASE SUPPORT	2,212,409		2,212,409
8	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	835,329		835,329
	COMBAT RELATED OPERATIONS	**1,860,599**	**0**	**1,860,599**
9	GLOBAL C3I AND EARLY WARNING	843,775		843,775
10	NAVIGATION/WEATHER SUPPORT	170,965		170,965
11	OTHER COMBAT OPS SUPPORT PROGRAMS	404,665		404,665
12	JCS EXERCISES	37,839		37,839
13	MANAGEMENT/OPERATIONAL HEADQUARTERS	174,580		174,580
14	TACTICAL INTEL AND OTHER SPECIAL ACTIVITIES	228,775		228,775

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	SPACE OPERATIONS	1,415,281	0	1,415,281
15	LAUNCH FACILITIES	258,792		258,792
16	LAUNCH VEHICLES	147,510		147,510
17	SPACE CONTROL SYSTEMS	251,738		251,738
18	SATELLITE SYSTEMS	53,780		53,780
19	OTHER SPACE OPERATIONS	146,175		146,175
20	BASE SUPPORT	425,643		425,643
21	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	131,643		131,643
	TOTAL, BA 01: OPERATING FORCES	**14,076,630**	**0**	**14,076,630**
	BUDGET ACTIVITY 02: MOBILIZATION			
	MOBILITY OPERATIONS	3,618,048	0	3,618,048
22	AIRLIFT OPERATIONS	2,056,383		2,056,383
23	AIRLIFT OPERATIONS C3I	37,706		37,706
24	MOBILIZATION PREPAREDNESS	169,421		169,421
25	DEPOT MAINTENANCE	296,014		296,014
26	PAYMENTS TO TRANSPORTATION BUSINESS AREA	473,243		473,243
27	BASE SUPPORT	487,654		487,654
28	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	97,627		97,627
	TOTAL, BA 02: MOBILIZATION	**3,618,048**	**0**	**3,618,048**
	BUDGET ACTIVITY 03: TRAINING AND RECRUITING			
	ACCESSION TRAINING	267,644	0	267,644

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
29	OFFICER ACQUISITION	66,566		66,566
30	RECRUIT TRAINING	5,943		5,943
31	RESERVE OFFICER TRAINING CORPS (ROTC)	64,289		64,289
32	BASE SUPPORT (ACADEMIES ONLY)	70,412		70,412
33	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION (ACADEMIES ONLY)	60,434		60,434
	BASIC SKILLS AND ADVANCED TRAINING	1,873,452	0	1,873,452
34	SPECIALIZED SKILL TRAINING	310,216		310,216
35	FLIGHT TRAINING	657,993		657,993
36	PROFESSIONAL DEVELOPMENT EDUCATION	115,049		115,049
37	TRAINING SUPPORT	83,778		83,778
38	DEPOT MAINTENANCE	14,748		14,748
39	BASE SUPPORT (OTHER TRAINING)	543,005		543,005
40	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION (OTHER TRAINING)	148,663		148,663
	RECRUITING, AND OTHER TRAINING AND EDUCATION	358,653	0	358,653
41	RECRUITING AND ADVERTISING	139,189		139,189
42	EXAMINING	3,640		3,640
43	OFF DUTY AND VOLUNTARY EDUCATION	91,757		91,757
44	CIVILIAN EDUCATION AND TRAINING	82,238		82,238
45	JUNIOR ROTC	41,829		41,829
	TOTAL, BA 03: TRAINING AND RECRUITING	**2,499,749**	**0**	**2,499,749**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	LOGISTICS OPERATIONS	3,366,144	(41,000)	3,325,144

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
46	LOGISTICS OPERATIONS	1,052,171		1,052,171
47	TECHNICAL SUPPORT ACTIVITIES	404,678		404,678
48	SERVICEWIDE TRANSPORTATION	249,055	(41,000)	208,055
49	DEPOT MAINTENANCE	305,525		305,525
50	BASE SUPPORT	1,115,273		1,115,273
51	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	239,442		239,442
	SERVICEWIDE ACTIVITIES	**1,741,124**	**(122,400)**	**1,618,724**
52	ADMINISTRATION	213,767	(53,000)	160,767
53	SERVICEWIDE COMMUNICATIONS	342,864	(40,000)	302,864
54	PERSONNEL PROGRAMS	164,480	(18,000)	146,480
55	RESCUE AND RECOVERY SERVICES	72,375		72,375
56	ARMS CONTROL	34,742		34,742
57	OTHER SERVICEWIDE ACTIVITIES	602,561	(11,400)	591,161
58	OTHER PERSONNEL SUPPORT	36,984		36,984
59	CIVIL AIR PATROL CORPORATION	18,303		18,303
60	BASE SUPPORT	233,256		233,256
61	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	21,792		21,792
	SECURITY PROGRAMS	**824,906**	**(62,908)**	**761,998**
62	SECURITY PROGRAMS	824,906	(62,908)	761,998
	SUPPORT TO OTHER NATIONS	**20,169**	**(8,000)**	**12,169**
63	INTERNATIONAL SUPPORT	20,169	(8,000)	12,169
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**5,952,343**	**(234,308)**	**5,718,035**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	UNDISTRIBUTED			
	ACTIVE DUTY MILITARY PERSONNEL UNDEREXECUTION SUPPORT		(75,000)	(75,000)
	REDUCTION IN STRATEGIC SOURCING (A-76 STUDIES)		(8,320)	(8,320)
	WAGE GRADE EMPLOYEES		4,320	4,320
	SPARES INFORMATION SYSTEM		7,000	7,000
	AGING PROPULSION SYSTEM LIFE EXTENSION		10,000	10,000
	SCOT LIFE SUPPORT SYSTEM		6,000	6,000
	INFORMATION TECHNOLOGY SYSTEM, AIR FORCE		(20,000)	(20,000)
	CONSULTANTS, AIR FORCE		(25,000)	(25,000)
	TOTAL, UNDISTRIBUTED		**(101,000)**	**(101,000)**
	TOTAL OPERATION AND MAINTENANCE, AIR FORCE	**26,146,770**	**(335,308)**	**25,811,462**
	OPERATION AND MAINTENANCE, DEFENSE-WIDE			
	BUDGET ACTIVITY 1: OPERATING FORCES			
1	JOINT CHIEFS OF STAFF	373,832		373,832
2	SPECIAL OPERATIONS COMMAND	1,404,797		1,404,797
3	PROBLEM DISBURSEMENTS			0
	TOTAL, BUDGET ACTIVITY 1:	**1,778,629**	**0**	**1,778,629**
	BUDGET ACTIVITY 2: MOBILIZATION			
5	DEFENSE LOGISTICS AGENCY	44,691		44,691
	TOTAL, BUDGET ACTIVITY 2:	**44,691**	**0**	**44,691**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	BUDGET ACTIVITY 3: TRAINING AND RECRUITING			
6	AMERICAN FORCES INFORMATION SERVICE	11,135		11,135
7	DEFENSE ACQUISITION UNIVERSITY	101,196		101,196
8	DEFENSE CONTRACT AUDIT AGENCY	3,833		3,833
9	DEFENSE FINANCE AND ACCOUNTING SERVICE	8,900		8,900
10	DEFENSE HUMAN RESOURCES ACTIVITY	86,190		86,190
11	DEFENSE SECURITY SERVICE	7,590		7,590
12	DEFENSE THREAT REDUCTION AGENCY	1,246		1,246
13	SPECIAL OPERATIONS COMMAND	53,573		53,573
	TOTAL, BUDGET ACTIVITY 3:	**273,663**	**0**	**273,663**
	BUDGET ACTIVITY 4: ADMIN & SERVICEWIDE ACTIVITIES			
14	AMERICAN FORCES INFORMATION SERVICE	96,637		96,637
15	CIVIL MILITARY PROGRAMS	94,596		94,596
16	CLASSIFIED PROGRAMS	4,718,802		4,718,802
17	DEFENSE CONTRACT AUDIT AGENCY	354,348	(7,400)	346,948
18	DEFENSE CONTRACT MANAGEMENT AGENCY	948,932	(6,900)	942,032
19	DEFENSE FINANCE AND ACCOUNTING SERVICE	1,492		1,492
20	DEFENSE HUMAN RESOURCES ACTIVITY	198,157	(24,000)	174,157
21	DEFENSE INFORMATION SYSTEMS AGENCY	803,122	(41,000)	762,122
22	DEFENSE LOGISTICS AGENCY	191,990		208,490
	Defense Wide, Other Logistics Programs		(3,500)	
	CTMA Depot-Level Activities		20,000	
23	DEFENSE LEGAL SERVICES AGENCY	12,075		12,075
24	DEPARTMENT OF DEFENSE DEPENDENTS EDUCATION	1,465,814		1,465,814

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
25	DEFENSE POW /MISSING PERSONS OFFICE	15,211		16,211
	Travel for Families of Korean/Cold War Missing		1,000	
26	DEFENSE SECURITY COOPERATION AGENCY	65,211	(7,100)	58,111
27	DEFENSE SECURITY SERVICE	87,118		87,118
28	DEFENSE THREAT REDUCTION AGENCY	258,597	(4,900)	253,697
29	OFFICE OF ECONOMIC ADJUSTMENT	16,972		16,972
30	OFFICE OF THE SECRETARY OF DEFENSE	437,141	(19,400)	451,001
	Impact Aid		30,000	
	Legacy		2,000	
	Wage Grade Employees		1,260	
31	SPECIAL OPERATIONS COMMAND	46,891		46,891
32	SPECIAL ACTIVITIES	115,000		115,000
33	JOINT CHIEFS OF STAFF	169,340	(9,500)	159,840
34	WASHINGTON HEADQUARTERS SERVICES	324,202	(44,000)	280,202
	TOTAL, BUDGET ACTIVITY 4:	**10,421,648**	**(113,440)**	**10,308,208**
	UNDISTRIBUTED			
	REDUCTION IN STRATEGIC SOURCING (A-76 STUDIES)		(5,260)	(5,260)
	FOREIGN CURRENCY ACCOUNT		(104,800)	(104,800)
	INFORMATION TECHNOLOGY SYSTEM, DEFENSE WIDE		(20,000)	(20,000)
	CONSULTANTS, DEFENSE WIDE		(25,000)	(25,000)
	ELECTRONIC VOTING DEMONSTRATION PROJECT		2,000	2,000
	UNREALIZED SAVINGS		(330,000)	(330,000)
	TOTAL, UNDISTRIBUTED		**(483,060)**	**(483,060)**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	TOTAL OPERATION AND MAINTENANCE, DEFENSE-WIDE	**12,518,631**	**(596,500)**	**11,922,131**
	OPERATION AND MAINTENANCE, ARMY RESERVE			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	LAND FORCES	**751,727**	**0**	**751,727**
1	DIVISION FORCES	14,382		14,382
2	CORPS COMBAT FORCES	24,571		24,571
3	CORPS SUPPORT FORCES	232,891		232,891
4	ECHELON ABOVE CORPS FORCES	115,183		115,183
5	LAND FORCES OPERATIONS SUPPORT	364,700		364,700
	LAND FORCES READINESS	**260,480**	**27,000**	**287,480**
6	FORCES READINESS OPERATIONS SUPPORT	139,280		166,280
	Controlled Humidity Preservation		25,000	
	Cold Weather Gear (ECWCS)		2,000	
7	LAND FORCES SYSTEM READINESS	60,481		60,481
8	DEPOT MAINTENANCE	60,719		60,719
	LAND FORCES READINESS SUPPORT	**569,994**	**0**	**569,994**
9	BASE SUPPORT	406,137		406,137
10	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	161,321		161,321
11	ADDITIONAL ACTIVITIES	2,536		2,536
	TOTAL, BA 01: OPERATING FORCES	**1,582,201**	**27,000**	**1,609,201**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	ADMINISTRATION AND SERVICEWIDE ACTIVITIES	**205,045**	**0**	**205,045**
12	ADMINISTRATION	39,256		39,256
13	SERVICEWIDE COMMUNICATIONS	30,865		30,865
14	PERSONNEL/FINANCIAL ADMINISTRATION (MANPOWER MANAGEMENT)	44,201		44,201
15	RECRUITING AND ADVERTISING	90,723		90,723
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**205,045**	**0**	**205,045**
	TOTAL OPERATION AND MAINTENANCE, ARMY RESERVE	**1,787,246**	**27,000**	**1,814,246**
	OPERATION AND MAINTENANCE, NAVY RESERVE			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	RESERVE AIR OPERATIONS	**541,351**	**0**	**541,351**
1	MISSION AND OTHER FLIGHT OPERATIONS	405,515		405,515
3	INTERMEDIATE MAINTENANCE	17,223		17,223
4	AIR OPERATION AND SAFETY SUPPORT	1,961		1,961
5	AIRCRAFT DEPOT MAINTENANCE	116,328		116,328
6	AIRCRAFT DEPOT OPS SUPPORT	324		324
	RESERVE SHIP OPERATIONS	**128,758**	**0**	**128,758**
7	MISSION AND OTHER SHIP OPERATIONS	46,572		46,572
8	SHIP OPERATIONAL SUPPORT AND TRAINING	623		623
9	INTERMEDIATE MAINTENANCE	7,053		7,053

