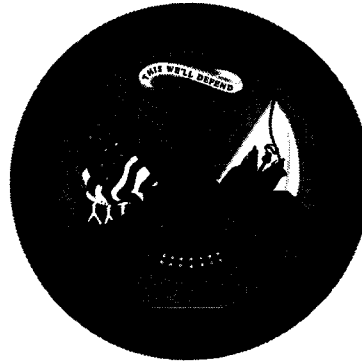


DEPARTMENT OF THE ARMY



Committee Staff Backup Book FISCAL YEAR 2005 BUDGET AMENDMENT FOR ARMY AVIATION TRANSFORMATION

RESEARCH DEVELOPMENT TESTING AND EVALUATION, ARMY

March 2004

<u>FY05</u>	<u>FY05</u>	<u>OMA</u>	<u>2020</u>			
<u>PB</u>	<u>AMEND</u>			<u>FY05</u>		<u>FY05</u>
<u>SAG</u>	<u>SAG</u>	<u>NOMEN</u>	<u>BA</u>	<u>Budget</u>	<u>Change</u>	<u>ABS</u>
111	111	Divisions	1	1,510,841	9,865	1,520,706
115	115	Land Forces Operations Support	1	1,196,122	1,700	1,197,822
122	122	Land Forces Systems Readiness	1	506,479	31,088	537,567
322	322	Flight Training	3	573,906	1,500	575,406
324	324	Training Support	3	614,519	4,000	618,519
421	421	Servicewide Transportation	4	571,357	-434	570,923
422	422	Central Supply Activities	4	480,102	10,159	490,261
		TOTAL - ABS Change			57,878	

<u>FY05</u>	<u>FY05</u>	<u>APA</u>	<u>2031</u>			
<u>PB</u>	<u>AMEND</u>			<u>FY05</u>		<u>FY05</u>
<u>BLIN</u>	<u>BLIN</u>	<u>NOMEN</u>	<u>BA</u>	<u>Budget</u>	<u>Change</u>	<u>ABS</u>
N/A	2	HELICOPTER, OBSERVATION, KW RPLCMN	1	0	24,000	24,000
N/A	3	HELICOPTER, LIGHT UTILITY	1	0	45,000	45,000
2	4	COMANCHE	1	11,967	-11,967	0
3	5	UH-60 BLACK HAWK (MYP)		94,263	185,474	279,737
4	6	UH-60 BLACK HAWK (MYP) ADV PROC		30,197	4,526	34,723
		UH-60 BLACK HAWK (MYP)	1	124,460	190,000	314,460
5	7	HELICOPTER NEW TRAINING	1	0	13,100	13,100
9	11	CH-47 CARGO HELICOPTER MODS		518,840	184,610	703,450
10	12	CH-47 CARGO HELICOPTER MODS ADV PROC		23,832	0	23,832
		CH-47 CARGO HELICOPTER MODS	2	542,672	184,610	727,282
14	16	Longbow	2	554,805	99,655	654,460
16	18	UH-60 MODS		131,676	11,213	142,889
17	19	UH-60 MODS ADV PROC		6,130	0	6,130
		UH-60 MODS	2	137,806	11,213	149,019
18	20	KIOWA WARRIOR	2	33,776	5,500	39,276
24	26	ASE INFRARED CM (ATIRCM/CMWS)	4	79,226	192,940	272,166
27	29	COMMON GROUND EQUIPMENT	4	21,933	33,610	55,543
29	31	AIR TRAFFIC CONTROL	4	59,449	-4,000	55,449
30	32	INDUSTRIAL FACILITIES	4	1,216	44,000	45,216
		TOTAL - ABS Change			827,661	

<u>FY05</u>	<u>FY05</u>	<u>MSLS</u>	<u>2032</u>			
<u>PB</u>	<u>AMEND</u>			<u>FY05</u>		<u>FY05</u>
<u>BLIN</u>	<u>BLIN</u>	<u>NOMEN</u>	<u>BA</u>	<u>Budget</u>	<u>Change</u>	<u>ABS</u>
4	4	HELLFIRE SYS SUMMARY	2	15,575	92,900	108,475
		TOTAL - ABS Change			92,900	
<u>FY05</u>	<u>FY05</u>	<u>AMMO</u>	<u>2034</u>			
<u>PB</u>	<u>AMEND</u>			<u>FY05</u>		<u>FY05</u>
<u>BLIN</u>	<u>BLIN</u>	<u>NOMEN</u>	<u>BA</u>	<u>Budget</u>	<u>Change</u>	<u>ABS</u>
26	26	ROCKET, HYDRA 70 Flechette M255A1 W/MK66 Motor			14,329	14,329
26	26	ROCKET, HYDRA 70 MPSM HE M261			3,800	3,800
26	26	ROCKET, HYDRA 70 MPSM Prac M267			12,473	12,473
26	26	ROCKET, HYDRA 70, HE/PD M151/M423		14,689	29,424	44,113
26	26	ROCKET, HYDRA 70, FLARE INFRARED (IR) M278			3,732	3,732
26	26	ROCKET, HYDRA 70, Sig Prac M274			86,242	86,242
		ROCKET, HYDRA 70, ALL TYPES	1	14,689	150,000	164,689
29	29	SIGNALS, ALL TYPES	1	21,577	4,699	26,276
		TOTAL - ABS Change			154,699	
<u>FY05</u>	<u>FY05</u>	<u>OPA</u>	<u>2035</u>			
<u>PB</u>	<u>AMEND</u>			<u>FY05</u>		<u>FY05</u>
<u>BLIN</u>	<u>BLIN</u>	<u>NOMEN</u>	<u>BA</u>	<u>Budget</u>	<u>Change</u>	<u>ABS</u>
61	61	TUAV	2	58,556	41,900	100,456
178	178	Rapid Equipping Soldier Support Equipment	3	1,010	12,500	13,510
		TOTAL - ABS Change			54,400	
<u>FY05</u>	<u>FY05</u>	<u>RDTE</u>	<u>2040</u>			
<u>PB & AMEND</u>	<u>PB & AMEND</u>			<u>FY05</u>		<u>FY05</u>
<u>SSN/PROJ</u>	<u>LINE</u>	<u>NOMEN</u>		<u>Budget</u>	<u>Change</u>	<u>ABS</u>
63801/B32	69	ADV MAINT CONCEPTS/EQ	4	6,392	2,880	9,272
64220/538	79	KIOWA WARRIOR LFTE	5	0	20,000	20,000
64223/2LT		COMANCHE OPER TEST		9,065	-9,065	0
64223/327		COMANCHE		1,177,480	-1,177,480	0
64223/C72		T-800 ENGINE ED (LH)		43,119	-43,119	0
	80	COMANCHE	5	1,229,664	-1,229,664	0
65606/092	139	AIRCRAFT CERTIFICATION	6	2,985	500	3,485
23744/504		BLACK HAWK RECAP/MOD (IMD-HUMS)		0	13,100	13,100
23744/504		BLACK HAWK RECAP/MOD (CAAS)		9,414	5,385	14,799
23744/504		BLACK HAWK RECAP/MOD		58,154	0	58,154
	157	BLACK HAWK RECAP/MOD	7	67,568	18,485	86,053
35204/11A	174	Advanced Payload Develop & Spt (JMIP)	7	1,803	18,500	20,303

