FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
002	0601102F	DEFENSE RESEARCH SCIENCES	$239,893	244,893	235,893	249,478	254,393	230,478	239,978	
004	0602102F	MATERIALS	$74,534	82,534	75,284	74,534	71,000	74,534	74,534	
005	0602201F	AEROSPACE FLIGHT DYNAMICS	$66,268	66,268	66,268	64,350	62,768	60,799	63,100	
006	0602202F	HUMAN SYSTEMS TECHNOLOGY	$90,311	90,311	75,311	86,911	86,911	75,311	86,911	
007	0602203F	AEROSPACE PROPULSION	$78,592	81,592	81,592	75,070	81,592	72,070	75,070	
008	0602204F	AEROSPACE AVIONICS	$74,256	74,256	74,256	68,500	74,256	66,601	68,500	
009	0602205F	PERSONNEL, TRAINING AND SIMULATION	$0	0	0	0	0	0	0	
010	0602206F	CIVIL ENG & ENVIRONMENTAL QUALITY	$0	0	0	0	0	0	0	
011	0602269F	HYPERSONIC FLIGHT TECHNOLOGY	$19,900	19,900	19,900	19,900	19,900	16,900	19,900	
013	0602601F	ADVANCED WEAPONS	$124,446	130,446	124,446	135,446	130,446	130,746	136,746	
014	0602602F	CONVENTIONAL MUNITIONS	$44,954	44,954	44,954	44,954	44,954	44,954	44,954	
015	0602702F	COMMAND/CONTROL/COMMUNICATION	$98,477	96,477	98,477	96,477	96,477	98,477	96,477	
016	0603106F	LOGISTICS SYSTEMS TECHNOLOGY	$17,960	17,960	17,960	17,960	17,960	17,960	17,960	
017	0603112F	ADVANCED MATERIALS FOR WEAPONS SYST	$23,283	23,283	23,283	23,283	25,283	28,283	30,283	
018	0603202F	AEROSPACE PROPULSION SUBSYS INTEG	$29,818	29,818	29,818	29,818	29,818	29,818	29,818	
019	0603203F	ADV AVIONICS FOR AEROSPACE VEHICLES	$32,131	32,131	32,131	32,131	32,131	32,131	32,131	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
020	0603205F	AEROSPACE VEHICLE TECHNOLOGY	$10,793	10,793	10,793	10,793	10,793	10,793	10,793	
021	0603211F	AEROSPACE STRUCTURES	$13,269	13,269	13,269	13,269	13,269	13,269	13,269	
022	0603216F	AEROSPACE PROPULSION AND POWER TECH	$41,779	41,779	41,779	41,779	41,779	41,779	41,779	
023	0603227F	PERSONNEL, TRAINING & SIM TECH	$8,930	8,930	8,930	8,930	8,930	8,930	8,930	
024	0603231F	CREW SYS AND PERSONNEL PROTECT TECH	$18,953	21,953	18,953	21,953	21,953	18,953	21,953	
025	0603238F	GLOBAL SURV/AIR DEF/PRECISION STRIKE	$2,483	2,483	2,483	2,483	2,483	2,483	2,483	
026	0603245F	ADV FIGHTER TECHNOLOGY INTEGRATION	$12,491	12,491	12,491	12,491	12,491	12,491	12,491	
027	0603250F	LINCOLN LABORATORY	$0	0	0	0	0	0	0	
028	0603253F	ADVANCED AVIONICS INTEGRATION	$20,421	20,421	20,421	17,621	17,621	20,421	17,621	
030	0603270F	ELECTRONIC WARFARE TECHNOLOGY	$25,079	25,079	25,079	22,579	20,079	25,079	22,579	
031	0603302F	SPACE AND MISSILE ROCKET PROPULSION	$15,203	20,203	15,203	20,203	20,203	15,203	20,203	
032	0603311F	BALLISTIC MISSILE TECHNOLOGY	$3,085	8,785	8,085	8,785	8,785	8,085	8,785	
034	0603401F	ADVANCED SPACECRAFT TECHNOLOGY	$32,627	140,127	52,627	102,627	83,627	52,627	78,627	
035	0603410F	SPACE SYS ENV INTERACTIONS TECH	$3,479	3,479	3,479	3,479	3,479	3,479	3,479	
036	0603428F	SPACE SUBSYSTEMS TECHNOLOGY	$0	0	0	0	0	0	0	
037	0603601F	CONVENTIONAL WEAPONS TECHNOLOGY	$31,637	34,137	31,637	34,137	34,137	31,637	34,137	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
038	0603605F	ADVANCED RADIATION TECHNOLOGY	$47,919	47,919	47,919	47,919	47,919	74,919	74,919	
039	0603707F	WEATHER SYSTEMS - ADV DEV	$4,577	4,577	4,577	4,577	4,577	4,577	4,577	
040	0603723F	CIVIL/ENVIRONMENTAL ENGINEERING	$9,835	9,835	9,835	8,835	7,835	9,835	8,835	
041	0603726F	C3I SUBSYSTEM INTEGRATION	$12,008	12,008	12,008	12,008	12,008	12,008	12,008	
042	0603728F	ADVANCED COMPUTING TECHNOLOGY	$11,005	11,005	11,005	11,005	36,605	11,005	36,605	
043	0603771F	INDUSTRIAL PREPAREDNESS MANUFACTURING TECHNOLOGY	$53,332	0	53,332	0	0	0	0	
044	0603789F	C3 ADVANCED DEVELOPMENT	$12,617	12,617	12,617	12,617	12,617	12,617	12,617	
045	0603260F	INTELLIGENCE ADVANCED DEVELOPMENT	$5,109	5,109	5,109	5,109	5,109	5,109	5,109	
046	0603307F	AIR BASE OPER ADVANCED DEV	$0	0	0	0	0	0	0	
047	0603319F	AIRBORNE LASER TECHNOLOGY	$19,954	19,954	19,954	19,954	19,954	19,954	19,954	
048	0603402F	SPACE TEST PROGRAM	$0	0	0	0	0	0	0	
049	0603430F	ADVANCED MILSATCOM	$30,038	30,038	30,038	30,038	30,038	30,038	30,038	
049A		POLAR SATCOM			58,000	58,000			$58,000	
050	0603434F	NATIONAL POLAR--ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE SYSTEM - DEM	$23,861	18,861	13,861	18,861	18,861	13,861	18,861	
051	0603438F	SATELLITE SYSTEMS SURVIVABILITY	$0	0	0	0	0	0	0	
053	0603441F	SPACE BASED INFRARED ARCHITECTURE (SBIR) - DEM/VAL	$130,744	265,744	265,744	265,744	230,744	265,744	265,744	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
054	0603617F	COMMAND/CONTROL/COMM APPLICATIONS	$6,437	6,437	6,437	6,437	6,437	6,437	6,437	
056	0603742F	COMBAT IDENTIFICATION TECHNOLOGY	$4,571	4,571	4,571	4,571	4,571	4,571	4,571	
057	0603800F	JOINT ADVANCED STRIKE TECHNOLOGY PROGRAM	$151,186	125,686	151,186	85,686	125,686	85,258	85,686	
059	0603851F	ICBM - DEM/VAL	$20,265	34,765	24,565	20,265	20,265	31,765	31,765	
061	0603853F	EVOLVED EXPENDABLE LAUNCH VEHICLE (EELV) PROGRAM DEM/VAL	$39,226	39,226	39,226	39,226	39,226	39,226	39,226	
062	0604201F	AIRCRAFT AVIONICS EQUIPMENT DEV	$16,892	16,892	16,892	16,892	16,892	16,892	16,892	
064	0604218F	ENGINE MODEL DERIVATIVE PRGM (EMDP)	$756	756	756	756	756	756	756	
065	0604222F	NUCLEAR WEAPONS SUPPORT	$4,822	4,822	4,822	4,822	4,822	4,822	4,822	
066	0604226F	B-1B	$173,838	194,838	287,638	202,438	197,438	187,438	202,438	
067	0604227F	TRAINING SYSTEMS DEVELOPMENT	$8,786	8,786	8,786	8,786	8,786	8,786	8,786	
068	0604231F	C-17 PROGRAM	$85,753	85,753	85,753	73,803	85,753	42,353	73,803	
069	0604233F	SPECIALIZED UNDERGRAD PILOT TRAINING	$63,042	63,042	63,042	63,042	63,042	63,042	63,042	
070	0604237F	VAR STAB IN-FLIGHT SIM TEST A/C	$0	0	0	0	0	0	0	
071	0604239F	F-22 EMD	$2,138,718	2,138,718	2,138,718	2,138,718	2,338,718	2,338,718	2,238,718	
072	0604240F	B-2 ADV TECH BOMBER	$623,616	623,616	623,616	623,616	623,616	623,616	623,616	
073	0604243F	MANPOWER, PERS & TRAINING DEV	$5,300	5,300	5,300	5,300	5,300	5,300	5,300	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
074	0604249F	NIGHT/PRECISION ATTACK	$8,708	8,708	8,708	8,708	8,708	20,708	20,708	
075	0604268F	AIRCRAFT ENGINE COMP IMP PROGRAM	$0	0	0	0	0	0	0	
076	0604270F	EW DEVELOPMENT	$50,203	50,203	50,203	50,203	50,203	50,203	50,203	
077	0604321F	COMBAT INTELLIGENCE SYSTEM - EMD	$3,938	3,938	3,938	3,938	3,938	3,938	3,938	
078	0604441F	SPACE BASED INFRARED ARCHITECTURE (SBIR) - EMD	$152,219	162,219	162,219	162,219	152,219	162,119	172,219	
079	0604479F	MILSTAR LDR/MDR SAT COMM	$649,666	649,666	577,666	577,666	649,666	591,666	577,666	
080	0604480F	GLOBAL POSITIONING SYSTEM BLOCK IFF	$19,699	19,699	29,699	19,699	19,699	19,699	19,699	
081	0604600F	MUNITIONS DISPENSER DEVELOPMENT	$53,254	53,254	53,254	53,254	53,254	53,254	53,254	
082	0604601F	CHEMICAL/BIOLOGICAL DEFENSE EQUIP	$0	0	0	0	0	0	0	
083	0604602F	ARMAMENT/ORDNANCE DEVELOPMENT	$8,075	8,075	8,057	8,075	8,075	8,075	8,075	
084	0604604F	SUBMUNITIONS	$4,953	4,953	14,953	14,953	14,953	14,953	14,953	
085	0604609F	R&M MATURATION/TECHNOLOGY INSERTION	$0	0	0	0	0	0	0	
086	0604617F	AIR BASE OPERABILITY	$9,692	9,692	9,692	9,692	9,692	9,692	9,692	
087	0604618F	JOINT DIRECT ATTACK MUNITION	$92,161	92,161	99,161	92,636	92,161	92,161	92,161	
088	0604703F	AEROMEDICAL/CHEMICAL DEFENSE SYS	$6,235	6,235	6,235	6,235	6,235	6,235	6,235	
089	604704F	COMMON SUPPORT EQUIPMENT DEV	$1,167	1,167	1,167	1,167	1,167	1,167	1,167	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
090	0604706F	LIFE SUPPORT SYSTEMS	$4,035	4,035	4,035	4,035	4,035	4,035	4,035	
092	0604708F	CIVIL, FIRE, ENVIR, SHELTER ENGIN	$2,737	2,737	2,737	2,737	2,737	2,737	2,737	
093	0604711F	SYSTEMS SURVIVABILITY (NUC EFFECTS)	$37	0	37	0	37	37	37	
094	0604727F	JOINT STANDOFF WEAPONS SYSTEMS	$44,025	44,025	44,025	44,025	44,025	40,802	44,025	
095	0604733F	SURFACE DEFENSE SUPPRESSION	$0	5,000	0	0	0	0	0	
096	0604735F	COMBAT TRAINING RANGES	$10,418	10,418	10,418	10,418	10,418	10,418	10,418	
097	604740F	COMPUTER RESOURCES TECH TRANS	$2,166	2,166	2,166	2,166	2,166	20,366	9,166	
098	0604750F	INTELLIGENCE EQUIPMENT	$1,294	1,294	1,294	1,294	1,294	1,294	1,294	
099	0604754F	JT TAC INFORM DISTRIBUTION SYS (JTIDS)	$10,146	10,146	10,146	10,146	10,146	10,146	10,146	
100	0604770F	JOINT SURV/TGT ATT RADAR SYS (JSTARS)	$169,702	203,702	169,702	182,202	189,702	162,202	182,202	
101	0604779F	JT INTEROP OF TAC COMM & CTRL SYS	$6,356	6,356	6,356	6,356	6,356	6,356	6,356	
102	0604851F	ICBM - EMD	$192,719	200,719	192,719	192,719	192,719	192,719	192,719	
103	0303606F	UHF SATELLITE COMMUNICATIONS	$15,568	13,068	9,068	13,068	13,068	13,068	13,068	
104	0603402F	SPACE TEST PROGRAM	$57,710	66,710	57,710	47,000	57,710	39,572	47,000	
105	0604256F	THREAT SIMULATOR DEVELOPMENT	$53,377	53,377	53,377	53,377	53,377	65,877	58,877	
106	0604258F	TARGET SYSTEMS DEVELOPMENT	$5,362	5,362	5,362	5,362	5,362	5,362	5,362	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
107	0604759F	MAJOR T&E INVESTMENT	$37,879	37,879	37,879	37,879	37,879	37,879	37,879	
108	0605101F	RAND PROJECT AIR FORCE	$25,924	25,924	25,924	25,924	25,924	25,924	25,924	
109	0605306F	RANCH HAND II EPIDEMIOLOGY STUDY	$3,139	3,139	3,139	3,139	3,139	3,139	3,139	
111	0605708F	NAV/RADAR/SLED TRACK TEST SUPPORT	$0	0	0	0	3,000		3,000	
112	0605712F	INITIAL OPERATIONAL TEST & EVAL	$24,506	24,506	24,506	24,506	24,506	24,506	24,506	
113	0605807F	TEST AND EVALUATION SUPPORT	$454,067	444,167	424,167	434,167	444,167	430,167	434,167	
114	0605808F	DEVELOPMENT PLANNING	$6,745	6,745	6,745	6,745	6,745	6,745	6,745	
115	0605853F	ENVIRONMENTAL CONSERVATION	$14,169	4,169	14,169	4,169	4,169	14,169	4,169	
116	0605854F	POLLUTION PREVENTION	$14,046	14,046	14,046	14,046	14,046	14,046	14,046	
117	0605856F	ENVIRONMENTAL COMPLIANCE	$26,423	26,423	26,423	26,423	26,423	26,423	26,423	
118	0605860F	ROCKET SYSTEMS LAUNCH PROGRAM (RSLP)	$5,949	5,949	5,949	5,949	5,949	22,749	22,749	
119	0605863F	RDT&E AIRCRAFT SUPPORT	$0	0	0	0	0	0	0	
120	0605876F	MINOR CONSTRUCTION (RPM) - RDT&E	$0	0	0	0	0	0	0	
121	0605878F	MAINTENANCE & REPAIR (RPM) - RDT&E	$0	0	0	0	0	0	0	
122	0605896F	BASE OPERATIONS - RDT&E	$117,083	126,983	126,983	123,983	120,683	126,983	123,983	
125	0604268F	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	$103,700	103,700	135,200	133,230	101,730	135,200	133,230	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
126	0101113F	B-52 SQUADRONS	$16,505	16,505	36,505	21,005	16,505	25,505	21,005	
127	0101120F	ADVANCED CRUISE MISSILE	$7,060	7,060	7,060	7,060	7,060	7,060	7,060	
129	0102325F	JOINT SURVEILLANCE SYSTEM	$4,711	4,711	4,711	4,711	4,711	4,711	4,711	
130	0102411F	NORTH ATLANTIC DEFENSE SYSTEM	$9,351	9,351	9,351	9,351	9,351	9,351	9,351	
131	0102412F	NORTH WARNING SYSTEM (NWS)	$1,015	1,015	1,015	1,015	1,015	1,015	1,015	
132	0207129F	F-111 SQUADRONS	$597	597	597	597	597	597	597	
133	0207133F	F-16 SQUADRONS	$175,600	175,600	175,600	175,600	175,600	177,600	175,600	
134	0207134F	F-15E SQUADRONS	$171,337	171,337	171,337	171,337	171,337	169,237	171,337	
135	0207136F	MANNED DESTRUCTIVE SUPPRESSION	$2,908	12,908	2,908	2,908	2,908	10,908	10,908	
136	0207141F	F-117A SQUADRONS	$3,881	3,881	3,881	3,881	3,881	3,881	3,881	
136A		JASSM			50,000	25,000		50,000	$25,000	
137	0207160F	TRI-SERVICE STANDOFF ATTACK MISSILE	$0	37,500	0	0	0	0	0	
138	0207161F	TACTICAL AIM MISSILES	$20,082	20,082	20,082	20,082	20,082	20,082	20,082	
139	0207163F	ADV MED RANGE A/A MSL (AMRAAM)	$42,311	50,311	47,311	47,311	50,311	37,211	47,311	
141	0207247F	AF TENCAP	$21,966	21,966	21,966	21,966	21,966	21,966	21,966	
142	0207248F	SPECIAL EVALUATION PROGRAM	$87,184	87,184	87,184	87,184	87,184	87,184	87,184	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
144	0207412F	THEATER AIR CONTROL SYS	$290	290	290	290	290	290	290	
145	0207417F	AIRBORNE WARNING & CNTL SYS (AWACS)	$96,696	96,696	96,696	96,696	96,696	96,696	96,696	
146	0207419F	TACTICAL AIRBORNE COMMAND AND CONTROL	$2,093	2,093	2,093	2,093	2,093	2,093	2,093	
147	0207422F	DEPLOYABLE C3 SYSTEMS	$0	0	0	0	0	0	0	
148	0207423F	ADVANCED COMMUNICATIONS SYS	$1,934	1,934	1,934	1,934	1,934	1,934	1,934	
149	0207424F	EVALUATION AND ANALYSIS PROGRAM	$77,688	77,688	77,688	77,688	77,688	77,688	77,688	
151	0207433F	ADVANCED PROGRAM TECHNOLOGY	$157,397	157,397	157,397	157,397	157,397	157,397	157,397	
152	0207438F	THEATER BATTLE MANAGEMENT (TBM) C4I	$24,813	24,813	24,813	24,813	29,813	24,813	29,813	
153	0207579F	ADVANCED SYSTEMS IMPROVEMENTS	$105,548	105,548	105,548	63,748	105,548	105,548	63,748	
154	0207590F	SEEK EAGLE	$17,390	17,390	17,390	17,390	17,390	17,390	17,390	
155	0207591F	ADVANCED PROGRAM EVALUATION	$140,571	140,571	140,571	140,571	140,571	140,571	140,571	
156	0207601F	USAF WARGAMING AND SIMULATION	$19,762	19,762	19,762	19,762	19,762	19,762	19,762	
157	0208006F	MISSION PLANNING SYSTEMS	$20,585	20,585	20,585	20,585	20,585	20,585	20,585	
159	0208060F	THEATER MISSILE DEFENSES	$25,102	25,102	53,102	25,102	25,102	53,102	25,102	
166	0303110F	DEF SAT COMM SYS	$32,555	32,555	32,555	32,555	32,555	32,555	32,555	
167	0303131F	MIN ESS EMERG COMM NETWORK (MEECN)	$15,777	15,777	15,777	15,777	15,777	15,777	15,777	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
168	0303140F	INFORMATION SYSTEMS SECURITY PROGRAM	$11,261	11,261	12,761	12,761	11,261	11,261	11,261	
169	0303144F	ELECTROMAGNETIC COMBAT ANALYSIS CTR	$0	0	0	0	0	0	0	
170	0303601F	MILSTAR SAT COMM SYS (AF TERMINALS)	$42,591	42,591	42,591	42,591	42,591	42,591	42,591	
171	0303605F	SATELLITE COMM TERMINALS	$0	0	0	0	0	0	0	
173	0305110F	SATELLITE CONTROL NETWORK	$89,717	89,717	89,717	84,617	82,717	84,617	84,617	
174	0305111F	WEATHER SERVICE	$5,771	5,771	5,771	5,771	5,771	5,771	5,771	
175	0305114F	AIR TRAFFIC CONTROL, APPROACH, AND LAND	$3,968	3,968	3,968	3,968	3,968	3,968	3,968	
176	0305119F	MEDIUM LAUNCH VEHICLES	$21,898	21,898	21,898	21,898	21,898	21,898	21,898	
178	0305128F	SECURITY AND INVESTIGATIVE ACTIVITIES	$299	299	299	299	299	299	299	
179	0305137F	NATIONAL AIR SPACE SYS (NAS) PLAN	$13,759	13,759	13,759	13,759	13,759	13,759	13,759	
180	0305138F	UPPER STAGE SPACE VEHICLES	$3,554	3,554	3,554	3,554	3,554	3,554	3,554	
182	0305144F	TITAN SPACE LAUNCH VEHICLES	$140,514	140,514	140,514	135,514	140,514	135,514	135,514	
183	0305145F	ARMS CONTROL IMPLEMENTATION	$998	998	998	998	998	998	998	
184	0305158F	CONSTANT SOURCE	$3,089	3,089	3,089	3,089	3,089	3,089	3,089	
185	0305160F	DEF METEOROLOGICAL SAT PROG (DMSP)	$21,464	21,464	21,464	21,464	21,464	21,464	21,464	
186	0305164F	NAVSTAR GPS (USER EQUIPMENT)	$17,371	17,371	17,371	17,371	17,371	17,371	17,371	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
187	0305165F	NAVSTAR GPS (SPACE/CONTROL SEG)	$26,921	26,921	26,921	25,921	26,921	25,921	25,921	
189	0305181F	WESTERN SPACE LAUNCH FACILITY (WSLF)	$0	0	0	0	0	0	0	
190	0305182F	EASTERN SPACE LAUNCH FACILITY (ESLF)	$52,272	52,272	52,272	52,272	52,272	52,272	52,272	
191	0305887F	ELECTRONIC COMBAT INTEL SUPPORT	$0	0	0	0	0	0	0	
194	0305906F	NCMC - TW/AA SYSTEMS	$60,897	60,897	60,897	68,797	60,897	68,797	68,797	
195	0305910F	SPACETRACK	$35,583	35,583	35,583	35,583	35,583	57,883	58,383	
196	0305911F	DEFENSE SUPPORT PROGRAM	$43,672	43,672	38,672	37,441	43,672	37,441	37,441	
197	0305913F	NUDET DETECTION SYSTEM	$16,277	16,277	16,277	13,277	13,277	16,277	13,277	
199	0401218F	KC-135s	$12,727	12,727	12,727	12,727	12,727	12,727	12,727	
201	0404102F	AEROSPACE RESCUE AND RECOVERY	$5,369	5,369	5,369	5,369	5,369	5,369	5,369	
203	0702207F	DEPOT MAINTENANCE (NON-IF)	$1,464	1,464	1,464	1,464	1,464	1,464	1,464	
204	0708011F	INDUSTRIAL PREPAREDNESS/MANUFACTURING TECHNOLOGY	$0	53,332	0	60,932	53,332	60,932	60,932	
205	0708012F	LOGISTICS SUPPORT ACTIVITIES	$0	0	0	0	0	0	0	
206	0708026F	PROD/REL/AVAIL/MAIN PROG OFC (PRAMP)	$15,719	15,719	15,719	15,719	15,719	15,719	15,719	
207	0708054F	POLLUTION PREVENTION	$0	0	0	0	0	0	0	
208	0708611F	SUPPORT SYSTEMS DEVELOPMENT	$5,906	5,906	5,906	5,906	5,906	5,906	5,906	

FY 96 CONGRESSIONAL MINI-$-TRACK RDT&E (3600)
(Dollars In Thousands)

SEQ	PE	TITLE	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF	NOTES
209	0804734F	CRYPTOLOGIC/SIGINT-RELATED SKILL TRAINING	$1,139	1,139	1,139	1,139	1,139	1,139	1,139	
210	0901218F	CIVILIAN COMPENSATION PROGRAM	$5,827	5,827	5,827	5,827	5,827	5,827	5,827	
211	1001004F	INTERNATIONAL ACTIVITIES	$3,713	3,713	3,713	3,713	3,713	3,713	3,713	

****

TITLE: DEFENSE RESEARCH SCIENCES APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$239,893	244,893	235,893	249,478	254,393	230,478	239,978

****

HNSC:
Adaptive optics

The committee recommends an additional $5 million in PE 61102F for adaptive optics research.

HNSC, p. 118

SASC:
Adaptive optics

The committee recommends an additional $5.0 million in PE 601102F for adaptive optics research.

SASC, p. 157

Defense research sciences (Air Force)

The committee recommends a reduction of $9.0 million in the Defense Research Sciences program of the Air Force to allow the funding of higher priority projects.

SASC, p. 157

AUTH CONF:
Defense research sciences

The budget request included $239.893 million for defense research sciences in PE 61102F.
The House bill would authorize an additional $5.0 million for adaptive optics research.
The Senate amendment would reduce the budget request by $9.0 million and authorize $5.0 million for adaptive optics research.
The conferees agree, that of the $249.5 million authorized in this program element, $5.0 million shall be authorized for adaptive optics research.

AUTH CONF, p. 677

Joint seismic program and global seismic network (sec. 221)

The Senate amendment contained a provision (sec. 224) that would authorize $9.5 million of unobligated fiscal year 1995 funds in Air Force research and development for the joint seismic program (JSP) and the global seismic network (GSN) to provide more robust monitoring research and expanded seismic monitoring of potential nuclear tests.

The House bill contained no similar provision.

The conferees agree to a provision that would authorize $9.5 million in fiscal year 1996 for the joint seismic and global seismic network programs. The conferees understand that no future year funds would be required for this program. Further, the conferees direct the Department of Defense Comptroller to release the funds in a timely manner so that the programs can be completed.