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
10	SHIP DEPOT MAINTENANCE	71,858		71,858
11	SHIP DEPOT OPERATIONS SUPPORT	2,652		2,652
	RESERVE COMBAT OPERATIONS SUPPORT	**37,579**	**0**	**37,579**
12	COMBAT SUPPORT FORCES	37,579		37,579
	RESERVE WEAPONS SUPPORT	**5,531**	**0**	**5,531**
13	WEAPONS MAINTENANCE	5,531		5,531
	BASE SUPPORT	**199,148**	**0**	**199,148**
14	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	51,102		51,102
15	BASE SUPPORT	148,046		148,046
	TOTAL, BA 01: OPERATING FORCES	**912,367**	**0**	**912,367**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	ADMINISTRATION AND SERVICEWIDE ACTIVITIES	**91,323**	**0**	**91,323**
16	ADMINISTRATION	11,131		11,131
17	CIVILIAN MANPOWER & PERSONNEL	1,934		1,934
18	MILITARY MANPOWER & PERSONNEL	34,625		34,625
19	SERVICEWIDE COMMUNICATIONS	37,355		37,355
20	COMBAT/WEAPONS SYSTEM	5,606		5,606
21	OTHER SERVICEWIDE SUPPORT	672		672
	CANCELLED ACCOUNTS	**0**	**0**	**0**
22	CANCELLED ACCOUNTS	0		0

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**91,323**	**0**	**91,323**
	TOTAL OPERATION AND MAINTENANCE, NAVY RESERVE	**1,003,690**	**0**	**1,003,690**
	OPERATION AND MAINTENANCE, MARINE CORPS RESERVE			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	MISSION FORCES	**112,463**	**0**	**112,463**
1	OPERATING FORCES	50,898		50,898
2	DEPOT MAINTENANCE	7,784		7,784
3	BASE SUPPORT	25,610		25,610
4	TRAINING SUPPORT	18,144		18,144
5	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	10,027		10,027
	TOTAL, BA 01: OPERATING FORCES	**112,463**	**0**	**112,463**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	ADMINISTRATION AND SERVICEWIDE ACTIVITIES	**31,560**	**0**	**31,560**
6	SPECIAL SUPPORT	8,596		8,596
7	SERVICEWIDE TRANSPORTATION	491		491
8	ADMINISTRATION	8,632		8,632
9	BASE SUPPORT	5,719		5,719
10	RECRUITING AND ADVERTISING	8,122		8,122

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**31,560**	**0**	**31,560**
	TOTAL OPERATION AND MAINTENANCE, MARINE CORPS RESERVE	**144,023**	**0**	**144,023**
	OPERATION AND MAINTENANCE, AIR FORCE RESERVE			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	AIR OPERATIONS	**1,934,302**	**0**	**1,934,302**
1	PRIMARY COMBAT FORCES	1,260,511		1,260,511
2	MISSION SUPPORT OPERATIONS	61,637		61,637
3	DEPOT MAINTENANCE	328,507		328,507
4	BASE SUPPORT	38,521		38,521
5	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	245,126		245,126
	TOTAL, BA 01: OPERATING FORCES	**1,934,302**	**0**	**1,934,302**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	ADMINISTRATION AND SERVICEWIDE ACTIVITIES	**95,564**	**0**	**95,564**
6	ADMINISTRATION	52,083		52,083
7	MILITARY MANPOWER AND PERSONNEL MANAGEMENT	11,848		11,848
8	RECRUITING AND ADVERTISING	24,466		24,466
9	OTHER PERSONNEL SUPPORT	6,547		6,547
10	AUDIOVISUAL	620		620

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**95,564**	**0**	**95,564**
	UNDISTRIBUTED			
	RESERVE MILITARY PERSONNEL UNDEREXECUTION SUPPORT		(12,000)	(12,000)
	TOTAL, UNDISTRIBUTED		**(12,000)**	**(12,000)**
	TOTAL OPERATION AND MAINTENANCE, AIR FORCE RESERVE	**2,029,866**	**(12,000)**	**2,017,866**
	OPERATION AND MAINTENNCE, ARMY NATIONAL GUARD			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	LAND FORCES	**1,817,193**	**0**	**1,817,193**
1	DIVISIONS	472,117		472,117
2	CORPS COMBAT FORCES	565,861		565,861
3	CORPS SUPPORT FORCES	280,054		280,054
4	ECHELON ABOVE CORPS FORCES	476,828		476,828
5	LAND FORCES OPERATIONS SUPPORT	22,333		22,333
	LAND FORCES READINESS	**308,487**	**0**	**308,487**
6	FORCE READINESS OPERATIONS SUPPORT	19,354		19,354
7	LAND FORCES SYSTEMS READINESS	95,719		95,719
8	LAND FORCES DEPOT MAINTENANCE	193,414		193,414
	LAND FORCES READINESS SUPPORT	**1,327,787**	**2,000**	**1,329,787**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
9	BASE OPERATIONS SUPPORT	538,487		538,487
10	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	351,768		351,768
11	MANAGEMENT & OPERATIONAL HEADQUARTERS	399,117		399,117
12	MISCELLANEOUS ACTIVITIES	38,415		38,415
	SPECIAL TRAINING		2,000	2,000
	COLD WEATHER GEAR (ECWCS)		6,000	6,000
	TOTAL, BA 01: OPERATING FORCES	**3,453,467**	**8,000**	**3,461,467**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	ADMINISTRATION AND SERVICEWIDE ACTIVITIES	**223,892**	**20,000**	**243,892**
13	STAFF MANAGEMENT	84,106		84,106
14	INFORMATION MANAGEMENT	21,070		21,070
15	PERSONNEL ADMINISTRATION	35,902		35,902
16	RECRUITING AND ADVERTISING	82,814		82,814
	MILITARY TECHNICIANS (DUAL STATUS)		20,000	20,000
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**223,892**	**0**	**223,892**
	TOTAL OPERATION AND MAINTENACE, ARMY NATIONAL GUARD	**3,677,359**	**28,000**	**3,705,359**
	OPERATION AND MAINTENANCE, AIR NATIONAL GUARD			
	BUDGET ACTIVITY 01: OPERATING FORCES			
	AIR OPERATIONS	**3,854,448**	**100,000**	**3,954,448**

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
1	AIRCRAFT OPERATIONS	2,545,143		2,645,143
	Continued B-1B Operations		100,000	
2	MISSION SUPPORT OPERATIONS	348,442		348,442
3	BASE SUPPORT	377,859		377,859
4	FACILITIES SUSTAINMENT, RESTORATION & MODERNIZATION	92,092		92,092
5	DEPOT MAINTENANCE	490,912		490,912
	TOTAL, BA 01: OPERATING FORCES	**3,854,448**	**100,000**	**3,954,448**
	BUDGET ACTIVITY 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES			
	SERVICEWIDE ACTIVITIES	**12,913**	**0**	**12,913**
6	ADMINISTRATION	2,935		2,935
7	RECRUITING AND ADVERTISING	9,978		9,978
	TOTAL, BA 04: ADMINISTRATION & SERVICEWIDE ACTIVITIES	**12,913**	**0**	**12,913**
	TOTAL OPERATION AND MAINTENANCE, AIR NATIONAL GUARD	**3,867,361**	**100,000**	**3,967,361**
	TRANSFER ACCOUNTS			
1	ENVIRONMENTAL RESTORATION, ARMY	389,800		389,800
2	ENVIRONMENTAL RESTORATION, NAVY	257,517		257,517
3	ENVIRONMENTAL RESTORATION, AIR FORCE	385,437		385,437
4	ENVIRONMENTAL RESTORATION, DEFENSE-WIDE	23,492		23,492
5	ENVIRONMENTAL RESTORATION, FORMERLY USED DEFENSE SITES	190,255		190,255
6	DRUG INTERDICTION AND COUNTER-DRUG ACTIVITIES	820,381		820,381
7	OVERSEAS CONTINGENCIES	2,844,226		2,844,226

TITLE III - OPERATION AND MAINTENANCE
(Dollars in Thousands)

LINE	ACCOUNT/BA/AG/SAG	FY 2002 AUTHORIZATION REQUEST	COMMITTEE CHANGE FROM REQUEST	FY 2002 COMMITTEE RECOMMENDATION
8	PENTAGON RENOVATION	0		
	TOTAL, O&M, TRANSFER ACCOUNTS	**4,911,108**	**0**	**4,911,108**
	MISCELLANEOUS			
9	OFFICE OF THE INSPECTOR GENERAL (O&M)	152,021		152,021
10	U.S. COURT OF APPEALS FOR THE ARMED FORCES	9,096		9,096
11	SUPPORT OF INTERNATIONAL SPORTING COMPETITIONS	15,800		15,800
12	OVERSEAS HUMANITARIAN, DISASTER, AND CIVIC AFFAIRS	49,700		49,700
13	PAYMENT TO KAHO'OLAWE ISLAND	25,000		25,000
14	DEFENSE HEALTH PROGRAM (O&M)	17,565,750		17,570,750
15	Travel Expenses for Guardian of Minor Child		5,000	
16	FORMER SOVIET UNION THREAT REDUCTION	403,000		403,000
	TOTAL, MISCELLANEOUS	**18,068,346**	**5,000**	**18,073,346**
	TOTAL OPERATION AND MAINTENANCE TITLE:	**125,351,797**	**(1,327,828)**	**124,023,969**

ITEMS OF SPECIAL INTEREST

BUDGET REQUEST ADJUSTMENTS

The committee recommends the following adjustments to the fiscal year 2002 amended budget request:

[In millions of dollars]

Department of the Army Adjustments:	
Automated Identification Technology (AIT/RFID)	+$9.0
M-Gators	+6.6
Replacement Containers, Fort Drum	+1.0
Electronic Maintenance and Point to Point Wiring	+4.0
Wage Grade Employees	+4.36
BA–4 Administration	−30.0
BA–4 International Military Headquarters	−47.0
BA–4 Servicewide Transportation	−21.0
BA–4 Servicewide Communications	−12.6
BA–4 Manpower Management	−6.4
BA–4 Other Servicewide Support	−11.8
BA–4 Base Operations Support	−19.2
Reduction in Strategic Sourcing (A–76 Studies)	−8.36
Advisory and Assistance Services	−25.0
Information Technology Automated Information System	−20.0
Army Reserve Controlled Humidity Preservation	+25.0
Army Reserve Cold Weather Clothing (ECWCS)	+2.0
Army National Guard Cold Weather Clothing (ECWCS)	+6.0
Army National Guard Special Training	+2.0
Department of the Navy Adjustments:	
BA–3 Depot Apprenticeship Program	+2.0
Wage Grade Employees	+3.56
ATC Corrosion Control	+2.0
BA–4 Administration	−40.0
BA–4 Acquisition and Program Management	−43.0
BA–4 Planning, Engineering and Design	−6.6
Reduction in Strategic Sourcing (A–76 Studies)	−53.56
NMCI Reduction	−125.0
Information Technology Center	−35.0
Enterprise Resource Planning	−33.0
Advisory and Assistance Services	−25.0
Information Technology Automated Information System	−20.0
USMC Full Spectrum Battle Equipment	6.8
USMC Reduction in Strategic sourcing (A–76)	−1.0
Department of the Air Force Adjustments:	
SPARES Information System	+7.0
Aging Propulsion Systems Life Extension	+10.0
SCOT Life Support System	+6.0
Wage Grade Employees	+4.32
BA–4 Administration	−53.0
BA–4 Servicewide Communications	−40.0
BA–4 Servicewide Transportation	−41.0
BA–4 Other Servicewide Activities	−11.4
BA–4 Security Programs	−62.9
BA–4 Personnel Programs	−18.0
BA–4 International Support	−8.0
Military Personnel Underexecution Support	−75.0
Reduction in Strategic Sourcing (A–76 Studies)	−8.32
Advisory and Assistance Services	−25.0
Information Technology Automated Information System	−20.0
Air Force Reserve Military Personnel Underexecution	−12.0
Air National Guard, Continued B–1B Operations	+100.0
Office, Secretary of Defense Adjustments:	
Impact Aid	+30.0
Legacy Program	+2.0
Wage Grade Employees	+1.26
OSD Program Growth	−19.4