		TOTAL - ABS Change			-1,169,299	
FY05	FY05	OMNG	2065			
PB	AMEND			FY05		FY05
SAG	SAG	NOMEN		Budget	Change	ABS
111	111	Divisions (Flying Hour Program)	1	606,407	-48,239	558,168
		TOTAL - ABS Change			-48,239	
FY05	FY05	MCARNG	2085			
PB	AMEND			FY05		FY05
PN	PN	NOMEN		Budget	Change	ABS
80119	80119	Denver CO Army Aviation Spt Facility	1	21,000	13,000	34,000
260195	260195	Grand Ledge MI Army Aviation Spt Facility	1	18,200	9,400	27,600
N/A	300136	Helena MT Army Aviation Spt Facility Phase 1	1	0	7,600	7,600
		TOTAL - ABS Change			30,000	

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FY 2005 RDT&E Program

Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

Summary

12-Mar-2004

Summary Recap of Budget Activities	Thousands of Dollars		
	FY 2003	FY 2004	FY 2005
Basic research	242,924	381,593	317,506
Applied Research	852,485	1,039,845	651,192
Advanced technology development	1,095,874	1,205,226	814,615
Advanced Component Development and Prototypes	944,163	920,801	737,373
System Development and Demonstration	2,430,934	4,663,567	4,919,649
Management support	954,015	893,813	859,798
Operational system development	1,074,181	1,096,509	966,125
Total RDT&E, Army			

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Department of the Army
FY 2005 RDT&E Program

Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

12-Mar-2004

Appropriation: 2040 A RDT&E, Army

Line No	Program Element Number	Act	Item	Thousands of Dollars		
				FY 2003	FY 2004	FY 2005
Basic research						
1	0601101A	01	IN-HOUSE LABORATORY INDEPENDENT RESEARCH	20,255	23,914	23,971
2	0601102A	01	DEFENSE RESEARCH SCIENCES	138,432	156,146	131,206
3	0601103A	01	UNIVERSITY RESEARCH SCIENCES (H)	0	85,242	75,133
4	0601104A	01	UNIVERSITY AND INDUSTRY RESEARCH CENTERS	84,237	99,786	77,658
5	0601105A	01	FORCE HEALTH PROTECTION	0	16,505	9,538
Total: Basic research				242,924	381,593	317,506
Applied Research						
6	0602105A	02	MATERIALS TECHNOLOGY	35,041	39,972	15,385
7	0602120A	02	SENSORS AND ELECTRONIC SURVIVABILITY	21,700	25,230	25,629
8	0602122A	02	TRACTOR HIP	6,322	5,649	6,627
9	0602211A	02	AVIATION TECHNOLOGY	39,163	39,172	41,629
10	0602270A	02	EW TECHNOLOGY	17,002	16,471	18,034
11	0602303A	02	MISSILE TECHNOLOGY	52,793	91,560	51,993
12	0602307A	02	ADVANCED WEAPONS TECHNOLOGY	19,785	14,706	16,641
13	0602308A	02	ADVANCED CONCEPTS AND SIMULATION	28,453	30,431	15,041
14	0602601A	02	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY	81,562	125,147	69,638
15	0602618A	02	BALLISTICS TECHNOLOGY	61,372	57,197	51,301
16	0602622A	02	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY	15,480	21,722	3,476
17	0602623A	02	JOINT SERVICE SMALL ARMS PROGRAM	5,373	5,649	5,739
18	0602624A	02	WEAPONS AND MUNITIONS TECHNOLOGY	71,917	75,266	44,666
19	0602705A	02	ELECTRONICS AND ELECTRONIC DEVICES	61,510	76,809	41,236
20	0602709A	02	NIGHT VISION TECHNOLOGY	18,707	21,506	22,617
21	0602712A	02	COUNTERMINE SYSTEMS	18,408	26,016	20,547
22	0602716A	02	HUMAN FACTORS ENGINEERING TECHNOLOGY	20,247	23,913	16,899
23	0602720A	02	ENVIRONMENTAL QUALITY TECHNOLOGY	26,461	30,824	17,026
24	0602782A	02	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY	20,805	18,115	18,604
25	0602783A	02	COMPUTER AND SOFTWARE TECHNOLOGY	3,931	4,010	3,982

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Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

12-Mar-2004

Appropriation: 2040 A RDT&E, Army

Line No	Program Element Number	Act	Item	Thousands of Dollars		
				FY 2003	FY 2004	FY 2005
26	0602784A	02	MILITARY ENGINEERING TECHNOLOGY	54,562	51,577	47,152
27	0602785A	02	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY	15,130	15,053	15,322
28	0602786A	02	LOGISTICS TECHNOLOGY	35,826	49,349	21,131
29	0602787A	02	MEDICAL TECHNOLOGY	120,935	174,501	60,877
Total: Applied Research				852,485	1,039,845	651,192
Advanced technology development						
30	0603001A	03	WARFIGHTER ADVANCED TECHNOLOGY	55,618	66,855	68,034
31	0603002A	03	MEDICAL ADVANCED TECHNOLOGY	168,093	217,737	38,404
32	0603003A	03	AVIATION ADVANCED TECHNOLOGY	42,388	84,966	69,549
33	0603004A	03	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY	61,206	53,737	67,622
34	0603005A	03	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY	304,885	270,656	203,126
35	0603006A	03	COMMAND, CONTROL, COMMUNICATIONS ADVANCED TECHNOLOGY	8,700	11,339	9,946
36	0603007A	03	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY	7,606	8,921	7,288
37	0603008A	03	ELECTRONIC WARFARE ADVANCED TECHNOLOGY	28,662	59,170	41,760
38	0603009A	03	TRACTOR HIKE	16,943	7,686	8,035
39	0603015A	03	NEXT GENERATION TRAINING & SIMULATION SYSTEMS	0	15,658	18,072
40	0603020A	03	TRACTOR ROSE	3,261	4,159	4,736
41	0603103A	03	EXPLOSIVE DEMILITARIZATION TECHNOLOGY	0	24,842	9,706
42	0603105A	03	MILITARY HIV RESEARCH	0	14,059	6,641
43	0603125A	03	COMBATING TERRORISM, TECHNOLOGY DEVELOPMENT FOR	41,822	8,610	3,383
44	0603238A	03	GLOBAL SURVEILLANCE/AIR DEFENSE/PRECISION STRIKE T	29,774	12,505	10,721
45	0603270A	03	EW TECHNOLOGY	18,566	25,360	9,382
46	0603313A	03	MISSILE AND ROCKET ADVANCED TECHNOLOGY	100,616	121,126	92,800
47	0603322A	03	TRACTOR CAGE	2,938	7,499	13,312
48	0603606A	03	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY	28,075	29,662	25,577
49	0603607A	03	JOINT SERVICE SMALL ARMS PROGRAM	16,396	9,575	5,968
50	0603654A	03	LINE-OF-SIGHT TECHNOLOGY DEMONSTRATION	29,931	8,739	0
51	0603710A	03	NIGHT VISION ADVANCED TECHNOLOGY	77,129	84,066	50,071
52	0603728A	03	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS	12,694	20,462	14,666