AUTH CONF, p. 713 (Defense-wide RDT&E)

HAC:

DEFENSE RESEARCH SCIENCES

The Air Force requested $239,893,000 for defense research sciences. The Committee recommends $254,393,000, an increase of $14,500,000. The Committee recommendation includes the requested amount of $650,000 for support to the Sacramento Peak Observatory. The Committee directs that the full amount be provided to Sacramento Peak and designates this project to be an item of specific Committee interest. Of the total increase, $5,000,000 is provided by the Committee only for the adaptive optics project.

The Committee has also provided an increase of $9,500,000 only for the Global Seismographic Network and the Joint Seismic Program which provides an expanded capability to seismically monitor potential nuclear tests and a more robust monitoring research program. The Committee has serious concerns regarding the Department's delay in releasing $12,000,000 in fiscal year 1995 funds made available for this program. These funds, provided in P.L. 103-335, are not available for reprogramming. The Committee directs the Department to obligate these funds promptly.

HAC, p. 158

SAC:

Defense research sciences.-The Committee provides $230,478,000, a decrease of $9,415,000 to the budget request, to continue Air Force basic research projects. The recommendation includes a reduction of $14,415,000, holding the program to the fiscal year 1994 funding level.

Furthermore, the Committee has provided an increase of $5,000,000 for the Center for Astronomical Adaptive Optics [CAAO]. The added funds will allow the CAAO to complete the research and development needed to bring the adaptive optics program to full maturity.

Finally, the Committee directs that $650,000 of the appropriated funds are available only to continue efforts at the National Solar Observatory.

SAC, p. 173-174

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Defense Research Sciences	239,893	254,393	230,478	239,978
Center for Astronomical Adaptive Optics		+5,000	+5,000	+5,000
Joint Seismic Research		+9,500		+9,500
Program Reduction			-14,415	-14,415

APPN CONF, p. 111

****

TITLE: MATERIALS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$74,534	82,534	75,284	74,534	71,000	74,534	74,534

****

HNSC:

Robotics corrosion inspection system

The committee understands that there are technologies available for dual-use, non-contact robotic corrosion inspection of aircraft that could save the Department hundreds of millions of dollars and reduce environmental problems associated with current inspection procedures. The committee recommends an additional $8 million in PE 62102F to conduct a competitive program to demonstrate the feasibility of non-contact robotic aircraft inspection for the detection of hidden corrosion and metal fatigue. The objective is to demonstrate the feasibility to reduce cargo and fighter aircraft inspection and repair costs by 25 percent annually. The Air Force shall coordinate this effort with the other miliary services, direct Air Combat Command to conduct the program, consider dual-use and private-government cost sharing in making a competitive selection and use commercial business practices in the conduct of this demonstration.

HNSC, p. 121

SASC:

Reentry vehicle applications

The Nuclear Posture Review, conducted by the Department of Defense during the fall of 1994, recommended sustaining the industrial base for strategic ballistic missile reentry vehicles (RVs). The United States Strategic Command has reported that the RV industrial base, especially the expertise and capability to manufacture specialized material, is rapidly eroding. In response to this critical requirement, the Department of Defense has directed the Air Force and the Navy to sustain key elements of the RV industrial base through an RV applications program.

The budget request includes $5.7 million for the Air Force and $10.0 million for the Navy to pursue this effort. However, the Air Force funding level is inadequate. Therefore, the committee recommends an increase of $4.3 million in PE 603851F to balance the Air Force and Navy efforts. To help bolster this effort, the committee also recommends an increase of $750,000 in PE 0602102F to the Thermal Protection Materials Reentry Vehicle Project for the purchase, testing, and evaluation of three nosetip billets and related technologies; and an increase of $2.2 million in the Strategic Submarine and Weapons System Support program (PE 0101221N) for the fabrication and testing of carbon-carbon composite shape stable nosetip billets for submarine launched ballistic missile RV system applications.

SASC, p. 158

AUTH CONF:

Robotics corrosion inspection system

The House bill would authorize $8.0 million in PE 62102F to conduct a competitive program to demonstrate the feasibility of non-contact robotic corrosion inspection for detection of hidden corrosion and metal fatigue.

The Senate amendment did not include such authorization.

The conferees strongly encourage the Air Force to consider environmentally benign technologies that demonstrate the potential to provide a 25 percent savings in cargo and fighter aircraft inspection and repair costs through the use of non-contact robotic corrosion inspection.

AUTH CONF, p. 677

Intercontinental ballistic missile (ICBM) research and development and associated issues

ICBM DEMONSTRATION/VALIDATION

The budget request included $20.3 million in PE 63851F for six Minuteman-related projects.

The House bill would authorize an additional $14.5 million to complete acquisition and requirement documentation efforts and to conduct missile guidance technology experiments. The House report (H. Rept. 104-131) expressed concern that the budget request failed to include pre-milestone 0 and phase 0 funding for the command signal decoder, the modified miniature receive terminal for launch control centers, the safety enhanced reentry vehicle, and inertial measurement modifications.

The Senate amendment would authorize an additional $4.3 million to bolster the Air Force reentry vehicle applications project. The Senate report (S. Rept. 104-112) expressed concern that the reentry vehicle nose tip requirements were not adequately funded.

The conferees agree to authorize the budget request. The conferees also reiterate the concerns expressed in the House and Senate reports. The conferees understand that the Air Force is considering options to address these concerns from within their existing fiscal year 1996 budget, in particular the documentation issues identified in the House report. The conferees strongly urge the Air Force to fulfill these requirements.

ICBM ENGINEERING AND MANUFACTURING DEVELOPMENT

The budget request contained $192.7 million in PE 64851F to fund the Minuteman guidance and propulsion replacement programs.

The House bill would authorize an additional $8.0 million to fund the initial integration design and testing of the capability to integrate the Mk21 warhead on the new Minuteman guidance set. The House report (H. Rept. 104-131) endorsed using the Mk21, the safest warhead in the inventory, on the Minuteman, if and when it becomes available as a result of arms control treaties. The House report expressed concern that the current guidance replacement program fails to fund the design and testing necessary to ensure the Mk21 capability prior to initiation of the guidance set production.

The Senate amendment would authorize the budget request.

The conferees agree to authorize the budget request. The conferees, however, reiterate the concerns expressed in the House report (H. Rept. 104-131), and support the recommendations made therein. The conferees are concerned that the Department of Defense and the Air Force have failed to take the necessary action to ensure that the safest nuclear warheads are compatible with the new Minuteman guidance sets. Therefore, the conferees direct that, of the funds authorized for fiscal year 1996 in PE 64851F, up to $4.0 million shall be available to initiate efforts to ensure that the new Minuteman guidance sets are capable of accommodating the Mk21 warhead. The conferees further direct the Secretary of Defense to ensure that the funds necessary to continue this effort are included in the fiscal year 1997 budget request.

REENTRY VEHICLE MATERIALS

The Senate amendment would authorize $750,000 above the budget request in PE 62102F for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three nose tip billets and related technologies.

The House bill would not authorize additional funds for reentry vehicle materials.

The Senate recedes. Nevertheless, the conferees reiterate the concerns expressed in the Senate report (S. Rept. 104-112) regarding the adequacy of the reentry vehicle applications program, and, in particular, the reentry vehicle materials program. Therefore, the conferees direct that, of the funds available in PE 62102F, up to $750,000 shall be available for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three ICBM reentry vehicle nose tip billets and related thermal technologies.

BALLISTIC MISSILE TECHNOLOGY

The budget request contained $3.1 million in PE 63311F to conduct guidance and range safety technology experiments.

The House bill would authorize an additional $5.7 million for Minuteman class range tracking and safety equipment based on Global Positioning System (GPS) equipment developments.

The Senate amendment would authorize an additional $5.0 million for suborbital flight testing conducted at White Sands Missile Range for ballistic missile guidance, range tracking, and safety equipment, based on existing GPS equipment.

The conferees agree to authorize $5.7 million above the budget request to enhance ballistic missile technology experiments and to proceed with a follow-on to the successful Missile Technology Demonstration Flight 1 (MTD-1). The conferees commend the participants in this joint effort and encourage the Air Force, the Ballistic Missile Defense Organization, the Defense Nuclear Agency, and the Phillips Laboratory to continue to pursue such joint efforts. Prior to completing plans for a MTD follow-on, the conferees direct the Air Force to consult with the Senate Committee on Armed Services and the House Committee on National Security on the issues and options associated with the following: (1) the technologies to be tested; (2) the type of booster configuration to be employed; and (3) the test range to be used.

PEACEKEEPER CONTINGENCY PLANNING

The conferees direct the Secretary of the Air Force to submit a report to the congressional defense committees, by March 1, 1996, that outlines the Air Force's current plans for retiring Peacekeeper, and maintaining the system in the interim. The report should also address the additional actions and funding that would be required to maintain the option of retaining up to 50 Peacekeeper ICBMs in an operational status beyond 2003. The report should include a timetable that outlines when such actions and funding would be needed.

AUTH CONF, p. 678-80

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Materials	74,534	71,000	-3,534

HAC, p. 157

****

TITLE: AEROSPACE FLIGHT DYNAMICS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$66,268	66,268	66,268	64,350	62,768	60,799	63,100

****

AUTH CONF:
Firefighting clothing

The conferees encourage the Department of Defense to continue to make greater use of commercial off-the-shelf technologies that meet military requirements without extensive development programs. The conferees are aware of recent commercial developments in thermal absorbing materials that would have the potential to significantly increase personnel protection for fighting aircraft, ship-board, and chemical fires. Accordingly, the conferees authorize an additional $1.25 million in PE 62201F for the development of a firefighting suit that would incorporate these technologies.

AUTH CONF, p. 677

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Aerospace Flight Dynamics	66,268	62,768	-3,500

HAC, p. 157

SAC:

FY 1996 CONGRESSIONAL TRACK

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Aerospace flight dynamics	66,268	60,799	-5,469
Aeromechanics-technologies for a more efficient design cycle		-5,469	-5,469

SAC, p. 173

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Aerospace Flight Dynamics	66,268	62,768	60,799	63,100
Aeromechanics			-5,469	-3,168

APPN CONF, p. 111

****

TITLE: HUMAN SYSTEMS TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$90,311	90,311	75,311	86,911	86,911	75,311	86,911

****

SASC:
Human systems technology

The committee recommends a reduction of $15.0 million in PE 602202F to fund other priority programs. The committee notes that this reduction would still allow for a substantial increase in funding for this program in fiscal year 1996.

SASC, p. 157

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Human Systems Technology	90,311	86,911	-3,400

HAC, p. 157

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates

other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Human systems technology	90,311	75,311	-15,000

SAC, p. 173

****

TITLE: AEROSPACE PROPULSION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$78,592	81,592	81,592	75,070	81,592	72,070	75,070

****

HNSC:
Aerospace propulsion

The committee recognizes the promising results demonstrated in on-going research on thermally stable jet fuels derived from carbonized phyto-feedstocks which permit higher engine operating temperatures without forming damaging carbon deposits, while reducing engine stress and improving engine reliability. Accordingly, the committee recommends an additional $3 million in PE 62203F to further this effort on thermally stable jet fuels.

HNSC, p. 118

SASC:
Thermally stable jet fuels

The committee recommends an additional authorization of $3.0 million in PE 602203F for the acceleration of a program to develop thermally stable jet fuels using chemicals derived from coal.

SASC, p. 157

AUTH CONF:
Aerospace propulsion

The budget request included $3.7 million in PE 62203F for the high thermal stability and the endothermic hydrocarbon fuels project 3048.
The House bill and Senate amendment would authorize an additional $3.0 million for the acceleration of this project.
The conferees agree that of the $75.0 million authorized for this program element that $6.7 million be authorized for project 3048.

AUTH CONF, p. 677

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

FY 1996 CONGRESSIONAL TRACK

Item	Budget request	Committee recommended	Change from request
Aerospace Propulsion	78,592	81,592	+3,000

HAC, p. 157

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Aerospace propulsion	78,592	72,070	-6,522

SAC, p. 173

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Aerospace Propulsion	78,592	81,592	72,070	75,070
Thermally Stable Jet Fuels		+3,000		+3,000
Program Reduction			-6,522	-6,522

APPN CONF, p. 111

****

TITLE: AEROSPACE AVIONICS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$74,256	74,256	74,256	68,500	74,256	66,601	68,500

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Aerospace avionics	74,256	66,601	-7,655

SAC, p. 173

****

TITLE: HYPERSONIC FLIGHT TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$19,900	19,900	19,900	19,900	19,900	16,900	19,900

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Hypersonic technology development	19,900	16,900	-3,000

SAC, p. 173

****

TITLE: ADVANCED WEAPONS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$124,446	130,446	124,446	135,446	130,446	130,746	136,746

****

HNSC:
Rocket propulsion technology

The budget request included $47.531 million for rocket propulsion technology in support of the Integrated High Payoff Rocket Technology Initiative Program. The committee recommends an additional $13 million to be authorized as follows: $6 million for PE 62601F, project 1011; $5 million for PE 63302F, project 4373; and $2 million for PE 62111N. This initiative would involve the Department of Defense, NASA, and the space launch industry in joint, cost shared, coordinated research and development to meet national requirements for rocket propulsion technology. The additional authorization shall only be used for direct support costs of these technology projects.

HNSC, p. 121

SASC:
Section - 216. Defense Nuclear Agency programs.

The committee is concerned with the decline in funding for research and development for the Defense Nuclear Agency (DNA) and the resulting detrimental impact on nuclear expertise and the ability of the Services to operate in a nuclear, biological, and chemical environments. Funding for DNA research and development has declined by around 40 percent over the past fifteen years, and based on documents provided to the committee, it appears that the Secretary of Defense intends to make even further reductions. This action is extremely disturbing, considering the threat of the proliferation of nuclear, biological, and chemical weapons and technology, as stated by the President, the Secretary of Defense, the Commanders in Chief and the Services, in statements and testimony before the Congress.

Equally, if not more troubling, is the idea that radiation hardening of microelectronics to protect space-based systems is unnecessary and not affordable in today's security environment. The demand for radiation hardened chips has dropped since the end of the Cold War, however, the threat of proliferation of weapons of mass destruction makes limited nuclear use in regional conflicts much more likely. Current U.S. strategy and conventional superiority relies on high technology systems which are becoming inherently vulnerable to the effects of radiation and electromagnetic pulse (EMP). Current and next generation military satellites are vulnerable to a single nuclear strike, undermining our conventional warfighting capability. Given the attention the Department places on proliferation and the maintenance of conventional superiority in a regional contingency, the current lack of attention on radiation hardening is strategically shortsighted.

DNA Mission

The committee is also concerned that the Office of the Secretary of Defense continues to question DNA's mission, despite a series of exhaustive congressionally-mandated reviews spanning several years, which concluded that DNA should serve as the Department of Defense's center for nuclear expertise; and that its expertise should be applied to the emerging nuclear and related weapons of mass destruction (WMD) challenges and related defense needs, particularly in the area of counterproliferation targeting technologies and biological and chemical agent destruction. The committee expects the Department of Defense to maintain this mission and to maximize the DNA's inherent expertise over a wide range of national security challenges, as well as consolidate further nuclear support missions within the Agency. Furthermore, as the agency with expertise in nuclear matters for the Department, the committee expects DNA to be an outspoken advocate for its missions. In order to be effective, the resources necessary to perform simulation of weapons effects using non-nuclear testing methods and other applications to enhance the span of lethality options must be included in its budget. The committee is not convinced that in this era of declining budgets that the Services will allocate or prioritize the necessary funds to compensate DNA for such tests. It is the committee's experience that, faced with conflicting priorities, the Services would place simulation and testing near the bottom of their priority lists. Additionally, DNA can offer efficiencies, as DOD's center for nuclear expertise, which the Services cannot offer. In this era of declining budgets, consolidating funding and effort should be guiding principles in dealing with the WMD threat. DNA remains a key player in the national nuclear support infrastructure and a central participant in the national response to the WMD challenge.

DNA Budget Request

The committee recommends authorization of $252.9 million for fiscal year 1996 for the Defense Nuclear Agency, a $23.0 million increase to the fiscal year 1996 budget request. Of those funds authorized, the committee directs the following:

--$3.0 million for the establishment of a tunnel characterization/neutralization program to be managed by DNA as part of the department's counterproliferation effort. The initial source of funding for this effort shall include the $10 million directed by the Deputy Secretary to DNA in Fiscal Year 1996 for this purpose;
--$6.0 million for the establishment of a long-term radiation tolerant microelectronics program to ensure the continued operability of U.S. military systems in regional WMD-threat scenarios. DNA shall serve as the focal point for this DOD-wide effort to develop affordable and effective hardening technologies, ensure their incorporation into systems, and sustain the supporting industrial base. Additionally, the Secretary is directed to provide a report to Congress on the effort to be conducted and the outyear funding required, no later than 120 days after the enactment of this Act.

The committee strongly encourages the Department to maintain DNA research and development funding at no less than the current level and to apply greater resources in the outyears to ensure continued nuclear competence.

Electro-Thermal Chemical (ETC) Gun Program

Lastly, the committee is pleased to learn of the significant technical progress of DNA's Electro-Thermal Chemical (ETC) Gun Program. This program is an ideal example of the outgrowth of DNA nuclear expertise being used for conventional purposes. Using nuclear expertise developed at DNA for pulse power and plasma physics, the DNA ETC gun program meets the United States Navy's requirement for Naval Surface Fire Support as a low cost, high performance alternative with sufficient range and lethality, as well as required rate-of-fire. This past year, DNA completed a series of firings with a conventional propelling charge and a low vulnerability (LOVA) propellant which demonstrated better repeatability than the current naval gun system. Equally significant, DNA technological advancements have dramatically reduced the electrical requirement, significantly reducing the size of the Pulse Forming Network. Recognizing the revolutionary potential of this new technology, the United States, British, German, and French armies are now pursuing analogous electric armaments research. The committee encourages Army consideration of ETC propulsion for future tank applications. DNA is encouraged to support these expanded U.S. and allied efforts. To compensate for the reduction made in the fiscal year 1995 appropriations process, the committee recommends an additional $4 million in fiscal year 1996 for the DNA ETC Gun Program.

Thermionics

The committee is dissatisfied with the slow pace of the thermionics conversion technology under Air Force management, and therefore recommends the transfer of the thermionics conversion technology from the Air Force Weapons program (PE62601F) and unobligated funds authorized and appropriated in prior years, totalling around $12.0 million to the Defense Nuclear Agency program (PE62715H). This program converts thermal energy from a number of different sources into electricity without the use of moving parts. There are a number of defense applications for satellite power and propulsion systems as well as potential commercial applications in energy conservation. The committee also recommends an increase of $10.0 million to accelerate this program in fiscal year 1996.

SASC, p. 102-104

AUTH CONF:
High frequency active auroral research program (HAARP)

The conferees agree to a $5.0 million increase in PE 62601F for the high frequency active auroral research program (HAARP).

AUTH CONF, p. 677

Defense Nuclear Agency programs (sec. 217)

The budget request contained $219.0 million for research and development at the Defense Nuclear Agency.

The Senate amendment contained a provision (sec. 216) that would authorize $242.0 million for fiscal year 1996 for research and development programs (PE 62715H), a $23.0 increase to the budget request. The increase would provide: $3.0 million for the establishment of the tunnel characterization/neutralization program; $6.0 million for the establishment of a long-term radiation tolerant microelectronics program and require the Secretary to report to Congress on the program and future year funding; $4.0 million for the electro-thermal gun program; and transfer the Air Force thermionics program and any unobligated funds to the DNA and provide $10.0 to accelerate that program.

The House report (H. Rept. 104-131) would provide a $4.0 million increase to the budget request for the electro-thermal gun technology.

The conferees agree to a provision that would authorize $241.7 million, including a reduction of $5.0 for environmental pollutant research. This represents a $27.7 million increase over the budget request. Of that amount, $3.0 million shall be used for a tunnel characterization/neutralization program, $4.0 million shall be available for the electro-thermal gun technology program, $6.0 million shall be available for the establishment of a long-term radiation tolerant microelectronics program and development of long pulse, high power microwave technology, $10 million shall be available for the thermionics program; and $4.0 million shall be available for the counterterror explosives research program. Additionally, the Secretary is directed to provide a report to Congress, 120 days after enactment of this Act, on the conduct of the long-term radiation tolerant microelectronics program and future years funding for this program. The remainder of the increase should be used to supplement the tunnel characterization/neutralization program and the long-term radiation tolerant microelectronics program, as appropriate.

TUNNEL CHARACTERIZATION/NEUTRALIZATION PROGRAM

The conferees understand that the Department of Defense has allocated $10.0 million of funds requested in the budget for the counterproliferation support program for a tunnel characterization/neutralization program. Although the DNA tunnel characterization/neutralization target tests and program would be executed

independently of the Department's counterproliferation efforts, the conferees expect close coordination between the two programs to ensure that common concerns are addressed. The conferees urge the DNA to utilize, to the maximum extent possible, the Nevada Test Site infrastructure for the tunnel target characterization/neutralization tests and program.

THERMIONICS

The conferees directed the transfer of the thermionics conversion technology from the Air Force Weapons program (PE 62601F), together with all unobligated funds authorized and appropriated in prior years, totalling up to $12.0 million, to the Defense Nuclear Agency program (PE 62715H).

AUTH CONF, p. 709-710

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Advanced Weapons	124,446	130,446	+6,000

HAC, p. 157

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Advanced weapons	124,446	130,746	+6,300
High Frequency Active Auroral Research Program		+5,000	+5,000

AEOS spectrograph	+1,300	+1,300

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Advanced Weapons	124,446	130,446	130,746	136,746
Rocket Propulsion Technology		+6,000		+6,000
High Frequency Active Auroral Research			+5,000	+5,000
AEOS Spectrograph			+1,300	+1,300

APPN CONF, p. 111

****

TITLE: COMMAND/CONTROL/COMMUNICATION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$98,477	96,477	98,477	96,477	96,477	98,477	96,477

****

HNSC:
Command, control, and communications technology

The budget request included $98.477 million in PE 62702F for exploratory development of new concepts, feasibility demonstrations, and advanced technology for Air Force command, control, and communications. The committee recommends a reduction of $5 million to the budget request, and strongly recommends that the Air Force put increased emphasis on the development of information technologies for real-time battle management and command and control for time-critical air operations in support of the joint force commander.

Computer security

The committee recommends an additional $3 million in PE 62702F to evaluate voice recognition security systems to enhance the security of the Department's command and control system. The technology should be user-friendly, inexpensive, tolerant to environmental changes, provide a high degree of accuracy, and use commercial standards.

HNSC, p. 118-119

AUTH CONF:
Computer security

The budget request included $98.5 million for Command, Control, and Communications in PE 62702F.
The House bill would authorize an additional $3.0 million to evaluate voice recognition computer security systems.
The Senate amendment contained no similar authorization.
The conferees direct that, of the $96.5 million authorized, $3.0 million be authorized for evaluation of voice recognition computer security systems, as specified in the House report (H. Rept. 104-131).

AUTH CONF, p. 678

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Command, Control and	98,477	96,477	-2,000

Communications

HAC, p. 157

****

TITLE: ADVANCED MATERIALS FOR WEAPONS SYST APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$23,283	23,283	23,283	23,283	25,283	28,283	30,283

****

HAC:

ADVANCED MATERIALS FOR WEAPONS DEVELOPMENT

The Air Force requested $23,283,000 for advanced materials for weapons development. The Committee recommends $25,283,000, an increase of $2,000,000 to the budget request. The additional funding provided by the committee is only for the infrared signature control program.

HAC, p. 158

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Advanced materials for weapon systems	23,283	28,283	+5,000
Metal fatigue monitoring technology		+5,000	+5,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Advanced Materials for Weapon Systems	22,283	25,283	28,283	30,283
Infrared Signature Control		+2,000		+2,000
Metal Fatigue Monitoring Technology			+5,000	+5,000

APPN CONF, p. 111

****

TITLE: CREW SYS AND PERSONNEL PROTECT TECH APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$18,953	21,953	18,953	21,953	21,953	18,953	21,953

****

HNSC:
Aircraft ejection seats

The committee is concerned that inadequate emphasis is being placed on aircrew protection for light-weight crew members and for ejections at higher air speeds. The committee is also concerned about the sustainment of the U.S. aircraft ejection seat industrial base during this period of virtually no aircraft procurement.

The committee therefore provides an additional $3 million in PE 63231F and directs the Air Force to conduct tests on existing Navy, USMC, and Air Force front-line trainer and tactical aircraft ejection seats for the purpose of verifying their predicted performance and identifying problems and required corrective action. Testing should be conducted at the most economical and readily available government or commercial test facility. In conducting these tests, high priority shall be given to the sustainment of the U.S. ejection seat industrial base.

Testing should be completed prior to October 1, 1996 with a report being provided to the congressional defense committees no later than March 1, 1997.

HNSC, p. 118

AUTH CONF:
Aircraft ejection seats

The budget request included $19.0 million in PE 63231F for crew systems and personnel protection technology.
The House bill would authorize an additional $3.0 million to test existing Navy, Marine Corps, and Air Force front-line trainer and tactical aircraft ejection seats. Ejection seat tests would be conducted to verify predicted performance and to identify existing problems and the required corrective action.
The Senate amendment had no similar provision.
The conferees agree to authorize an additional $3.0 million in PE 63231F for the purposes specified in the House report (H. Rept. 104-131).

AUTH CONF, p. 678

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Crew Systems and Personnel Protection	18,953	21,953	+3,000

HAC, p. 157

****

TITLE: ADVANCED AVIONICS INTEGRATION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$20,421	20,421	20,421	17,621	17,621	20,421	17,621

****

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Advanced Avionics Integation	20,421	17,621	-2,800

HAC, p. 157

****

TITLE: ELECTRONIC WARFARE TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$25,079	25,079	25,079	22,579	20,079	25,079	22,579

****

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
EW Technology	25,079	20,079	-5,000

HAC, p. 157

****

TITLE: SPACE AND MISSILE ROCKET PROPULSION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$15,203	20,203	15,203	20,203	20,203	15,203	20,203

****

HNSC:
Rocket propulsion technology

The budget request included $47.531 million for rocket propulsion technology in support of the Integrated High Payoff Rocket Technology Initiative Program. The committee recommends an additional $13 million to be authorized as follows: $6 million for PE 62601F, project 1011; $5 million for PE 63302F, project 4373; and $2 million for PE 62111N. This initiative would involve the Department of Defense, NASA, and the space launch industry in joint, cost shared, coordinated research and development to meet national requirements for rocket propulsion technology. The additional authorization shall only be used for direct support costs of these technology projects.