Defense-wide Activities Adjustments:	
Washington Headquarters Service	−44.0
Defense Human Resources Activity	−24.0
Defense Contract Audit Agency	−7.4
Defense Contract Management Agency	−6.9
Defense Information Systems Agency	−41.0
Defense Logistics Agency	−3.5
Commercial Technology for Maint. Activities (CTMA)	+20.0
Defense Security Cooperation Agency	−7.1
Defense Threat Reduction Agency	−4.9
BA–4 Joint Chiefs of Staff	−9.5
Information Technology Automated Information System	−20.0
Reductions in Strategic Sourcing (A–76 Studies)	−5.26
Advisory and Assistance Services	−25.0
Unrealized Savings	−330.0

Advisory and Assistance Services

The committee continues to believe that funding for Advisory and Assistance Services is in excess of the needs of the Department of Defense. Therefore, the committee recommends the following decreases for this function:

[In millions of dollars]

Army	$25.0
Navy	25.0
Air Force	25.0
Defense Agencies	25.0

Excess Foreign Currencies Reductions

Since the submission of the budget request, the U.S. dollar has increased in value compared to various foreign currencies. As a result, the committee believes that the budget request is overstated. Therefore, the committee recommends a reduction in this account of $104.8 million to be apportioned to the military services by the Department of Defense.

Strategic Sourcing (A–76)

The committee has expressed for several years concerns over the process by which government positions are analyzed for possible conversion to a contractor position pursuant to Office of Management and Budget Circular A–76. One concern with the process is the cost of the studies. The Secretary of Defense recommended that an additional 3,200 positions be studied in fiscal year 2002 over that which the services planned to study. The Department provided to the defense agencies and military services $16 million or $5,000 for each position to be studied. The committee does not believe it is appropriate to increase the number of positions to be studied. The committee, therefore, recommends those additional 3,200 positions not be studied and the funding for these studies be reduced. In addition, in light of the Department's belief that for each position to be studied the services and agencies require $5,000, the committee is reducing the number of positions the Department of Army and Department of Air Force can study to reflect the funding the services requested to conduct A–76 studies. The number of positions that can be studied in the Department of Navy and by defense agencies is limited to the number of positions identified to be studied in the Department's program budget decision. The com-

mittee recommends the following reductions due to reduced A–76 studies:

[In millions of dollars]

Army	$8.36
Navy	53.56
Air Force	8.32
Marine Corps	1.0
Defense Activities	5.26

OTHER ITEMS OF SPECIAL INTEREST

Corrosion Prevention and Control

The committee understands recent Department of Defense (DOD) studies reveal that corrosion prevention costs roughly $10 billion per year. As an example, the Army's Tank and Automotive Command found that corrosion damage annually costs $850 per truck. The committee is concerned that the cost of damage caused by corrosion to the department's vehicle fleet and facilities needs to be significantly reduced or the military services will continue to shoulder an unneeded economic burden, which will adversely affect readiness and equipment availability and reliability.

The committee continues to monitor with interest the efforts within the military services to reduce the related costs to control corrosion, and is particularly encouraged by the recent increased emphasis on finding ways to cut the cost of maintaining their massive amounts of equipment, facilities and infrastructure. The committee is concerned, however, that the efforts within DOD continues to be disjointed and it appears there is no office within DOD solely responsible to collect, review, validate, and distribute information on proven corrosion prevention methods and products. The absence of leadership on this issue means that no single comprehensive plan exists and adequate program management and funding specifically for the eradication of the problems associated with corrosion is not planned in future budgeting. Moreover, decisions concerning corrosion prevention and control are left to unit commanders, or more likely, to service maintenance personnel. The committee believes that the military services are in need of programmatic and technical leadership if DOD is to reduce its corrosion related costs and the resultant adverse impact on readiness.

The committee is aware of many existing efforts within private industry to perfect products and methods to be used to successfully fight corrosion and infrastructure degradation. The committee is particularly interested in the unique capabilities of Ambient Temperature Cure (ATC) glass coating. These coatings cost little to produce and apply, are environmentally safe, have the potential for enormous savings in cost avoidance in both energy savings and infrastructure degradation, and are particularly beneficial to those units that must perform their assigned missions in a heavy salt environment on or near the sea.

The committee believes that DOD should do more to take advantage of new technologies, such as ATC, and recommends an increase of $2.0 million for the Department of the Navy to a conduct pilot project at Naval Air Station, Jacksonville, Florida utilizing ATC technology. In addition, the committee strongly urges the Sec-

retary of Defense to establish a single office within DOD to coordinate corrosion prevention and control issues with the military services and with the overall responsibility to develop and execute a department wide action plan for how to combat corrosion.

Information Systems

The committee continues to be concerned with the control and oversight the chief information officers (CIOs) of the Department of Defense and the military services are exercising over development and fielding of information systems. The committee believes that CIOs must exercise their authority and promote and endorse joint and interoperable systems that meet validated requirements, but also limit or halt development of systems that do not comply with the requirements of section 811 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398). For example, the committee is concerned that each of the services are developing their own version of the Global Command Support System (GCSS). The committee is equally concerned with the Defense Integrated Military Human Resources System, which has received almost $200 million in funding, yet the requirements for this system are still being developed without even an initial fielding of a system.

Therefore, the committee recommends a reduction in funding for information systems as follows:

[In millions of dollars]

Army	$20.0
Navy	20.0
Air Force	20.0
Defense Agencies	20.0

Enterprise Resource Planning

The committee believes that enterprise resource planning could be a valuable tool to the Department of the Navy. Unfortunately, despite repeated requests by the committee, the Navy did not provide the committee with the basic information required to support this initiative. Therefore, the committee recommends a reduction of $33.0 million in the Navy account.

Environmental Issues

Environmental Restoration Activities

For the sustainable future use of land that contains unexploded ordnance (UXO) and discarded military equipment that has aged, there must be proper site planning, investigation, cleanup, and finally site closeout. The committee recognizes this can be a complex process with difficult technical challenges. Yet, the committee is concerned with the Department of Defense's (DOD) slow pace of progress and level of effort toward restoring and preserving property on Guam, and other areas, where extensive military activities occurred during the various phases of World War II. The committee strongly encourages DOD to be more aggressive in the management and clearance of UXOs and other DOD-related weaponry at former military sites, especially in Guam.

Vernon Hills NIKE Missile Site

The committee is concerned with reports of toxic contamination at a former NIKE missile battery site located in Vernon Hills, Illinois. The committee understands that the Department of the Navy is transferring ownership of the land to the Village of Vernon Hills where the land will be used to provide recreation and athletic facilities, a veterans' memorial, and a storm water retention area. The committee recommends that the Secretary of the Navy review the current land transfer plan and ensure that remediation is completed in accordance with all applicable federal and state laws.

MORALE, WELFARE, AND RECREATION ISSUES

Access to Slot Machines

The committee understands that the Secretary of Defense is preparing the report on the impact of slot machines on military communities overseas required by section 336 of the National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398). The committee intends to review the report carefully and take appropriate action based on the information provided. In the interim, the committee is disturbed to learn of several instances in Germany and Italy where unmonitored slot machines are easily accessible by children. The committee found one case where slot machines were placed in an unobserved hallway in a club located in a military housing area and another instance where several slot machines were located in a snack bar where military high school students ate lunch. The committee does not need the forthcoming report to determine that slot machines should not be accessible by children. The committee therefore directs the Secretary of Defense to review the locations at which slot machines are installed and ensure that no machines are accessible by minors.

Military Exchange Private Label Manufacturers

The committee believes that the three military exchange systems perform a vital mission in bringing an array of products and services to military members and their families serving throughout the world. Part of that mission is providing a touch of home, and is represented by the many brand name products sold by military exchanges. Another part of that mission is savings, which are provided to some degree by private label goods sold by the exchanges. Private label programs are increasing, with Army and Air Force Exchange private label goods manufactured in some 70 factories located in 18 countries and with sales approaching $50.0 million annually. The committee is concerned that the exchanges have no knowledge of worker conditions at these widespread factories. While the committee understands that no national standard exists under which worker conditions at these factories may be judged, the committee believes that the exchanges should at minimum be able to assure its patrons that none of its products are manufactured with child or forced labor. The committee also does not wish the exchanges to lag behind the generally accepted practices of responsible domestic retailers. The committee believes that the exchanges may rely upon the manufacturers of brand name products

to monitor the production of their own goods, but believes the exchanges should have visibility of the conditions under which their private label goods are produced. Accordingly, the committee directs the Secretary of Defense to ensure the military exchanges implement a program that assures that private label exchange merchandise is not produced by child or forced labor.

OTHER ISSUES

Army's Capital Investment Program for Depot Facilities

The committee is pleased with the Army's initiative to increase funds for the sustainment, restoration, and modernization of its facilities. The committee is also pleased with the Army's Capital Investment Program for its depot facilities. The committee directs the Secretary of the Army to submit a comprehensive plan for implementing the Army's Capital Investment Program to the House Committee on Armed Services and the Senate Committee on Armed Services by March 1, 2002. The plan should include the following:

(1) The core logistics capabilities, competencies, and components necessary for current and future weapons systems;

(2) The current state of existing facilities and equipment; and

(3) A capital needs plan to upgrade the depots to meet current and future core requirements, continue technology infusion in the production process, and an estimate of the total investment costs required to implement the plan.

Army Workload and Performance System

The committee has consistently endorsed the Army Workload and Performance System (AWPS) as an initiative to correct systemic problems in the Army's manpower requirements determination process. The committee remains concerned that AWPS system requirements, which would allow command-level cost management capabilities, have not been achieved. The committee also notes with concern that the installation of the AWPS Decision Support System—which would allow Army management to evaluate the efficiency of its maintenance depots, the actual cost of depot-level repair, and develop a best-value determination model to examine the economics of depot versus private-sector repair—is two years behind schedule. Therefore, the committee directs the Secretary of the Army not to reallocate depot maintenance workload from the public to the private sector until the Army has achieved full implementation of the Army Workload and Performance System in the depots as detailed in the AWPS Master Plan dated June 8, 2001. This restriction on workload allocation would remain in place until the Secretary of the Army certifies to Congress that the Army Workload and Performance System is fully implemented in the depots and the General Accounting Office has reviewed the certification.

Automated Document Conversion System Program

The committee understands that the Department of Defense (DOD) has a continuing requirement for data capture and conversion support for its weapons systems and logistics databases, and the Automated Document Conversion System (ADCS) effort in fiscal year 2002 will collect, digitize and electronically warehouse systems engineering data, technical manuals, and acquisition information, that will allow the warfighter to request weapon's systems support and logistics services on a near real-time basis. This program supports the efforts to bring the DOD into a paperless environment by the end of fiscal year 2002. Further, the digitizing of logistics data supports a CJCS requirement to improve logistics services necessary to deploy forces quickly.