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FY 2005 RDT&E Program

Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

12-Mar-2004

Appropriation: 2040 A RDT&E, Army

Line No	Program Element Number	Act	Item	Thousands of Dollars		
				FY 2003	FY 2004	FY 2005
53	0603734A	03	MILITARY ENGINEERING ADVANCED TECHNOLOGY	13,643	13,106	3,865
54	0603772A	03	ADVANCED TACTICAL COMPUTER SCIENCE AND SENSOR TECH	26,928	24,731	31,951
Total: Advanced technology development				1,095,874	1,205,226	814,615
Advanced Component Development and Prototypes						
55	0603305A	04	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION	36,790	108,078	53,509
56	0603308A	04	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION (DEM/VAL)	56,974	35,532	4,871
57	0603327A	04	AIR AND MISSILE DEFENSE SYSTEMS ENGINEERING	0	121,489	91,713
58	0603619A	04	LANDMINE WARFARE AND BARRIER - ADV DEV	9,719	36,563	11,634
59	0603627A	04	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV	2,324	10,147	6,249
60	0603639A	04	TANK AND MEDIUM CALIBER AMMUNITION	26,367	26,055	39,697
61	0603645A	04	ARMORED SYSTEM MODERNIZATION - ADV DEV	127,951	0	0
62	0603653A	04	ADVANCED TANK ARMAMENT SYSTEM (ATAS)	150,234	60,692	51,892
63	0603747A	04	SOLDIER SUPPORT AND SURVIVABILITY	19,664	13,833	13,810
64	0603766A	04	TACTICAL SUPPORT DEVELOPMENT - ADV DEV (TIARA)	16,112	16,878	15,441
65	0603774A	04	NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT	10,984	7,005	14,047
66	0603779A	04	ENVIRONMENTAL QUALITY TECHNOLOGY DEM/VAL	30,980	40,509	9,356
67	0603782A	04	WARFIGHTER INFORMATION NETWORK-TACTICAL - DEM/VAL	48,849	81,393	99,645
68	0603790A	04	NATO RESEARCH AND DEVELOPMENT	4,561	2,747	4,801
69	0603801A	04	AVIATION - ADV DEV	10,660	14,307	12,113
70	0603802A	04	WEAPONS AND MUNITIONS - ADV DEV	35,634	31,500	2,382
71	0603804A	04	LOGISTICS AND ENGINEER EQUIPMENT - ADV DEV	11,997	12,863	10,485
72	0603805A	04	COMBAT SERVICE SUPPORT CONTROL SYSTEM EVALUATION A	8,275	8,585	6,366
73	0603807A	04	MEDICAL SYSTEMS - ADV DEV	13,280	13,392	10,258
74	0603850A	04	INTEGRATED BROADCAST SERVICE (JMIP/DISTP)	1,928	2,073	4,356
75	0603854A	04	ARTILLERY SYSTEMS - DEM/VAL	306,778	0	0
76	0603856A	04	SCAMP BLOCK II	14,102	27,716	10,221
77	0603869A	04	MEADS CONCEPTS - DEM/VAL	0	249,444	264,527
Total: Advanced Component Development and Prototypes				944,163	920,801	737,373

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FY 2005 RDT&E Program

Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

12-Mar-2004

Appropriation: 2040 A RDT&E, Army

Line No	Program Element Number	Act	Item	Thousands of Dollars		
				FY 2003	FY 2004	FY 2005
System Development and Demonstration						
78	0604201A	05	AIRCRAFT AVIONICS	35,971	47,155	68,857
79	0604220A	05	ARMED, DEPLOYABLE OH-58D	1,759	0	20,000
80	0604223A	05	COMANCHE	865,613	1,068,029	0
81	0604270A	05	EW DEVELOPMENT	38,291	32,870	16,879
82	0604280A	05	JOINT TACTICAL RADIO SYSTEM	62,892	133,293	121,400
83	0604321A	05	ALL SOURCE ANALYSIS SYSTEM	54,341	19,959	5,346
84	0604328A	05	TRACTOR CAGE	9,304	16,046	14,149
85	0604329A	05	COMMON MISSILE	28,104	93,705	152,381
86	0604601A	05	INFANTRY SUPPORT WEAPONS	0	28,340	28,187
87	0604604A	05	MEDIUM TACTICAL VEHICLES	3,584	4,321	2,854
88	0604609A	05	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ENG DEV	7,521	11,968	3,798
89	0604611A	05	JAVELIN	467	946	944
90	0604622A	05	FAMILY OF HEAVY TACTICAL VEHICLES	13,852	16,875	2,479
91	0604633A	05	AIR TRAFFIC CONTROL	2,161	2,489	2,088
92	0604641A	05	TACTICAL UNMANNED GROUND VEHICLE (TUGV)	1,146	0	0
93	0604642A	05	LIGHT TACTICAL WHEELED VEHICLES	7,900	18,010	0
94	0604645A	05	ARMORED SYSTEMS MODERNIZATION (ASM)-ENG. DEV.	159,175	1,423,146	2,700,455
95	0604647A	05	NON LINE OF SIGHT CANNON	0	260,495	497,643
96	0604649A	05	ENGINEER MOBILITY EQUIPMENT DEVELOPMENT	7,651	0	0
97	0604710A	05	NIGHT VISION SYSTEMS - ENG DEV	31,687	38,816	24,693
98	0604713A	05	COMBAT FEEDING, CLOTHING, AND EQUIPMENT	80,989	98,960	115,093
99	0604715A	05	NON-SYSTEM TRAINING DEVICES - ENG DEV	55,865	70,870	51,694
100	0604716A	05	TERRAIN INFORMATION - ENG DEV	8,092	6,905	3,199
101	0604726A	05	INTEGRATED METEOROLOGICAL SUPPORT SYSTEM	3,359	3,275	2,485
102	0604738A	05	JSIMS CORE PROGRAM	28,759	0	0
103	0604741A	05	AIR DEFENSE COMMAND, CONTROL AND INTEL - ENG	26,983	28,993	27,376
104	0604742A	05	CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT	43,673	16,818	42,869
105	0604746A	05	AUTOMATIC TEST EQUIPMENT DEVELOPMENT	12,647	11,316	4,713
106	0604760A	05	DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS) - ENGIN	18,087	25,789	26,985

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Department of the Army
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Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

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Line No	Program Element Number	Act	Item	Thousands of Dollars		
				FY 2003	FY 2004	FY 2005
107	0604766A	05	TACTICAL EXPLOITATION SYSTEM/DCGS (TIARA)	57,229	26,022	21,821
108	0604768A	05	BRILLIANT ANTI-ARMOR SUBMUNITION (BAT)	55,922	9,897	21
109	0604770A	05	JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM	4,509	4,656	0
110	0604778A	05	POSITIONING SYSTEMS DEVELOPMENT (SPACE)	0	1,558	2,048
111	0604780A	05	COMBINED ARMS TACTICAL TRAINER (CATT)	8,162	3,956	23,849
112	0604783A	05	JOINT NETWORK MANAGEMENT SYSTEM	7,673	9,339	10,726
113	0604801A	05	AVIATION - ENG DEV	2,979	3,344	2,378
114	0604802A	05	WEAPONS AND MUNITIONS - ENG DEV	49,830	157,076	125,885
115	0604804A	05	LOGISTICS AND ENGINEER EQUIPMENT - ENG DEV	56,101	87,471	89,151
116	0604805A	05	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS - ENG DEV	89,465	216,811	219,790
117	0604807A	05	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPM	18,769	22,615	11,727
118	0604808A	05	LANDMINE WARFARE/BARRIER - ENG DEV	125,024	96,187	51,045
119	0604814A	05	ARTILLERY MUNITIONS - EMD	102,141	122,631	133,297
120	0604817A	05	COMBAT IDENTIFICATION	4,983	11,817	6,994
121	0604818A	05	ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE	97,970	101,166	68,110
122	0604819A	05	LOSAT	10,603	30,488	22,628
123	0604820A	05	RADAR DEVELOPMENT	0	0	6,107
124	0604823A	05	FIREFINDER	28,401	26,825	18,516
125	0604854A	05	ARTILLERY SYSTEMS - EMD	30,483	32,289	9,550
126	0604865A	05	PATRIOT PAC-3 THEATER MISSILE DEFENSE ACQ - EMD	0	156,827	64,178
127	0605013A	05	INFORMATION TECHNOLOGY DEVELOPMENT	70,817	63,203	95,261
Total: System Development and Demonstration				2,430,934	4,663,567	4,919,649
Management support						
128	0604256A	06	THREAT SIMULATOR DEVELOPMENT	17,593	19,601	22,101
129	0604258A	06	TARGET SYSTEMS DEVELOPMENT	10,049	13,444	11,017
130	0604759A	06	MAJOR T&E INVESTMENT	47,054	60,141	57,987
131	0605103A	06	RAND ARROYO CENTER	21,163	22,072	20,012
132	0605301A	06	ARMY KWAJALEIN ATOLL	125,327	138,884	143,921
133	0605326A	06	CONCEPTS EXPERIMENTATION	23,330	30,704	22,727