HNSC, p. 121

AUTH CONF:
Rocket propulsion technology

The House bill would authorize an additional $13.0 million for rocket propulsion technology programs in PE 62601F, PE 63302F, and PE 62111N.
The Senate amendment contained no similar provision.
The conferees agree to provide an additional $13.0 million, as specified in the House report (H. Rept. 104-131).

AUTH CONF, p. 677-8

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Space and Missile Rocket Propulsion	15,203	20,203	+5,000

HAC, p. 157

SAC:

Space and missile rocket propulsion.-The Committee has been informed that the Air Force intends to use small business innovative research funds during fiscal year 1996 to continue developing lower cost space launch technologies under the Scorpius program. The Committee directs the Air Force to include up to $10,000,000 in its fiscal year 1997 budget request to expand Scorpius, should results of the ongoing activities demonstrate the cost and operational viability of the Scorpius technologies.

SAC, p. 177

****

TITLE: BALLISTIC MISSILE TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$3,085	8,785	8,085	8,785	8,785	8,085	8,785

****

HNSC:
Range tracking and safety

The committee recommends an additional $5.7 million in PE 63311F for suborbital flight testing of Minuteman class range tracking and safety equipment based on existing global positioning system equipment developments.

HNSC, p. 120

SASC:
Range tracking and safety

The committee recommends an additional $5.0 million in PE 0603311F for suborbital flight testing at White Sands Missile Range of ballistic missile guidance, range tracking and safety equipment that is based on existing Global Positioning System equipment.

SASC, p. 157

AUTH CONF:
Intercontinental ballistic missile (ICBM) research and development and associated issues

ICBM DEMONSTRATION/VALIDATION

The budget request included $20.3 million in PE 63851F for six Minuteman-related projects.

The House bill would authorize an additional $14.5 million to complete acquisition and requirement documentation efforts and to conduct missile guidance technology experiments. The House report (H. Rept. 104-131) expressed concern that the budget request failed to include pre-milestone 0 and phase 0 funding for the command signal decoder, the modified miniature receive terminal for launch control centers, the safety enhanced reentry vehicle, and inertial measurement modifications.

The Senate amendment would authorize an additional $4.3 million to bolster the Air Force reentry vehicle applications project. The Senate report (S. Rept. 104-112) expressed concern that the reentry vehicle nose tip requirements were not adequately funded.

The conferees agree to authorize the budget request. The conferees also reiterate the concerns expressed in the House and Senate reports. The conferees understand that the Air Force is considering options to address these concerns from within their existing fiscal year 1996 budget, in particular the documentation issues identified in the House report. The conferees strongly urge the Air Force to fulfill these requirements.

ICBM ENGINEERING AND MANUFACTURING DEVELOPMENT

The budget request contained $192.7 million in PE 64851F to fund the Minuteman guidance and propulsion replacement programs.

The House bill would authorize an additional $8.0 million to fund the initial integration design and testing of the capability to integrate the Mk21 warhead on the new Minuteman guidance set. The House report (H. Rept. 104-131) endorsed using the Mk21, the safest warhead in the inventory, on the Minuteman, if and when it becomes available as a result of arms control treaties. The House report expressed concern that the current guidance replacement program fails to fund the design and testing necessary to ensure the Mk21 capability prior to initiation of the guidance set production.

The Senate amendment would authorize the budget request.

The conferees agree to authorize the budget request. The conferees, however, reiterate the concerns expressed in the House report (H. Rept. 104-131), and support the recommendations made therein. The conferees are concerned that the Department of Defense and the Air Force have failed to take the necessary action to ensure that the safest nuclear warheads are compatible with the new Minuteman guidance sets. Therefore, the conferees direct that, of the funds authorized for fiscal year 1996 in PE 64851F, up to $4.0 million shall be available to initiate efforts to ensure that the new Minuteman guidance sets are capable of accommodating the Mk21 warhead. The conferees further direct the Secretary of Defense to ensure that the funds necessary to continue this effort are included in the fiscal year 1997 budget request.

REENTRY VEHICLE MATERIALS

The Senate amendment would authorize $750,000 above the budget request in PE 62102F for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three nose tip billets and related technologies.

The House bill would not authorize additional funds for reentry vehicle materials.

The Senate recedes. Nevertheless, the conferees reiterate the concerns expressed in the Senate report (S. Rept. 104-112) regarding the adequacy of the reentry vehicle applications program, and, in particular, the reentry vehicle materials program. Therefore, the conferees direct that, of the funds available in PE 62102F, up to $750,000 shall be available for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three ICBM reentry vehicle nose tip billets and related thermal technologies.

BALLISTIC MISSILE TECHNOLOGY

The budget request contained $3.1 million in PE 63311F to conduct guidance and range safety technology experiments.

The House bill would authorize an additional $5.7 million for Minuteman class range tracking and safety equipment based on Global Positioning System (GPS) equipment developments.

The Senate amendment would authorize an additional $5.0 million for suborbital flight testing conducted at White Sands Missile Range for ballistic missile guidance, range tracking, and safety equipment, based on existing GPS equipment.

The conferees agree to authorize $5.7 million above the budget request to enhance ballistic missile technology experiments and to proceed with a follow-on to the successful Missile Technology Demonstration Flight 1 (MTD-1). The conferees commend the participants in this joint effort and encourage the Air Force, the Ballistic Missile Defense Organization, the Defense Nuclear Agency, and the Phillips Laboratory to continue to pursue such joint efforts. Prior to completing plans for a MTD follow-on, the conferees direct the Air Force to consult with the Senate Committee on Armed Services and the House Committee on National Security on the issues and options associated with the following: (1) the technologies to be tested; (2) the type of booster configuration to be employed; and (3) the test range to be used.

PEACEKEEPER CONTINGENCY PLANNING

The conferees direct the Secretary of the Air Force to submit a report to the congressional defense committees, by March 1, 1996, that outlines the Air Force's current plans for retiring Peacekeeper, and maintaining the system in the interim. The report should also address the additional actions and funding that would be

required to maintain the option of retaining up to 50 Peacekeeper ICBMs in an operational status beyond 2003. The report should include a timetable that outlines when such actions and funding would be needed.

AUTH CONF, p. 678-80

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Ballistic Missile Technology	3,085	8,785	+5,700

HAC, p. 157

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Ballistic missile technology	3,085	8,085	+5,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

****

TITLE: ADVANCED SPACECRAFT TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$32,627	140,127	52,627	102,627	83,627	52,627	78,627

****

HNSC:
Low-cost expendable launch vehicles

The committee believes technologies being developed by small expendable launch vehicle companies hold promise for low-cost launch of small commercial payloads and military tactical satellites. The committee recommends $7.5 million in PE 63401F, to be used only for evaluation of low cost expendable launch vehicle concept hardware.

HNSC, p. 120

Reusable launch vehicles

The committee is surprised to note that given the administration's support for dual-use technologies, the Department has failed to adequately support the potential “triple-use" benefit of reusable launch vehicles to the military, civil, and commercial space launch capability and associated sectors of the U.S. industrial base. The committee supports a NASA-DOD-industry team effort for a reusable launch vehicle program by recommending an additional $100 million in PE 63401F for fiscal year 1996.

HNSC, p. 120-121

SASC:
Micro-satellite development program

The Air Force Phillips Laboratory, in conjunction with the Air Force Space Command's Space Warfare Center, has initiated a small satellite program to develop and demonstrate a variety of miniaturized space technologies. The micro-satellite program builds upon the highly successful Clementine satellite program. The committee recommends an authorization of $20.0 million in fiscal year 1996 to continue this effort, under the control of the Space Warfare Center and executed by the Clementine Team (Phillips Laboratory, Naval Research Laboratory, and Lawrence Livermore National Laboratory). The committee recommends the $20.0 million authorization be included in PE 0603401F, “Advanced Spacecraft Technology."

SASC, p. 157

AUTH CONF:

Micro-satellite development program

The budget request included $32.6 million in PE 63401F for Advanced Spacecraft Technology.
The Senate amendment would authorize an additional $20.0 million for a micro-satellite development program.
The House bill would authorize the budget request.
The House recedes.
The Air Force Phillips Laboratory, in conjunction with the Air Force Space Command's Space Warfare Center, has initiated a small satellite program to develop and demonstrate a variety of miniaturized space technologies. The micro-satellite program builds upon the highly successful Clementine satellite program. The conferees strongly support this effort and direct that it be placed under the control of the Space Warfare Center and be executed by the Clementine Team (Phillips Laboratory, Naval Research Laboratory, and Lawrence Livermore National Laboratory).

AUTH CONF, p. 678

HAC:

ADVANCED SPACECRAFT TECHNOLOGY

The Air Force requested $32,627,000 for advanced spacecraft technology. The Committee recommends $83,627,000, an increase of $51,000,000 to the budget request. The additional funding provided by the Committee is allocated as follows: $1,000,000 only for the miniature satellite threat reporting system project and $50,000,000 only for the continued involvement of the Defense Department in developing reusable launch vehicle technologies under the management of the Air Force Phillips Laboratory.

HAC, p. 158

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Advanced spacecraft technology	32,627	52,627	+20,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Advanced Spacecraft Technology	32,627	83,627	52,627	78,627
Reusable Launch Vehicle Technology		+50,000		+25,000
Miniature Threat Reporting System		+1,000		+1,000
Microsat			+20,000	+20,000

APPN CONF, p. 111

****

TITLE: CONVENTIONAL WEAPONS TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$31,637	34,137	31,637	34,137	34,137	31,637	34,137

****

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Conventional Weapons Technology	31,637	34,137	+2,500

HAC, p. 157

****

TITLE: ADVANCED RADIATION TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$47,919	47,919	47,919	47,919	47,919	74,919	74,919

****

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Advanced radiation technology	47,919	74,919	+27,000
Field laser radar demonstration [FLD]		+7,000	+7,000
Excimer laser		+20,000	+20,000
EMD	152,219	162,119	+9,900

[1]The Committee provides $7,000,000 to complete development and fabrication for the field laser radar demonstration [FLD] system, to fully test the FLD system, to explore integration with the AEOS telescope, and to exploit the

MHPCC to process laser radar data. The Committee directs that no more than 15 percent of these funds may be devoted to Air Force taxes, overhead, or support and management.

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

****

TITLE: CIVIL/ENVIRONMENTAL ENGINEERING APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$9,835	9,835	9,835	8,835	7,835	9,835	8,835

****

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Civil and Environmental Engineering Technology	9,835	7,835	-2,000

HAC, p. 157

****

TITLE: ADVANCED COMPUTING TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$11,005	11,005	11,005	11,005	36,605	11,005	36,605

****

HAC:

ADVANCED COMPUTING TECHNOLOGY

The Air Force requested $11,005,000 for advanced computing technology. The Committee recommends $36,605,000, an increase of $25,600,000 as explained in the Information Technology section of this report.

HAC, p. 158

APPN CONF:

INFORMATION TECHNOLOGY RESOURCES

The conference agreement is as follows:

[In thousands of dollars]

Appropriations and Programs	House	Senate	Conference
Research, Development, Test, and Evaluation, Air Force:			
Advanced Computing Technology	36,305	11,005	36,305
(BLSM transfer from O&M)	(+10,400)	(0)	(+10,400)
(IMDS)	(+15,200)	(0)	(+15,200)

APPN CONF, p. 95-96

****

TITLE: INDUSTRIAL PREPAREDNESS MANUFACTURING TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$53,332	0	53,332	0	0	0	0

****

HNSC:
Manufacturing technology (MANTEC)

The committee is concerned that the military services are not focusing MANTEC research and development on key manufacturing cost drivers in weapon systems. The potential now exists through the use of the available talent pool in industry, academic and government consortia, or through the use of several centers of excellence to address manufacturing applications that could have significant cost reduction impact now and in the future.

The committee directs the Secretary of Defense to place the highest priority of the manufacturing technology program (MANTEC) on funding areas that address near-term manufacturing problems and to maintain a lesser portion of the program aimed toward longer term technologies.

The committee recommends transfer of the MANTEC program from advanced development to production support to accomplish this primary purpose. The committee directs a formal liaison with the Director, Defense Research and Engineering (DDR&E) as the technology coordinator for infusion of advanced technology into the process.

The committee reiterates the importance of industrial participation and competition in awarding grants and contracts. National industrial associations and consortia shall be considered by all services for participation in program activity.

Finally, the committee believes that since the MANTEC program has been significantly reduced in funding over prior years, infrastructure savings (including new facility construction) can be achieved by consolidation of its centers of excellence and re-assigning future work activities within the remaining centers. The committee recommends that 25 percent of the program shall have cost sharing greater than two to one.

The committee recommends the following program adjustments:

PE 63771A-decrease $17.776 million.

PE 78045A-increase $27.776 million ($6 million for composite technology for the instrumented factory for gear development, $4 million for PAN fibers), and $1.5 million of the core program shall be used for industrial-academic partnerships for repair technology development and insertion for rotary winged aircraft.

PE 63771N-decrease $41.251 million.

PE 78011N-increase $51.251 million ($10 million for the Navy to initiate partnerships with industry, government laboratories and other research organizations that will allow the development of manufacturing technologies which support optoelectronic devices and components).

PE 63771F-decrease $53.332 million.

PE 78011F-increase of $53.332 million.

PE 63771S-decrease $7.007 million.

PE 78011S-increase $17.007 million ($10 million to conduct demonstrations and pre-production development for military sewn products and to continue the machine tool program).

HNSC, p. 83-84 (RDT&E, Defense-wide Programs)

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Industrial Preparedness Manufacturing Technology	53,332	0	-53,332
Industrial Preparedness	0	53,332	+53,332

HAC, p. 157

****

TITLE: POLAR SATCOM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:			58,000	58,000			$58,000

****

SASC:

Polar satellite communications

The Department of Defense has an urgent requirement to provide secure communications for operations in the polar region. The most critical of these requirements can be satisfied in the near-term through an Air Force program to place extremely high frequency (EHF) communications packages, similar to the ones used on the Ultra-High Frequency Follow-On program (UFO), on host satellites. Having already approved this program as a new start in fiscal year 1995, the committee recommends the authorization of $58.0 million in fiscal year 1996 in PE 603432F to acquire the communications payload and perform integration and test activities in support of a 1997 launch of this capability aboard a host satellite. To offset this increase, the committee recommends the realignment of funds from the MILSTAR program (PE 604479F) that are no longer required for termination liability fees.

SASC, p. 157-158

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Polar Satcomm		68,331	+68,331

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

****

TITLE: NATIONAL POLAR--ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE SYSTEM - DEM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$23,861	18,861	13,861	18,861	18,861	13,861	18,861

****

HNSC:
National polar-orbitting operational environmental satellite system

The budget request included $23.9 million in PE 63434F for the National Polar-orbitting Operational Environmental Satellite System (NPOESS). Based on a slower than expected start-up of the program office and a delay in the planned dates of the demonstration and validation phase of NPOESS, funding is reduced by $5 million.

HNSC, p. 120

SASC:
National Polar-orbiting Operational Environmental Satellite System

The budget request included $23.9 million for the national polar-orbiting operational environmental satellite system (NPOESS), a converged Department of Defense, Department of Commerce, National Aeronautics and Space Administration (NASA) national weather satellite program. The committee has long supported such a convergence. The committee understands that a slower than expected start-up of the Integrated Program Office and delay in the demonstration/validation phase of the program have reduced required funding. The committee, therefore, recommends a reduction of $10.0 million.

SASC, p. 158

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
NPOOESS	23,861	18,861	-5,000

HAC, p. 157

SAC:

National polar-orbiting operational environmental satellite system [NPOESS] demonstration/validation.-This program element contains the Air Force's share of funds to develop a new weather satellite meeting the requirements of the military, the National Oceanic and Atmospheric Administration [NOAA], and the National Aeronautics and Space Administration [NASA]. The Committee recommends $13,861,000, a decrease of $10,000,000 to the budget request. The Committee strongly supports the joint program and has deleted only those funds which are excess to known program requirements. Should program funding requirements change, the Committee is willing to consider them during the joint conference with its House counterpart.

SAC, p. 176

****

TITLE: SPACE BASED INFRARED ARCHITECTURE (SBIR) - DEM/VAL APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$130,744	265,744	265,744	265,744	230,744	265,744	265,744

****

HNSC:
Space-based infrared system

The budget request included $130.744 million in PE 63441F for Space-Based Infrared System (SBIRS) demonstration/validation, and $152.219 million in PE 64441F for SBIRS High Element engineering and manufacturing development (EMD).

The committee reaffirms its strong support for fielding an improved capability to provide the nation's political and military leaders with timely and effective missile warning information. The committee recommends several actions intended to accelerate the Department's plans for fielding such a system. With respect to PE 63441F:

(1) $249.8 million is recommended for the Space and Missile Tracking System (SMTS), an increase of $135 million, and $15.9 million, the requested amount, is recommended for the “Cobra Brass" space experiment;

(2) the schedule for launching the SMTS flight demonstration satellites should be accelerated as much as practical;

(3) deployment of SMTS operational satellites shall begin not later than the fourth quarter of fiscal year 2003; and

(4) a long-wave infrared (LWIR) sensor shall be tested on at least one of the two flight demonstration satellites.

In PE 64441F, $9.4 million is recommended for the Miniature Sensor Technology Integration and $152.8 million, an increase of $10 million, for the SBIRS High Element EMD. The committee encourages the Department, in light of efforts to accelerate SMTS, to review the appropriate mix of capabilities between the high and low earth orbit components of SBIRS and to communicate the results of this analysis to the congressional defense committees by no later than September 1, 1995.

The committee commends the Air Force for adopting innovative acquisition streamlining measures for the SBIRS program, and urges that these processes and procedures remain in effect for the duration of the program.

HNSC, p. 121-122

SASC:
Section - 214. Space and missile tracking system program.

The Space-Based Infrared System (SBIRS) will replace and provide increased performance over the existing Defense Support Program (DSP) system. SBIRS will incorporate new technologies to enhance detection, provide direct reporting of strategic and theater ballistic missile launches, and provide mid-course tracking and discrimination data for national and theater missile defense. The system will consist of sensors located in geosynchronous orbits (GEO), highly elliptical orbits (HEO), and low earth orbits (LEO), and an integrated centralized ground station serving all space elements of SBIRS as well as DSP.

The committee commends the Department of Defense for the process that was employed in deciding upon the SBIRS architecture and the streamlined acquisition strategy that has been adopted. The committee expects the resulting integrated structure to provide the basis for program stability and efficiency in what has been an overly turbulent and protracted search for a DSP follow-on. More importantly, the committee expects the SBIRS program to be a catalyst in the development of a new approach to missile warning. Tactical Warning and Attack Assessment (TW/AA) can no longer be viewed as a mission which stands separate from ballistic missile defense. Future national and theater missile defenses must be integrated with, and take maximum advantage of, the SBIRS architecture. SBIRS also signals a dramatic technical departure from past approaches. The introduction of a distributed LEO constellation will provide tremendous advantages and opportunities, some of which are not yet fully understood. In addition to its role in missile defense, the LEO system will make major contributions in the areas of technical intelligence and space object characterization and surveillance.

The budget request for SBIRS included $130.7 million for Demonstration/Validation (Dem/Val), $152.2 for Engineering and Manufacturing Development (EMD), and $19.9 million for Procurement. Of the funds requested for Dem/Val, $114.8 million was for the Space and Missile Tracking System (SMTS), formerly known as “Brilliant Eyes."

After evaluation of its original ground system development plan, the Air Force has decided to restructure the program to re-phase hardware purchases and software engineering to allow for a more careful evaluation of system costs versus military utility. Hence, the $19.9 million procurement request is no longer needed for the previously identified purpose. The committee, therefore, recommends no funding for SBIRS procurement (PE 35915F), and recommends that $10.0 million of these funds be transferred to SBIRS EMD (PE 0604441F) to support ground system risk reduction, for a total of $162.2 million. Of this amount, the committee directs the Secretary of the Air Force to use $9.4 million to launch the third Miniature Sensor Technology Integration (MSTI-3) satellite. MSTI-3 will provide critical infrared background clutter phenomenology data for the SBIRS high element EMD program.

Although the committee endorses the priority and schedule for the GEO and HEO components of SBIRS, it views the current schedule for the LEO segment to be unacceptably prolonged. Current plans do not call for the first launch of an objective SMTS satellite until 2006. This leisurely schedule is based on the assumption that SMTS will not be needed to support national or theater missile defenses before this date. The committee strongly disputes this planning assumption. Theater missile defense systems that will be able to exploit SMTS data will become operational before the turn of the century. More important, the Missile Defense Act of 1995 (Subtitle C of Title II), is premised in part on an SMTS initial operational capability in fiscal year 2003.

The committee notes that there are no technical obstacles to having a first launch of an SMTS user operational evaluation system (UOES) satellite in 2001. The committee, therefore, recommends a provision which requires the Secretary of the Air Force to restructure the SMTS program to support a first launch of UOES satellites in fiscal year 2001, with the full SMTS constellation (consisting of a combination of UOES satellites and objective satellites) on orbit by the end of fiscal year 2003. To support this restructured schedule, the committee recommends an authorization of $250.0 million in fiscal year 1996 for the SMTS program, an increase of $135.0 million over the budget request. The committee directs the Air Force to restructure the SMTS schedule to meet the following milestones:

--Preliminary Design Review (PDR) and Critical Design Review (CDR) of the flight demonstration system (FDS) in fiscal year 1996.
--System Requirements Review (SRR) for the objective SMTS satellites in fiscal year 1996.
--Formal Requirements Review (FRR), deployment decision, and PDR for the objective SMTS satellites in fiscal year 1997.
--Launch of the FDS satellites in fiscal year 1998.
--CDR for the objective satellites in fiscal year 1999.

The objective SMTS system shall be designed, developed, tested and constructed to detect, characterize, track, and synthesize stereo track information concerning ballistic missile attack. The system shall be designed to generate and transmit, in a sufficiently timely manner, all data necessary to enable defensive interceptors to commit, launch, fly-out, and receive in flight target updates and guidance information in advance of-or in place of-the defensive system's associated radar, and in a way which maximizes the kinematic potential of the defensive interceptor to conduct ballistic missile intercepts.

To ensure that this schedule and these technical specifications are met, the committee recommends a provision which would require the Air Force to seek the concurrence of the Director of the Ballistic Missile Defense Organization before implementing any decision that would have any of the following results regarding SMTS: (1) a reduction in funds available in any fiscal year; (2) an increase in the total program cost; (3) a schedule delay; or (4) a modification of the performance parameters or specifications.

As a result of budgetary constraints, the Air Force has been forced to down-select to a single flying contractor for the SMTS FDS. While the committee does not oppose this decision, it does believe that the Air Force should consider alternatives for maintaining competition and reducing risk. The committee is aware of proposals to have the non-flying contractor conduct a low-cost flight experiment to provide a second SMTS concept capable of moving forward into EMD. The committee understands that such a flight experiment could be conducted for a total of $80 million over three years. The committee urges the Air Force to carefully evaluate this alternative and to determine whether this approach could in fact reduce risk and help meet the deployment goals specified above. If the Secretary of the Air Force determines that this approach would help achieve the deployment goals specified above, the committee authorizes the use of up to $40 million of the funds authorized for SMTS in fiscal year 1996 to begin such a low-cost flight experiment.

SASC, p. 99-101

AUTH CONF:
Space-based infrared system (sec. 216)

The Senate amendment contained a provision (sec. 214) that would accelerate development and deployment of the Space and Missile Tracking System (SMTS), formerly known as Brilliant Eyes, and that would require the Secretary of the Air Force to obtain the concurrence of the Director of the Ballistic Missile Defense Organization (BMDO) before implementing any decision that would impact the SMTS program.

The House bill contained no similar provision.

The House recedes with an amendment that would require the Secretary of Defense to establish a program baseline for the overall Space-Based Infrared System (SBIRS) program. The baseline would include the following:

(1) overall program structure, including: (A) program cost and an estimate of the funds required in each fiscal year in which development and acquisition activities are planned, (B) a comprehensive schedule with program milestones and exit criteria, and (C) optimized performance parameters for each segment of the integrated system;

(2) a development schedule for SMTS structured to achieve the first launch of a Block I satellite in fiscal year 2002, and initial operational capability (IOC) of the system in fiscal year 2003;

(3) full integration of SMTS into the overall SBIRS architecture; and

(4) establishment of the performance parameters of all space segment components so as to optimize the performance of the integrated system while minimizing unnecessary redundancy and cost.

The provision adopted by the conferees would require the Secretary of Defense to provide a report to the congressional defense committees on the SBIRS program baseline not later than 60 days after the enactment of this Act.

The conference provision would also establish the following program elements for the SBIRS program:

(1) Space Segment High;

(2) Space Segment Low (SMTS); and

(3) Ground Segment.

The conference provision requires the SBIRS baseline to include an SMTS IOC by fiscal year 2003 to support national and theater missile defenses. The conferees understand that the Air Force has defined this IOC as consisting of 12-18 satellites. The conferees urge the Air Force to make every effort to achieve an 18 satellite IOC by fiscal year 2003.

In accelerating the SMTS program, it is not the conferees' intent to reduce the priority and importance of the SBIRS High components. The conferees endorse the schedule that the Air Force has established for the SBIRS High components. The SBIRS program should feature complementary and mutually supportive elements that do not include excessive technical and functional redundancy.

Although SMTS can, over time, become a multi-functional sensor system capable of fulfilling missions such as technical intelligence and battlespace characterization, the conferees direct the Air Force to ensure that the SMTS Flight Demonstration System (FDS) and Block I system be designed primarily to satisfy the missile defense mission. Missions not related to theater and/or national ballistic missile defense should not be allowed to add significant cost, weight or delay to the SMTS FDS or Block I system. This scaled-down approach will ameliorate the technical challenges associated with an accelerated schedule while contributing to overall affordability.