Automatic Inventory Technology

The committee recognizes the long-standing and continuous issue of inventory control within the Department of Defense, and that the Department of the Army has made significant strides in controlling ammunition inventories using Automatic Inventory Technology/Radio Frequency Identification (AIT/RFID) for ammunition. Further, the recent test and evaluation of the AIT/RFID for Maintenance conducted at Corpus Christi Army Aviation Depot, Texas, demonstrated the real time capability of the system for locating parts and components in a production line environment, thereby, significantly reducing down time for major combat equipment during the recapitalization process. The results of the Corpus Christi pilot program concluded that using Maintenance AIT/RFID equipment significantly enhanced productivity within the depot. The committee strongly believes that the Department of the Army should increase the utilization of AIT/RFID to provide this capability for other Army maintenance depots and recommends an increase of $9.0 million for this purpose.

Commercial Technologies for Maintenance Activities

The committee continues to believe that the Commercial Technologies for Maintenance Activities (CTMA) program, created by the Department of Defense (DOD) in 1998 to bring the most modern and advanced manufacturing capabilities from commercial industry to depot and related maintenance activities, is valuable as a technology resource which will have a positive effect on the efficiency and effectiveness of the Department's industrial activities. The CTMA program is a by-product of section 361 of the National Defense Authorization Act for Fiscal Year 1998 (Public Law 105–85) that required DOD to re-engineer industrial processes and adopt best-business practices at their depot-level activities. Therefore, the committee recommends the addition of $20.0 million for the Defense Logistics Agency to pursue strategies for re-engineering at depot-level activities that will lower operations and sustainment costs. The committee believes the addition of these funds will allow depot-level activities to participate in manufacturing technology demonstration projects in collaboration with more than 220 of the leading U.S. manufacturers.

Distance Learning Implementation Program

The committee remains concerned that insufficient resources are being applied to exploit the potential that distance learning technology offers to enhance training and readiness. There is wide acceptance that distance learning technologies have the potential to deliver training to military members and support the delivery of "learner centric" quality training when and where the training is needed. More importantly, distance learning improves readiness by providing greater access to military training and education at a lower cost. The committee is aware of the initiatives under consideration in the Army's Total Army Distance Learning Program (TADLP) and the National Guard Distributive Training Technology Program (DTTP). However, the resources presently allocated for these programs are not sufficient to meet future needs in a responsive manner. The committee anticipates that the Department of the Army will use funds authorized for distance learning to develop a comprehensive and executable implementation plan that will more expeditiously exploit distance learning technologies. The committee believes that a high priority should be given to those programs focused on enhancing training and development in the reserve components, especially in the National Guard.

Hunter Tactical Unmanned Aerial Vehicle

The committee believes that the Hunter Tactical Unmanned Aerial Vehicle (TUAV) system has demonstrated that it is effective and reliable in supporting Army and joint combat operations, warfighter exercises, and unmanned aerial vehicle tactics, techniques and procedures development. The committee also noted that user demands on the Hunter system exceed current availability and are expected to grow. Therefore, the committee strongly urges that the Army maintain the Hunter system in an operational status by continuing to adequately fund the system until a replacement which meets the Army TUAV objective requirements is available.

Navy-Marine Corps Intranet

This section would permanently exclude the Marine Corps from the Navy's initiative known as the Navy-Marine Corps Internet (NMCI). This section would also continue the exclusion of the shipyards and naval aviation depots from the NMCI in fiscal year 2002.

The committee continues to support the Department of the Navy's intention to use a cohesive and coordinated computer network and supports initiatives that promote interoperability, as well as effective and efficient communications. The Department of the Navy has presumed and budgeted large savings with the implementation of NMCI, which the committee believes cannot be achieved and puts this program at risk. The committee continues to receive conflicting, vague, and unsupportable funding data on this program. In addition, despite repeated requests, the Department of the Navy has failed to provide funding information relating to depots. In light of these concerns the committee directs the Secretary of Defense to analyze NMCI funding documents with particular focus on the savings the Navy anticipates, and to include an

analysis of whether those savings have been achieved or are achievable. The results of this review shall be provided to the Secretary of the Navy along with the analysis required by section 814 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398).

Non-nuclear Ship Maintenance

The committee understands that the Department of the Navy maintains a policy that large non-nuclear ship maintenance on the west coast of the United States is assigned primarily to non-nuclear capable private shipyards in an effort to reduce the overall cost for ship maintenance. This policy enables the Navy to focus its nuclear ship repair requirements in its nuclear capable shipyards with a specially trained and experienced workforce. The committee also understands that the Department of the Navy does not apply this policy to the assignment of ship maintenance on the east coast of the United States. Although it may be necessary to occasionally balance ship maintenance requirements in nuclear capable Naval shipyards by the assignment of non-nuclear ship maintenance, the committee questions whether the increased cost of this work is fully justified. Therefore, the committee directs the Secretary of the Navy to apply the west coast non-nuclear ship maintenance policy to the east coast, or provide the House Committee on Armed Services and the Senate Committee on Armed Services by January 31, 2002, with a report specifying why this policy cannot be implemented.

LEGISLATIVE PROVISIONS

SUBTITLE A—AUTHORIZATION OF APPROPRIATIONS

Section 301—Operation and Maintenance Funding

This section would authorize $124,024.0 million in operations and maintenance funding for the Armed Forces and other activities and agencies of the Department of Defense.

Section 302—Working Capital Funds

This section would authorize $2,359.7 million for Working Capital Funds of the Department of Defense.

Section 303—Armed Forces Retirement Home

This section would authorize $71.44 million from the Armed Forces Retirement Trust Fund for the operation of the Armed Forces Retirement Home, including the U.S. Soldiers' and Airmen's Home and the Naval Home.

Section 304—Transfer from National Defense Stockpile Transaction Fund

This section would authorize the Secretary of Defense to transfer not more than $150.0 million from the amounts received from sales in the National Defense Stockpile Transaction Fund to the operation and maintenance accounts of the military services.

SUBTITLE B—ENVIRONMENTAL PROVISIONS

Section 311—Inventory of Explosive Risk Sites at Former Military Ranges

This section would require the Secretary of Defense to develop and maintain an inventory of current and former military ranges that are known or suspected to contain abandoned military munitions.

Section 312—National Security Impact Statements

This section would require the Secretary of Defense to examine the impact a proposed action could have on national security when the Secretary is required to conduct an environment impact statement (EIS), environmental assessment (EA), or to comment on EIS or EA developed by another federal agency.

Section 313—Reimbursement for Certain Costs in Connection with Hooper Sands Site, South Berwick, Maine

This section would authorize the Secretary of the Navy to reimburse the Environmental Protection Agency approximately $1.0 million for the cleanup of a former Navy facility in South Berwick, Maine.

Section 314—River Mitigation Studies

This section would authorize the Secretary of Defense to conduct studies of the Sabine River and the Delaware River in order to identify the level of effort and funding necessary to remove debris left in the rivers from the shipbuilding industry.

Section 315—Elimination of Annual Report on Contractor Reimbursement for Costs of Environmental Response Actions

This section would eliminate the requirement for an annual report on payments the Secretary of Defense made to contractors for costs of environmental response actions.

SUBTITLE C—COMMISSARIES AND NONAPPROPRIATED FUND INSTRUMENTALITIES

Section 321—Reserve Component Commissary Benefits

This section would authorize immediate eligibility for commissary benefits for members of the reserve components. Currently, reserve members are not eligible to shop in commissaries until they have served a year in a reserve unit. The committee believes that in light of the reserve components' increased participation in all manner of military operations, reserve members should be entitled to commissary benefits upon entry into reserve service.

Section 322—Reimbursement for Noncommissary Use of Commissary Facilities

This section would amend section 2685 of title 10, United States Code, to require the secretary of a military department to reim-

burse the commissary surcharge account for the residual value of any commissary facility constructed in whole or in part with commissary surcharge funds when that facility is converted to military use. Since commissary surcharge funds are generated by patron purchases, the committee believes that capital assets purchased with those funds properly belong to the patrons and not to the military departments.

Section 323—Civil Recovery for Nonappropriated Fund Instrumentality Costs Related to Shoplifting

This section would authorize the military exchanges to pursue federal debt collection remedies against shoplifters in the military exchange stores. The exchanges currently have no effective means to recover the cost of shoplifting and security expenses, amounting to more than $25.0 million annually. This section would provide a mechanism outside formal judicial proceedings that would permit the exchanges to recover some shoplifting losses.

SUBTITLE D—WORKFORCE AND DEPOT ISSUES

Section 331—Fiscal Year 2002 Limitations on Workforce Reviews

This section would limit the number of full time equivalents that can be studied for possible conversion from the government workforce to the contractor workforce. The committee is increasingly concerned with the outsourcing process and believes the agencies and services have not properly funded or properly trained personnel involved in the effort needed to conduct a proper analysis. The committee does not support the Department's initiative to study an additional 3,200 full time equivalents for possible outsourcing in fiscal year 2002. In addition, the committee does not support the agencies and the services initiating more studies than are properly funded.

Section 332—Applicability of Core Logistics Capability Requirements to Nuclear Aircraft Carriers

This section would amend section 2464 of title 10, United States Code, to clarify that the exclusion from maintaining core logistics capabilities for nuclear aircraft carriers, as specified in section 2464, is meant solely for the process of refueling nuclear aircraft carriers. This section is necessary to clarify that nuclear aircraft carriers are to maintain the same core logistics capabilities as all other ships of the United States Navy.

Section 333—Continuation of Contractor Manpower Reporting System in Department of the Army

This section would amend section 343 of the National Defense Authorization Act for Fiscal Year 2000 (Public Law 106–65) to require the Secretary of the Army to report annually on the size of the contractor workforce. The section would also require the Comptroller General of the U.S. to provide Congress with an evaluation of each report submitted by the Secretary of the Army.

Section 334—Limitation on Expansion of Wholesale Logistics Modernization Program

This section would prohibit the Secretary of the Army from expanding the Wholesale Logistics Modernization Program beyond the original legacy systems included in the scope of the contract awarded in December 1999 until the Secretary of the Army certifies to Congress that the original legacy systems have been successfully replaced. The section would also require the General Accounting Office to provide Congress with an evaluation of the certification provided by the Secretary of the Army.

Section 335—Pilot Project for Exclusion of Certain Expenditures from Limitation on Private Sector Performance of Depot-Level Maintenance

This section would amend section 2474 of title 10, United States Code, to authorize a pilot project, applicable only to three Air Force depots, that would exclude work performed in a public depot under a public-private partnership from the restrictions on private sector work established by that section.

Section 336—Protections for Purchasers of Articles and Services Manufactured or Performed by Working-Capital Funded Industrial Facilities of the Department of Defense

This section would amend section 2563 of title 10, United States Code to permit a private sector entity that has contracted with the public sector in a working-capital funded activity of the Department of Defense, to file a claim if the public sector fails to comply with quality, schedule, or cost performances required in the contract. This section would also apply to section 2474 of title 10, United States Code.

SUBTITLE E—DEFENSE DEPENDENTS EDUCATION

Section 341—Assistance to Local Educational Agencies that Benefit Dependents of Members of the Armed Forces and Department of Defense Civilian Employees

This section would authorize $30.0 million for educational assistance to local education agencies where the standard for the minimum level of education within the state could not be maintained because of the large number of military connected students.

Section 342—Availability of Auxiliary Services of Defense Dependents' Education System for Dependents Who Are Home School Students

This section would require the Department of Defense (DOD) to provide support for home-schooled students overseas who are otherwise eligible to attend DOD schools. This support would include participation in extracurricular activities such as sports teams, clubs, and music programs, as well as attendance in individual academic classes.

Section 343—Report Regarding Compensation for Teachers Employed in Teaching Positions in Overseas Schools Operated by the Department of Defense

This section would require the Secretary of Defense to evaluate the method by which compensation is fixed for teachers employed by Department of Defense overseas schools. Section 903 of title 20, United States Code, requires that these salaries be based on the average range of salaries paid for similar positions in large urban school systems. This section would require the Secretary to report to Congress on the results of his evaluation and would also require him to recommend whether this compensation should be based upon the average range of salaries paid for similar positions by Washington, D.C., area school systems.