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Department of the Army
FY 2005 RDT&E Program

Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

Appropriation: 2040 A RDT&E, Army

12-Mar-2004

Line No	Program Element Number	Act	Item	Thousands of Dollars		
				FY 2003	FY 2004	FY 2005
134	0605502A	06	SMALL BUSINESS INNOVATIVE RESEARCH	179,142	0	0
135	0605601A	06	ARMY TEST RANGES AND FACILITIES	129,665	182,885	181,114
136	0605602A	06	ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS	41,774	56,899	52,433
137	0605604A	06	SURVIVABILITY/LETHALITY ANALYSIS	34,921	41,860	44,648
138	0605605A	06	DOD HIGH ENERGY LASER TEST FACILITY	16,672	18,299	15,725
139	0605606A	06	AIRCRAFT CERTIFICATION	3,555	2,999	3,485
140	0605702A	06	METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES	6,792	9,359	8,711
141	0605706A	06	MATERIEL SYSTEMS ANALYSIS	8,978	15,642	18,000
142	0605709A	06	EXPLOITATION OF FOREIGN ITEMS	3,430	3,465	4,740
143	0605712A	06	SUPPORT OF OPERATIONAL TESTING	83,911	66,995	71,239
144	0605716A	06	ARMY EVALUATION CENTER	43,809	46,527	62,209
145	0605718A	06	SIMULATION & MODELING FOR ACQ, RQTS, & TNG (SMART)	0	2,568	1,935
146	0605801A	06	PROGRAMWIDE ACTIVITIES	59,836	62,966	59,368
147	0605803A	06	TECHNICAL INFORMATION ACTIVITIES	54,182	42,122	27,713
148	0605805A	06	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFET	30,002	39,783	14,611
149	0605857A	06	ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT	1,794	4,780	4,527
150	0605898A	06	MANAGEMENT HEADQUARTERS (RESEARCH AND DEVELOPMENT)	10,855	11,818	11,575
151	0909999A	06	FINANCING FOR CANCELLED ACCOUNT ADJUSTMENTS	181	0	0
Total: Management support				954,015	893,813	859,798
Operational system development						
152	0102419A	07	JOINT LAND ATTACK CRUISE MISSILES DEFENSE (JLENS)	33,489	58,397	81,514
153	0203610A	07	DOMESTIC PREPAREDNESS AGAINST WEAPONS OF MASS DEST	2,437	3,956	0
154	0203726A	07	ADV FIELD ARTILLERY TACTICAL DATA SYSTEM	44,959	28,599	17,994
155	0203735A	07	COMBAT VEHICLE IMPROVEMENT PROGRAMS	81,285	31,336	15,952
156	0203740A	07	MANEUVER CONTROL SYSTEM	40,612	39,145	24,753
157	0203744A	07	AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAM	206,500	276,191	242,853
158	0203752A	07	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM	6,759	5,339	2,427
159	0203758A	07	DIGITIZATION	27,727	18,049	24,506
160	0203759A	07	FORCE XXI BATTLE COMMAND, BRIGADE AND BELOW (FBCB2	59,887	47,901	23,510

UNCLASSIFIED

UNCLASSIFIED
Department of the Army
FY 2005 RDT&E Program

Exhibit R-1

FY 2005 Amended Budget for Army Aviation Transformation

Appropriation: 2040 A RDT&E, Army

12-Mar-2004

Line No	Program Element Number	Act	Item	Thousands of Dollars		
				FY 2003	FY 2004	FY 2005
161	0203801A	07	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM	39,262	46,055	31,690
162	0203802A	07	OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS	12,229	1,061	4,863
163	0203806A	07	TRACTOR RUT	0	8,754	3,321
164	0203808A	07	TRACTOR CARD	8,495	9,153	9,023
165	0208010A	07	JOINT TACTICAL COMMUNICATIONS PROGRAM (TRI-TAC)	13,281	16,362	18,177
166	0208053A	07	JOINT TACTICAL GROUND SYSTEM	2,811	9,659	9,967
167	0301359A	07	SPECIAL ARMY PROGRAM	12,445	19,737	5,213
168	0303028A	07	SECURITY AND INTELLIGENCE ACTIVITIES	26,182	15,873	0
169	0303140A	07	INFORMATION SYSTEMS SECURITY PROGRAM	22,153	20,500	24,725
170	0303141A	07	GLOBAL COMBAT SUPPORT SYSTEM	49,273	55,217	94,215
171	0303142A	07	SATCOM GROUND ENVIRONMENT (SPACE)	67,716	86,389	51,959
172	0303150A	07	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM	16,704	16,934	19,204
173	0305114A	07	TRAFFIC CONTROL, APPROACH AND LANDING SYSTEM-FY 19	934	945	0
174	0305204A	07	TACTICAL UNMANNED AERIAL VEHICLES	68,650	68,629	45,627
175	0305206A	07	AIRBORNE RECONNAISSANCE ADV DEVELOPMENT	11,433	4,699	5,128
176	0305208A	07	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS (JMIP)	44,805	37,375	43,254
177	0603778A	07	MLRS PRODUCT IMPROVEMENT PROGRAM	94,584	83,903	97,422
178	0702239A	07	AVIONICS COMPONENT IMPROVEMENT PROGRAM	0	0	997
179	0708045A	07	END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES	79,066	85,853	67,236
180	1001018A	07	NATO JOINT STARS	503	498	595
Total: Operational system development				1,074,181	1,096,509	966,125
Total: RDT&E, Army				7,594,576	10,201,354	9,266,258

UNCLASSIFIED

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							March 2004		
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev					
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	10660	14307	12113	9872	10113	9876	10490	0	77431
B32 ADV MAINT CONCEPTS/EQ	3269	7017	9272	6464	6704	6389	6910	0	46025
B33 CARGO HANDLING & MISSION SPT	3114	0	0	0	0	0	0	0	3114
B45 AIRCREW INTEGRATED SYS-AD	4277	7290	2841	3408	3409	3487	3580	0	28292
<p><u>A. Mission Description and Budget Item Justification:</u> The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. This PE provides advanced development aviation support of tactical programs associated with air mobility, advanced maintenance concepts and equipment, and Aircrew Integrated Systems (ACIS).FY 04 shows a \$4.5M Congressional increase for project B45 for the Virtual Cockpit Optimization Program. These systems support the Future Force transition path of the Transformation Campaign Plan (TCP).</p>									
<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005						
Previous President's Budget (FY 2004)	10767	9968	9320						
Current Budget (FY 2005 PB Amended Budget)	10660	14307	12113						
Total Adjustments	-107	4339	2793						
Congressional program reductions		-136							
Congressional rescissions	-346								
Congressional increases	2800	4500							
Reprogrammings	-2301	-25							
SBIR/STTR Transfer	-260								
Adjustments to Budget Years			2793						
<p>Beginning in FY04, funds from Project B33 have been moved to Project B32.</p>									
<p>LINE 69</p>									