To support this schedule and missile defense focus, the conferees direct the Secretary of Defense to commence SMTS pre-engineering and manufacturing development (EMD) activities in fiscal year 1996 and to ensure that the FDS and Block I satellites are equipped with long-wave infrared sensors. The conferees endorse the design characteristics specified in the Senate report (S. Rept. 104-112) regarding the objective SMTS system. The conferees have

authorized sufficient funds in fiscal year 1996 to commence these activities and to prepare the way for a fiscal year 1998 FDS launch.

Over time, as the Air Force gains operational experience with the High and Low Block I systems, it is likely that SMTS will be able to assume a much larger share of the SBIRS requirements burden. In the meantime, the conferees urge the Secretary of Defense to initiate technical and cost trade studies among the SBIRS space systems and include any preliminary findings and recommendations in the SBIRS baseline report.

The budget request for SBIRS included $130.7 million for demonstration/validation (Dem/Val), $152.2 million for EMD, and $19.9 million for procurement. Of the funds requested for Dem/Val, $114.8 million was for SMTS. The conferees agree on the following authorizations:

(1) $265.7 million in PE 63441F for SBIRS Dem/Val, of which $249.8 million is for SMTS; and

(2) $162.2 million in PE 64441F for SBIRS EMD, of which $9.4 million is for the Miniature Sensor Technology Integration (MSTI) program.

The conferees are aware of a recent proposal to increase competition and reduce risk in the SMTS program through a low-cost flight experiment. The conferees direct the Air Force and BMDO to carefully assess the merits of this concept and to include their joint findings and recommendations in the SBIRS baseline report. If the Air Force Acquisition Executive and the Director of BMDO certify to the congressional defense committees that such a flight experiment is in the overall interest of the SMTS program (measured in terms of risk reduction and schedule acceleration), the conferees authorize the use of up to $40.0 million of the funds authorized for SMTS in fiscal year 1996 to begin a low-cost flight experiment.

The conferees congratulate the Air Force and BMDO for reaching agreement on the acquisition management relationship for execution of the SMTS program. In light of the Memorandum of Agreement between the Air Force Acquisition Executive and the Director of BMDO, the Senate recedes on its language dealing with management oversight of the SMTS program. As with all aspects of the SMTS program, however, the conferees will continue to monitor management oversight with great interest. If the present management structure does not fulfill the expectations of the conferees, or lead to implementation of the guidance provided above, the conferees will reconsider transferring SMTS back to BMDO.

AUTH CONF, p. 707-709

HAC:

SPACE BASED INFRARED ARCHITECTURE (SBIR)

The Department requested $130,744,000 for Space Based Infrared Architecture. The Committee recommends $230,744,000, an increase of $100,000,000 only for the Space and Missile Tracking System (SMTS).

HAC, p. 158-159

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Space-based infrared			

architecture [SBIR]			
Demonstration/valuation	130,744	265,744	+135,000
EMD	152,219	162,119	+9,900

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

Space-based infrared architecture [SBIR] Dem/Val.-The Committee adds $135,000,000 to the budget request to accelerate development of the space and missile tracking system [SMTS], formerly known as brilliant eyes. The additional funds provided for the SMTS program shall be used only to accelerate the existing SMTS program under the auspices of the recent competitively awarded contract. The Committee is aware of the possibility of additional, low cost flight experiments for risk reduction purposes in the SMTS program, and the Committee urges the Defense Department to proceed and accomplish all appropriate tests and evaluations during fiscal year 1996.

SAC, p. 175

APPN CONF:

SPACE BASED INFRARED ARCHITECTURE-DEM/VAL

The conferees agree to provide $265,744,000 for the demonstration/validation stage of the space based infrared architecture program, an increase of $135,000,000 to the budget request. The conferees have agreed to provide the additional $135,000,000 to accelerate development of the space missile tracking system (SMTS), formerly known as Brilliant Eyes. The additional funds provided for the program shall be used only for efforts identified jointly by both the Ballistic Missile Defense Organization and the Air Force to accelerate the deployment of SMTS.

APPN CONF, p. 112

****

TITLE: JOINT ADVANCED STRIKE TECHNOLOGY PROGRAM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$151,186	125,686	151,186	85,686	125,686	85,258	85,686

****

SASC:

Joint advanced strike technology program

The Department of Defense established the joint advanced strike technology (JAST) program to develop technologies that would lead to replacements for several different aircraft systems for the Air Force, the Marine Corps, and the Navy. Each of the three services has distinctly different requirements. The Air Force needs a conventional takeoff and landing (CTOL) aircraft to replace the F-16. The Marine Corps needs a vertical/short takeoff and landing (VSTOL) aircraft to replace the AV-8B. The Navy needs a survivable medium attack variant to meet the requirements formerly filled by the A-6. The committee believes that the JAST program represents a bold leap ahead in technology integration, with an emphasis on cost-effective solutions.

The organization, management and technical expertise embodied in the JAST program leadership have made a favorable impression on the committee. However, even with the best leadership and expertise, the program faces substantial challenges.

The most doubtful aspect of the program's future is its ability to fulfill the needs of three different services. Two years ago, the committee asked the Department to report on the potential for having the Navy participate in the F-22 program as a way to meet the Navy's requirements for a highly capable aircraft platform. The DOD report explained the difficulty of having the Navy join the F-22 program, although the F-22 program had not completed a single engineering and manufacturing development (EMD) aircraft. So, while the Department claims that the F-22 cannot be modified before production for a naval mission, the Department asserts that the JAST program will provide Air Force, Marine and Navy variants.

The committee believes that there are two separate approaches that would be appropriate to reduce risk that JAST will not meet expectations.

Risk Reduction-Current Program

For the JAST program to be deemed a complete success, the program must deliver a true, low cost family of operational aircraft to meet the needs of the Air Force, Navy, and Marine Corps. The committee believes that concept demonstration aircraft flight testing is critical to making such a successful transition. A test of full scale, full thrust demonstration aircraft by competing contractors would provide test data applicable to evaluating the unique attributes required by each Service. It would also be in keeping with the committee's longstanding “fly-before-buy" philosophy. Therefore, the committee directs the Secretary of the Navy, from within funds in the original fiscal year 1996 budget, to ensure that the JAST program leads to such a competitive demonstration.

Further, the committee believes supporting competitive propulsion programs would help reduce risk and lead to higher confidence of achieving more affordable life cycle costs. The committee fears that the current JAST approach may lead to selecting one power plant manufacturer prematurely. Therefore, the

committee directs the Secretary to evaluate at least two propulsion concepts from competing engine companies as part of the full scale, full thrust aircraft demonstrators.

Risk Reduction-Additional Program Scope

Of the three sets of requirements, the committee believes that Navy's is most demanding. Unfortunately, the Department of Defense will have few alternatives for meeting the medium attack variant requirement if the JAST program cannot.

The committee is aware of a proposal to develop a carrier-capable variant of the F-117 stealth fighter that could greatly benefit from capabilities pioneered in the F-117 program. The F-117 has a distinguished combat record. Developing a carrier-capable variant would be in keeping with a near-term modernization strategy of acquiring developed systems. This could help provide confidence in a workable solution to meet the Navy's needs through capitalizing on development already done, and could provide an available alternative in case the JAST program is unable to fulfill all three sets of requirements.

Therefore, the committee directs the Secretary of the Navy to conduct a thorough examination of this proposal in fiscal year 1996 to develop a carrier-capable variant of the F-117 stealth fighter, a so-called “A/F-117X," in defining a potential program. The committee expects the essential risk reduction efforts to include: large scale high and low speed wind tunnel testing, radar cross section (RCS) component testing, detailed propulsion design, structural analysis to validate carrier suitability, and completion of required trade studies and reports to validate A/F-117X capability to meet defined Navy requirements.

The committee recommends an additional $175.0 million in fiscal year 1996. The committee directs that the Navy not expend more than $25.0 million of this amount to conduct the initial examination. The Secretary shall submit a report on the results of this examination to the congressional defense committees by March 29, 1996. Final analysis by the Navy should assess production risk, scope, aircraft performance, and cost for engineering and manufacturing development (EMD) program.

The remaining $150.0 million would be made available to execute an A/F-117X EMD program, presuming that the Secretary of the Navy approves the results of program definition effort. The committee expects that these additional EMD funds will be used to modify an existing F-117A test asset to a configuration able to demonstrate carrier suitability, flying qualities, and low observables durability in a shipboard environment in the near-term. Such demonstrations should allow the Navy to assess the critical carrier suitability qualities of the A/F-117X design concept early in the execution of a full EMD program.

The committee also directs the Secretary of the Air Force to review the manufacturer's offer to complete the originally planned F-117 force structure, including potential upgrades through inserting technology from present development efforts. This effort should serve as the basis for comparing alternatives for meeting future Air Force requirements, including JAST products, F-22 attack variants, and an upgraded F-117.

SASC, p. 95-97

AUTH CONF:
Joint advanced strike technology (JAST) program (sec. 213)

The budget request included three requests for research and development funding for the joint advanced strike technology (JAST) program: $149.3 million for the Navy, $151.2 million for the Air Force, and $30.7 million for the Advanced Research Projects Agency.

The House bill contained a provision (sec. 216) that would reduce the request for JAST by $51.0 million, evenly divided between the Navy and the Air Force, and limit to 75 percent the obligation of fiscal year 1996 appropriations until the Secretary of Defense provides a report to the congressional defense committees. The provision would require that the Secretary's report specify the numbers and capabilities of JAST-derivative aircraft and related weapons systems necessary to support two major regional contingencies.

The Senate amendment would approve the JAST request. The Senate amendment also contained a provision (sec. 211) that would require the Navy to evaluate a variant of the F-117 stealth fighter to fulfill Navy requirements within the JAST program. The Senate amendment would add $175.0 million to the Navy program for this propose, with $25.0 million to provide initial engineering analysis and specific risk reduction efforts, and $150.0 million to develop a flying prototype. Authorization of a flying prototype would be contingent on approval by the Secretary of the Navy's approval of results of initial analytical efforts.

The Senate report (S. Rept. 104-112) questioned whether the program could fulfill the needs of the three services, and directed the Department to include two separate approaches in the JAST program to reduce program risk. The Senate amendment directed the Secretary of the Navy to:

(1) ensure that the JAST program leads to competitive demonstration involving tests of full scale, full thrust aircraft by competitors to provide test data for evaluation by the services; and

(2) evaluate at least two propulsion concepts from competing engine companies as part of those demonstrations.

Subsequent to passage of the Senate amendment and the House bill, the Department redefined the JAST program. Although additional resources will be necessary, from fiscal year 1997 onward, to execute this new program, these changes have led to fiscal year 1996 deferral of $131.0 million.

The conferees share the concerns expressed in the Senate report (S. Rept. 104-112) regarding the lack of engine competition and the size of flying prototypes. The conferees direct the Under Secretary of Defense (Acquisition & Technology) (USD (A&T)) to ensure that: (1) the Department's JAST program plan provides for adequate engine competition in the program; and (2) the scale of the proposed demonstrator aircraft is consistent with both adequately demonstrating JAST concepts and lowering the risk of entering engineering and manufacturing development (EMD). The conferees direct the Secretary of Defense to include in the report required by section 213(d) the Department's plan for competitive engine programs and demonstrator aircraft.

The conferees recommend authorization of funds reflecting these changes, and agree to a provision (sec. 213) that would:

(1) require that the Secretary of Defense provide a report to the congressional defense committees specifying the:

(a) the numbers and capabilities of JAST-derivative aircraft and related weapons systems required to support two major regional contingencies; and

(b) the department's plan for competitive engine programs and demonstrator aircraft;

(2) limit obligations for the JAST program to no more than 75 per cent of fiscal year 1996 appropriations, until the Secretary of Defense provides this report;

(3) authorize up to $25.0 million from Navy Research, Development, Test and Evaluation to conduct a six month program definition phase for the A/F-117X to determine whether such an aircraft could affordably meet the Navy's next generation aircraft strike requirements;

(a) if the USD (A&T) determines that a six month definition phase is warranted, he shall provide a report on the results of the concept definition phase to the congressional defense committees, not later than May 1, 1996;

(b) if the USD (A&T) determines otherwise and certifies that an A/F-117X aircraft is not needed to meet the Navy requirements and is not a cost effective approach to meeting Navy needs, the provision would allow the Department to use the $25.0 million for other JAST activities.

(4) authorize $7.0 million for competitive engine concepts.

AUTH CONF, p. 705-7 (Defense-wide RDT&E)

HAC:

JOINT ADVANCED STRIKE TECHNOLOGY

The Navy requested $149,295,000 for Joint Advanced Strike Technology. The Committee recommends $143,795,000, a decrease of $5,500,000. This consists of a decrease of $25,500,000 as recommended by the House National Security Committee in its fiscal year 1996 report and an increase of $20,000,000 only to ensure the evaluation of two propulsion concepts from competing engine companies.

The history of recent fighter engine propulsion plants demonstrates that development of new engines is difficult. The Navy has generally been dissatisfied with the engine performance of early model F-14s, and it eventually upgraded later model F-14s with an Air Force engine. The Air Force in the late 1970s and early 1980s was dissatisfied with both the performance and cost of engines on early models of the F-15 and the F-16, and it spent over a billion dollars to bring a second engine manufacturer into a position where competition could be conducted between two companies for future Air Force fighter aircraft. The new engine for the F-22 has suffered technical problems and is undergoing a redesign.

The Joint Advanced Strike Technology (JAST) program envisions building a common aircraft to satisfy the needs of the Air Force, Navy and Marine Corps for fighter aircraft in the next century. Yet, it has selected a single power plant design, a derivative of the F-22 engine which has yet to be proven. Given the engine performance difficulties experienced over the last two decades, this is unwise. To cede the manufacture of all jet engines for three services' future aircraft without any additional competition is not likely to be cost effective. For these reasons, the Committee believes it is imperative for the JAST program to actively pursue an engine design from a second manufacturer and has provided an additional $20,000,000 only for this purpose.

The Committee is also concerned that the JAST program intends to build demonstrator aircraft which are not full-sized nor powered at full thrust. Understanding that this is planned in order to save development costs, it nevertheless postpones development risk into the next phase of the program (engineering/manufacturing development). The Committee would like the Department to provide a detailed justification of this strategy, and clearly explain the costs, benefits, and risks of the current JAST plan compared to demonstrating aircraft and engine performance through construction of full scale demonstrator aircraft. The Committee directs the Under Secretary of Defense for Acquisition and Technology to submit a report to the congressional defense committees by January 1, 1996 on the Department's strategy for development of engine and construction of full-sized/full-powered demonstrator aircraft in the JAST program.

The Committee understands that the JAST program office is housed in a temporary location. The Committee directs the Under Secretary of Defense for Acquisition and Technology to report to the congressional defense committees of the Department's plan for permanent location of the JAST program office. The plan should address cost and ability to best utilize the in-place acquisition workforce, laboratories, and technology infrastructure.

HAC, p. 150 (Navy RDT&E)

FY 1996 CONGRESSIONAL TRACK

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Joint Advanced Strike Technology-Dem/Val	151,186	125,686	-25,500

HAC, p. 157

SAC:

Joint advanced strike technology [JAST].-The Committee recommends a combined funding total for the Navy, Air Force, and Advanced Research Projects Agency JAST program elements of $227,305,000, a reduction of $103,851,000 to the budget request. The Committee assigns a higher priority to the procurement of more Navy F-18 C/D fighters and Air Force F-15E and F-16 fighters, and to an expanded remanufacturing program for the Marine Corps' AV-8B V/STOL aircraft.

The Committee recommendation constrains the Navy and Air Force JAST programs to the fiscal year 1995 funding levels and adds $25,000,000 for the program definition phase of an A/F-117X naval strike variant concept. These funds may be used for other JAST program activities should the Under Secretary of Defense (acquisition and technology) certify that an A/F-117X aircraft is not needed to meet Navy requirements and is not a cost-effective weapon system.

SAC, p. 167 (Navy RDT&E)

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Joint advanced strike	151,186	85,258	-65,928

technology

SAC, p. 173

APPN CONF:

JOINT ADVANCED STRIKE TECHNOLOGY

Due to a recent restructure of the JAST program, there is now $131,000,000 in the fiscal year 1996 budget that is for work to be accomplished in fiscal year 1997. Such work should be budgeted in that year. The conferees agree to this reduction in the Navy and

Air Force accounts, and direct that the Office of the Secretary of Defense ensure that the fiscal year 1997 budget to Congress includes a restoration of these funds.

APPN CONF, p. 108 (Navy RDT&E)

****

TITLE: ICBM - DEM/VAL APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$20,265	34,765	24,565	20,265	20,265	31,765	31,765

****

HNSC:
Intercontinental ballistic missile (ICBM) demonstration/validation

The budget request included $20.265 million in PE 63851F for projects designed to address concerns identified in the Nuclear Posture Review (NPR) and to study means to implement arms control provisions. However, the request for ICBM Command Control, project 1024, did not include pre-milestone 0 study funds for the command signal decoder/missile or for the modified miniature receive terminal for launch control centers, as directed by the NPR. The committee recommends an additional $2 million to begin these two studies.

The request for ICBM Reentry Vehicle Applications, project 1022, did not include milestone 0 study funds to complete the acquisition phase 0 studies necessary for the safety enhanced reentry vehicle effort. The committee directs that these studies be completed expeditiously and strongly urges the Secretary of Defense to promptly decide to equip some or all of the Minuteman III force with Mark 21 reentry vehicles. The committee recommends an additional $2.2 million to complete the safety enhanced reentry vehicle phase 0 efforts and documentation.

The request for ICBM Guidance Applications, project 1020, did not include pre-milestone 0 study funds for inertial measurement modifications. The committee recommends the addition of $1 million to complete these studies and initiate acquisition phase 0 studies. The committee also recommends the addition of $9.3 million to conduct missile guidance technology experiments.

The committee is concerned that pre-milestone 0 and acquisition phase 0 studies are not being adequately planned and funded. This could result in the inappropriate and unauthorized use of funds to conduct the necessary studies. The committee directs the Secretary of the Air Force to submit a report to the congressional defense committees identifying all pre-milestone 1 ICBM acquisition programs currently funded or planned to begin by 2001. The report should identify the effort by name, list all approved requirements and acquisition documents, identify all planned requirements and acquisition documents for a milestone 1 acquisition decision, and provide the office of primary responsibility, estimated cost, and estimated completion dates for all documentation necessary for the milestone 1 decision. The report shall be due not later than February 1, 1996.

HNSC, p. 119

SASC:
Reentry vehicle applications

The Nuclear Posture Review, conducted by the Department of Defense during the fall of 1994, recommended sustaining the industrial base for strategic ballistic missile reentry vehicles (RVs). The United States Strategic Command has reported that the RV industrial base, especially the expertise and capability to manufacture specialized material, is rapidly eroding. In response to this critical requirement, the Department of Defense has directed the Air Force and the Navy to sustain key elements of the RV industrial base through an RV applications program.

The budget request includes $5.7 million for the Air Force and $10.0 million for the Navy to pursue this effort. However, the Air Force funding level is inadequate. Therefore, the committee recommends an increase of $4.3 million in PE 603851F to balance the Air Force and Navy efforts. To help bolster this

effort, the committee also recommends an increase of $750,000 in PE 0602102F to the Thermal Protection Materials Reentry Vehicle Project for the purchase, testing, and evaluation of three nosetip billets and related technologies; and an increase of $2.2 million in the Strategic Submarine and Weapons System Support program (PE 0101221N) for the fabrication and testing of carbon-carbon composite shape stable nosetip billets for submarine launched ballistic missile RV system applications.

SASC, p. 158

AUTH CONF:
Intercontinental ballistic missile (ICBM) research and development and associated issues

ICBM DEMONSTRATION/VALIDATION

The budget request included $20.3 million in PE 63851F for six Minuteman-related projects.

The House bill would authorize an additional $14.5 million to complete acquisition and requirement documentation efforts and to conduct missile guidance technology experiments. The House report (H. Rept. 104-131) expressed concern that the budget request failed to include pre-milestone 0 and phase 0 funding for the command signal decoder, the modified miniature receive terminal for launch control centers, the safety enhanced reentry vehicle, and inertial measurement modifications.

The Senate amendment would authorize an additional $4.3 million to bolster the Air Force reentry vehicle applications project. The Senate report (S. Rept. 104-112) expressed concern that the reentry vehicle nose tip requirements were not adequately funded.

The conferees agree to authorize the budget request. The conferees also reiterate the concerns expressed in the House and Senate reports. The conferees understand that the Air Force is considering options to address these concerns from within their existing fiscal year 1996 budget, in particular the documentation issues identified in the House report. The conferees strongly urge the Air Force to fulfill these requirements.

ICBM ENGINEERING AND MANUFACTURING DEVELOPMENT

The budget request contained $192.7 million in PE 64851F to fund the Minuteman guidance and propulsion replacement programs.

The House bill would authorize an additional $8.0 million to fund the initial integration design and testing of the capability to integrate the Mk21 warhead on the new Minuteman guidance set. The House report (H. Rept. 104-131) endorsed using the Mk21, the safest warhead in the inventory, on the Minuteman, if and when it becomes available as a result of arms control treaties. The House report expressed concern that the current guidance replacement program fails to fund the design and testing necessary to ensure the Mk21 capability prior to initiation of the guidance set production.

The Senate amendment would authorize the budget request.

The conferees agree to authorize the budget request. The conferees, however, reiterate the concerns expressed in the House report (H. Rept. 104-131), and support the recommendations made therein. The conferees are concerned that the Department of Defense and the Air Force have failed to take the necessary action to ensure that the safest nuclear warheads are compatible with the new Minuteman guidance sets. Therefore, the conferees direct that, of the funds authorized for fiscal year 1996 in PE 64851F, up to $4.0 million shall be available to initiate efforts to ensure that the new Minuteman guidance sets are capable of accommodating the Mk21 warhead. The conferees further direct the Secretary of Defense to ensure that the funds necessary to continue this effort are included in the fiscal year 1997 budget request.

REENTRY VEHICLE MATERIALS

The Senate amendment would authorize $750,000 above the budget request in PE 62102F for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three nose tip billets and related technologies.

The House bill would not authorize additional funds for reentry vehicle materials.

The Senate recedes. Nevertheless, the conferees reiterate the concerns expressed in the Senate report (S. Rept. 104-112) regarding the adequacy of the reentry vehicle applications program, and, in particular, the reentry vehicle materials program. Therefore, the conferees direct that, of the funds available in PE 62102F, up to $750,000 shall be available for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three ICBM reentry vehicle nose tip billets and related thermal technologies.

BALLISTIC MISSILE TECHNOLOGY

The budget request contained $3.1 million in PE 63311F to conduct guidance and range safety technology experiments.

The House bill would authorize an additional $5.7 million for Minuteman class range tracking and safety equipment based on Global Positioning System (GPS) equipment developments.

The Senate amendment would authorize an additional $5.0 million for suborbital flight testing conducted at White Sands Missile Range for ballistic missile guidance, range tracking, and safety equipment, based on existing GPS equipment.

The conferees agree to authorize $5.7 million above the budget request to enhance ballistic missile technology experiments and to proceed with a follow-on to the successful Missile Technology Demonstration Flight 1 (MTD-1). The conferees commend the participants in this joint effort and encourage the Air Force, the Ballistic Missile Defense Organization, the Defense Nuclear Agency, and the Phillips Laboratory to continue to pursue such joint efforts. Prior to completing plans for a MTD follow-on, the conferees direct the Air Force to consult with the Senate Committee on Armed Services and the House Committee on National Security on the issues and options associated with the following: (1) the technologies to be tested; (2) the type of booster configuration to be employed; and (3) the test range to be used.

PEACEKEEPER CONTINGENCY PLANNING

The conferees direct the Secretary of the Air Force to submit a report to the congressional defense committees, by March 1, 1996, that outlines the Air Force's current plans for retiring Peacekeeper, and maintaining the system in the interim. The report should also address the additional actions and funding that would be required to maintain the option of retaining up to 50 Peacekeeper ICBMs in an operational status beyond 2003. The report should include a timetable that outlines when such actions and funding would be needed.

AUTH CONF, p. 678-80

SAC:

ICBM modernization demonstration/validation.-The Committee recommends $31,765,000, an increase of $11,500,000 to the budget request for the ICBM modernization demonstration/validation program element. The additional funds shall be made available only to launch a satellite intended to provide Air Force Academy cadets with hands-on experience with satellite design, assembly, communications, and on-orbit operations.

SAC, p. 176

****

TITLE: B-1B APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$173,838	194,838	287,638	202,438	197,438	187,438	202,438

****

HNSC:
B-1B bomber

The budget request contained $173.8 million in PE 64226F for research and development of the B-1B bomber. The committee continues to strongly support a modern, capable long-range bomber force, and recognizes that the B-1B will serve as the workhorse of such a force well into the 21st century. In order to enhance the warfighting capabilities of the B-1B, the committee recommends an additional $21 million to initiate a B-1B “Virtual Umbilical" program to provide an interim, near-precision munitions capability using existing Mark 82 bombs.

HNSC, p. 118

SASC:
Section - 215. Precision guided munitions.

The Heavy Bomber Study required by the National Defense Authorization for Fiscal Year 1995 emphasized the value of precision guided munitions (PGM) in future air campaigns as an especially cost effective warfighting capability.

While the committee is persuaded of the importance and value of precision guided munitions, it is also concerned over the management and rationalization of the many disparate programs in production and under development. The military services have bought or are developing 33 types of PGM with over 300,000 individual munitions to attack surface targets. The services estimate that when planned development and procurement are complete, the United States will have invested nearly $58.6 billion (then year dollars) in the 33 PGM types. Presently there are 19 munition types in inventory and production with a total of 130,422 munitions acquired at a cost of $30.4 billion.

Within the overall category of PGM, the committee has acknowledged three areas for concern: upgrades to the bomber force to enable them to employ PGM; the need for a long-term cohesive, joint PGM program; and a coherent, interim plan to provide limited numbers of precision munitions that are now available while the Joint Direct Attack Munition (JDAM) family of weapons completes development.