SUBTITLE F—OTHER MATTERS

Section 351—Availability of Excess Defense Personal Property to Support Department of Veterans Affairs Initiative to Assist Homeless Veterans

This section would permit the Secretary of Defense to make excess clothing, shoes, sleeping bags, and related non-lethal excess supplies available, without reimbursement, to the Secretary of Veterans Affairs for distribution to homeless veterans and programs assisting homeless veterans.

Section 352—Continuation of Limitations on Implementation of Navy-Marine Corps Intranet Contract

This section would exclude the Marine Corps from the Navy's initiative known as the Navy-Marine Corps Intranet. This section would also continue the exclusion of the shipyards and naval aviation depots from the Navy Marine Corps Intranet in fiscal year 2002.

Section 353—Completion and Evaluation of Current Demonstration Programs to Improve Quality of Personal Property Shipments of Members

This section would require the Secretary of Defense to complete all demonstration programs in the Department of Defense that were designed to improve the movement of household goods of members of the Armed Forces that were being conducted on or after October 1, 2000. The section would also require the Secretary of Defense to submit to Congress an evaluation not later than August 31, 2002.

Section 354—Expansion of Entities Eligible for Loan, Gift, and Exchange of Documents, Historical Artifacts, and Obsolete Combat Materiel

This section would authorize the exchange of defense relics to a greater number of local authorities.

SUBTITLE G—SERVICE CONTRACTING REFORM

Section 361—Short Title

This section would identify this subtitle as the "Department of Defense Service Contracting Reform Act of 2001".

Section 362—Required Cost Savings Level for Change of Function to Contractor Performance

This section would amend section 2461 of title 10, United States Code, to require that a contractor's cost must be at least 10 percent less expensive than the federal government's most efficient organization to be successful in a public/private competition under Office of Management and Budget Circular A–76.

Section 363—Applicability of Study and Reporting Requirements to New Commercial or Industrial Type Functions

This section would require the Secretary of Defense to conduct an A–76 study for each new function the Department of Defense intends to establish in order to determine whether the function should be performed by a government employee or a contractor employee.

Section 364—Repeal of Waiver for Small Functions

This section would repeal section 2461 of title 10, United States Code that currently waives the applicability of Office of Management and Budget Circular A–76 or functions with 50 employees or less.

Section 365—Requirement for Equity in Public-Private Competitions

This section would require that for each government held position studied under Office of Management and Budget Circular A–76, approximately the same number of contractor held positions must also be studied for possible conversion to the public sector.

Section 366—Reporting Requirements Regarding Department of Defense's Service Contractor Workforce

This section would require Department of Defense (DOD) contractors and subcontractors to report to a secure DOD website, direct and indirect man-hour cost information, and would require the Secretary of Defense and the military secretaries to submit to Congress a report on the cost information data collected. The section would also require the Comptroller General of the United States to review this data. This section would require the Secretary of Defense and the secretaries of the military departments to publish for the public the non-proprietary data from these reports.

TITLE IV—MILITARY PERSONNEL AUTHORIZATIONS

LEGISLATIVE PROVISIONS

SUBTITLE A—ACTIVE FORCES

Section 401—End Strengths for Active Forces

This section would authorize the following end strengths for active duty personnel of the armed forces as of September 30, 2002.

Service	FY 2001 authorized and floor	FY 2002		Change from	
		Request	Committee recommendation	FY 2002 request	FY 2001 authorized
Army	480,000	480,000	480,000	0	0
Navy	372,642	376,000	376,000	0	3,358
USMC	172,600	172,600	172,600	0	0
Air Force	357,000	358,800	358,800	0	1,800
DOD Total	1,382,242	1,387,400	1,387,400	0	5,158

Section 402—Revision in Permanent End Strength Minimum Levels

This section would amend section 691 of title 10, United States Code, by establishing end strength floors for the active forces at the end strengths contained in the budget request.

SUBTITLE B—RESERVE FORCES

Section 411—End Strengths for Selected Reserve

This section would authorize the following end strengths for the selected reserve personnel, including the end strength for reserves on active duty in support of the reserves, as of September 30, 2002:

Service	FY 2001 authorized	FY 2002		Change from	
		Request	Committee recommendation	FY 2002 request	FY 2001 authorized
Army National Guard	350,526	350,000	350,000	0	(526)
Army Reserve	205,300	205,000	205,000	0	(300)
Naval Reserve	88,900	87,000	87,000	0	(1,900)
Marine Corps Reserve	39,558	39,558	39,558	0	0
Air National Guard	108,022	108,400	108,400	0	378
Air Force Reserve	74,358	74,700	74,700	0	342
DOD Total	866,664	864,658	864,658	0	(2,006)
Coast Guard Reserve	8,000	8,000	8,000	0	0

Section 412—End Strengths for Reserves on Active Duty in Support of the Reserves

This section would authorize the following end strengths for reserves on active duty in support of the reserves as of September 30, 2002:

Service	FY 2001 authorized	FY 2002		Change from	
		Request	Committee recommendation	FY 2002 request	FY 2001 authorized
Army National Guard	22,974	22,974	22,974	0	0
Army Reserve	13,106	13,108	13,108	0	2
Naval Reserve	14,649	14,811	14,811	0	162
Marine Corps Reserve	2,261	2,261	2,261	0	0
Air National Guard	11,170	11,591	11,591	0	421
Air Force Reserve	1,336	1,437	1,437	0	101
DOD Total	65,496	66,182	66,182	0	686

Section 413—End Strengths for Military Technicians (Dual Status)

This section would authorize the following end strengths for military technicians (dual status) as of September 30, 2002:

Service	FY 2001 authorized (floor)	FY 2002		Change from	
		Request	Committee recommendation (floor)	FY 2002 request	FY 2001 authorized
Army National Guard	23,128	23,128	23,128	0	0
Army Reserve	5,921	5,999	5,999	0	78
Air National Guard	22,247	22,422	22,422	0	175
Air Force Reserve	9,785	9,818	9,818	0	33
DOD Total	61,081	61,367	61,367	0	286

Section 414—Fiscal Year 2002 Limitation on Non-Dual Status Technicians

This section would establish the following limits on the numbers of non-dual status technicians as of September 30, 2002:

Service	FY 2001 limit	FY 2002		Change from	
		Request	Committee recommendation (limit)	FY 2002 request	FY 2001 limit
Army National Guard	1,600	1,600	1,600	0	0
Army Reserve	1,195	1,095	1,095	0	(100)
Air National Guard	326	350	350	0	24
Air Force Reserve	10	0	90	90	80
DOD Total	3,131	3,045	3,135	90	4

The committee's recommended increase in the number of Air Force Reserve non-dual status technicians results from revised data provided by that component subsequent to the committee's receipt of the budget request. The committee is concerned about the growth. Noting that the Army Reserve and the Air Force Reserve are required by section 10217 of title 10, United States Code, to reduce the total number of non-dual status technicians in both com-

ponents to no more than 175 by September 30, 2007, the committee urges both components to coordinate their efforts to reach that objective.

Section 415—Limitations on Numbers of Reserve Personnel Serving on Active Duty or Full-Time National Guard Duty in Certain Grades for Administration of Reserve Components

This section would authorize new grade tables for all reserve components of the military departments to limit the number of officers and senior enlisted members serving on active duty or full-time national guard duty for administration of reserves or national guard in the pay grades of 0–6, 0–5, 0–4, E–9, and E–8. The tables would allow the limits for each grade to be adjusted as the total number of such reserve members on active duty increases or decreases.

SUBTITLE C—OTHER MATTERS RELATING TO PERSONNEL STRENGTHS

Section 421—Increase in Percentage by Which Active Component End Strengths for any fiscal year may be increased

This section would authorize the Secretary of Defense to increase active duty end strength of a military service up to two percent above the authorized end strength for that service. The committee notes that current law authorizes the Secretary to increase a service's end strength by one percent. The committee recommends this expanded authority to assist the Secretary in managing dynamic strength fluctuations occurring in the military services as a result of hard-to-predict recruiting and retention variables, as well as variables induced by the movement of reserve component personnel on and off active duty.

Section 422—Active Duty End Strength Exemption for National Guard and Reserve Personnel Performing Funeral Honors Functions

This section would permit members of the reserve components on active duty and members on full-time national guard duty to prepare for and perform funeral honors functions without counting against the active duty end strengths of the armed forces.

Section 423—Increase in Authorized Strengths for Air Force Officers on Active Duty in the Grade of Major

This section would authorize a seven percent increase in the maximum number of officers serving on active duty in the grade of major.

SUBTITLE D—AUTHORIZATION OF APPROPRIATIONS

Section 431—Authorization of Appropriations for Military Personnel

This section would authorize $82,279.1 million to be appropriated for military personnel.

This authorization of appropriations reflects both reductions and increases to the budget request that are itemized below.

[Dollars in millions]

	Military personnel accounts	O&M accounts
RECOMMENDED INCREASES		
Increase TLE to $180 per day and Authorize TLE for Officer First Duty Station	43.0	.....
Authorize Annual Travel for Families of Korean/Cold War Missing	.....	1.0
Electronic Voting Demonstration Project	.....	2.0
Travel Expenses for Guardian of Minor Child	.....	5.0
Equalize Reservists' Aviation Career Incentive Pay with Active Duty Aviators When on Active Duty	10.0	.....
Authorize and Fund Full Pet Quarantine Reimbursement	1.0	.....
Funding for Uniting Through Reading (Navy)	.....	0.18
FY 2002 Effect of Navy FY 2001 Overstrength	13.0	.....
Navy PCS Bow Wave from FY 2001	15.0	.....
Fund Army National Guard FY 2002 Military Techs (Dual Status)	.....	20.0
Army Reserve Component Duty Training Pay	25.0	.....
USMC New Camouflage Utility Uniforms	20.8	.....
Total Recommended Additions	127.8	28.18
RECOMMENDED REDUCTIONS		
Air Force Active Strength and Grade Underexecution	145.00	.....
Air Force Reserve Strength, Grade and Drill Underexecution	10.98	
Total Recommended Reductions	155.98	.....

TITLE V—MILITARY PERSONNEL POLICY

OVERVIEW

The committee believes that the Secretary of Defense, the secretaries of the military departments, and the uniformed military leadership must have effective, current, and flexible personnel management programs and guidance. Accordingly, the committee recommends a variety of initiatives to improve the personnel management systems of the military services.

The committee, which was deeply disappointed that military absentee voters were not offered consistently high quality voting information and assistance during the 2000 election, recommends a series of voting initiatives designed to improve the ability of the Department of Defense managers to comply with the requirements of the Federal Voting Assistance Program and related law. These initiatives are consistent with the findings of post-election reviews conducted by the Comptroller General of the United States and the Department of Defense Inspector General. Included among the initiatives is the testing of electronic voting systems that aim to solve the time and distance challenges that have plagued military voters, particularly those residing at overseas duty locations.

To improve operation of the system created by the Secretary of Defense to provide funeral honors to military veterans and retirees, the committee would include a series of initiatives designed to facilitate the Secretary's program and provide more flexible management tools.

Finally, to ensure that members of the armed services receive the recognition they so richly deserve for serving the nation with dedication and valor, the committee recommends a new Cold War Medal, and a new Korea Defense Service Medal, and a waiver of the time limits for award of decorations. The committee also recommends a review of the decorations awarded to Jewish and Hispanic veterans for possible upgrading to the Medal of Honor.

ITEMS OF SPECIAL INTEREST

Alternative Recruiting Media

The committee is aware that the services are seeking innovative ways to recruit a quality force in the face of increased college attendance, reduced youth population, and a competitive job market. The committee notes that today's youth are more receptive to information from non-traditional media and recommends the services employ these media as recruiting tools where financially feasible. The committee suggests the services explore the use of 3–D film, which can support the fast-moving action style commonly employed in recruiting presentations.