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004					
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev				PROJECT B32				
COST (In Thousands)				FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to	Total Cost
				Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
B32	ADV MAINT CONCEPTS/EQ			3269	7017	9272	6464	6704	6389	6910	0	46025
<p><u>A. Mission Description and Budget Item Justification:</u> The request for FY05 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformation.</p> <p>This program explores, develops, and integrates affordable Aviation Ground Support Equipment (AGSE) and diagnostic technologies to replace obsolete and unsupportable AGSE and diagnostic equipment. It enhances utilization of current and future aircraft by improving the efficiency of maintenance and servicing operations by validating new maintenance concepts to improve man and machine interfaces, enhance aircraft maintenance processes and reduce Operation and Support (O&S) costs. It provides for development of rapid battle repair procedures and tools development to speed the return of aircraft to combat ready status, and development of new equipment for aerial recovery of damaged aircraft. Included in this program are projects such as: evaluation of database management software, diagnostic/prognostic monitoring systems, Battle Damage Assessment and Repair (BDAR) procedures and tools, support to modernized aircraft, advanced powered electric drive vehicle concepts in aviation ground support function area, Aviation Turbine Engine Diagnostic System (ATEDS), Digital Aviation Weight & Balance Automation (DAWS), and concept exploration for the new Aviation Ground Power Unit (AGPU)-Block II. These efforts support the Future transition path of the Transformation Campaign Plan (TCP).</p> <p>No Defense Emergency Response Funds (DERF) provided for this program/project.</p> <p>Beginning in FY 04, Project B33 has been combined with this budget line.</p>												
<u>Accomplishments/Planned Program</u>								FY 2003	FY 2004	FY 2005		
ATEDS - Software development and demonstration								0	1651	0		
ATEDS - Multi Engine Integration								0	775	4080		
Digital Maintenance Architecture Demonstration (DMAD)								1775	0	0		
AGPU Block II - Develop performance specification and analyze prototype								0	622	350		
BDAR System - Demonstration & validation Block II								0	100	125		
DAWS - Algorithm automation (GCSS - Army)								0	0	350		
Standard Aircraft Towing System (SATS) Block II- Advanced Fuel Electric Drive - Perform market research								0	250	300		
Shop Equipment Contact Maintenance (SECM) Modernization - Block II								0	450	350		
<p>LINE 69</p>												

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

March 2004

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE

0603801A - Aviation - Adv Dev

PROJECT

B32

	FY 2003	FY 2004	FY 2005
Accomplishments/Planned Program (continued)			
Maintenance Platform & Tow Bar Modernization	95	200	150
Hybrid Electric Vehicle Aviation - prototype, systems integration, early operational assessment	349	570	0
Hybrid Vehicle Upgrade - (Remote Trailers)	0	0	250
Future Aviation Repair & Maintenance Systems	0	111	434
Advanced AGSE Working Group	75	100	100
Deployable SECM Maintenance Cover - I/II	0	125	0
Deployable Aviation Maintenance Shelter for SECM - III (Contact Team)	0	0	250
Swagging Tool Kit (A&B)	0	0	100
Borescope Eval Sys (Fuel Cell/Engine)	0	75	250
Aviation Vibration Analyzer II (AVA-II) - Software	0	150	0
New Aviation Tool Sets (NATS) - Evaluation and Redesign	0	0	300
Aviation Parts Marking - Automation	0	0	150
Technical Engineering Services	804	1279	1410
Management Support Services	171	355	323
Small Business Innovative Research/Small Business Technology Transfer Programs	0	204	0
Totals	3269	7017	9272

LINE 69

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004					
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev				PROJECT B32				
B. Other Program Funding Summary				FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
Aircraft Procurement, Army(APA) SSN AZ3100				19257	16474	55543	35361	47249	51174	47491	Continuing	Continuing
<p>C. Acquisition Strategy: This project is an aggregate of advanced maintenance concepts-related projects. While the detailed acquisition strategy varies from project to project, the general strategy for each individual project is to complete the development effort through Government test (developmental and operational). Program documentation for milestone decision is prepared, as appropriate, concurrently with the development effort.</p>												

UNE 69

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
4 - Advanced Component Development and Prototypes					0603801A - Aviation - Adv Dev					B32		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . ATEDS - Software development and demonstration	C/CPFF	Boeing/GE, Mesa, AZ	0	0		1651	2Q	0		0	1651	1651
b . ATEDS - Multi Engine Integration	C/CPFF	TBS	0	0		775	2Q	4080	2Q	0	4855	4855
c . Digital Maintenance Architecture Demo (DMAD)	C/CPFF	Boeing Co, Ridley Park, PA	918	1775	2Q	0		0		0	2693	2693
d . Aviation Ground Power Unit (AGPU) Block II	MIPR	Prototype Integration Facility (PIF), Redstone Arsenal, AL	0	0		622	3Q	350	3Q	550	1522	1522
e . BDAR System Block II	C/CPFF	TBS	0	0		100	3Q	125	3Q	0	225	225
f . DAWS	MIPR	Software Engineering Directorate, Redstone Arsenal, AL	0	0		0		350	2Q	600	950	950
g . SATS - Block II	MIPR	AATD, Ft. Eustis, VA	0	0		250	3Q	300	3Q	450	1000	1000
h . SECM - Block II	MIPR	PIF, Redstone Arsenal, AL	0	0		450	2Q	350	2Q	350	1150	1150
i . Maintenance Platform & Towbar	MIPR	AATD, Ft. Eustis, VA	0	95	4Q	200	2Q	150	2Q	0	445	500
LINE 69												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes					PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev					PROJECT B32		
I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
j . Hybrid Electric Vehicle AVN - prototype, systems integ, early operational test, AGSE moduleization	C/CPFF	AM General, Detroit, MI/Solectra, Boston, MA	1649	349	2Q	570	2Q	0		0	2568	2568
k . Hybrid Electric Vehicle Upgrade - (Remote Trailers)	MIPR	AATD, Ft. Eustis, VA	0	0		0		250	2Q	825	1075	1075
l . Future Aviation Repair & Maint Sys	MIPR	AATD, Ft. Eustis, VA	0	0		111	2Q	434	2Q	1300	1845	2170
m . Advanced AGSE Working Group		AGSE, Redstone Arsenal, AL	0	75	4Q	100	3Q	100	3Q	100	375	375
n . Deployable SECM Maintenance Cover	MIPR	AATD, Ft. Eustis, VA	0	0		125	3Q	0		0	125	125
o . Deployable Aviation Maintenance Shelter for SECM (Contact Team)	MIPR	AATD, Ft. Eustis, VA	0	0		0		250	2Q	975	1225	1225
p . Swagging Tool Kit (A&B)	MIPR	AATD, Ft. Eustis, VA	0	0		0		100	2Q	0	100	100
q . Borescope Eval Sys (Fuel Cell/Engine)	MIPR	AATD, Ft. Eustis, VA	0	0		75	2Q	250	2Q	0	325	325
LINE 69												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes					PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev					PROJECT B32		
I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
r. Aviation Vibration Analyzer II - software	MIPR	AATD, Ft. Eustis, VA	950	0		150	3Q	0		0	1100	1100
s. New Aviation Tool Sets (NATS) Eval & Redesign	MIPR	AATD, Ft. Eustis, VA	523	0		0		300	2Q	700	1523	1523
t. Aviation Parts Marking	MIPR	AATD, Ft. Eustis, VA	0	0		0		150	2Q	0	150	150
Subtotal:			4040	2294		5179		7539		5850	24902	25282
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Technical Engineering Services	MIPR	AATD, Ft. Eustis, VA	1429	744	1-4Q	1144	1-3Q	1262	1-3Q	Continue	4579	Continue
b. Technical Engineering Services	MIPR	Directorate for Combat Developments, Ft. Rucker, AL	0	60	4Q	135	2Q	148	2Q	Continue	Continue	Continue
Subtotal:			1429	804		1279		1410		Continue	Continue	Continue
LINE 69												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes					PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev					PROJECT B32		
Remarks: None												
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												
Remarks: None												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management Support	T&M	Science Applications Intl Corp, San Diego, CA	337	81	2Q	255	1Q	223	2Q	Continue	Continue	Continue
b . Program Management In-House	NA	AGSE, Redstone Arsenal, AL	372	90	1-4Q	100	1-4Q	100	1-4Q	Continue	Continue	Continue
c . Small Business Innovative Research/Small Business Technology Transfer Programs			0	0		204		0		0	204	0
Subtotal:			709	171		559		323		Continue	Continue	Continue
Remarks: None												
Project Total Cost:			6178	3269		7017		9272		Continue	Continue	Continue