Interim PGM

The committee acknowledges the requirement for precision munitions, both those than can be procured now as “interim" capability, and those under development for the future. However, the committee also recognizes the need for a rational, structured program for both near-term and long-term PGM requirements, while acknowledging the individual Services' concepts of operations and unique platform characteristics. In requiring a comprehensive review of PGM procurement and development, the committee's intent is not to develop a single weapon that embodies excessive compromises to fit each service's platform characteristics, but rather to ensure complementary development of systems to cover a wide range of targets.

The committee is persuaded of the need to rationalize and oversee the acquisition of PGM's to ensure:

--adequate future commitment to completion of the acquisition programs;
--a comprehensive evaluation of complementary and joint use of weapons to attack a comprehensive target set (fixed, mobile, land and sea) from a variety of delivery systems;
--efficient development and procurement of systems.

SASC, p. 101-102

Interim precision guided munitions (PGM)

Last year, the committee directed the Department of Defense to conduct a Heavy Bomber Study to define the future needs for long range bombers. The Heavy Bomber Study strongly endorsed the need for PGM's. Accordingly, while awaiting the analysis and recommendations required by the Bill's related provision on PGM's, the committee recommends an increase of $353.0 million as a cost-effective method of procuring capability instead of acquiring further B-2 aircraft. The committee is persuaded by that argument, and recommends an increase in the budget request as detailed below.

Precision Guided Munitions Procurement

-Procure 100 AGM-130 missiles, an increase of $40.0 million.

-Convert 200 AGM-86 ALCM's to conventional configuration an increase of $27.2 million.

-Procure 50 Have Nap PGM's for use on B-52 H aircraft, an increase of $38.0 million.

-Procure additional conventional bomb modules for B-1 bombers through an addition of $85.0 million.

-Make necessary modifications to the B-1 weapons carriage system to support an interim Joint Standoff Weapon (JSOW) through an addition of $11.6 million.

-Procure up to 25 interim JSOW's, an addition of $10.4 million.

Precision Guided Munitions RDT&E

-$20.0 million in PE 0604226F to acquire an interim precision munition for the B-1B, known as the B-1B Virtual Umbilical Device (BVUD), provided the Secretary of the Air Force certifies to the congressional defense committees that the BVUD is a valid requirement by May 15, 1996. Failing such certification, the funds provided are to be used for further acceleration of upgrades to the B-1B through the Conventional Munitions Upgrade Program (CMUP).

-An increase $20.0 million to integrate the AGM-130 with the B-52H bomber and begin qualification and testing of the extended-range version of the AGM-130, in PE 0101113F.

-$40.0 million in PE 0604226F to provide a portion of the B-1 fleet with an interim capability for employing the Joint Standoff Weapon.

-An increase of $7.0 million for Interferometric Terrain Aided Guidance (ITAG) technology demonstration to improve JDAM accuracy, PE 0604618F.

Conventional Bomber Enhancements

-Accelerate the Conventional Munitions Upgrade Program (CMUP) for the B-1 bomber, an increase of $47.2 million in PE 0604226F.

-Increase by $6.6 million PE 0604226F to allow for an acceleration of the ECM upgrade by funding the Systems Requirements Review in fiscal year 1996, rather than the budget's planned start in fiscal year 1997.

These additions and program accelerations are made with the intent of satisfying the requirements for capable, conventional bombers as soon as practicable.

SASC, p. 158-159

HAC:

ENGINEERING AND MANUFACTURING DEVELOPMENT

B-1B

The Air Force requested $173,838,000 for the B-1B conventional upgrade program. The Committee recommends $197,438,000, an increase of $23,600,000 to the budget request. The additional funding is allocated as follows: $7,000,000 only to support early integration of the JDAM munition on the B-1 aircraft and $6,600,000 only for electronic countermeasures upgrade risk reduction activities. In addition, the Committee has provided $10,000,000, for the B-1 virtual umbilical demonstration program (BVUD).

The Committee directs that none of the funds appropriated for BVUD may be obligated until the Secretary of the Air Force provides the Committee the following certifications: (a) A certification from the Commander of the Air Combat Command and the Air Force Director of operational requirements that a documented requirement for BVUD on the B-1 bomber exists; (b) A certification from the Commander of the Air Force Operational Test and Evaluation Center that BVUD has completed all testing and been found operationally suitable for integration on the B-1 aircraft; (c) A certification that BVUD will be incorporated as part of the B-1 conventional upgrade program.

The Committee also directs that if the Air Force determines that a requirement for BVUD exists, the acquisition of such a capability will be conducted on the basis of a full and open competition.

HAC, p. 159

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
B-1B	173,838	197,438	187,438	202,438
JDAM Integration		+7,000	+7,000	+7,000
ECM Risk Reduction		+6,600	+6,600	+6,600
PGM		+10,000		+15,000

APPN CONF, p. 111

B-1B

The conferees agree to provide $202,438,000 for the B-1B upgrade program, an increase of $28,600,000 to the budget request. The additional funding includes an increase of $7,000,000 for B-1B JDAM integration, an increase of $6,600,000 for ECM risk reduction activities, and $15,000,000 for efforts to equip the bomber with precision guided munitions, including the B-1B virtual umbilical demonstration (BVUD). The conferees agree that none of the funding used for BVUD may be obligated until the Commander of the Air Combat Command and the Air Force Director of Operational Requirements certify to the appropriations committees that (a) a documented requirement for BVUD exists; and (b) that BVUD will be incorporated as part of the B-1B conventional upgrade program.

The conferees also direct that the Commander of the Air Force Operational Test and Evaluation Center provide a report no later than March 15, 1996 on the test and evaluation plan for BVUD and other precision guided munitions demonstrations. Finally the conferees direct the Department of the Air Force to consider other available alternatives to providing precision guided capability for the Mk-82 munition with the additional funding provided.

APPN CONF, p. 112

****

TITLE: C-17 PROGRAM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$85,753	85,753	85,753	73,803	85,753	42,353	73,803

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
C-17 program	85,753	42,353	-43,400

SAC, p. 173

C-17 program.-The Committee recommends $42,353,000, a decrease of $43,400,000 to the budget request for this program element. The funds provided permit the Air Force to sustain the ongoing development effort and deliver an aircraft which meets the service's threshold operational requirements. Funds sought for follow-on testing and most funds sought for engineering change orders [ECO] have been deferred without prejudice. The Committee provides funds for three ECO's: personnel airdrop optimization, enhanced aeromedical litters, and passenger oxygen mask improvements.

The Committee also provides an increase of $5,000,000 for the development efforts necessary to add crew protection to the C-17 as part of the low-cost engine nacelle project. The Air Force is directed to incorporate the armor enhancement into the nacelle project.

SAC, p. 175-176

APPN CONF:

C-17

The conferees agree to provide $73,803,000 for continued development of the C-17 advanced transport aircraft, a decrease of $11,950,000 to the budget request. The conferees direct that these funds be allocated as follows: flight test support, $17,850,000; T-1 refurbishment, $11,700,000; aircraft structural integrity, $11,000,000; mission support, $10,900,000; aircraft armor, $5,000,000; flight test hours, $4,000,000; automatic communications processor; $4,000,000; station-keeping equipment, $1,300,000; passenger oxygen mask improvements, $1,000,000; enhanced aeromedical litters, $1,000,000; cargo compartment heating, $600,000; troop seats, $553,000; GPS integrity monitoring, $500,000; airlift defensive system survivability study, $400,000; signature reduction study, $400,000.

The conferees agree with Senate's direction regarding crew armor.

APPN CONF, p. 112-3

****

TITLE: F-22 EMD APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$2,138,718	2,138,718	2,138,718	2,138,718	2,338,718	2,338,718	2,238,718

****

SASC:
F-22 program

The committee held hearings on tactical aviation forces modernization this year and reviewed the F-22 engineering and manufacturing development (EMD) program. The committee notes that issues have been raised on the level of concurrency, projected weight, and projected engine performance with specific fuel consumption (SFC).

There are conflicting viewpoints. A report of the Defense Science Board concluded that, “There is no reason based on risk/concurrency to introduce a schedule stretch at this time." But the General Accounting Office (GAO) believes that the F-22 program “exhibits a high degree of concurrency."

Based on hearing testimony the committee believes that the Department should address promptly a number of questions. The committee is making no finding as to the level or risk of concurrency on the F-22 program at this time. However, the committee would have serious concerns about any program that involves an inappropriately high level of concurrency that possesses high risk.

The committee directs the Secretary of Defense to submit a report to the congressional defense committees before September 1, 1995. That report shall address the concerns on concurrency, weight and SFC, and shall, at a minimum, answer the following questions.

A. Concurrency:

1. What metrics for measuring the level of program concurrency are important for predicting the potential for a program to deliver the promised product, on schedule, at or below cost, with the required performance?

2. What is the level of concurrency risk in the F-22 program, given that the present program calls for 80 production planes before completion of research, development, and testing?

-a. What is the risk of the current F-22 EMD program to cost, schedule, and performance of the overall F-22 program?

-b. What change could or should be made to reduce whatever level of concurrency exists in the F-22 EMD program?

3. What is the department's view of what constitutes low, medium, and high levels of concurrency in general, and specifically as to the present F-22 program?

4. What are the benchmarks that the Congress should use to gauge when any program should be pursued with moderate or high levels of concurrency?

5. How should concurrency relate to risk, either in terms of cost, schedule, or performance?

6. How should the Congress compare the F-22 EMD program's projected level of concurrency to that experienced in the A-12 program?

7. What are the similarities and differences between the F-22 and the A-12 programs that prevent a re-occurrence of the A-12 problems in the F-22 EMD program?

B. Weight:

1. What is the current condition of projected weight of production aircraft?
2. Since no EMD or production aircraft has been built, on what basis is the Department projecting an overweight condition?

3. What was the outcome of the JROC review regarding weight? If the JROC approved the Air Force's change request, what was the basis for making that decision?
4. What would be the effect on military capability of F-22 aircraft if they are delivered at the currently projected weight?
5. What is the risk that weight will grow above the current projection?
6. How large a weight increase above the current projection should the Congress be willing to accept without restructuring the program?
7. What has been the experience of other aircraft development programs in incurring additional weight after the critical design review milestone?
8. Absent fiscal concerns, could the weight goal be attained? What is the estimated cost of achieving the original weight goal?

C. Specific fuel consumption:

1. What is the current condition of projected SFC of engine operating in production aircraft?
2. Since no EMD or production aircraft has been built, on what basis is the Department projecting an SFC deficiency?

3. What was the outcome of the JROC review regarding SFC? If the JROC approved the Air Force's change request, what was the basis for making that decision?
4. What would be the effect on military capability of F-22 aircraft if they are delivered with engines operating at the currently projected SFC?
5. What is the risk that SFC performance will fall below the current projection?
6. How much of a performance decline should the Congress be willing to accept without restructuring the program?
7. What has been the experience of other aircraft development programs in incurring poorer SFC performance after the critical design review milestone?
8. Absent fiscal concerns, could the SFC performance goal be attained? What is the estimated cost of achieving the original SFC performance goal?

The committee recommends $2.1 billion for the F-22 program. However, the committee directs that, of these funds, $600.0 million shall not be made available for obligation until 60 days after the Department of Defense submits the requested report.

SASC, p. 159-161

HAC:

Major weapons programs: The Committee proposes a net addition of $493 million above the request for the procurement of long-lead items associated with restarting production of the B-2 bomber. In addition, the Committee has adopted those funding levels associated with the House-passed Defense Authorization bill's recommendations regarding the Seawolf and new attack submarine development programs. The Committee recommends funding the requested amounts for the Army's Comanche helicopter ($199 million), the Marine Corps V-22 aircraft ($810 million), and the Navy's F/A-18 E/F aircraft ($924 million), and has provided an additional $200 million above the request for the Air Force F-22 fighter, addressing what the Air Force has identified as its highest priority funding shortfall.

HAC, p. 8

F-22 ADVANCED TACTICAL FIGHTER

The Air Force requested $2,138,718,000 for F-22 development. The Committee recommends $2,338,718,000, an increase of $200,000,000 to the budget request. It is the Committee's understanding that the additional funding provided will mitigate the cost growth that resulted from the last program rephase. The Department of the Air Force estimates that the restoration of funds to the F-22 program will result in a cost savings of approximately $350 to $400 million on the total F-22 EMD contract. The funding provided by the Committee will also enable the Air Force to maintain the original production and initial operational capability schedules for the F-22. The Committee supports this top unfunded priority of the Air Force and makes its recommendation accordingly.

HAC, p. 159

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
F-22 EMD	2,138,718	2,338,718	+200,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

APPN CONF:

ADVANCED ELECTRONICS TECHNOLOGIES

The conferees agree with the House report concerning the ECRC program and also direct the Department to enter into a five-year contract with each of the two system integrators, the National ECRC and CAMP, who will continue to manage their respective sites.

The conferees commend ARPA for recent advancements in low-cost dense plasma focus x-ray source technology and 0.18 micron synchrotron-based x-ray technology. The conferees urge ARPA to continue efforts in the point source area and direct the Agency to allocate $11,000,000 to fund an integrated point source x-ray lithography system based on these latest x-ray source and stepper developments. This research should target defense related applications such as the production of Microwave Monolithic Integrated Circuit (MMIC) chips for military uses, including missile seekers, digital battlefield systems and F-22 radar modules.

APPN CONF, p. 118

****

TITLE: B-2 ADV TECH BOMBER APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$623,616	623,616	623,616	623,616	623,616	623,616	623,616

****

AUTH CONF:
Repeal of limitations (secs. 141 and 142)

The budget request included $279.9 million for B-2 procurement and $623.6 million for B-2 research and development for a B-2 program consisting of twenty aircraft. The House bill contained a provision (sec. 141) that would repeal limitations on the B-2 program, and provide an increase of $553 million for B-2 procurement. The House bill would repeal:

Section 112 of the National Defense Act for Fiscal Years 1990 and 1991, which requires certification from the Secretary of Defense that the B-2 is meeting certain performance criteria.

Section 151(c) of the National Defense Authorization Act for Fiscal Year 1993, which limits B-2 procurement to 20 bombers and one test aircraft.

Section 131(c) of the National Defense Authorization Act for Fiscal Year 1994, which reaffirms the twenty one aircraft limitation.

Section 131(d) of the National Defense Authorization Act for Fiscal Year 1994, which limits the total program costs to $28,968,000,000 in Fiscal Year 1981 constant dollars.

Section 133(e) of the National Defense Authorization Act for Fiscal Year 1995, which provides that none of the $125.0 million authorized and appropriated for the Enhanced Bomber Capability Fund may be obligated for advance procurement of new B-2 aircraft (including long lead items).

The Senate amendment contained no additional funds, nor did it contain any repeal of the limitations provision.

The conferees agree to an amendment that would repeal the limitations imposed on the scope of the B-2 program, while retaining requirements for B-2 performance compliance in both the present authorization and any possible future acquisition of the aircraft.

The conferees agree to authorize the budget request for research and development and to increase the authorization for procurement by $493.0 million. The conferees further agree that the $493.0 million may not be spent until March 31, 1996.

The conferees believe that the B-2 bomber represents a major technological advance in strategic bomber capabilities. However, if a decision were made to acquire additional B-2 bombers, their high cost would result in funding reductions in the Administration's five year defense program. Therefore, the Senate

conferees believe that the increased authorization of $493.0 million provided for the B-2 bomber program may be expended only for procurement of B-2 components, upgrades, and modifications that would be of value for the existing fleet of B-2 bombers.

The conferees are concerned over the cost of producing modern, highly capable, long range bombers, and therefore strongly urge the Secretary of Defense to: (1) complete the study called for in section 133(d)(3) of the National Defense Act of 1995 (Public Law 103-337) for requirements formulation and conceptual studies for a conventional-conflict-oriented, lower-cost, next generation bomber; and (2) explore options, including adoption of streamlined acquisition policies and procedures, for reducing the costs of producing long-range bombers. Accordingly, the conferees agree to repeal the requirements contained in section 133(d)(3), which states that such a study may be carried out only if the previously-produced bomber force study found bomber capabilities to be inadequate.

The conferees note that section 133(d) permitted the Secretary to obligate up to $25.0 million of the $125.0 million authorized and appropriated in fiscal year 1995 for the Enhanced Bomber Capability Fund for such a study. The conferees direct that any remaining unobligated fiscal year 1995 funds from the $125.0 million made available for B-2 bomber industrial base preservation and next-generation bomber study shall promptly be merged with the $493.0 million in additional B-2 funds authorized in this Act.

In order to compare force capabilities with relative costs, the conferees urge the Secretary of Defense to provide a summary and detailed listing of program reductions and adjustments to the fiscal year 1997 budget request and the future years' defense program (FYDP) required by the possible acquisition of additional B-2 bombers. The Secretary should use the standard cost analysis approach used in the March 1995 Air Force cost estimate for further B-2 acquisition of one and one-half and three aircraft per year.

AUTH CONF, p. 628-9

****

TITLE: NIGHT/PRECISION ATTACK APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$8,708	8,708	8,708	8,708	8,708	20,708	20,708

****

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Night/precision attack	8,708	20,708	+12,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

****

TITLE: AIRCRAFT ENGINE COMP IMP PROGRAM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$0	0	0	0	0	0	0

****

AUTH CONF:
RC-135 re-engining

The budget request included no funding for the Defense Airborne Reconnaissance Program (DARP) modifications line (P-1, line 57) in the Aircraft Procurement, Air Force account.

The House bill would authorize an increase of $37.0 million for modification of an existing C-135 aircraft to the RC-135 RIVET JOINT configuration.

The Senate amendment would authorize an increase of $48.0 million for re-engining of two existing RIVET JOINT aircraft. The Senate amendment would also authorize an increase of $31.5 million in PE 64268F for non-recurring integration activity to facilitate an affordable program for converting two retired EC-135 aircraft to the RIVET JOINT configuration.

ENGINES AND INSTALLATION

The conferees concur with the cost effectiveness and increase in operational effectiveness that could be provided by re-engining the existing fleet of RIVET JOINT aircraft and agree to authorize an increase of $48.0 million to procure and install re-engining kits for two existing RIVET JOINT aircraft.

The conferees note that the theater Commanders-in-Chief (CINCs) have addressed additional RIVET JOINT aircraft as one of their highest intelligence priorities. The need for additional RIVET JOINT aircraft is further reinforced by the extremely high operational tempo currently experienced by this reconnaissance asset. The conferees support the theater CINCs' requirements for additional RIVET JOINT aircraft and strongly urge the Department to seek reprogramming authority to modify other existing C-135 assets to the RC-135 configuration.

SR-71

The conferees agree to provide an additional $5.0 million for costs associated with the refurbishment of SR-71 aircraft.

The conferees agree to authorize $133.2 million for the engine component improvement program, an increase of $29.5 million, consisting of two adjustments: (1) an additional $31.5 million for the integration activity described in the Senate report (S. Rept. 104-112); and (2) a reduction of the $2.0 million requested for the B-2 engine.

AUTH CONF, p. 596

****

TITLE: EW DEVELOPMENT APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$50,203	50,203	50,203	50,203	50,203	50,203	50,203

****

SAC:

Electronic warfare [EW] development.-This program element contains funds to improve the electronic combat capabilities of Navy aircraft and ships. The Committee recommends $97,440,000, an increase of $10,000,000 to the budget request. The additional funds are provided to enable the Navy to begin developing some reactive jamming capabilities for the EA-6B electronic warfare aircraft and to improve the aircraft's connectivity with other critical warfighting platforms. The additional funds may not be obligated until after the Secretary of the Navy reports to the Committees on Appropriations as to the programmatic objectives, schedule, technical risks, and annual and total costs of such an effort.

SAC, p. 167 (Navy RDT&E)

****

TITLE: SPACE BASED INFRARED ARCHITECTURE (SBIR) - EMD APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$152,219	162,219	162,219	162,219	152,219	162,119	172,219

****

HNSC:
Space-based infrared system

The budget request included $130.744 million in PE 63441F for Space-Based Infrared System (SBIRS) demonstration/validation, and $152.219 million in PE 64441F for SBIRS High Element engineering and manufacturing development (EMD).

The committee reaffirms its strong support for fielding an improved capability to provide the nation's political and military leaders with timely and effective missile warning information. The committee recommends several actions intended to accelerate the Department's plans for fielding such a system. With respect to PE 63441F:

(1) $249.8 million is recommended for the Space and Missile Tracking System (SMTS), an increase of $135 million, and $15.9 million, the requested amount, is recommended for the “Cobra Brass" space experiment;

(2) the schedule for launching the SMTS flight demonstration satellites should be accelerated as much as practical;

(3) deployment of SMTS operational satellites shall begin not later than the fourth quarter of fiscal year 2003; and

(4) a long-wave infrared (LWIR) sensor shall be tested on at least one of the two flight demonstration satellites.

In PE 64441F, $9.4 million is recommended for the Miniature Sensor Technology Integration and $152.8 million, an increase of $10 million, for the SBIRS High Element EMD. The committee encourages the Department, in light of efforts to accelerate SMTS, to review the appropriate mix of capabilities between the high and low earth orbit components of SBIRS and to communicate the results of this analysis to the congressional defense committees by no later than September 1, 1995.

The committee commends the Air Force for adopting innovative acquisition streamlining measures for the SBIRS program, and urges that these processes and procedures remain in effect for the duration of the program.

HNSC, p. 121-122

SASC:
Section - 214. Space and missile tracking system program.

The Space-Based Infrared System (SBIRS) will replace and provide increased performance over the existing Defense Support Program (DSP) system. SBIRS will incorporate new technologies to enhance detection, provide direct reporting of strategic and theater ballistic missile launches, and provide mid-course tracking and discrimination data for national and theater missile defense. The system will consist of sensors located in geosynchronous orbits (GEO), highly elliptical orbits (HEO), and low earth orbits (LEO), and an integrated centralized ground station serving all space elements of SBIRS as well as DSP.

The committee commends the Department of Defense for the process that was employed in deciding upon the SBIRS architecture and the streamlined acquisition strategy that has been adopted. The committee expects the resulting integrated structure to provide the basis for program stability and efficiency in what has been an overly turbulent and protracted search for a DSP follow-on. More importantly, the committee expects the SBIRS program to be a catalyst in the development of a new approach to missile warning. Tactical Warning and Attack Assessment (TW/AA) can no longer be viewed as a mission which stands separate from ballistic missile defense. Future national and theater missile defenses must be integrated with, and take maximum advantage of, the SBIRS architecture. SBIRS also signals a dramatic technical departure from past approaches. The introduction of a distributed LEO constellation will provide tremendous advantages and opportunities, some of which are not yet fully understood. In addition to its role in missile defense, the LEO system will make major contributions in the areas of technical intelligence and space object characterization and surveillance.

The budget request for SBIRS included $130.7 million for Demonstration/Validation (Dem/Val), $152.2 for Engineering and Manufacturing Development (EMD), and $19.9 million for Procurement. Of the funds requested for Dem/Val, $114.8 million was for the Space and Missile Tracking System (SMTS), formerly known as “Brilliant Eyes."

After evaluation of its original ground system development plan, the Air Force has decided to restructure the program to re-phase hardware purchases and software engineering to allow for a more careful evaluation of system costs versus military utility. Hence, the $19.9 million procurement request is no longer needed for the previously identified purpose. The committee, therefore, recommends no funding for SBIRS procurement (PE 35915F), and recommends that $10.0 million of these funds be transferred to SBIRS EMD (PE 0604441F) to support ground system risk reduction, for a total of $162.2 million. Of this amount, the committee directs the Secretary of the Air Force to use $9.4 million to launch the third Miniature Sensor Technology Integration (MSTI-3) satellite. MSTI-3 will provide critical infrared background clutter phenomenology data for the SBIRS high element EMD program.

Although the committee endorses the priority and schedule for the GEO and HEO components of SBIRS, it views the current schedule for the LEO segment to be unacceptably prolonged. Current plans do not call for the first launch of an objective SMTS satellite until 2006. This leisurely schedule is based on the assumption that SMTS will not be needed to support national or theater missile defenses before this date. The committee strongly disputes this planning assumption. Theater missile defense systems that will be able to exploit SMTS data will become operational before the turn of the century. More important, the Missile Defense Act of 1995 (Subtitle C of Title II), is premised in part on an SMTS initial operational capability in fiscal year 2003.

The committee notes that there are no technical obstacles to having a first launch of an SMTS user operational evaluation system (UOES) satellite in 2001. The committee, therefore, recommends a provision which requires the Secretary of the Air Force to restructure the SMTS program to support a first launch of UOES satellites in fiscal year 2001, with the full SMTS constellation (consisting of a combination of UOES satellites and objective satellites) on orbit by the end of fiscal year 2003. To support this restructured schedule, the committee recommends an authorization of $250.0 million in fiscal year 1996 for the SMTS program, an increase of $135.0 million over the budget request. The committee directs the Air Force to restructure the SMTS schedule to meet the following milestones:

--Preliminary Design Review (PDR) and Critical Design Review (CDR) of the flight demonstration system (FDS) in fiscal year 1996.
--System Requirements Review (SRR) for the objective SMTS satellites in fiscal year 1996.
--Formal Requirements Review (FRR), deployment decision, and PDR for the objective SMTS satellites in fiscal year 1997.
--Launch of the FDS satellites in fiscal year 1998.
--CDR for the objective satellites in fiscal year 1999.

The objective SMTS system shall be designed, developed, tested and constructed to detect, characterize, track, and synthesize stereo track information concerning ballistic missile attack. The system shall be designed to generate and transmit, in a sufficiently timely manner, all data necessary to enable defensive interceptors to commit, launch, fly-out, and receive in flight target updates and guidance information in advance of-or in place of-the defensive system's associated radar, and in a way which maximizes the kinematic potential of the defensive interceptor to conduct ballistic missile intercepts.

To ensure that this schedule and these technical specifications are met, the committee recommends a provision which would require the Air Force to seek the concurrence of the Director of the Ballistic Missile Defense Organization before implementing any decision that would have any of the following results regarding SMTS: (1) a reduction in funds available in any fiscal year; (2) an increase in the total program cost; (3) a schedule delay; or (4) a modification of the performance parameters or specifications.