Army Reserve Military Technician Positions

The committee believes that the reserve full time manning program is essential to reserve component readiness and that dual status military technicians are critically important to unit level full time military presence in the Army Reserve. Consequently, the committee has exercised keen oversight in recent years of the Army Reserve's dual status technician program in an effort to ensure that Army Reserve units are staffed with fully qualified dual status military technicians. The committee understands, however, that Army Reserve personnel authorization documents prescribe that numerous headquarters staff positions be filled by military technicians (dual status). This practice results in military technicians (dual status) filling clerical and administrative positions in headquarters, performing exactly the same functions as federal civilian employees. The effect of such authorizations is to undercut congressional intent by maintaining higher than necessary numbers of military technicians (dual status) in headquarters billets that should more properly be filled by civilian employees. Another effect of such authorizations is to create personnel inequities. For example, the military technicians filling these headquarters positions are required to maintain their reserve status while civilian civil service employees filling like jobs in the same organization are not. Therefore, the committee directs the Secretary of the Army to review the Army Reserve's military technician authorizations with the goal of reallocating military technician positions at headquarters staff level to unit level.

Defense Prisoner of War/Missing in Action Office

The committee believes that the Defense Prisoner of War/Missing in Action Office (DPMO) performs a critical mission for the Department of Defense (DOD). The work of this office continues to ensure substantial progress toward the fullest possible accounting for those missing in the nation's past conflicts, coordination and preparation of the effort to locate and recover those missing in future conflicts, and, through its work, stands as a tangible commitment to American families that the fate of Americans missing in the nation's conflicts will be relentlessly pursued. In order to perform effectively its range of missions, DPMO must be adequately resourced. Since its establishment, the DPMO accounting workload has grown dramatically beyond the initial emphasis on the Vietnam War to now encompass World War II, the Korean War, and the Cold War. In addition, it has assumed new missions for all aspects of future recovery operations. Even though the demands upon DPMO have escalated, the committee is disturbed to learn that both civilian and military personnel strengths have steadily declined. The committee notes that since DPMO was established, the organization's civilian billets have decreased by 45 spaces, a 40 percent reduction, and 27 of DPMO's 46 military spaces are temporary billets. The committee believes that increased DPMO personnel resources are required in order for the office to address effectively its assigned missions. The committee therefore directs the Secretary of Defense to increase resources in the fiscal year 2003 budget re-

quest and beyond that will assure that DPMO's requirements to meet its entire range of missions are fully met.

Improved Use of Existing Military Centers for Scientific and Technological Education

The committee continues to be concerned that the military services are not adequately addressing the challenge of producing sufficient numbers of officers with the requisite education in science, engineering, and technology to meet the demands of the environment described in Joint Vision 2020. Reflecting the committee's concerns, the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398) required the Secretary of the Air Force to examine how the Air Force Institute of Technology could be more effectively employed to meet the needs of that service for officers with technical education. The committee also believes that the Naval Postgraduate School should have a larger role to play in meeting future Navy requirements for officers educated in the technical, engineering, and scientific disciplines. To that end, the committee directs the Secretary of the Navy to review future officer education requirements and to determine ways in which the Naval Postgraduate School can be more effectively used to meet those requirements.

Review of General and Flag Officer Authorizations

The committee notes that the advocates of increasing the total number of general and flag officers, or exempting general and flag officers from current grade limits, have presented at least six proposals for the committee's consideration. The Secretary of Defense did not request any of these proposals as part of his unified legislative package for the fiscal year 2002 defense authorization bill. These six proposals are only the latest in a long line of similar unsanctioned proposals presented piecemeal to the committee year after year. The committee notes that section 1213 of the National Defense Authorization Act for Fiscal Year 1997 (Public Law 104–201) required the Secretary of Defense to conduct a comprehensive review of active and reserve component general and flag officer authorizations and management. The committee still awaits the results of the mandated review. In the absence of such results, the committee spends an inordinate effort each year trying to sort through the merits of the many individual proposals. Acceptance of one simply leads to the proliferation of more the following year. To end this cycle, and to see to it that the Secretary of Defense fulfills the standing requirement of the law, the committee directs the Secretary to conduct the review required by section 1213 of the National Defense Authorization Act for Fiscal Year 1997 (Public Law 104–201) and deliver the final results of that review to Congress no later than one year after the date of enactment of this act.

Uniting Through Reading

The committee strongly encourages programs that strengthen military families and improve their quality of life. The Navy's Uniting Through Reading program allows deployed parents and children to communicate during separations, boosts family morale,

eases children's fears about a parent's absence, and reduces anxiety upon reunion. Deployed participants videotape themselves reading aloud and the videos and books are sent back to the families to enable children to watch the video and read along with their parent. The program also encourages videotaping the child's reading and reaction to enable those deployed to see the positive impact they are having on their child's development. The program is expanding to naval bases across the country and the committee recommends that an additional $180,000 be provided to this commendable program.

LEGISLATIVE PROVISIONS

SUBTITLE A—GENERAL PERSONNEL MANAGEMENT AUTHORITIES

Section 501—Enhanced Flexibility for Management of Senior General and Flag Officer Positions

This section would repeal the current limit on the total number of four-star general officers allowed to be on active duty in order to provide the increased flexibility in the assignment and utilization of senior general officers that is required to improve oversight and control of joint and military service operations in space.

Section 502—Original Appointments in Regular Grades for Academy Graduates and Certain Other New Officers

This section would require that graduates of the service academies, as well as Reserve Officer Training Corps distinguished graduates, and distinguished graduates of other officer commissioning programs like officer candidate schools, be given an initial appointment as an officer in the Regular Army, Navy, Marine Corps and Air Force, as long as they meet the criteria for such appointment.

Section 503—Temporary Reduction of the Time-in-Grade Requirement for Eligibility for Promotion for Certain Active-Duty List Officers in Grades of First Lieutenant and Lieutenant (Junior Grade)

This section would authorize the service secretaries to reduce the time-in-grade requirement for promotion to the pay grade of 0–3 from 24 to 18 months during the period ending September 30, 2005. The committee recognizes the need, particularly in the Army, to balance the number of officers serving in the grade of 0–3 with the number of positions where an officer in that grade is required. However, the committee remains concerned that junior officers receive adequate training and experience before being promoted to the grade of 0–3. The committee also expects the service secretaries to address the retention problems believed to be the source of the current grade mismatches and to resume promoting to the grade of 0–3 with 24 months time-in-grade during fiscal year 2006.

Section 504—Increase in Senior Enlisted Active Duty Grade Limit for Navy, Marine Corps, and Air Force

This section would increase the limitation on the authorized daily average number of enlisted members serving on active duty within an armed force in the pay grade of E–8 from two percent to two and one half percent of the total number of enlisted members of that armed force on active duty on the first day of that fiscal year.

Section 505—Authority for Limited Extension of Medical Deferment of Mandatory Retirement or Separation

This section would authorize the secretaries of the military departments to extend for an additional 30 days the deferment of mandatory retirement or separation for medical reasons to provide the member additional time to prepare for retirement or separation.

Section 506—Authority for Limited Extension on Active Duty of Members Subject to Mandatory Retirement or Separation

This section would authorize the secretaries of the military departments to extend for an additional 90 days the deferment of mandatory retirement or separation due to the implementation of stop loss authority to provide the military member additional time to prepare for retirement or separation.

Section 507—Clarification of Disability Severance Pay Computation

This section would authorize disability severance pay to be computed based on the grade to which a member would be promoted regardless of the purpose of the physical examination that identifies the disqualifying physical disability.

Section 508—Officer in Charge of United States Navy Band

This section would permit a Navy limited duty officer who holds the rank of at least lieutenant commander to be detailed to serve in the rank of captain while holding the position of officer in charge of the United States Navy Band.

Section 509—One-Year Extension of Expiration Date for Certain Force Management Authorities

This section would extend through December 31, 2002, certain force drawdown transition authorities. These authorities would include:

(1) Active duty early retirement authority;
(2) Special separation benefit authority;
(3) Voluntary separation incentive authority;
(4) Increased flexibility in the management of selective early retirement boards;
(5) Reduction in time-in-grade requirement for retention of grade upon voluntary retirement;
(6) Reduction of length of commissioned service for voluntary retirement as an officer;

(7) Enhanced travel and transportation allowances and storage of baggage and household effects for certain involuntary separated members;

(8) Increased flexibility for granting educational leave relating to continuing public and community service;

(9) Enhanced health, commissary and family housing benefits;

(10) Increased flexibility in the management of enrollments of dependents in the Defense Dependents' Education System;

(11) Definition of the force reduction transition period for reserve forces;

(12) Force reduction period for reserve retirement authority;

(13) Reduction of length of non-regular service requirements for reserve retirements;

(14) Reserve early retirement authority;

(15) Reduction of time-in-grade requirement for retention of grade upon voluntary reserve retirement;

(16) Increased flexibility in the management of the affiliation of active duty personnel with reserve units; and

(17) Increased flexibility in the management of eligibility for reserve educational assistance.

SUBTITLE B—RESERVE COMPONENT PERSONNEL POLICY

Section 511—Placement on Active-Duty List of Certain Reserve Officers on Active Duty for a Period of Three Years or Less

This section would clarify section 641 of title 10, United States Code, to require members recalled to active duty for three years or less to be placed on the active-duty list unless the service secretary specifies in the service member's orders that the member will be retained on the reserve active-status list.

Section 512—Expanded Application of Reserve Special Selection Boards

This section would authorize reserve special selection boards to consider officers from below the promotion zone who were either not considered for promotion because of administrative error, or were considered but not selected for promotion because of material error. The section would afford reserve officers the same special selection board access as provided to active duty officers.

Section 513—Exception to Baccalaureate Degree Requirement for Appointment of Reserve Officers to Grades Above First Lieutenant

This section would exempt enlisted members commissioned under the Army Officer Candidate School from the requirement to possess a baccalaureate degree before being promoted to the pay grade of captain.

Section 514—Improved Disability Benefits for Certain Reserve Component Members

This section would remove the requirement that reservists must be performing inactive-duty for training at a site that is outside normal commuting distance before being eligible for disability bene-

fits and programs if they incur or aggravate an injury, illness, or disease in the line of duty when remaining overnight at training locations before or between inactive-duty training periods.

Section 515—Time-in-Grade Requirement for Reserve Component Officers with a Non-Service Connected Disability

This section would authorize retirement eligible reserve officers with non-service connected physical disabilities that disqualify the officer from continued service to be retired in the highest grade held by the officer for six months, regardless of other time-in-grade requirements. The section would afford officers with non-service connected disabilities the same retired grade determination process as officers with service connected disabilities.

Section 516—Reserve Members Considered to be Deployed for Purposes of Personnel Tempo Management

This section would amend the definition of deployment for reservists to make it consistent with the definition of deployment applied to active duty members.

Section 517—Funeral Honors Duty Performed by Reserve and Guard Members to be Treated as Inactive-Duty Training for Certain Purposes

This section would authorize reserve and national guard members performing funeral honor duty the same rights, benefits, and protections that would be provided members performing inactive-duty training.

Section 518—Members of the National Guard Performing Funeral Honors Duty While in Non-Federal Status

This section would specify that national guard members when serving on funeral honors details shall be considered members of the armed forces for the purpose of meeting requirements for the minimum number of service members and service affiliation on a funeral honors detail.

Section 519—Use of Military Leave for Funeral Honors Duty by Reserve Members and National Guardsmen

This section would amend section 6323 of title 5, United States Code, to authorize federal employees who are members of the reserve components to use military leave to perform funeral honors duty.

SUBTITLE C—JOINT SPECIALTY OFFICERS AND JOINT PROFESSIONAL MILITARY EDUCATION

Section 521—Nominations for Joint Specialty

This section would provide for the automatic nomination of any officer who, before or after the enactment of this provision, meets the statutory education and service requirements for nomination as a joint specialty officer (JSO). The Secretary of Defense, with the advice of the Chairman of the Joint Chiefs of Staff, would remain

responsible for the actual selection of JSOs from the pool of nominated officers. The committee has heard the concerns of joint staff personnel that there will soon not be enough qualified officers to fill operational joint duty positions. The committee also has learned that there are more than 3,000 officers serving on active duty who, although they have met the joint professional military education and joint service requirements established by the Goldwater-Nichols Department of Defense Reorganization Act of 1986 (Goldwater-Nichols Act), (Public Law 99–433), have not been nominated by their respective military services for selection as joint specialty officers. The committee understands that the reluctance of the military services to nominate these officers is related to concerns that such nomination and subsequent selection of these officers by the Secretary of Defense to be JSOs would adversely affect the ability of the services to meet the promotion standards for JSOs that were established by the Goldwater-Nichols Act. The committee believes that the current policies of the military services to withhold nomination from qualified officers is unfair to those officers and places improper emphasis on meeting a statistical standard rather than producing sufficient numbers of JSOs.