LINE 69

0603801A (B32)
ADV MAINT CONCEPTS/EQ

AMENDED BUDGET

Schedule Profile (R4 Exhibit)																March 2004																
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes								PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev																PROJECT B32								
Event Name	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Avaition Turbine Engine Diagnostic System																																
ATEDS Integration																																
Digital Maint Architecture Demo																																
Avaition Ground Power Unit - Block II																																
BDAR Block II (2 Kits)																																
Digital Avn Weight & Bal																																
Std Aircraft Towing Syst (Blk II)																																
Shop Equip Contact Maint Mod - Blk II																																
Maint Platform & Towbar Mod																																
Hybrid Electric Vehicle - AVN																																
Future Avn. Repair & Maint Syst.																																
Advanced AGSE Working Group																																
Deployable Avn Maint Shelters - (SECM/Maint/Acft) - I/II/III																																
Misc Projects (SWAG Kit/Borescope/AVA II/Tools/Parts Marking)																																
LINE 69																																

AMENDED BUDGET

Schedule Detail (R4a Exhibit)						March 2004	
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev			PROJECT B32
Schedule Detail	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
AVIATION TURBINE ENGINE DIAGNOSTIC SYSTEM (ATEDS) - Develop software		2-4Q	1Q				
AVIATION TURBINE ENGINE DIAGNOSTIC SYSTEM (ATEDS) - Multi Engine Integration		2-4Q	1-4Q	1-2Q			
DIGITAL MAINT ARCHITECTURE DEMO (DMAD)	2-4Q	1Q					
AVIATION GROUND POWER UNIT (AGPU) BLOCK II		3-4Q	1-4Q	1-4Q	1-2Q		
BATTLE DAMAGE ASSMNT & REPAIR (BDAR) SYSTEM - DEMO & VALIDATION BLOCK II		3-4Q	1-4Q	1-2Q			
DIGITAL AVIATION WEIGHT & BALANCE (DAWS)			2-4Q	1-4Q	1Q		
STANDARD AIRCRAFT TOWING SYSTEM (SATS) - BLOCK II - MARKET RESEARCH		3-4Q	1-4Q	1-4Q	1-2Q		
SHOP EQUIPMENT CONTACT MAINTENANCE (SECM) MODERNIZATION - BLOCK II		2-4Q	1-4Q	1-4Q	1Q		
MAINTENANCE PLATFORM & TOWBAR MODERNIZATION	4Q	1-4Q	1-4Q	1Q			
HYBRID ELECTRIC VEHICLE AVN - PROTOTYPE, SYS INTEGRATION, EARLY OPERATIONAL TESTING	2-4Q	1-4Q	1Q				
HYBRID VEHICLE UPGRADE - (REMOTE TRAILERS)			2-4Q	1-4Q	1-4Q	1Q	
FUTURE AVIATION REPAIR & MAINT SYSTEMS		2-4Q	1-4Q	1-4Q	1-4Q	1Q	
ADVANCED AGSE WORKING GROUP		1-4Q	1-4Q	1-4Q	1-2Q		
DEPLOYABLE SECM MAINTENANCE COVER - I/II		3-4Q	1-2Q				
DEPLOYABLE AVIATION MAINTENANCE SHELTER FOR SECM - III (CONTACT TEAM)			2-4Q	1-4Q	1-4Q	1Q	
SWAGGING TOOL KIT (A&B)			2-4Q				
BORESCOPE EVAL SYS (FUEL CELL/ENGINE)		2-4Q	1-4Q	1Q			
AVIATION VIBRATION ANALYZER II - SOFTWARE		3-4Q	1-2Q				
NEW AVIATION TOOL SETS (NATS) EVALUATION AND REDESIGN			2-4Q	1-4Q	1-4Q	1Q	
AVIATION PARTS MARKING AUTOMATION			2-4Q	1Q			

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AMENDED BUDGET

Schedule Detail (R4a Exhibit)					March 2004					
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev				PROJECT B32		
Schedule Detail (continued)				FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
TECHNICAL ENGINEERING SERVICES				1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
MANAGEMENT SUPPORT SERVICES				1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
<div style="position: absolute; bottom: 10px; left: 10px; font-family: cursive;"> LINE 69 </div>										

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604220A - Armed, Deployable OH-58D				PROJECT 538	
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
538 KIOWA WARRIOR LFTE	1759	0	20000	0	0	0	0	0	21759
<p><u>A. Mission Description and Budget Item Justification:</u> The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformation.</p> <p>The Light Armed Reconnaissance Helicopter performs reconnaissance and provides security to ground maneuver forces. It improves the commander's ability to maneuver and concentrate superior combat power against the enemy at the decisive time and place.</p> <p>FY 2005 program funding supports initial efforts to comply with the Net Ready Key Performance Parameter (NR-KPP) for interoperability and integration of the Common Avionics Architecture Systems (CAAS).</p>									
							FY 2003	FY 2004	FY 2005
<u>Accomplishments/Planned Program</u>							619	0	0
Development/Operational Test & Analysis 2 Main rotor blades, 1 GTV Assembly							265	0	0
Developmental/Operational Test & Analysis							12	0	0
Battle Damage Assessment							321	0	0
Mock-up Cost							542	0	0
Mock-up Cost (1 GTV)							0	0	20000
Digitize for Joint Interoperability							1759	0	20000
Totals									
<p>LINE 79</p>									

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)						March 2004				
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604220A - Armed, Deployable OH-58D				PROJECT 538	

<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005	
Previous President's Budget (FY 2004)	1790	0	0	
Current Budget (FY 2005 PB Amended Budget)	1759	0	20000	
Total Adjustments	-31	0	20000	
Congressional program reductions				
Congressional rescissions	-21			
Congressional increases				
Reprogrammings	42			
SBIR/STTR Transfer	-52			
Adjustments to Budget Years			20000	

<u>C. Other Program Funding Summary</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
A04203 -KW Replacement	0	0	24000	0	0	0	0	0	24000

LINE 79

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)		March 2004
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604220A - Armed, Deployable OH-58D	PROJECT 538
<p>D. Acquisition Strategy: Digitization for Joint Interoperability will begin with initial efforts to comply with the Net Ready Key Performance Parameter (NR-KPP) for interoperability and integration of the Common Avionics Architecture Systems (CAAS).</p>		
LINE 79		

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)	March 2004
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BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604223A - COMANCHE

COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	865613	1068029	0	1061217	791287	554222	436490	0	4776858
2LT COMANCHE OPER TEST	138	1231	0	26499	10679	18515	50874	0	107936
327 COMANCHE	812051	1024886	0	1003372	758447	519418	371700	0	4489874
C72 T-800 ENGINE ED (LH)	53424	41912	0	31346	22161	16289	13916	0	179048

A. Mission Description and Budget Item Justification: Comanche program termination procedures begun in February 2004. The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. The Army will reflect adjustments to FY 2006-2009 in the next President Budget to be submitted.