As a result of budgetary constraints, the Air Force has been forced to down-select to a single flying contractor for the SMTS FDS. While the committee does not oppose this decision, it does believe that the Air Force should consider alternatives for maintaining competition and reducing risk. The committee is aware of proposals to have the non-flying contractor conduct a low-cost flight experiment to provide a second SMTS concept capable of moving forward into EMD. The committee understands that such a flight experiment could be conducted for a total of $80 million over three years. The committee urges the Air Force to carefully evaluate this alternative and to determine whether this approach could in fact reduce risk and help meet the deployment goals specified above. If the Secretary of the Air Force determines that this approach would help achieve the deployment goals specified above, the committee authorizes the use of up to $40 million of the funds authorized for SMTS in fiscal year 1996 to begin such a low-cost flight experiment.

SASC, p. 99-101

AUTH CONF:
Space-based infrared system (sec. 216)

The Senate amendment contained a provision (sec. 214) that would accelerate development and deployment of the Space and Missile Tracking System (SMTS), formerly known as Brilliant Eyes, and that would require the Secretary of the Air Force to obtain the concurrence of the Director of the Ballistic Missile Defense Organization (BMDO) before implementing any decision that would impact the SMTS program.

The House bill contained no similar provision.

The House recedes with an amendment that would require the Secretary of Defense to establish a program baseline for the overall Space-Based Infrared System (SBIRS) program. The baseline would include the following:

(1) overall program structure, including: (A) program cost and an estimate of the funds required in each fiscal year in which development and acquisition activities are planned, (B) a comprehensive schedule with program milestones and exit criteria, and (C) optimized performance parameters for each segment of the integrated system;

(2) a development schedule for SMTS structured to achieve the first launch of a Block I satellite in fiscal year 2002, and initial operational capability (IOC) of the system in fiscal year 2003;

(3) full integration of SMTS into the overall SBIRS architecture; and

(4) establishment of the performance parameters of all space segment components so as to optimize the performance of the integrated system while minimizing unnecessary redundancy and cost.

The provision adopted by the conferees would require the Secretary of Defense to provide a report to the congressional defense committees on the SBIRS program baseline not later than 60 days after the enactment of this Act.

The conference provision would also establish the following program elements for the SBIRS program:

(1) Space Segment High;

(2) Space Segment Low (SMTS); and

(3) Ground Segment.

The conference provision requires the SBIRS baseline to include an SMTS IOC by fiscal year 2003 to support national and theater missile defenses. The conferees understand that the Air Force has defined this IOC as consisting of 12-18 satellites. The conferees urge the Air Force to make every effort to achieve an 18 satellite IOC by fiscal year 2003.

In accelerating the SMTS program, it is not the conferees' intent to reduce the priority and importance of the SBIRS High components. The conferees endorse the schedule that the Air Force has established for the SBIRS High components. The SBIRS program should feature complementary and mutually supportive elements that do not include excessive technical and functional redundancy.

Although SMTS can, over time, become a multi-functional sensor system capable of fulfilling missions such as technical intelligence and battlespace characterization, the conferees direct the Air Force to ensure that the SMTS Flight Demonstration System (FDS) and Block I system be designed primarily to satisfy the missile defense mission. Missions not related to theater and/or national ballistic missile defense should not be allowed to add significant cost, weight or delay to the SMTS FDS or Block I system. This scaled-down approach will ameliorate the technical challenges associated with an accelerated schedule while contributing to overall affordability.

To support this schedule and missile defense focus, the conferees direct the Secretary of Defense to commence SMTS pre-engineering and manufacturing development (EMD) activities in fiscal year 1996 and to ensure that the FDS and Block I satellites are equipped with long-wave infrared sensors. The conferees endorse the design characteristics specified in the Senate report (S. Rept. 104-112) regarding the objective SMTS system. The conferees have

authorized sufficient funds in fiscal year 1996 to commence these activities and to prepare the way for a fiscal year 1998 FDS launch.

Over time, as the Air Force gains operational experience with the High and Low Block I systems, it is likely that SMTS will be able to assume a much larger share of the SBIRS requirements burden. In the meantime, the conferees urge the Secretary of Defense to initiate technical and cost trade studies among the SBIRS space systems and include any preliminary findings and recommendations in the SBIRS baseline report.

The budget request for SBIRS included $130.7 million for demonstration/validation (Dem/Val), $152.2 million for EMD, and $19.9 million for procurement. Of the funds requested for Dem/Val, $114.8 million was for SMTS. The conferees agree on the following authorizations:

(1) $265.7 million in PE 63441F for SBIRS Dem/Val, of which $249.8 million is for SMTS; and

(2) $162.2 million in PE 64441F for SBIRS EMD, of which $9.4 million is for the Miniature Sensor Technology Integration (MSTI) program.

The conferees are aware of a recent proposal to increase competition and reduce risk in the SMTS program through a low-cost flight experiment. The conferees direct the Air Force and BMDO to carefully assess the merits of this concept and to include their joint findings and recommendations in the SBIRS baseline report. If the Air Force Acquisition Executive and the Director of BMDO certify to the congressional defense committees that such a flight experiment is in the overall interest of the SMTS program (measured in terms of risk reduction and schedule acceleration), the conferees authorize the use of up to $40.0 million of the funds authorized for SMTS in fiscal year 1996 to begin a low-cost flight experiment.

The conferees congratulate the Air Force and BMDO for reaching agreement on the acquisition management relationship for execution of the SMTS program. In light of the Memorandum of Agreement between the Air Force Acquisition Executive and the Director of BMDO, the Senate recedes on its language dealing with management oversight of the SMTS program. As with all aspects of the SMTS program, however, the conferees will continue to monitor management oversight with great interest. If the present management structure does not fulfill the expectations of the conferees, or lead to implementation of the guidance provided above, the conferees will reconsider transferring SMTS back to BMDO.

AUTH CONF, p. 707-709

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
SBIR-EMD	152,219	152,219	162,119	172,219
Other Procurement Transfer			+9,900	+20,000

APPN CONF, p. 111

****

TITLE: MILSTAR LDR/MDR SAT COMM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$649,666	649,666	577,666	577,666	649,666	591,666	577,666

****

SASC:

Polar satellite communications

The Department of Defense has an urgent requirement to provide secure communications for operations in the polar region. The most critical of these requirements can be satisfied in the near-term through an Air Force program to place extremely high frequency (EHF) communications packages, similar to the ones used on the Ultra-High Frequency Follow-On program (UFO), on host satellites. Having already approved this program as a new start in fiscal year 1995, the committee recommends the authorization of $58.0 million in fiscal year 1996 in PE 603432F to acquire the communications payload and perform integration and test activities in support of a 1997 launch of this capability aboard a host satellite. To offset this increase, the committee recommends the realignment of funds from the MILSTAR program (PE 604479F) that are no longer required for termination liability fees.

SASC, p. 157-158

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
MILSTAR LDR/MDR Satcomm	649,666	591,666	-58,000

SAC, p. 173

****

TITLE: SUBMUNITIONS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$4,953	4,953	14,953	14,953	14,953	14,953	14,953

****

SASC:

Sensor Fuzed Weapon Improvement Program

The committee understands that the Air Force has the opportunity to substantially increase the effectiveness of the sensor fuzed weapon (SFW) through a pre-planned product improvement program (P3I). The committee further understands that if an increase in Air Force funding were available for fiscal year 1996, the program's Engineering and Manufacturing Development could begin at once.

Realizing the opportunity to increase the weapon's performance by 300 percent for a 15 percent increase in production cost, the committee recommends an increase of $10.0 million for the start of the EMD for the Sensor Fuzed Weapon (P3I). The committee further understands that the Air Force will budget for the program in the FYDP by the Air Force prior to obligating these funds.

SASC, p. 161

HAC:

SUBMUNITIONS

The Air Force budgeted $4,953,000 for submunitions development. The Committee recommends $14,953,000, an increase of $10,000,000 to the budget request. The additional funding is available only for the sensor fuzed weapon enhancement program.

HAC, p. 159

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Submunitions	4,953	14,953	+10,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

Submunitions.-The Committee approves $14,953,000, which includes an increase of $10,000,000 to the budget request for this program element. The additional funds are provided to begin a program to enhance the capabilities of the sensor fuzed weapon. The Committee directs the Air Force to program funds in the out-years to complete the development of these improvements and to reevaluate the total inventory needs of smart munitions. The results of this reevaluation shall be submitted to the Committees on Appropriations no later than May 1, 1996.

SAC, p. 177

SENSOR FUZED WEAPON PRODUCT IMPROVEMENT

The House and Senate both included $10,000,000 in their respective bills to begin a product improvement program for the Sensor Fuzed Weapon (SFW). The conferees direct the Air Force to program those funds required in the outyears to complete development of these improvements. Currently programmed SFW production funds shall not be used as a source for the required development funds. The conferees strongly urge the Air Force to begin this development as soon as possible and to examine ways to streamline and shorten the effort.

The conferees also agree with the Senate requirement for a reevaluation, to be submitted no later than May 1, 1996, of total inventory needs for smart munitions.

APPN CONF, p. 113

****

TITLE: JOINT DIRECT ATTACK MUNITION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$92,161	92,161	99,161	92,636	92,161	92,161	92,161

****

SASC:
Interim precision guided munitions (PGM)

Last year, the committee directed the Department of Defense to conduct a Heavy Bomber Study to define the future needs for long range bombers. The Heavy Bomber Study strongly endorsed the need for PGM's. Accordingly, while awaiting the analysis and recommendations required by the Bill's related provision on PGM's, the committee recommends an increase of $353.0 million as a cost-effective method of procuring capability instead of acquiring further B-2 aircraft. The committee is persuaded by that argument, and recommends an increase in the budget request as detailed below.

Precision Guided Munitions Procurement

-Procure 100 AGM-130 missiles, an increase of $40.0 million.

-Convert 200 AGM-86 ALCM's to conventional configuration an increase of $27.2 million.

-Procure 50 Have Nap PGM's for use on B-52 H aircraft, an increase of $38.0 million.

-Procure additional conventional bomb modules for B-1 bombers through an addition of $85.0 million.

-Make necessary modifications to the B-1 weapons carriage system to support an interim Joint Standoff Weapon (JSOW) through an addition of $11.6 million.

-Procure up to 25 interim JSOW's, an addition of $10.4 million.

Precision Guided Munitions RDT&E

-$20.0 million in PE 0604226F to acquire an interim precision munition for the B-1B, known as the B-1B Virtual Umbilical Device (BVUD), provided the Secretary of the Air Force certifies to the congressional defense committees that the BVUD is a valid requirement by May 15, 1996. Failing such certification, the funds provided are to be used for further acceleration of upgrades to the B-1B through the Conventional Munitions Upgrade Program (CMUP).

-An increase $20.0 million to integrate the AGM-130 with the B-52H bomber and begin qualification and testing of the extended-range version of the AGM-130, in PE 0101113F.

-$40.0 million in PE 0604226F to provide a portion of the B-1 fleet with an interim capability for employing the Joint Standoff Weapon.

-An increase of $7.0 million for Interferometric Terrain Aided Guidance (ITAG) technology demonstration to improve JDAM accuracy, PE 0604618F.

Conventional Bomber Enhancements

-Accelerate the Conventional Munitions Upgrade Program (CMUP) for the B-1 bomber, an increase of $47.2 million in PE 0604226F.

-Increase by $6.6 million PE 0604226F to allow for an acceleration of the ECM upgrade by funding the Systems Requirements Review in fiscal year 1996, rather than the budget's planned start in fiscal year 1997.

These additions and program accelerations are made with the intent of satisfying the requirements for capable, conventional bombers as soon as practicable.

SASC, p. 158-159

AUTH CONF:
Weapon impact assessment system

The conferees are aware of innovative technologies that may significantly resolve the battlefield damage assessment problems related to tactical aviation. The conferees support the priorities established in the fiscal year 1996 Department of Defense Small Business Innovative Research Program solicitation (96.1) to expeditiously pursue weapon impact assessment technology. Accordingly, the conferees authorize $950,000, distributed equally between PE 64618N and PE 64618F, for a joint Navy-Air Force flight demonstration of a weapon impact assessment system that uses a video sensor-transmitter with precision guided munitions.

AUTH CONF, p. 680

SAC:
Guidance technology.-The Committee has recommended deletion of funds for a new ARPA guidance technology program known as Sharpshooter. While recognizing the merits of this program, the Committee is troubled by the concurrent development of the joint direct attack munition [JDAM] and the Sharpshooter concept. JDAM relies on global positioning system [GPS] and inertial navigation components to guide the weapon to the target. Sharpshooter would develop more advanced components to increase weapon accuracy, improve jamming tolerance, and reduce guidance package costs. To take advantage of the ideas offered by

ARPA in the Sharpshooter program, the Committee directs the Under Secretary of Defense for Acquisition and Technology to conduct a review of Sharpshooter technologies, contrasting those with the guidance technologies under development in the JDAM program. The review should determine whether any Sharpshooter technology concepts should be made part of the JDAM development program to ensure that the guidance systems developed for JDAM provides robust, precision guidance capabilities. A report summarizing the review and its conclusions should be provided to the Committees on Appropriations by May 1, 1996.

SAC, p. 182 (RDT&E, Defense-wide)

****

TITLE: JOINT STANDOFF WEAPONS SYSTEMS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$44,025	44,025	44,025	44,025	44,025	40,802	44,025

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Joint standoff weapons systems	44,025	40,802	-3,223

SAC, p. 173

****

TITLE: SURFACE DEFENSE SUPPRESSION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$0	5,000	0	0	0	0	0

****

HNSC:
Precision guided munitions

The budget request contained no funds for procurement of AGM-130 powered GBU-15 laser guided bombs, AGM-86B conventional air launched cruise missiles (CALCMs), or AGM-142 HAVE NAP medium-range tactical missiles. The committee has great concern over the serious shortage of standoff precision-guided munitions (PGMs) currently available to the services. The force multiplier effect of PGMs was clearly demonstrated in Desert Storm, and the Department has relied heavily on this enhanced capability in determining that its modernized Bottom Up Review force can fight and win two nearly-simultaneous major regional contingencies (MRCs). Elsewhere in the report the committee has expressed its reservations with the Department's assertion that a smaller bomber force will be able to operationally support two MRCs. The committee notes that this assertion is without foundation based on both inadequate bomber force levels and lack of sufficient one-shot-one-kill standoff PGMs.

The committee acknowledges the Department's efforts to accelerate acquisition of the Joint Direct Attack Munition and the Joint Standoff Weapon in the wake of the termination of the Tri-Service Standoff Attack Missile (TSSAM). Department officials also have begun discussions of a follow-on replacement for TSSAM. However, the committee notes that all of these weapons are still in the development stage and address but a portion of the services' requirements for standoff PGMs.

Consequently, the committee recommends authorization of an additional $40 million for procurement of 100 AGM-130 powered GBU-15 laser guided bombs for the Air Force F-15 fighter. Additionally, the committee recommends authorization of $5 million to be added to PE 64733F in Title II of this report in order to develop B-52H modifications which would enable a portion of the B-52 fleet to be armed with AGM-130s.

The committee further recommends authorization of $27.2 million for conversion of 200 AGM-86B nuclear-capable air launched cruise missiles to a conventional configuration and $39 million for procurement of 54 HAVE NAP electro-optical/infrared guided missiles. These two standoff PGMs will provide near-term capability for the bomber fleet, while awaiting future Department decisions on standoff weapons.

HNSC, p. 62 (AF Missile Proc)

****

TITLE: COMPUTER RESOURCES TECH TRANS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$2,166	2,166	2,166	2,166	2,166	20,366	9,166

****

HAC:

COMPUTER ASSISTED TECHNOLOGY TRANSFER

The Committee directs that from within funds available to the Air Force research and development appropriation for fiscal year 1996 efforts related to the Computer Assisted Technology Transfer program should be continued.

HAC, p. 157-158

SAC:

Computer resource technology transition [CRTT].-The Committee recommends providing $20,366,000, an increase of $18,200,000 to the budget request. An increase of $15,200,000 is added for the integrated maintenance data system [IMDS] to establish a rapid prototyping capability in order to provide the cost estimates to support a planned contract award in the first quarter of fiscal year 1997. IMDS replaces the existing capabilities of the core automated maintenance system [CAMS], the reliability and maintenance information system [REMIS], the tactical interim CAMS/REMIS reporting system [TICARRS], and their related ancillary support systems. IMDS will implement the full range of capabilities necessary to manage equipment and weapon maintenance.

The remaining additional funds, $3,000,000, are provided only to continue advanced research and technology transition activities of the Pacific Software Research Center related to software design for reliability and reuse [SDRR].

SAC, p. 174

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Computer Resource Tech Transition	2,166	2,166	20,366	9,166
Software Design for Reliability and Reuse			+3,000	+5,000
CARDS				+2,000
IMDS			+15,200	

APPN CONF, p. 111

****

TITLE: JT TAC INFORM DISTRIBUTION SYS (JTIDS) APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$10,146	10,146	10,146	10,146	10,146	10,146	10,146

****

SASC:
Fighter data links

The committee finds the Air Force's decision to equip its air superiority fighters (F-15Cs) with the data link called “Link 16" encouraging. Nevertheless, the committee does not understand why the Air Force is planning to equip only this subset of its forces with data links. Getting tactical data links for Air Force attack aircraft has been a difficult challenge over the years. The committee believes the added situational awareness resulting from sharing data among various platforms has real potential for making our forces more effective warfighters.

The committee believes that the Air Force should place a higher priority on increasing situational awareness of our attack aircraft. The otherServices are taking a more determined approach:

1. The Army is installing the improved data modem and data links among helicopters, and between helicopter forces and other Army and Air Force units.

2. The Navy is installing multifunction information distribution system (MIDS) terminals in its fighter and attack aircraft. The MIDS program is an international effort to provide this capability for a variety of weapons platforms for the U.S. and our allies.

The Air Force says that it cannot afford to outfit all of its aircraft with the full MIDS terminal. The committee understands that the budget process and tight fiscal constraints force the Services to make tough choices. However, the committee remains puzzled by the relative priority that the Air Force has accorded data link capability. In response to inquiries, the Air Force provided the congressional defense committees a prioritized list of how it would choose to spend extra funds if they were available. That list totals more than $1.8 billion in fiscal year 1996 alone. The list shows that the Air Force would choose to spend none of any additional funds on spreading this data link capability.

The committee believes that investing in additional data links could yield a several fold increase in combat capability in the near-term and provide much greater leverage than many items on the Air Force's list.

The Air Force has also said that its forces do not need all the capability that the Navy requires from its MIDS terminals. The committee understands that the Air Force has been considering a proposal for a lower-cost joint tactical information distribution system, called “JTIDS 2R."

Department of Defense officials have told the committee that a variant of the current MIDS terminal could achieve the reduced costs the Air Force seeks, while avoiding the overhead associated with launching another program. In view of this information, the committee will not support initiation of a new, redundant

program to meet similar requirements. The common approach should reduce the department's costs of ownership and increase interoperability with our allies, and will help promote cooperative development efforts.

The committee recommends that the Under Secretary of Defense (Acquisition and Technology) continue to pursue a MIDS production strategy that maximizes competition for U.S. industry, while maintaining the benefits of the MIDS architecture and commonality. The Air Force should share the results of the Mountain Home Air Force Base technology demonstrations with the MIDS program office to assist in fulfilling the Air Force's fighter data link requirement.

SASC, p. 163-164

****

TITLE: JOINT SURV/TGT ATT RADAR SYS (JSTARS) APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$169,702	203,702	169,702	182,202	189,702	162,202	182,202

****

HNSC:
NATO air-ground surveillance system

NATO recently established an air-ground surveillance office to evaluate potential candidates to provide the alliance an airborne ground surveillance capability to complement the NATO Airborne Warning and Control System (AWACS). The committee recommends an additional $14 million in PE 64770F to support the U.S. contingent in the NATO office.

HNSC, p. 120

AUTH CONF:
Joint surveillance target attack radar system

The budget request included $18.8 million for the Army and $169.7 million for the Air Force for the Joint Surveillance Target Attack Radar System (JSTARS).

The House bill would authorize an increase in the Air Force requested amount, $14.0 million to establish a NATO program office and $20.0 million for development of an improved data modem and satellite communications capability.

The Senate amendment would authorize no additional funding for these programs.

The conferees agree to authorize an additional $9.5 million in PE 64770A for the Army Ground Station Module, in support of the NATO Alliance Ground Surveillance program, and an additional $24.5 million in PE 64770F, with $4.5 million for the Air Force portion of the JSTARS NATO Alliance Ground Surveillance program and $20.0 million for development of an improved data modem and satellite communications capability.

AUTH CONF, p. 648 (Army RDT&E)

HAC:

JSTARS

The Air Force budgeted $169,702,000 for JSTARS development. The Committee recommends $189,702,000, an increase of $20,000,000 to the budget request. The additional funding provided by the Committee is for projects related to data link development and data dissemination technologies.

HAC, p. 159-160

SAC:

Joint surveillance/target attack radar system [JSTARS].-The Committee approves $162,202,000, a reduction of $7,500,000 to the budget request for this program element, which supports development of the airborne component of the JSTARS system. JSTARS is an Air Force aircraft operating with Army ground stations to observe and target ground formations and combat vehicles. The recommendation consists of two actions.

First, the Committee deletes $12,000,000 of fiscal year 1996 funds and directs the Air Force to use an equal amount of fiscal year 1995 funds for RDT&E which now are reserved for a not validated contractor request for equitable adjustment [REA]. The Armed Services should seek funding for such liabilities after a precise amount has been negotiated, and agreed to, by the Government and the contractor.

Second, the Committee adds $4,500,000 to the budget request to enable the Air Force to support the Embryonic Project Office established by the North Atlantic Treaty Organization [NATO] to define and evaluate programmatic options to meet the alliance ground surveillance [AGS] requirement. The Committee strongly urges NATO to meet this requirement for an airborne ground surveillance system by selecting the Air Force's E-8C JSTARS platform, with only minimal modifications.

The Committee also directs that no funds available to the Defense Department during fiscal year 1996 may be used to begin development, including risk reduction, for a NATO AGS system without prior consultation with, and notification to, the Committees on Appropriations.

SAC, p. 176-177

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Joint Surveillance/Target Attack Radar	169,702	189,702	162,202	182,202
REA			-12,000	-12,000
NATO JSTARS Project Office			+4,500	+4,500
Data Link/Dissemination Technologies		+20,000		+20,000

APPN CONF, p. 111

JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM

The conferees agree to reduce the budget request for Joint Surveillance/Target Attack Radar System (JSTARS) procurement by $17,200,000 and for development by $12,000,000. The conferees agree to add $4,500,000 in development funds for the NATO Alliance Ground Surveillance (AGS) program and to add $20,000,000 in development funds for data link/dissemination technologies. An amount of $6,100,000 in procurement funds is available only to pay over and above expenses for repair actions during aircraft refurbishment. The conferees direct the Air Force to report to the Committees on Appropriations no later than 30 days after the enactment of this Act as to how the reductions have been allocated. If necessary to accommodate the impact of these reductions, the Air Force is encouraged to submit a reprogramming request in a timely manner.

The conferees agree with the Senate requirements regarding the AGS program.

APPN CONF, p. 113

****

TITLE: ICBM - EMD APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$192,719	200,719	192,719	192,719	192,719	192,719	192,719

****

HNSC:
Intercontinental ballistic missile (ICBM) engineering and manufacturing development

The budget request included $192.719 million in PE 64851F to complete the Rapid Execution and Combat Targeting Program and to continue the Propulsion and Guidance Replacement Programs. However, the Guidance Replacement Program request fails to fund the initial design and test of the capability to integrate the Mark 21 warhead on the new Minuteman guidance set. In a March 23, 1995 report to Congress, the Under Secretary of Defense for Acquisition and Technology wrote, “The use of Mark 21 on Minuteman III is feasible and operationally effective, and it would be fully compliant with arms control treaties and initiatives." The committee recommends an additional $8 million to fund the initial design and test of the capability to integrate the Mark 21 warhead on the new guidance set.

HNSC, p. 120

AUTH CONF:
Intercontinental ballistic missile (ICBM) research and development and associated issues

ICBM DEMONSTRATION/VALIDATION

The budget request included $20.3 million in PE 63851F for six Minuteman-related projects.

The House bill would authorize an additional $14.5 million to complete acquisition and requirement documentation efforts and to conduct missile guidance technology experiments. The House report (H. Rept. 104-131) expressed concern that the budget request failed to include pre-milestone 0 and phase 0 funding for the command signal decoder, the modified miniature receive terminal for launch control centers, the safety enhanced reentry vehicle, and inertial measurement modifications.

The Senate amendment would authorize an additional $4.3 million to bolster the Air Force reentry vehicle applications project. The Senate report (S. Rept. 104-112) expressed concern that the reentry vehicle nose tip requirements were not adequately funded.

The conferees agree to authorize the budget request. The conferees also reiterate the concerns expressed in the House and Senate reports. The conferees understand that the Air Force is considering options to address these concerns from within their existing fiscal year 1996 budget, in particular the documentation issues identified in the House report. The conferees strongly urge the Air Force to fulfill these requirements.

ICBM ENGINEERING AND MANUFACTURING DEVELOPMENT

The budget request contained $192.7 million in PE 64851F to fund the Minuteman guidance and propulsion replacement programs.

The House bill would authorize an additional $8.0 million to fund the initial integration design and testing of the capability to integrate the Mk21 warhead on the new Minuteman guidance set. The House report (H. Rept. 104-131) endorsed using the Mk21, the safest warhead in the inventory, on the Minuteman, if and when it becomes available as a result of arms control treaties. The House report expressed concern that the current guidance replacement program fails to fund the design and testing necessary to ensure the Mk21 capability prior to initiation of the guidance set production.

The Senate amendment would authorize the budget request.