Section 522—Joint Duty Credit

This section would set out the standards and requirements for the Secretary of Defense to award joint duty credit to officers serving in temporary joint task force headquarters that are not engaged in combat or near combat operations. Following Desert Storm, Congress addressed issues related to the proliferating use of temporary joint task forces and the increasing numbers of officers serving abbreviated tours of duty in the headquarters of those joint task forces. The fundamental question was whether service in joint task force headquarters should be credited towards the statutory requirements for qualification as a joint specialty officer. In resolving the issue, Congress amended the Goldwater-Nichols Act to permit service of at least 90 days duration in a joint task force headquarters to be credited, as long as the joint task force was engaged in combat, or near combat, operations. Since Desert Storm, the Department of Defense has employed more than 240 temporary joint task forces that do not meet the combat, or near combat, criteria. In view of this history, as well as the certainty that many officers would likely serve in future temporary joint task force headquarters engaged in military operations other than war, the Chairman of the Joint Chiefs of Staff asked the committee to consider ways in which service in temporary joint task forces engaged in operations other than war might be credited towards joint duty service requirements. In general, the committee does not believe that the intensity and complexity of most military operations other than war rise to the standard for credit established following Desert Storm. However, under certain limited conditions, the committee recognizes that service may be credited when it is in the headquarters of a temporary joint task engaged in peacekeeping or peace enforcement operations where an extremely fragile state of peace and a high potential for hostilities coexist.

Section 523—Retroactive Joint Service Credit for Duty in Certain Joint Task Forces

This section would authorize the Secretary of Defense, after a case-by-case review, to award joint service credit to an officer who served in the headquarters of a temporary joint task force employed by the United States during one or more of nine specific joint operations that began during the period August 1, 1992, and June 11, 1999. The committee believes that the awarding of retroactive joint service credit to officers for these operations is consistent with the new authority granted to the Secretary of Defense in section 522 to award joint duty credit for certain military operations other than war.

Section 524—Revision to Annual Report on Joint Officer Management

This section would change some annual reporting requirements to reflect the committee's recommended amendments to the joint officer management system.

Section 525—Requirement for Selection for Joint Specialty Before Promotion to General or Flag Officer Grade

This section would require that after September 30, 2007, officers promoted to brigadier general or rear admiral (lower half) must be selected as a joint specialty officer (JSO) prior to their promotion.

The Goldwater-Nichols Act intended that future combat leaders of the armed forces would be drawn from the ranks of JSOs. To that end, the Goldwater-Nichols Act established that the proper qualification of an officer for effective service as a JSO required both formal education (joint professional military education) and completion of one "full tour" of joint duty. However, as a precondition for promotion to brigadier general, or rear admiral (lower half), the Goldwater-Nichols Act established a less demanding standard, requiring the completion of one "full tour" of joint duty, but no joint professional military education. Fifteen years after the enactment of the Goldwater-Nichols Act, the committee believes that it is appropriate to move forward to secure the goal that future leaders of the armed forces, especially those entering general officer rank, should be drawn from the ranks of JSOs. The committee holds this view for the following reasons:

(1) Involvement in joint operations is a fact of life for general and flag officers today, and such involvement will be increasingly so in the future. Future standards for qualifying those general and flag officers to operate effectively in the joint environment should not differ from the rest of the officers in the military services.

(2) In the 15 years since enactment of the Goldwater-Nichols Act, the experience of thousands of officers who were educated in the joint professional military education (JPME) system and served in joint duty assignments confirms that the JPME experience is essential, and enhances performance in joint operations.

(3) Requiring future officers to be JSOs as a condition of promotion to brigadier general, or rear admiral (lower half),

would, in effect, add a twelve-week attendance at JPME to the current service requirement.

Section 526—Independent Study of Joint Officer Management and Joint Professional Military Education Reforms

This section would require that the Secretary of Defense commission an independent study of issues related to joint officer management, joint professional military education, and the roles of the Secretary and the Chairman of the Joint Chiefs of Staff in managing and educating joint officers. The section would require the study to be completed by June 30, 2002. The Chairman of the Joint Chiefs of Staff presented the committee with a set of fundamental reforms in the joint officer management and joint officer professional military education systems. The committee, believing that the proposed reforms would have significant implications for joint service, the individual military services, and every officer, wants to move cautiously before making systemic changes. Such was the approach used by this committee when it developed the joint officer management initiatives contained in the Goldwater-Nichols Act, and when it subsequently instituted joint professional military education reforms.

Section 527—Professional Development Education

This section would make the Secretary of Defense the executive agent for funding professional development education operations at the National Defense University, beginning in fiscal year 2003. At present, such funding is split between the Army and the Navy. By taking this action to consolidate the funding responsibility, the committee intends to strengthen the role of the Secretary of Defense in joint professional military education and improve the support of the National Defense University.

Section 528—Authority for National Defense University to Enroll Certain Private Sector Civilians

This section would permit up to 10 private sector employees of organizations relevant to national security to receive instruction at the National Defense University. The committee believes such enrollments will strengthen the educational experience of all military students at the National Defense University.

Section 529—Continuation of Reserve Component Professional Military Education Test

This section would require the Secretary of Defense to continue the concept validation test of the joint professional military education (JPME) course for reserve component officers in fiscal year 2002, and would authorize a broader pilot program in fiscal year 2003 for reserve component JPME, if the Secretary determines that the results of the concept validation merit test it. During fiscal year 2001, the National Defense University undertook a limited concept validation test of a JPME course for reserve component officers. The committee believes that the results of this concept validation

are promising and that further testing of the concept should continue.

SUBTITLE D—MILITARY EDUCATION AND TRAINING

Section 531—Defense Language Institute Foreign Language Center

This section would authorize the commandant of the Defense Language Institute to award an associate of arts degree in a foreign language to graduates of the Institute's Foreign Language Center who meet the requirements for the degree.

Section 532—Authority for the Marine Corps University to Award Degree of Master of Strategic Studies

This section would authorize the president of the Marine Corps University to award the degree of master of strategic studies upon graduates of the Marine Corps War College who meet the requirements for that degree.

Section 533—Increase in Number of Foreign Students Authorized to be Admitted to the Service Academies

This section would increase from 40 to 60 the number of foreign students who may attend each of the service academies at any one time. This section would also give the Secretary of Defense greater authority to waive some or all of the cost of that attendance.

Section 534—Increase in Maximum Age for Appointment as a Cadet or Midshipman in Senior Reserve Officer Training Corps Scholarship Programs

This section would increase the maximum allowable age for the senior Reserve Officer Training Corps scholarship program from age 27 on June 30 of the year in which the officer candidate is expected to be commissioned to age 35 on December 31 of the year in which the officer candidate is expected to be commissioned.

Section 535—Active Duty Participation as a Cadet or Midshipman in Senior ROTC Advanced Training

This section would authorize active duty enlisted members to participate in the senior Reserve Officer Training Corps.

Section 536—Authority to Modify the Service Obligation of Certain ROTC Cadets in Military Junior Colleges Receiving Financial Assistance

This section would authorize the Secretary of the Army to permit military junior college cadets who sign future Guaranteed Reserve Forces Duty (GRFD) contracts to satisfy their service obligation through either active duty service or reserve service in a troop program unit. This section would also permit those military junior college students who signed GRFD contracts between January 1, 1991, and July 11, 2000, to satisfy their service obligation through active duty service rather than service in the reserve component troop units.

Section 537—Modification of Nurse Officer Candidate Accession Program Restriction on Students Attending Educational Institutions with Senior Reserve Officers' Training Programs

This section would remove the restriction on officer candidates from receiving financial assistance while training to be nurses at institutions where Reserve Officer Training Corps (ROTC) programs are present when the officer candidates are ineligible to participate in the ROTC program.

Section 538—Repeal of Limitation on Number on Junior Reserve Officers' Training Corps (JROTC) Units

This section would repeal the current statutory cap of 3,500 Junior Reserve Officers' Training Corps (JROTC) units. The committee notes that this repeal was contained in the budget request and is consistent with the long-standing committee view that JROTC expansion is in the nation's interest.

Section 539—Reserve Health Professionals Stipend Program Expansion

This section would expand the stipend program for reserve health professionals by authorizing medical and dental school students to receive stipends and authorizing continuing compensation for medical and dental school graduates participating in residency programs involving critical wartime specialties.

Section 540—Housing Allowance for the Chaplain for the Corps of Cadets, United States Military Academy

This section would amend the authority of the Secretary of the Army to provide a housing allowance to the Chaplain for the Corps of Cadets at the United States Military Academy to specify that the allowance should be consistent with the allowance provided to a lieutenant colonel.

SUBTITLE E—DECORATIONS, AWARDS, AND COMMENDATIONS

Section 541—Authority for Award of the Medal of Honor to Humbert R. Versace for Valor During the Vietnam War

This section would waive the statutory time limitation for the award of the Medal of Honor to Humbert R. Versace for valor while interned as a prisoner-of-war by the Vietnamese Communist National Liberation Front (Viet Cong) in the Republic of Vietnam.

Section 542—Review Regarding Award of Medal of Honor to Certain Jewish American and Hispanic American War Veterans

This section would require the secretaries of the military departments to review the service records of Jewish and Hispanic veterans from World War II and later periods to determine if the award of the Medal of Honor is appropriate. The secretaries would be obligated to review the records of veterans who were previously awarded the Distinguished Service Cross, the Navy Cross, and the Air Force Cross, and names of veterans submitted to the secretaries during the one-year period beginning with the date of enact-

ment of this provision. In those cases where the secretaries determine that service records support the award of Medals of Honor, the section would also waive the statutory time limitations for award.

Section 543—Authority to Issue Duplicate Medal of Honor

This section would authorize the service secretaries to issue one duplicate Medal of Honor to recipients for display purposes.

Section 544—Authority to Replace Stolen Military Decorations

This section would clarify that the service secretaries are authorized to replace decorations that are considered stolen in addition to those decorations considered lost or destroyed.

Section 545—Waiver of Time Limitations for Award of Navy Distinguished Flying Cross to Certain Persons

This section would waive the statutory time limitations for the award of the Distinguished Flying Cross to individuals recommended for award of the Distinguished Flying Cross by the secretaries of the military departments.

Section 546—Korea Defense Service Medal

This section would require the secretaries of the military departments to issue a campaign medal, to be known as the Korea Defense Service Medal, to members who served in the Republic of Korea or adjacent waters during the period beginning on July 28, 1954, and ending on a future date to be determined by the Secretary of Defense. Members who served in the Republic of Korea and adjacent waters prior to the date of enactment of this provision would be required to apply for award of the medal.

Section 547—Cold War Service Medal

This section would require the secretaries of the military departments to issue a Cold War service medal to persons who served honorably on active duty in the armed forces during the period beginning on September 2, 1945 and ending on December 26, 1991. In order to qualify as an enlisted member, a person would have had to serve a full term of enlistment in an armed force, and reenlisted as an enlisted member or have been appointed an officer. In order to qualify as an officer, a person would have had to complete an initial service obligation as an officer and have served in an armed force after completing the initial service obligation. The secretaries would be authorized to waive the service requirements in the case of disability or hardship separation, or other deserving circumstance.

Section 548—Option to Convert Award of Armed Forces Expeditionary Medal Awarded for Operation Frequent Wind to Vietnam Service Medal

This section would authorize participants in Operation Frequent Wind, the evacuation of Vietnam conducted on April 29 and 30,

1975, to return the award of the Armed Forces Expeditionary Medal and to receive the Vietnam Service Medal in its place.