B. Program Change Summary	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	874018	1079257	1181563
Current Budget (FY 2005 PB Amended Budget)	865613	1068029	0
Total Adjustments	-8405	-11228	-1181563
Congressional program reductions		-10150	
Congressional rescissions	-10917		
Congressional increases			
Reprogrammings	27490	-1078	
SBIR/STTR Transfer	-24978		
Adjustments to Budget Years			-1181563

LINE 80

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT 2LT	
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
2LT COMANCHE OPER TEST	138	1231	0	26499	10679	18515	50874	0	107936
<p><u>A. Mission Description and Budget Item Justification:</u> Comanche program termination procedures begun in February 2004. The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. The Army will reflect adjustments to FY 2006-2009 in the next President Budget to be submitted.</p>									
							FY 2003	FY 2004	FY 2005
<u>Accomplishments/Planned Program</u>									
Prepare for and Conduct the Limited User Test (LUT)							83	1053	0
Accreditation of the crew station simulators (Comanche Portable Cockpits) in support of FDTE II; conduct FDTE II.							43	92	0
Conduct Electro-optical Sensor System (EOSS) User Survey							12	50	0
Small Business Innovative Research/Small Business Technology Programs							0	36	0
Totals							138	1231	0
<p><i>LINE 80</i></p>									

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT 2LT	
B. Other Program Funding Summary	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
A08300 Comanche	8000	0	0	289139	964681	1529131	2030478	0	4821429
<p>C. Acquisition Strategy:Comanche program termination procedures begun in February 2004. The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. The Army will reflect adjustments to FY 2006-2009 in the next President Budget to be submitted.</p>									
<i>LINE 80</i>									

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT 2LT		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Government Agency	MIPR	Army Test and Evaluation Command, Alexandria, VA	227	138	1-3Q	1231	1-3Q	0		0	1596	0
Subtotal:			227	138		1231		0		0	1596	0
LINE 80												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT 2LT		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												
Project Total Cost:			227	138		1231		0		0	1596	0
<p><i>LINE 80</i></p>												

AMENDED BUDGET

Schedule Profile (R4 Exhibit)																March 2004																			
BUDGET ACTIVITY 5 - System Development and Demonstration																PE NUMBER AND TITLE 0604223A - COMANCHE																PROJECT 2LT			
Event Name	FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09				FY 10						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Conduct EOSS User Survey																																			
Conduct FDTE II																																			
Conduct FDTE III																																			
LUT																																			
Conduct FDTE IV and ARTEP																																			
Conduct IOTE Block I																																			
Conduct IOTE Block II																																			
(1) IOT&E																																			
LINE 80																NOT APPLICABLE																			

AMENDED BUDGET

Schedule Detail (R4a Exhibit)						March 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT 2LT		
Schedule Detail			FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Conduct independent evaluation at contractor test facility supporting LUT			1-4Q	1-4Q					
Prepare for LUT			4Q	1-4Q		1-4Q			
Prepare for FDTE II			4Q	1-4Q					
Prepare for EOSS User Survey			4Q	1-4Q					
Conduct EOSS User Survey									
Conduct FDTE II									
Prepare for FDTE III			4Q	1-4Q		1-3Q			
Conduct FDTE III						4Q			
Conduct LUT						4Q			
Prepare for FDTE IV and ARTEP						1-4Q	1-4Q	1-4Q	
Conduct FDTE IV and ARTEP									1Q
Prepare for IOTE Block I						2-4Q	1-4Q	1-4Q	1Q
Conduct IOTE Block I									2-3Q
Prepare For IOTE Block II						2-4Q	1-4Q	1-4Q	1-3Q
Conduct IOTE Block II									3Q

LINE 80

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT 327	
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
327 COMANCHE	812051	1024886	0	1003372	758447	519418	371700	0	4489874
<p>A. Mission Description and Budget Item Justification: Comanche program termination procedures begun in February 2004. The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. The Army will reflect adjustments to FY 2006-2009 in the next President Budget to be submitted.</p>									
Accomplishments/Planned Program							FY 2003	FY 2004	FY 2005
Continue Mission Equipment Package (MEP) development							278845	290149	0
Continue Engineering, Manufacturing, and Development (EMD)							356659	423626	0
Continue component development testing and prototype flight test program							112479	173734	0
Continue material procurement/manufacture of 9 EMD aircraft (test articles), 4 development test, 4 Initial Training Capability (ITC) aircraft, 1 Training/Live Fire Test & Evaluation (LFTE) aircraft							64068	107800	0
Small Business Innovative Research/Small Business Technology Transfer Programs.							0	29577	0
Totals							812051	1024886	0
<p><i>LINE 80</i></p>									

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT 327	
B. Other Program Funding Summary	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
A08300 Comanche	8000	0	0	289139	964681	1529131	2030478	0	4821429
<p>C. Acquisition Strategy:Comanche program termination procedures begun in February 2004. The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. The Army will reflect adjustments to FY 2006-2009 in the next President Budget to be submitted.</p>									

LINE 80

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)									March 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT 327		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . DAAH23-00-C-A001	C/CPAF	Boeing Sikorsky, PA	1346935	751193	1-2Q	955110	1-2Q	0		0	3053238	0
b . DAAJ09-91-C-A004	C/CPIF/AF	Boeing Sikorsky, PA	2927066	0		0		0		0	2927066	2927066
c . DAAJ09-87-D-A022	C/FFP	Veridian, VA	75041	8347	1-2Q	7706	1-2Q	0		0	91094	0
d . Other Contracts	C/FFP	Multiple	12683	7177	1-3Q	2800	1-3Q	0		0	22660	0
e . Completed Contracts			370288	0		0		0		0	370288	370288
f . Gov't Agencies	MIPR	Multiple	4491	333	1-4Q	0	1-4Q	0		0	4824	0
Subtotal:			4736504	767050		965616		0		0	6469170	3297354
<p><i>LINE 80</i></p>												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT 327		
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Other Contracts	C/FFP	Multiple	55771	7991	1-3Q	12302	1-3Q	0		0	76064	0
b . Completed Contracts	C/FFP		15556	0		0		0		0	15556	15556
c . Gov't Agencies	MIPR	Multiple	143580	13147	1-4Q	17864	1-4Q	0		0	174591	0
Subtotal:			214907	21138		30166		0		0	266211	15556
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Government Agencies	MIPR	Multiple	31504	6425	1-4Q	9760	1-4Q	0		0	47689	0
Subtotal:			31504	6425		9760		0		0	47689	0
<p><i>LINE 80</i></p>												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT 327		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Other Contracts	C/FFP	Multiple	10358	3665	1-3Q	3369	1-3Q	0		0	17392	0
b . PMO/Gov't Agencies	MIPR	Multiple	34305	13773	1-4Q	15975	1-4Q	0		0	64053	0
Subtotal:			44663	17438		19344		0		0	81445	0
Project Total Cost:			5027578	812051		1024886		0		0	6864515	3312910
<p><i>LINE 80</i></p>												

AMENDED BUDGET

Schedule Profile (R4 Exhibit)

March 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604223A - COMANCHE

PROJECT

327

Event Name	FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09				FY 10			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Development Engineering & Flight Test																																
Developmental Test ACFT Deliveries																																
Operational Test ACFT Deliveries																																
																		</														