The conferees agree to authorize the budget request. The conferees, however, reiterate the concerns expressed in the House report (H. Rept. 104-131), and support the recommendations made therein. The conferees are concerned that the Department of Defense and the Air Force have failed to take the necessary action to ensure that the safest nuclear warheads are compatible with the new Minuteman guidance sets. Therefore, the conferees direct that, of the funds authorized for fiscal year 1996 in PE 64851F, up to $4.0 million shall be available to initiate efforts to ensure that the new Minuteman guidance sets are capable of accommodating the Mk21 warhead. The conferees further direct the Secretary of Defense to ensure that the funds necessary to continue this effort are included in the fiscal year 1997 budget request.

REENTRY VEHICLE MATERIALS

The Senate amendment would authorize $750,000 above the budget request in PE 62102F for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three nose tip billets and related technologies.

The House bill would not authorize additional funds for reentry vehicle materials.

The Senate recedes. Nevertheless, the conferees reiterate the concerns expressed in the Senate report (S. Rept. 104-112) regarding the adequacy of the reentry vehicle applications program, and, in particular, the reentry vehicle materials program. Therefore, the conferees direct that, of the funds available in PE 62102F, up to $750,000 shall be available for the Thermal Protection Materials Reentry Vehicle project to purchase, test, and evaluate three ICBM reentry vehicle nose tip billets and related thermal technologies.

BALLISTIC MISSILE TECHNOLOGY

The budget request contained $3.1 million in PE 63311F to conduct guidance and range safety technology experiments.

The House bill would authorize an additional $5.7 million for Minuteman class range tracking and safety equipment based on Global Positioning System (GPS) equipment developments.

The Senate amendment would authorize an additional $5.0 million for suborbital flight testing conducted at White Sands Missile Range for ballistic missile guidance, range tracking, and safety equipment, based on existing GPS equipment.

The conferees agree to authorize $5.7 million above the budget request to enhance ballistic missile technology experiments and to proceed with a follow-on to the successful Missile Technology Demonstration Flight 1 (MTD-1). The conferees commend the participants in this joint effort and encourage the Air Force, the Ballistic Missile Defense Organization, the Defense Nuclear Agency, and the Phillips Laboratory to continue to pursue such joint efforts. Prior to completing plans for a MTD follow-on, the conferees direct the Air Force to consult with the Senate Committee on Armed Services and the House Committee on National Security on the issues and options associated with the following: (1) the technologies to be tested; (2) the type of booster configuration to be employed; and (3) the test range to be used.

PEACEKEEPER CONTINGENCY PLANNING

The conferees direct the Secretary of the Air Force to submit a report to the congressional defense committees, by March 1, 1996, that outlines the Air Force's current plans for retiring Peacekeeper, and maintaining the system in the interim. The report should also address the additional actions and funding that would be required to maintain the option of retaining up to 50 Peacekeeper ICBMs in an operational status beyond 2003. The report should include a timetable that outlines when such actions and funding would be needed.

AUTH CONF, p. 678-80

****

TITLE: UHF SATELLITE COMMUNICATIONS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$15,568	13,068	9,068	13,068	13,068	13,068	13,068

****

HNSC:
Ultra high frequency satellite communications

The budget request included $15.6 million in PE 33606F for engineering and manufacturing development of the Ultra High Frequency (UHF) Satellite Communications (SATCOM) program. Based on a reduction in the number of contracts for the development of the network control stations from two to one, funding is reduced by $2.5 million.

HNSC, p. 122

SASC:
Ultra-high frequency satellite communications

The budget request for Ultra-High Frequency (UHF) satellite communications was $15.6 million. The Air Force has recently changed its acquisition strategy to down-select to a single Network Control Station contract earlier than planned. As a result, the committee recommends a reduction of $6.5 million.

SASC, p. 162

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
UHF Sat Com	15,568	13,068	-2,500

HAC, p. 157

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
UHF Satcomm	15,568	13,068	-2,500
SAC, p. 173			

****

TITLE: SPACE TEST PROGRAM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$57,710	66,710	57,710	47,000	57,710	39,572	47,000

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Space test program	57,710	39,572	-18,138

SAC, p. 173

****

TITLE: THREAT SIMULATOR DEVELOPMENT APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$53,377	53,377	53,377	53,377	53,377	65,877	58,877

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Threat simulator development	53,377	65,877	+12,500
ECIT infrastructure and generic test capability		-3,100	-3,100
Real-time electromagnetic digitally-controlled analyzer and processor [REDCAP]		+15,600	+15,600

[1]Increase reflects Committee recommendations as outlined in

the “Program and Project Funding Increases" heading of this report section.

SAC, p. 173

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Threat Simulator Development	53,377	53,377	65,877	58,877
ECIT Infrastructure			-3,100	-3,100
REDCAP			+15,600	+8,600

APPN CONF, p. 111

THREAT SIMULATOR DEVELOPMENT

The conferees direct that none of the funds available for the Real-Time Electromagnetic Digitally Controlled Analyzer and Processor (REDCAP) may be used to fund any activities which would produce permanent improvements which could not be relocated in accordance with the Base Realignment and Closure (BRAC) decision to move this facility.

APPN CONF, p. 114

****

TITLE: NAV/RADAR/SLED TRACK TEST SUPPORT APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$0	0	0	0	3,000		3,000

****

HAC:

NAVIGATION/RADAR/SLED TRACK TEST SUPPORT

The Air Force requested no funds for the Navigation/Radar/Sled Track Test Support program. The Committee recommends $3,000,000, an increase of $3,000,000 to the budget request. The Committee is aware of the progress being made in modernizing the Holloman Air Force Base High Speed Test Track which is used for hypersonic lethality testing. The Committee supports this program and recommends the additional funding to accelerate the Holloman Test Track modernization.

HAC, p. 160

****

TITLE: TEST AND EVALUATION SUPPORT APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$454,067	444,167	424,167	434,167	444,167	430,167	434,167

****

SASC:
RDT&E infrastructure

The committee continues to be concerned about the inability of the Department of Defense to manage the size of the infrastructure supporting research, development, test and evaluation efforts. Especially in the test and evaluation area, the size of the infrastructure is not decreasing in proportion to the reductions made in the research and procurement programs that such infrastructure supports. The committee notes that at a time when the budget request for the technology base programs has decreased by over 10 percent, funding for the RDT&E support programs has declined less than 4 percent. The result is that an increasing proportion of our annual RDT&E investments pays for infrastructure maintenance rather than research and development supporting defense missions. Absent a clear approach to infrastructure consolidation from the Secretary of Defense, the committee has recommended reductions in the following RDT&E support accounts:

	Millions
PE 604759A	-$10.0
PE 605103A	5.0
PE 605896A	-20.0
PE 605864N	5.0
PE 605807F	-20.0
PE 604940D	-10.0
PE 605804D	-10.0

In the past two years, the committee has supported a number of initiatives to help offset the growing burden of infrastructure support costs. The committee urges the managers of the test and evaluation infrastructure to use existing legislative authority granted under section 846 of the Defense Authorization Act for Fiscal Year 1994 to sell use of the test ranges to paying customers other than the DOD in appropriate cases. While the authority was enacted at the specific request of the Department of Defense, the managers of the test ranges have been slow to use it. In particular, our allies are showing a much greater interest in using U.S. test ranges and facilities because of encroachment problems overseas, and the Department should be more aggressive in encouraging and facilitating such requests. On the other hand, the committee is concerned about reports that laboratory and test facilities are using section 846 authorities to compete with private enterprise for test services. It was not the intent of the committee that those authorities be used to foster government competition with the private sector. Continued committee support for these authorities will be contingent on the implementation of effective barriers to such competition.

SASC, p. 176-177 (Defense-wide RDT&E)

AUTH CONF:
Limitation on obligation of funds until receipt of electronic combat consolidation master plan (sec. 223)

The conferees agree to a provision that limits the obligation of appropriations for PE 65896A, PE 65864N, PE 65807F, and PE 65804D until 14 days after the Department of Defense submits to the congressional defense committees its master plan for the consolidation of electronic combat test and evaluation assets.

The House report (H. Rept. 103-499) directed the Secretary of Defense to develop a master plan for future consolidation of all DOD electronic combat test and evaluation assets. Further, the House report directed that no fiscal year 1995 or prior year funds be used to transfer or consolidate electronic combat test and evaluation assets until 30 days after the submission of the master plan to the congressional defense committees. To date, the master plan has not been provided to the congressional defense committees and funds continue to be obligated for purposes that contravene the House report language.

AUTH CONF, p. 714 (Defense-wide RDT&E)

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Test and Evaluation Support	454,067	444,167	-9,900

HAC, p. 157

SAC:

RDT&E INFRASTRUCTURE

In accordance with the Senate-reported authorization bill regarding the test and evaluation infrastructure, and in acknowledgment of the need to constrain spending in this area, the Committee recommends the following reductions:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate

Base operations, Army RDT&E	329,978	319,478	-10,500
Test and evaluation support, Navy RDT&E	245,911	237,911	-8,000
Test and evaluation support, Air Force RDT&E	454,167	430,167	-23,900
Central test and evaluation investment, defense-wide	119,714	109,714	-10,000

The Committee directs that no test and evaluation installation be assessed a disproportionate share of any recommended program element budget reduction.

SAC, p. 152

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Test and Evaluation Support	454,067	444,167	430,167	434,167
AF T&E Transfer		-9,900	-9,900	-9,900
Program Reduction			-14,000	-10,000

[Note: The conferees direct that no part of the reduction may be assessed against personnel.]

APPN CONF, p. 111

****

TITLE: ENVIRONMENTAL CONSERVATION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$14,169	4,169	14,169	4,169	4,169	14,169	4,169

****

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Environmental Conservation	14,169	4,169	-10,000

HAC, p. 157

****

TITLE: ROCKET SYSTEMS LAUNCH PROGRAM (RSLP) APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$5,949	5,949	5,949	5,949	5,949	22,749	22,749

****

SAC:

Rocket systems launch program [RSLP].-The Committee allocates $22,749,000, an increase of $16,800,000 to this program element. The additional funds shall be made available only to develop transportable launch, range safety, and telemetry equipment to expand the Air Force's options to use the most suitably located missile ranges for space and suborbital launches.

SAC, p. 178

****

TITLE: BASE OPERATIONS - RDT&E APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$117,083	126,983	126,983	123,983	120,683	126,983	123,983

****

HAC:

BASE OPERATIONS

The Air Force requested $117,083,000 for base operations. The Committee recommends $120,683,000, an increase of $3,600,000 to the budget request. The recommended amount includes an increase of $9,900,000 transferred from the test and evaluation support program element as requested by the Air Force and a reduction of $6,300,000 due to unjustified program budget growth from prior fiscal years.

HAC, p. 160

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Base operations-RDT&E	117,083	126,983	+9,900

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

APPN CONF:

FY 1996 CONGRESSIONAL TRACK

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Base Operations-RDT&E	117,083	120,683	126,983	123,983
Test and Evaluation Transfer		+9,900	+9,900	+9,900
Growth Reduction		-6,300		-3,000

APPN CONF, p. 111

****

TITLE: AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$103,700	103,700	135,200	133,230	101,730	135,200	133,230

****

HAC:

AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM

The Air Force requested $103,700,000 for the aircraft engine component program. The Committee recommends $101,730,000, a decrease of $1,970,000 to the budget request. The Committee recommends that funds requested for the B-2 engine be denied without prejudice since there are no known deficiencies in the engine at this time.

HAC, p. 160

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Aircraft engine component improvement program	103,700	135,200	+31,500

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Aircraft Engine Component Improvement Program	103,700	101,730	135,200	133,200
B-2		-1,970		-1,970
RC-135 Re-engining NRE			+31,500	+31,500

APPN CONF, p. 111

****

TITLE: B-52 SQUADRONS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$16,505	16,505	36,505	21,005	16,505	25,505	21,005

****

SASC:

Interim precision guided munitions (PGM)

Last year, the committee directed the Department of Defense to conduct a Heavy Bomber Study to define the future needs for long range bombers. The Heavy Bomber Study strongly endorsed the need for PGM's. Accordingly, while awaiting the analysis and recommendations required by the Bill's related provision on PGM's, the committee recommends an increase of $353.0 million as a cost-effective method of procuring capability instead of acquiring further B-2 aircraft. The committee is persuaded by that argument, and recommends an increase in the budget request as detailed below.

Precision Guided Munitions Procurement

-Procure 100 AGM-130 missiles, an increase of $40.0 million.

-Convert 200 AGM-86 ALCM's to conventional configuration an increase of $27.2 million.

-Procure 50 Have Nap PGM's for use on B-52 H aircraft, an increase of $38.0 million.

-Procure additional conventional bomb modules for B-1 bombers through an addition of $85.0 million.

-Make necessary modifications to the B-1 weapons carriage system to support an interim Joint Standoff Weapon (JSOW) through an addition of $11.6 million.

-Procure up to 25 interim JSOW's, an addition of $10.4 million.

Precision Guided Munitions RDT&E

-$20.0 million in PE 0604226F to acquire an interim precision munition for the B-1B, known as the B-1B Virtual Umbilical Device (BVUD), provided the Secretary of the Air Force certifies to the congressional defense committees that the BVUD is a valid requirement by May 15, 1996. Failing such certification, the funds provided are to be used for further acceleration of upgrades to the B-1B through the Conventional Munitions Upgrade Program (CMUP).

-An increase $20.0 million to integrate the AGM-130 with the B-52H bomber and begin qualification and testing of the extended-range version of the AGM-130, in PE 0101113F.

-$40.0 million in PE 0604226F to provide a portion of the B-1 fleet with an interim capability for employing the Joint Standoff Weapon.

-An increase of $7.0 million for Interferometric Terrain Aided Guidance (ITAG) technology demonstration to improve JDAM accuracy, PE 0604618F.

Conventional Bomber Enhancements

-Accelerate the Conventional Munitions Upgrade Program (CMUP) for the B-1 bomber, an increase of $47.2 million in PE 0604226F.

-Increase by $6.6 million PE 0604226F to allow for an acceleration of the ECM upgrade by funding the Systems Requirements Review in fiscal year 1996, rather than the budget's planned start in fiscal year 1997.

These additions and program accelerations are made with the intent of satisfying the requirements for capable, conventional bombers as soon as practicable.

SASC, p. 158-159

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
B-52 squadrons/AGM-130 integration	16,505	25,505	+9,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

APPN CONF:

B-52 SQUADRONS

The conferees agree to provide $21,005,000 for B-52 development, an increase of $4,500,000 to the budget request. The additional funding is only for integration of the AGM-130 munition onto B-52 bombers. The conferees direct that not more than $1,000,000 may be obligated until the Secretary of the Air Force

certifies that there is a validated operational requirement for the weapon and reports to the Committees on Appropriations about the annual and total costs, schedule, technical risks, and operational considerations of such integration.

APPN CONF, p. 113

****

TITLE: F-16 SQUADRONS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$175,600	175,600	175,600	175,600	175,600	177,600	175,600

****

SAC:

F-16 squadrons.-The Committee approves $177,600,000, an increase of $2,000,000 to the budget request, for this program element which funds development of upgrades for the F-16 fighter. The additional funds are allocated for initial acquisition of 600-gallon fuel tanks for destructive testing and evaluation. The Committee urges the Air Force to accomplish these tests by the end of fiscal year 1996.

SAC, p. 177

****

TITLE: F-15E SQUADRONS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$171,337	171,337	171,337	171,337	171,337	169,237	171,337

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
F-15E squadrons	171,337	169,237	-2,100

SAC, p. 173

****

TITLE: MANNED DESTRUCTIVE SUPPRESSION APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$2,908	12,908	2,908	2,908	2,908	10,908	10,908

****

HNSC:
Air systems advanced technology development

The Advanced Anti-Radiation Guided Missile (AARGM) that evolved from a Small Business Innovative Research program could provide a critical capability to meet Marine Corps suppression of enemy air defense requirements.

The committee directs the Secretary of Defense to proceed with this development program and provides $35 million for fiscal year 1996 in PE 63217N to transition from a “bread board" missile seeker development program to an all-up level missile development program and $10 million in PE 27136F to leverage AARGM to define, design, and build a breadboard seeker, guidance and control unit for broader application of the technology for preemptive suppression of enemy air defenses (SEAD). This latter concept will provide an integrated targeting and weapon delivery system for an end-to-end solution for the SEAD program. The committee directs that use of these funds by the Navy and Air Force be limited to design reviews and support test and evaluation. The committee also encourages the Secretaries of the Navy and Air Force to fund the fiscal year 1997 requirement for these projects.

HNSC, p. 102, (Navy RDT&E)

SAC:
Manned destructive suppression.-This program element supports efforts to enhance the capabilities of manned aircraft to suppress enemy air defenses. The Committee approves $10,908,000, an increase of $8,000,000 above the budget request. The Committee directs that $3,000,000 of the additional funds shall be made available only to improve the HARM targeting system on the F-16 fighter, and that $5,000,000 shall be made available only for initial operational testing (including flight tests) of the light defender system.

SAC, p. 177

****

TITLE: JASSM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:			50,000	25,000		50,000	$25,000

****

SASC:
Joint air-to-surface standoff missile (JASSM)

The committee expects the Department to establish a joint program for the Air Force and the Navy for development of a replacement for the canceled Tri-Service Standoff Attack Missile (TSSAM). The committee is aware that the Air Force and the Navy have jointly developed JASSM requirements, are working on an aggressive development schedule/strategy, and have established a program office. The committee also understands JASSM will have an affordability focus, leveraging off existing technologies and lessons learned from the TSSAM program. The committee agrees with the focus on affordability, but expects the Air Force to emphasize weapons performance as well.

The committee understands the TSSAM cancellation occurred too late in the budget cycle for either service to address the requirement for JASSM in the fiscal year 1996 budget request. Now the program is being considered in the Air Force fiscal year 1997 request as a new program. The Air Force has a more urgent need for JASSM missiles, and is therefore funding the early development of the joint requirement. Accordingly, the committee recommends an increase of $50.0 million in Air Force RDT&E for this purpose.

SASC, p. 162

SAC:
Joint air-to-surface standoff missile [JASSM].-The Committee recommends an increase of $50,000,000 to permit the Air Force and the Navy to explore a follow-on program to the canceled triservice standoff attack missile [TSSAM]. The Committee directs that $8,900,000 of the funds provided shall be used only to accomplish necessary program planning, studies, acquisition document preparation, and cost and operational effectiveness analyses for the JASSM program.

The Committee further directs that none of the remaining funds provided may be obligated until the Under Secretary of Defense (acquisition and technology) reports to the Committees on Appropriations on the results of this planning and analytical activity and on the programmatic objectives, schedule, technical risks, annual and total program costs, and inventory requirements for both services. The Committee also directs that the cost and operational effectiveness analysis [COEA] being prepared for the JASSM program include consideration of, at a minimum, the Navy SLAM-ER missile and upgraded variants of the Air Force's conventional air-launched cruise missile, AGM-130 bomb, and HAVE NAP missile.

SAC, p. 177

APPN CONF:

JOINT-AIR-TO-SURFACE STANDOFF MISSILE

The conferees agree to provide $25,000,000 to initiate the Joint-Air-to-Surface Standoff Missile (JASSM) program. The conferees agree to the Senate requirements regarding a report and a cost and operational effectiveness analysis. However, the Senate proposed obligation restrictions are not required. The required report is due no later than June 1, 1996.

APPN CONF, p. 113

****

TITLE: TRI-SERVICE STANDOFF ATTACK MISSILE APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$0	37,500	0	0	0	0	0

****

HNSC:
Precision guided munitions

The Department is spending billions of dollars to acquire sophisticated precision guided munitions (PGMs). These weapons are expected to impact future force levels and number of platforms required to defeat battlefield threats.

The General Accounting Office (GAO) recently reviewed all military services PGM programs and determined that the Department has procured or plans to develop and procure 33 types of PGMs. The military services estimate they will have spent about $58.7 billion for these PGMs, $30.4 billion for 19 munition types they now have in limited numbers in the inventory and about $28.3 billion for 14 munition types in development. These figures do not include the yet-to-be-defined program to replace the recently terminated Tri-Service Standoff Attack Missile (TSSAM). In addition, these costs do not include integration into platforms, or the electronic and mechanical interfaces required. The GAO found that:

(1) The military services will have multiple PGM options to counter targets in the same classes (when current inventory deficiencies are corrected and developmental programs are complete);

(2) The military services may have additional opportunities for joint procurement which are not being pursued; and

(3) Acquisition practices are inefficient.

The committee questions: (1) how many PGM types the services need to be effective against different target classes, (2) what quantities are needed, (3) whether joint programs are feasible, and (4) whether PGMs in production and development are still cost effective?

The committee directs the Secretary of Defense to perform an analysis of the full range of PGMs in production and in research, development, test, and evaluation to determine:

(1) The numbers and types of PGMs needed to provide a complementary capability in each target class;

(2) The feasibility of developing and procuring additional munition types jointly;

(3) The feasibility of integrating a given weapon on multiple service platforms; and

(4) The economy and effectiveness of continuing acquisition of munitions that are characterized as “interim" or whose quantity requirements have decreased significantly such that unit costs have increased beyond 50 percent.

The Secretary shall include a section in the report which details the process by which the Department approves the development of new PGMs, avoids service duplication and redundancy, retires less effective systems, establishes out-year cost rationalization within the total out-year modernization planned funding, and identifies by name and function that person responsible for approving each new PGM permitted to enter the formal acquisition process.

The report shall be provided to the congressional defense committees not later than February 1, 1996.

HNSC, p. 84-85 (RDT&E Defense-wide Programs)

AUTH CONF:
Stand-off land attack missiles

The budget request contained $40.5 million in PE 64603N for continued development of the stand-off land attack missile-enhanced response (SLAM-ER) as an interim replacement for the canceled tri-service stand-off attack missile (TSSAM) for the Navy.

The House bill would authorize the budget request for SLAM-ER. However, the House report (H. Rept. 104-131) would prohibit the Navy from obligating more than $10.0 million for the program without specific approval by the congressional defense committees.

The House bill would also provide an additional $37.5 million in PE 64312N for the Navy and an additional $37.5 million in PE 27160F for the Air Force to establish a joint program for accelerated development and evaluation of candidate joint air-to-surface stand-off missile (JASSM) systems as a near-term replacement for TSSAM. The House report would direct the Secretary of Defense to establish immediately such a program and would further direct the Secretary to report to the congressional defense committees within 60 days of the enactment of the Act on:

(1) the Department's plan to address near-term Navy and Air Force requirements for an interim TSSAM replacement;

(2) the Department's plans to satisfy these near-term requirements; and

(3) the long-term plan for development of a TSSAM replacement that will satisfy the requirements of both services.

The Senate amendment would authorize the budget request in PE 64603N for continued development of SLAM-ER, and would provide an additional $50.0 million for the Air Force in PE 27160F to initiate a JASSM program, with the expectation that the Department of Defense would establish a joint program to meet Air Force and Navy needs for a replacement for TSSAM.

The House recedes with an amendment. The conferees agree to:

(1) authorize the SLAM-ER budget request;

(2) provide $25.0 million for JASSM in the Air Force budget; and

(3) require the Department to report on plans for meeting near-term and long-term Air Force and Navy requirements for stand-off weapons systems.

JOINT AIR-TO-SURFACE STAND-OFF MISSILE (JASSM)

In testimony before the Congress this year, the Air Force and the Navy continued to support the requirement for a survivable, precision strike stand-off weapon. The DOD decision to cancel the TSSAM program exacerbated an already significant shortfall in this capability. The conferees stress the urgent need for the operational capability that would be provided by the TSSAM, and expect the Secretary of Defense to establish a joint program in the Air Force and the Navy for development of a TSSAM replacement, as recommended in both the House report (H. Rept. 104-131) and the Senate report (S. Rept. 104-112).

The conferees are concerned about the approach the services may pursue to fulfill the JASSM requirement. The conferees note that there are a number of competing alternatives upon which the JASSM could be based. The conferees believe that JASSM could evolve from a existing, or planned interim weapons

system. The conferees believe that, if the Department decides that a new weapon development is appropriate, the new development program should be based on technologies that have already been developed in the TSSAM program, or in other existing or planned stand-off weapons systems, including technologies relating to low and very low observability/stealth.

The conferees note that there are a number of competing alternatives upon which the JASSM could be based, and want to ensure that due consideration is given to all competing approaches. Therefore, the conferees direct the Department to consider the following in conducting the JASSM program: (1) the results of the TSSAM development program, and the potential for using technology and components derived from that program; and (2) the results of programs for development of other stand-off weapons systems, and the potential for using technologies derived from those programs. The conferees direct the Secretary of Defense to include, in his report on precision guided munitions, information on the extent to which the Department may avail itself of TSSAM-derivative components and technology, as well as, components and technologies derived from other stand-off weapons programs, in meeting the JASSM requirement.

REQUIRED REPORT

The conferees direct the Secretary of Defense to include in the report on the analysis required by the provision on precision guided munitions, the Department's plan for meeting near-term Navy and Air Force requirements for an interim TSSAM replacement and the long-term plan for development of a TSSAM replacement that will meet the requirements of both services. The conferees expect that the Department would establish the following for JASSM weapons system at the next milestone: design-to-unit cost goals; minimum performance parameters; and interface requirements between JASSM and launch platforms.

AUTH CONF, p. 681-2

****

TITLE: TACTICAL AIM MISSILES APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$20,082	20,082	20,082	20,082	20,082	20,082	20,082

****

HNSC:
Joint air-to-surface stand-off missile

The Bottom-Up Review identified advanced precision guided weapons as a key enabler required for U.S. forces to execute the national military strategy. The regional warfighting commanders-in-chief repeatedly endorsed the requirement during their testimony before the committee. Although the Navy and the Air Force are jointly developing the shorter range Joint Direct Attack Munition (JDAM) and Joint Stand-Off Weapon (JSOW), the recent cancellation of the Tri-Service Stand-off Attack Missile (TSSAM) forfeits the major joint program for development of long range, air-delivered stand-off precision guided weapons and severely limits the future capability of U.S. bomber and attack fighter forces for stand-off attack. The committee considers this a critical deficiency that must be addressed immediately by the Department of Defense.