SUBTITLE F—MATTERS RELATING TO VOTING

Section 551—Voting Assessments and Assistance for Members of the Uniformed Services

This section would require the Department of Defense (DOD) Inspector General to conduct annual random and unannounced assessments of the compliance with the requirements of the Uniformed and Overseas Citizens Absentee Voting Act (Public Law 99–410), DOD regulations regarding the Federal Voting Assistance Program, and other requirements of law at 15 Department of Defense installations. The section would also require the secretaries of the military departments to include an assessment of compliance with the requirements of the Uniformed and Overseas Citizens Absentee Voting Act and DOD regulations regarding the Federal Voting Assistance Program on the list of issues and programs to be reviewed during all management effectiveness reviews and inspections. Additionally, the section would require voting assistance officers appointed under DOD regulations to be appointed with the expectation of serving a minimum of 30 months. Performance evaluation reports pertaining to service members who have been appointed voting assistance officers would be required to include comments on the performance of the individual as a voting assistance officer. Finally, the section would require the Secretary of Defense, during the four months preceding the month during which congressional elections are conducted, to poll all units and ships at sea responsible for collecting and shipping mail to determine if voting materials are awaiting shipment and the length of time that the materials have been held at that location.

Section 552—Electronic Voting Demonstration Project

This section would require the Secretary of Defense to carry out a demonstration project to allow military absentee voters to vote using an electronic voting system. This section would require the Secretary to coordinate with state officials to facilitate the demonstration project. The committee expects the Secretary to actively encourage state election officials to participate in the demonstration project and to take all prudent steps to expand the demonstration project to reach as many military voters as possible. The committee believes that the method for absentee voting that holds the most promise for protecting the voting rights of military members in the future is electronic voting using computers.

SUBTITLE G—MATTERS RELATING TO MILITARY SPOUSES AND FAMILY MEMBERS

Section 561—Improved Financial and Other Assistance to Military Spouses for Job Training and Education

The section would require the Secretary of Defense to examine existing Department of Defense and other federal, state and nongovernmental programs with the objective of improving retention of

military personnel by increasing the employability of military spouses and helping those spouses gain access to financial and other assistance for training and education. The section would also require the Secretary to assess whether the Department should begin a program of direct financial assistance to military spouses for education, job training and related assistance like child care and job-related transportation. The section would also authorize the secretaries of the military departments to make available space in military facilities for non-Department of Defense entities to provide employment-related training for military spouses.

Section 562—Authority to Conduct Surveys of Dependents and Survivors of Military Retirees

This section would expand the authority of the Secretary of Defense to survey families of military members to determine the adequacy of facilities and services provided by the Department of Defense. The section would authorize the Secretary to survey families of retired members in addition to families of active duty members.

Section 563—Clarification of Treatment of Classified Information Concerning Persons in a Missing Status

This section would amend section 1506 of title 10, United States Code, to require the Secretary of Defense to maintain a separate file available for review by next-of-kin that would provide notice of the existence of classified information which may pertain to one or more missing persons. The committee believes that as much information as possible should be provided to the next-of-kin of persons missing from past conflicts.

Section 564—Transportation to Annual Meeting of Next-of-Kin of Persons Unaccounted for from Conflicts after World War II

This section would authorize the Secretary of Defense to provide transportation for the next-of-kin of persons who are unaccounted from the Korean War, the Cold War, the Vietnam War, and the Persian Gulf Conflict to an annual meeting concerning ongoing efforts to resolve the fate of their missing family member.

Section 565—Amendments to Charter of Defense Task Force on Domestic Violence

This section would extend the original three-year authorization of the Defense Task Force on Domestic Violence from October 5, 2002, to April 24, 2003. The section also would authorize reimbursement to be paid to task force members who are not Department of Defense or federal civilian employees. The task force was established by section 591 of the National Defense Authorization Act for Fiscal Year 2000 (Public Law 106–65).

SUBTITLE H—MILITARY JUSTICE AND LEGAL MATTERS

Section 571—Requirement that Courts-Martial Consist of Not Less than 12 Members in Capital Cases

This section would amend chapter 47 of title 10, United States Code, to increase the number of required courts-martial members to 12 in cases in which the death penalty may be adjudged as a sentence. The fact that a general court-martial presently may adjudge death with as few as five members contributes to the unfortunate public perception that service members have fewer constitutional protections than civilians and undermines the legitimacy of verdicts in such cases.

The Manual for Courts-Martial requires special procedures in capital cases, and the Court of Appeals for the Armed Forces has recognized the unique status of death penalty cases and attendant systemic burdens in its jurisprudence. Requiring 12 court-members in capital courts-martial would ensure that service members receive the same procedural protections that exist in other death penalty cases, with one exception. Because the military has unique operational considerations not found in civilian society, this section would provide that the convening authority could reduce the number of court members serving in capital cases to no fewer than five members when 12 members are not reasonably available because of physical conditions or military exigencies. In such circumstances, the convening authority would be required to make a written statement of the reasons 12 members could not be obtained. This statement would be appended to the record of trial.

Section 572—Right of Convicted Accused To Request Sentencing by Military Judge

This section would amend chapter 47 of title 10, United States Code, to permit the sentencing phase of trial in courts-martial to be conducted by a military judge sitting alone, rather than by court members.

Under the present court-martial process a military judge alone may not sentence an accused if the accused elects to be tried with court members. Such a result, however, has disadvantages. Sentencing trials involving members may be more lengthy and more complicated than judge-alone proceedings, costing the government time and expense and keeping court members away from their regular duties for extended periods. Moreover, military judges generally have as sound a sense of community and disciplinary norms and mores as court members because they typically preside over many cases at a single installation.

This section would permit a separate choice of forum decision to be made following announcement of findings of guilt or innocence by the court but before evidence on sentencing is received. A request for sentencing by judge alone could be made orally on the record or in writing. Consistent with article 18 of the Uniform Code of Military Justice, section 818 of title 10, United States Code, and Rule for Courts-Martial 201(f)(1)(C), judge-alone sentencing would not be permitted in capital cases.

Section 573—Codification of Requirement for Regulations for Delivery of Military Personnel to Civil Authorities When Charged With Certain Offenses

This section would codify existing regulations by amending section 814 of title 10, United States Code. The section would require the Secretary of Defense to prescribe regulations to provide for the delivery to the appropriate civil authority for trial, a member accused by civil authority of parental kidnapping or a similar offense.

Section 574—Authority To Accept Voluntary Legal Services for Members of the Armed Forces

This section would improve the availability of legal assistance services to members of the armed forces by amending section 1588 of title 10, United States Code, and would expressly authorize the service secretaries to accept voluntary legal services. This section would also protect these volunteers from legal malpractice actions by extending to them the protections of section 1054 of title 10, United States Code.

SUBTITLE I—OTHER MATTERS

Section 581—Shipment of Privately Owned Vehicles When Making Permanent Change of Station Moves Within the United States

This section would authorize the service secretaries to ship a vehicle at government expense from one permanent station inside the continental United States to another permanent station inside the continental United States when such shipment is found to be advantageous and cost effective to the government.

Section 582—Payment of Vehicle Storage Costs in Advance

This section would authorize the secretaries of the military departments to pay vehicle storage costs in advance.

Section 583—Permanent Authority for Use of Military Recruiting Funds for Certain Expenses at Department of Defense Recruiting Functions

This section would make permanent the authority for the secretaries of the military departments to conduct social functions involving recruit candidates and recruits awaiting active duty entry, and other persons known to influence the career decisions of recruitment-age youth.

Section 584—Clarification of Military Recruiter Access to Secondary School Directory Information About Students

This section would specify that secondary schools shall provide directory information to recruiters in the same way that such information is provided to institutions of higher education when the student has indicated a desire or intent to enroll in that institution.

Section 585—Repeal of Requirement for Final Comptroller General Report Relating to Army End Strength Allocations

This section would repeal the requirement for the last report by the Comptroller General of the United States on the Total Army Analysis (TAA) process—the modeling process used by the Army to determine its combat support and combat service support force structure.

Section 586—Posthumous Army Commission in the Grade of Captain in the Chaplains Corps to Ella E. Gibson for Service as Chaplain of the First Wisconsin Heavy Artillery Regiment During the Civil War

This section would authorize and request the President to posthumously appoint Ella E. Gibson to the grade of captain for her service as a chaplain in the First Wisconsin Heavy Artillery Regiment during the Civil War.

Section 587—National Guard Challenge Program

This section, effective October 1, 2002, would eliminate the $62.5 million statutory limit on Department of Defense spending for the National Guard Youth Challenge program, and revise the Department of Defense cost share for each state's program from 60 percent to 75 percent. The section would also repeal section 2033 of title 10, United States Code, which requires that any funding appropriated to the Challenge program above the Department's statutory limit be provided to the Junior Reserve Officers' Training Program.

Section 588—Payment of FEHBP Premiums for Certain Reservists Called to Active Duty in Support of Contingency Operations

This section would authorize federal agencies to pay the employee portion of Federal Employee Health Benefit Program (FEHBP) premiums for federal employees who are members of the reserve component who are called to active duty for more than 30 days. This authority would provide continuity of medical care for the families of reserve component members who are called to active duty for extended periods and will encourage federal employees to volunteer for extended active duty missions.

Section 589—18-month Enlistment Pilot Program

This section would authorize, during the period beginning on October 1, 2003 and ending on December 31, 2007, an 18–month enlistment pilot program to increase the participation of prior service persons in the Selected Reserve and increase the pool of participants in the Individual Ready Reserve. The section would authorize the Secretary of the Army to enlist up to 10,000 soldiers under this program and provide enlistment bonuses and student loan repayments to recruits. Soldiers enlisted under this program will be eligible for assignment to overseas locations. This section would require the Secretary of the Army to report the results of the program to the Senate Committee on Armed Services and the House

Committee on Armed Services not later than December 31, 2007 and December 31, 2012.

Section 590—Per Diem Allowance for Lengthy or Numerous Deployments

This section would amend section 574 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398) to expand the scope of the report from the Secretary of Defense that is due not later than March 31, 2002. The Secretary would be required to review section 991 of title 10, United States Code, and section 436 of title 37, United States Code, and include in the report:

(1) A discussion of the experience in tracking and recording deployment of members, and paying members subject to lengthy and numerous deployments a $100 per diem after exceeding 400 days deployed out of the previous 730.

(2) Specific comments regarding the effect on the readiness of the Navy and the Marine Corps of the two provisions given the deployment intensive mission of these services.

(3) Any recommendation for revision of the two provisions.

The committee is aware of concerns expressed by the Chief of Naval Operations and the Commandant of the Marine Corps that the law establishing a management system and per diem payment authority for service members subjected to lengthy and numerous deployments will have unintended fiscal and readiness consequences for the deployment intensive sea services during fiscal year 2002. On the other hand, the committee has heard the Under Secretary of Defense for Personnel and Readiness testify that the fiscal impact of the law can be managed in fiscal year 2002 and the law should be allowed to operate until the services are able to provide data to determine how the law is working.

The committee is concerned that the law should not impose unintended consequences on the services and is committed to understanding what changes to the law may be required. However, the committee is equally concerned that the members of the armed services be spared excessive deployments that are known to stress members and their families and erode the quality of life that is critical to good retention.

This section would also amend section 436 of title 37, United States Code, to require high-deployment per diem be paid from operations and maintenance accounts.

The committee notes that, contrary to guidance included in the statement of managers accompanying section 574 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398), the services intend to pay high-deployment per diem out of military personnel accounts. The committee strongly believes that deploying service members in excess of 400 days out of any 730–day period is fundamentally an operational decision driven by operational requirements. As such, the committee considers high-deployment per diem an operational cost that should be paid from operations and maintenance accounts.

Section 591—Congressional Review Period for Change in Ground Combat Exclusion Policy

This section would amend section 542 of the National Defense Authorization Act for Fiscal Year 1994 (Public Law 103–160) to change the congressional notification period required of the Secretary of Defense before implementing revised policies concerning the assignment of women to ground combat units or positions. Currently, the Secretary must provide Congress with 90 calendar days notice before making any changes to the ground combat exclusion policy that would either close to female members of the armed services a position or unit that was previously open to them, or open to female members of the armed services a position or unit that was previously closed to them. This section would change the notification period to 60 days of continuous session of Congress.