The budget request included $40.517 million in PE 64603N for development of the Stand-off Land Attack Missile-Enhanced Response (SLAM-ER) by the Navy as an interim replacement for the canceled TSSAM. The committee understands that the TSSAM cancellation occurred too late in the budget cycle for the Air Force to address the requirement for a TSSAM replacement in the fiscal year 1996 budget request, but that a proposed joint requirement is under review and that such a program is being considered for fiscal year 1997 as a separate Air Force program.

The committee believes that the Department must establish a joint program in the Navy and the Air Force for development of an interim replacement for the canceled TSSAM at the earliest possible date. In establishing the joint program maximum use should be sought from the lessons learned in the TSSAM program with regard to the joint service operational requirement and the program development plan, including issues relating to low and very low observability/stealth. Performance criteria specified in the operational requirement must be evaluated in terms of the urgency of fielding a near term replacement for TSSAM. In the committee's opinion, development of separate systems by the Navy and the Air Force is probably not the most cost-effective or operationally prudent solution.

The committee is aware that there are a number of candidate weapon system and sub-munition concepts which could contribute to the TSSAM replacement desired by both services. The committee believes that the variety of missile mainframe, components, and sub-munition systems available provides the opportunity to select the most promising system concepts and then develop and demonstrate such a joint capability on an accelerated basis.

The committee recommends the budget request of $40.517 million for the SLAM-ER program, but directs that of this amount no more than $10 million may be obligated without specific approval by the congressional defense authorizing committees. The committee directs the Secretary of Defense to immediately establish a joint program for accelerated development and evaluation of candidate joint air-to-surface stand-off missile (JASSM) systems as a near-term replacement for TSSAM, and recommends an additional authorization of $37.5 million in PE 64312N and $37.5 million in PE 27160F for this purpose. The committee further directs the Secretary of Defense to report to the congressional defense committees within 60 days of the enactment of this Act, the Department's plan to address near

term Navy and Air Force requirements for an interim TSSAM replacement and how the Department plans to satisfy these requirements, and the long term plan for development of a TSSAM replacement that will satisfy the requirements of both military services.

HNSC, p. 106-107 (Navy RDT&E)

****

TITLE: ADV MED RANGE A/A MSL (AMRAAM) APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$42,311	50,311	47,311	47,311	50,311	37,211	47,311

****

HAC:

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
AMRAAM	42,311	50,311	+8,000

HAC, p. 157

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Advanced medium range air-to-air missile [AMRAAM]	42,311	37,211	-5,100

SAC, p. 173

****

TITLE: THEATER BATTLE MANAGEMENT (TBM) C4I APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$24,813	24,813	24,813	24,813	29,813	24,813	29,813

****

HAC:

THEATER BATTLE MANAGEMENT C41

The Air Force requested $24,813,000 for theater battle management. The Committee recommends $29,813,000, an increase of $5,000,000 only for Air Tasking Order format improvements. The additional funds will provide the capability to generate and automatically disseminate Air Tasking Orders. Further explanation is provided in the beginning of the Procurement section of this report.

HAC, p. 160

****

TITLE: THEATER MISSILE DEFENSES APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$25,102	25,102	53,102	25,102	25,102	53,102	25,102

****

SASC:
Rivet Joint technology transfer program

The committee recommends an increase of $28.0 million to the theater missile defense (TMD) program element (PE 208060F) to initiate the migration of the Cobra Ball medium wave infrared acquisition technology to the Rivet Joint RC-135 tactical reconnaissance fleet. With the transfer of this technology, the Rivet Joint fleet would be provided with a cost-effective means to significantly improve theater missile defense long-range surveillance, warning, and rapid cueing for attack operations as well as impact point prediction for both active and passive defensive measures. The committee understands that the Department of the Air Force has programmed the balance of the funds in the outyears to complete the TMD migration program.

SASC, p. 162-163

AUTH CONF:
Mobile missile launch detection and tracking

The conferees are aware of a proposal to use specialized processing techniques on synthetic aperture radar data to detect medium-rage ballistic missiles shortly after launch. The conferees urge the Air Force to consider this promising concept and agree to authorize the use of up to $1.0 million in funds made available in PE 28060F to demonstrate the feasibility of this concept.

AUTH CONF, p. 682

Rivet joint technology transfer program

The Senate amendment recommended a $28.0 million increase to the theater missile defense program element (PE 28060F) to initiate the migration of the Cobra Ball medium wave infrared acquisition technology for the Rivet Joint RC-135 tactical reconnaissance fleet.

The House bill did not contain a similar recommendation.

The Senate recedes.

The conferees encourage the Air Force to move forward with this near term, cost effective program. With the transfer of this mature technology, the Rivet Joint fleet would offer early deployment and provide a significant improvement to the Department of Defense's capabilities in long range surveillance, warning, rapid cueing for attack operations, and impact point prediction. To achieve this goal, the conferees would consider a reprogramming in fiscal year 1996. The conferees understand that funds for the completion of this technology migration are included in the Air Force future year defense plans for this program.

AUTH CONF, p. 682-3

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Theater missile defense	25,102	53,102	+28,000

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

****

TITLE: INFORMATION SYSTEMS SECURITY PROGRAM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$11,261	11,261	12,761	12,761	11,261	11,261	11,261

****

SASC:
Information systems security

The committee strongly supports efforts to develop multi-level security systems for the Department of Defense's information systems. Therefore, the committee recommends an authorization of $1.5 million in PE 0303140F to complete research and development of the Trusted RUBIX database management system.

SASC, p. 163

AUTH CONF:
Information systems security

The budget request included $11.3 million in PE 33140F for the Air Force's Information Systems Security program.

The Senate amendment would authorize an additional $1.5 million to complete research and development of the Trusted RUBIX multi-level security database management system.

The House bill would authorize the budget request.

The House recedes.

AUTH CONF, p. 683

SAC:

Information systems security program.-The Committee directs the Air Force, from within the funds provided for this program element, to makeavailable $1,500,000 to complete research and development of the Trusted Rubix data base management system.

SAC, p. 177

****

TITLE: SATELLITE CONTROL NETWORK APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$89,717	89,717	89,717	84,617	82,717	84,617	84,617

****

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Satellite Control Network	89,717	82,717	-7,000

HAC, p. 157

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Satellite control network	89,717	84,617	-5,100

SAC, p. 173

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Satellite Control Network [Note: The conferees direct the Air Force to use unobligated fiscal year 1995 funds allocated for special projects to fund fiscal year 1996 general program requirements.]	89,717	82,717	84,617	84,617

APPN CONF, p. 111

****

TITLE: TITAN SPACE LAUNCH VEHICLES APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$140,514	140,514	140,514	135,514	140,514	135,514	135,514

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Titan space launch vehicles	140,514	135,514	-5,000

SAC, p. 173

****

TITLE: NAVSTAR GPS (SPACE/CONTROL SEG) APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$26,921	26,921	26,921	25,921	26,921	25,921	25,921

****

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
NAVSTAR GPS space/control segments	26,921	25,921	-1,000

SAC, p. 173

****

TITLE: NCMC - TW/AA SYSTEMS APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$60,897	60,897	60,897	68,797	60,897	68,797	68,797

****

SASC:
Section - 214. Space and missile tracking system program.

The Space-Based Infrared System (SBIRS) will replace and provide increased performance over the existing Defense Support Program (DSP) system. SBIRS will incorporate new technologies to enhance detection, provide direct reporting of strategic and theater ballistic missile launches, and provide mid-course tracking and discrimination data for national and theater missile defense. The system will consist of sensors located in geosynchronous orbits (GEO), highly elliptical orbits (HEO), and low earth orbits (LEO), and an integrated centralized ground station serving all space elements of SBIRS as well as DSP.

The committee commends the Department of Defense for the process that was employed in deciding upon the SBIRS architecture and the streamlined acquisition strategy that has been adopted. The committee expects the resulting integrated structure to provide the basis for program stability and efficiency in what has been an overly turbulent and protracted search for a DSP follow-on. More importantly, the committee expects the SBIRS program to be a catalyst in the development of a new approach to missile warning. Tactical Warning and Attack Assessment (TW/AA) can no longer be viewed as a mission which stands separate from ballistic missile defense. Future national and theater missile defenses must be integrated with, and take maximum advantage of, the SBIRS architecture. SBIRS also signals a dramatic technical departure from past approaches. The introduction of a distributed LEO constellation will provide tremendous advantages and opportunities, some of which are not yet fully understood. In addition to its role in missile defense, the LEO system will make major contributions in the areas of technical intelligence and space object characterization and surveillance.

The budget request for SBIRS included $130.7 million for Demonstration/Validation (Dem/Val), $152.2 for Engineering and Manufacturing Development (EMD), and $19.9 million for Procurement. Of the funds requested for Dem/Val, $114.8 million was for the Space and Missile Tracking System (SMTS), formerly known as “Brilliant Eyes."

After evaluation of its original ground system development plan, the Air Force has decided to restructure the program to re-phase hardware purchases and software engineering to allow for a more careful evaluation of system costs versus military utility. Hence, the $19.9 million procurement request is no longer needed for the previously identified purpose. The committee, therefore, recommends no funding for SBIRS procurement (PE 35915F), and recommends that $10.0 million of these funds be transferred to SBIRS EMD (PE 0604441F) to support ground system risk reduction, for a total of $162.2 million. Of this amount, the committee directs the Secretary of the Air Force to use $9.4 million to launch the third Miniature Sensor Technology Integration (MSTI-3) satellite. MSTI-3 will provide critical infrared background clutter phenomenology data for the SBIRS high element EMD program.

Although the committee endorses the priority and schedule for the GEO and HEO components of SBIRS, it views the current schedule for the LEO segment to be unacceptably prolonged. Current plans do not call for the first launch of an objective SMTS satellite until 2006. This leisurely schedule is based on the assumption that SMTS will not be needed to support national or theater missile defenses before this date. The committee strongly disputes this planning assumption. Theater missile defense systems that will be able to exploit SMTS data will become operational before the turn of the century. More important, the Missile Defense Act of 1995 (Subtitle C of Title II), is premised in part on an SMTS initial operational capability in fiscal year 2003.

The committee notes that there are no technical obstacles to having a first launch of an SMTS user operational evaluation system (UOES) satellite in 2001. The committee, therefore, recommends a provision which requires the Secretary of the Air Force to restructure the SMTS program to support a first launch of UOES satellites in fiscal year 2001, with the full SMTS constellation (consisting of a combination of UOES satellites and objective satellites) on orbit by the end of fiscal year 2003. To support this restructured schedule, the committee recommends an authorization of $250.0 million in fiscal year 1996 for the SMTS program, an increase of $135.0 million over the budget request. The committee directs the Air Force to restructure the SMTS schedule to meet the following milestones:

--Preliminary Design Review (PDR) and Critical Design Review (CDR) of the flight demonstration system (FDS) in fiscal year 1996.
--System Requirements Review (SRR) for the objective SMTS satellites in fiscal year 1996.
--Formal Requirements Review (FRR), deployment decision, and PDR for the objective SMTS satellites in fiscal year 1997.
--Launch of the FDS satellites in fiscal year 1998.
--CDR for the objective satellites in fiscal year 1999.

The objective SMTS system shall be designed, developed, tested and constructed to detect, characterize, track, and synthesize stereo track information concerning ballistic missile attack. The system shall be designed to generate and transmit, in a sufficiently timely manner, all data necessary to enable defensive interceptors to commit, launch, fly-out, and receive in flight target updates and guidance information in advance of-or in place of-the defensive system's associated radar, and in a way which maximizes the kinematic potential of the defensive interceptor to conduct ballistic missile intercepts.

To ensure that this schedule and these technical specifications are met, the committee recommends a provision which would require the Air Force to seek the concurrence of the Director of the Ballistic Missile Defense Organization before implementing any decision that would have any of the following results regarding SMTS: (1) a reduction in funds available in any fiscal year; (2) an increase in the total program cost; (3) a schedule delay; or (4) a modification of the performance parameters or specifications.

As a result of budgetary constraints, the Air Force has been forced to down-select to a single flying contractor for the SMTS FDS. While the committee does not oppose this decision, it does believe that the Air Force should consider alternatives for maintaining competition and reducing risk. The committee is aware of proposals to have the non-flying contractor conduct a low-cost flight experiment to provide a second SMTS concept capable of moving forward into EMD. The committee understands that such a flight experiment could be conducted for a total of $80 million over three years. The committee urges the Air Force to carefully evaluate this alternative and to determine whether this approach could in fact reduce risk and help meet the deployment goals specified above. If the Secretary of the Air Force determines that this approach would help achieve the deployment goals specified above, the committee authorizes the use of up to $40 million of the funds authorized for SMTS in fiscal year 1996 to begin such a low-cost flight experiment.

SASC, p. 99-101

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
NCMC-TW/AA system	60,897	68,797	+7,900

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

****

TITLE: SPACETRACK APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$35,583	35,583	35,583	35,583	35,583	57,883	58,383

****

SAC:

Program and project funding increases.-The Committee recommends the addition of funds for the following projects and programs to reflect congressional priorities; to rectify shortfalls in the budget request for activities; to implement increases endorsed and/or requested by the Air Force to address budget shortfalls; and to effect funding transfers recommended by the Committee or the Air Force.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Spacetrack	35,583	57,883	+22,300
Air Force Maui optical station [AMOS]		+5,300	+5,300
Advanced electro optical system [AEOS]		+17,000	+17,000

[2]This recommendation reverses the transfer of AMOS funds from the “RDT&E" account to the “Operations and maintenance" account.

[3]The Committee provides the following funds

identified by the Air Force as necessary to continue the AEOS program: $9,500,000 for continued development of the AEOS telescope and $6,500,000 for continued AEOS instrumentation development.

While these additional funds are not available for an atmospheric science initiative, the Committee endorses the pursuit of this effort with other Air Force funds which may be available.

SAC, p. 174-175

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Space Track	35,583	35,583	57,883	58,383
Air Force Maui Optical Station			+5,300	+5,300
Advanced Electro-Optical System (AEOS)			+17,000	+17,000
AEOS Site Characterization				+500

APPN CONF, p. 111-2

****

TITLE: DEFENSE SUPPORT PROGRAM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$43,672	43,672	38,672	37,441	43,672	37,441	37,441

****

SASC:
Section - 214. Space and missile tracking system program.

The Space-Based Infrared System (SBIRS) will replace and provide increased performance over the existing Defense Support Program (DSP) system. SBIRS will incorporate new technologies to enhance detection, provide direct reporting of strategic and theater ballistic missile launches, and provide mid-course tracking and discrimination data for national and theater missile defense. The system will consist of sensors located in geosynchronous orbits (GEO), highly elliptical orbits (HEO), and low earth orbits (LEO), and an integrated centralized ground station serving all space elements of SBIRS as well as DSP.

The committee commends the Department of Defense for the process that was employed in deciding upon the SBIRS architecture and the streamlined acquisition strategy that has been adopted. The committee expects the resulting integrated structure to provide the basis for program stability and efficiency in what has been an overly turbulent and protracted search for a DSP follow-on. More importantly, the committee expects the SBIRS program to be a catalyst in the development of a new approach to missile warning. Tactical Warning and Attack Assessment (TW/AA) can no longer be viewed as a mission which stands separate from ballistic missile defense. Future national and theater missile defenses must be integrated with, and take maximum advantage of, the SBIRS architecture. SBIRS also signals a dramatic technical departure from past approaches. The introduction of a distributed LEO constellation will provide tremendous advantages and opportunities, some of which are not yet fully understood. In addition to its role in missile defense, the LEO system will make major contributions in the areas of technical intelligence and space object characterization and surveillance.

The budget request for SBIRS included $130.7 million for Demonstration/Validation (Dem/Val), $152.2 for Engineering and Manufacturing Development (EMD), and $19.9 million for Procurement. Of the funds requested for Dem/Val, $114.8 million was for the Space and Missile Tracking System (SMTS), formerly known as “Brilliant Eyes."

After evaluation of its original ground system development plan, the Air Force has decided to restructure the program to re-phase hardware purchases and software engineering to allow for a more careful evaluation of system costs versus military utility. Hence, the $19.9 million procurement request is no longer needed for the previously identified purpose. The committee, therefore, recommends no funding for SBIRS procurement (PE 35915F), and recommends that $10.0 million of these funds be transferred to SBIRS EMD (PE 0604441F) to support ground system risk reduction, for a total of $162.2 million. Of this amount, the committee directs the Secretary of the Air Force to use $9.4 million to launch the third Miniature Sensor Technology Integration (MSTI-3) satellite. MSTI-3 will provide critical infrared background clutter phenomenology data for the SBIRS high element EMD program.

Although the committee endorses the priority and schedule for the GEO and HEO components of SBIRS, it views the current schedule for the LEO segment to be unacceptably prolonged. Current plans do not call for the first launch of an objective SMTS satellite until 2006. This leisurely schedule is based on the assumption that SMTS will not be needed to support national or theater missile defenses before this date. The committee strongly disputes this planning assumption. Theater missile defense systems that will be able to exploit SMTS data will become operational before the turn of the century. More important, the Missile Defense Act of 1995 (Subtitle C of Title II), is premised in part on an SMTS initial operational capability in fiscal year 2003.

The committee notes that there are no technical obstacles to having a first launch of an SMTS user operational evaluation system (UOES) satellite in 2001. The committee, therefore, recommends a provision which requires the Secretary of the Air Force to restructure the SMTS program to support a first launch of UOES satellites in fiscal year 2001, with the full SMTS constellation (consisting of a combination of UOES satellites and objective satellites) on orbit by the end of fiscal year 2003. To support this restructured schedule, the committee recommends an authorization of $250.0 million in fiscal year 1996 for the SMTS program, an increase of $135.0 million over the budget request. The committee directs the Air Force to restructure the SMTS schedule to meet the following milestones:

--Preliminary Design Review (PDR) and Critical Design Review (CDR) of the flight demonstration system (FDS) in fiscal year 1996.
--System Requirements Review (SRR) for the objective SMTS satellites in fiscal year 1996.
--Formal Requirements Review (FRR), deployment decision, and PDR for the objective SMTS satellites in fiscal year 1997.
--Launch of the FDS satellites in fiscal year 1998.
--CDR for the objective satellites in fiscal year 1999.

The objective SMTS system shall be designed, developed, tested and constructed to detect, characterize, track, and synthesize stereo track information concerning ballistic missile attack. The system shall be designed to generate and transmit, in a sufficiently timely manner, all data necessary to enable defensive interceptors to commit, launch, fly-out, and receive in flight target updates and guidance information in advance of-or in place of-the defensive system's associated radar, and in a way which maximizes the kinematic potential of the defensive interceptor to conduct ballistic missile intercepts.

To ensure that this schedule and these technical specifications are met, the committee recommends a provision which would require the Air Force to seek the concurrence of the Director of the Ballistic Missile Defense Organization before implementing any decision that would have any of the following results regarding SMTS: (1) a reduction in funds available in any fiscal year; (2) an increase in the total program cost; (3) a schedule delay; or (4) a modification of the performance parameters or specifications.

As a result of budgetary constraints, the Air Force has been forced to down-select to a single flying contractor for the SMTS FDS. While the committee does not oppose this decision, it does believe that the Air Force should consider alternatives for maintaining competition and reducing risk. The committee is aware of proposals to have the non-flying contractor conduct a low-cost flight experiment to provide a second SMTS concept capable of moving forward into EMD. The committee understands that such a flight experiment could be conducted for a total of $80 million over three years. The committee urges the Air Force to carefully evaluate this alternative and to determine whether this approach could in fact reduce risk and help meet the deployment goals specified above. If the Secretary of the Air Force determines that this approach would help achieve the deployment goals specified above, the committee authorizes the use of up to $40 million of the funds authorized for SMTS in fiscal year 1996 to begin such a low-cost flight experiment.

SASC, p. 99-101

Defense Support Program

FY 1996 CONGRESSIONAL TRACK

The budget request for Defense Support Program (DSP) RDT&E was $43.7 million. $5.0 million in fiscal year 1995 funds have been identified as excess and are expected to be reprogrammed as part of the fiscal year 1995 Omnibus reprogramming. The committee directs the Air Force to use these funds for fiscal year 1996 requirements and therefore reduces the fiscal year 1996 request by $5.0 million.

SASC, p. 163

SAC:

COMMITTEE RECOMMENDED ADJUSTMENTS

The Committee recommends adjustments in several programs to reflect the following considerations: (1) funds are excess to known financial requirements; (2) contract savings; (3) lower priority; (4) excessive growth requested compared to fiscal year 1995 funding; (5) lower cost options exist; (6) uncertain program requirements; (7) activities no longer required due to changing program plans; (8) inadequate justification; (9) program execution delays; (10) program duplicates other efforts; (11) schedule revisions recommended; and (12) the Committee agrees with the Senate-reported authorization recommendation. The recommendations are displayed in the following table:

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Defense support program	43,672	37,441	-6,231

SAC, p. 173

APPN CONF:

EXPLANATION OF PROJECT LEVEL ADJUSTMENTS

[In thousands of dollars]

-	Budget	House	Senate	Conference
Defense Support Program [Note: The conferees direct that the reduction shall only be assessed against engineering change orders and management support.]	43,672	43,672	37,441	37,441

APPN CONF, p. 112

****

TITLE: NUDET DETECTION SYSTEM APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$16,277	16,277	16,277	13,277	13,277	16,277	13,277

****

HAC:

PROGRAM GROWTH/BUDGET EXECUTION ADJUSTMENTS

The budget request included amount for some programs which exceed by an unjustifiably large margin the amounts provided for fiscal year 1994 or 1995. Other programs had significant prior year unobligated balances, and budget adjustments are necessary due to poor budget execution. The Committee therefore recommends the following reductions:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Nudet Detection System	16,277	13,277	-3,000

HAC, p. 157

****

TITLE: INDUSTRIAL PREPAREDNESS/MANUFACTURING TECHNOLOGY APPROP : 3600

	PBR	HNSC	SASC	AUTH CONF	HAC	SAC	APPN CONF
DOLLARS:	$0	53,332	0	60,932	53,332	60,932	60,932

****

HNSC:
Manufacturing technology (MANTEC)

The committee is concerned that the military services are not focusing MANTEC research and development on key manufacturing cost drivers in weapon systems. The potential now exists through the use of the available talent pool in industry, academic and government consortia, or through the use of several centers of excellence to address manufacturing applications that could have significant cost reduction impact now and in the future.

The committee directs the Secretary of Defense to place the highest priority of the manufacturing technology program (MANTEC) on funding areas that address near-term manufacturing problems and to maintain a lesser portion of the program aimed toward longer term technologies.

The committee recommends transfer of the MANTEC program from advanced development to production support to accomplish this primary purpose. The committee directs a formal liaison with the Director, Defense Research and Engineering (DDR&E) as the technology coordinator for infusion of advanced technology into the process.

The committee reiterates the importance of industrial participation and competition in awarding grants and contracts. National industrial associations and consortia shall be considered by all services for participation in program activity.

Finally, the committee believes that since the MANTEC program has been significantly reduced in funding over prior years, infrastructure savings (including new facility construction) can be achieved by consolidation of its centers of excellence and re-assigning future work activities within the remaining centers. The committee recommends that 25 percent of the program shall have cost sharing greater than two to one.

The committee recommends the following program adjustments:

PE 63771A-decrease $17.776 million.

PE 78045A-increase $27.776 million ($6 million for composite technology for the instrumented factory for gear development, $4 million for PAN fibers), and $1.5 million of the core program shall be used for industrial-academic partnerships for repair technology development and insertion for rotary winged aircraft.

PE 63771N-decrease $41.251 million.

PE 78011N-increase $51.251 million ($10 million for the Navy to initiate partnerships with industry, government laboratories and other research organizations that will allow the development of manufacturing technologies which support optoelectronic devices and components).

PE 63771F-decrease $53.332 million.

PE 78011F-increase of $53.332 million.

PE 63771S-decrease $7.007 million.

PE 78011S-increase $17.007 million ($10 million to conduct demonstrations and pre-production development for military sewn products and to continue the machine tool program).

HNSC, p. 83-84 (RDT&E, Defense-wide Programs)

AUTH CONF:
Computer-assisted technology transfer

The conferees agree to authorize $7.2 million in PE 78011F to continue the computer-assisted technology transfer program.

AUTH CONF, p. 683

Industrial preparedness (manufacturing technology) programs

The budget request included $17.8 million for the Army, $41.2 million for the Navy, $53.3 million for the Air Force, and $7.0 million for the Defense Agencies to fund the manufacturing technology (MANTECH) programs within these agencies.

The House bill would include an additional $10.0 million for the Army, an additional $10.0 million for the Navy, and approve the requested amount for the Air Force and the Defense. The House bill would also transfer funding from advanced development (6.3) program elements to industrial preparedness (7.8) program elements.

The Senate amendment would authorize all the manufacturing technology programs at the requested amounts and would transfer the funding from the program elements in the budget request.

The conferees agree to authorize funding for manufacturing technology programs, as follows:

	Millions
Army (PE 78045A)	$26.8
Navy (PE 78011N)	88.0
Air Force (PE 78011F)	60.9
Def. Ag. (PE 78011S)	7.0

AUTH CONF, p. 694

HAC:

FY 1996 CONGRESSIONAL TRACK

AUTHORIZATION CHANGES

The Committee recommends the following changes in accordance with authorization action:

[In thousands of dollars]

Item	Budget request	Committee recommended	Change from request
Industrial Preparedness Manufacturing Technology	53,332	0	-53,332
Industrial Preparedness	0	53,332	+53,332

HAC, p. 157

SAC:
Program transfers.-The Committee recommends the following funding adjustments to effect funding transfers requested by the Air Force, to align programs in the proper development category, to better link specific development projects with related efforts, or to restore funds to the traditional funding line in the budget.

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Change from budget estimate
Industrial preparedness manufacturing technology	-53,332		-53,332
Industrial preparedness		60,932	+60,932
Budget transfer		+53,332	+53,332
Computer assisted technology transfer at Air Force Oklahoma Air Logistics Center		+7,600	+7,600

Forest Green	-7,500	-7,500

SAC, p. 175