0604223A (327)
COMANCHE

AMENDED BUDGET

Schedule Detail (R4a Exhibit)						March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT 327

<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Continue MEP development (ref Development Eng & Flt Test)	1-4Q	1-4Q		1-4Q	1-4Q	1-4Q	1-4Q
Continue EMD Program engineering development (ref Development Eng & Flt Test)	1-4Q	1-4Q		1-4Q	1-4Q	1-4Q	1-4Q
Continue development testing and prototype flight test program (ref Development Eng & Flt Test)	1-4Q	1-4Q		1-4Q	1-4Q	1-4Q	1-4Q
Begin/Continue material procurement/manufacture of EMD aircraft	1-4Q	1-4Q		1-4Q			
Delivery of EMD aircraft (ref DT/OT ACFT Deliveries)				1-4Q			
Conduct development testing and flight test of acft #3 thru 6				1-4Q	1-4Q	1-4Q	1-4Q
Conduct flight test/training of aircraft #7 thru 11				1-4Q	1-4Q	1-4Q	1-3Q
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AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT C72	
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
C72 T-800 ENGINE ED (LH)	53424	41912	0	31346	22161	16289	13916	0	179048
<p><u>A. Mission Description and Budget Item Justification:</u> Comanche program termination procedures begun in February 2004. The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. The Army will reflect adjustments to FY 2006-2009 in the next President Budget to be submitted.</p>									
							FY 2003	FY 2004	FY 2005
<u>Accomplishments/Planned Program</u>							41192	25439	0
Continue engine contractor development/qualification testing and air vehicle support.							12232	15255	0
Continue EMD program engine manufacturing. Up to thirty-five engines (test articles) to be delivered in FY 04 thru FY 06 for Comanche EMD aircraft.							0	1218	0
Small Business Innovative Research/Small Business Technology Transfer Programs.							53424	41912	0
Totals									
<p align="left" style="font-size: 1.2em; font-weight: bold;">LINE 80</p>									

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604223A - COMANCHE				PROJECT C72	
B. Other Program Funding Summary	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
A08300 Comanche	8000	0	0	289139	964681	1529131	2030478	0	4821429
<p>C. Acquisition Strategy: Comanche program termination procedures begun in February 2004. The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformaton. The Army will reflect adjustments to FY 2006-2009 in the next President Budget to be submitted.</p>									
<i>LINE 80</i>									

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)									March 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT C72		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . DAAJ09-92-C-0453	C/CPFF	LHTEC, Indiana	349353	0		0		0		0	349353	349353
b . DAAH23-02-C-0122	C/CPFF	LHTEC, Indiana	35284	52308	1-2Q	41012	1-2Q	0		0	128604	0
c . Other Contract	C/CPFF	LHTEC, Indiana	0	0		774	2-3Q	0		0	774	0
d . DAAJ09-85-C-B017	C/CPFF	LHTEC, Indiana	276821	0		0		0		0	276821	276821
e . DAAJ09-93-C-0518	C/CPFF	LHTEC, Indiana	460	0		0		0		0	460	460
f . DAAJ09-85-C-B019	C/FFP	AVCO/PW, Connecticut	128526	0		0		0		0	128526	128526
g . Gov't Agencies	MIPR	Multiple	14434	114	1-3Q	126	1-3Q	0		0	14674	0
Subtotal:			804878	52422		41912		0		0	899212	755160
<div style="font-size: 1.2em; font-weight: bold; margin-top: 0;">LINE 80</div>												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT C72		

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . PATS contracts	C/FFP		96	0		0		0		0	96	96
b . Rail	C/FFP		2806	0		0		0		0	2806	2806
c . Other Contracts	C/FFP	Multiple	608	123	1-2Q	0		0		0	731	1081
Subtotal:			3510	123		0		0		0	3633	3983

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Government Agencies	MIPR	Multiple	26603	879	1-3Q	0		0		0	27482	27482
b . Contracts	C/CPFF		2	0		0		0		0	2	2
Subtotal:			26605	879		0		0		0	27484	27484

LINE 80

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)								March 2004				
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604223A - COMANCHE					PROJECT C72		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												
Remarks: None												
Project Total Cost:			834993	53424		41912		0		0	930329	786627
<div style="font-size: 24px; font-weight: bold; margin-top: 10px;">LINE 80</div>												

[illegible]

Schedule Detail (R4a Exhibit)

March 2004

PE NUMBER AND TITLE

PROJECT

0604223A - COMANCHE

C72

Schedule Detail	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Continue Development/Qualification of the T800-LHT-802 Engine	1-4Q	1Q					
Begin Development/Qualification of the T800-LHT-802A Engine	1-4Q	1-4Q		1-4Q			
Continue Air Vehicle Support	1-4Q	1-4Q		1-4Q	1-4Q	1-4Q	1-4Q
EMD/Initial Training Capability Engine Deliveries		2-4Q		1-4Q			

LINE 80

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)						March 2004			
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605606A - AIRCRAFT CERTIFICATION				PROJECT 092		
COST (In Thousands)			FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
092 AIRCRAFT CERTIFICATION			3555	2999	3485	2904	12529	18329	19543
<p>A. Mission Description and Budget Item Justification: The Aircraft Certification program is an Army Aviation mission unique to Aviation and Missile Command that provides for an independent Airworthiness Qualification of all assigned Development and In-Production Army manned and Unmanned Aircraft systems required per AR70-62. This program performs all engineering functions (design, analysis, testing, demonstrations and system specification compliance) essential for certifying the airworthiness of assigned Army aircraft. Performs safety-of-flight investigations/assessments, evaluates system risks and develops Airworthiness Impact Statements. Evaluates and issues Airworthiness Flight Releases, Safety of Flight Messages, and Aviation Safety Action Messages to the field. Manages/executes the Army's Aeronautical Design Standards (ADS) Program. ADS is a continuously evolving process incorporating revisions for each change to the standard design of an aircraft system. Manages airworthiness approval of new vendor qualification/testing on fielded aircraft and material changes for all assigned Army aircraft systems. Provides airworthiness-engineering support to the Army Aviation Program Executive Office (PEO) and Technology Applications Program Office (TAPO) requirements for major development/modification and any future system/subsystems. Manages the test and evaluation process to support airworthiness qualification of developmental and fielded aircraft systems. This project funds activities required for general research and development support of aircraft qualifications. Current programs requiring Airworthiness Qualification support are TAPO and PEO Aviation Objective Force Systems (Comanche, Apache Longbow, Blackhawk, Chinook) and Aviation Electronics Systems (Aviation Mission Equipment, Aircrew Integrated System, Army Airborne Command and Control System, Advanced Threat Infrared Countermeasures, and Suite of Integrated Radio Frequency Countermeasures). This program supports the current to future/future transition path of the Transformation Campaign Plan.</p>									
						FY 2003	FY 2004	FY 2005	
Accomplishments/Planned Program						915	1124	1140	
Manage/execute technical and airworthiness qualification mission for PEO Aviation/force modernization aircraft systems.						1351	749	683	
Continue to ensure safety of flight investigations/assessments to include PEO Aviation/force modernization of aircraft systems.						191	188	188	
Manage/execute the Army Aeronautical Design Standards Program.						827	718	716	
Provide continuing engineering support for technology upgrades to PEO Aviation/force modernization aircraft systems.						271	212	258	
Continue to provide test management capability for PEO Aviation Program/Project/Product Managers.						0	0	500	
Explore commercial solutions to the Army's requirement for a new fixed wing cargo aircraft.						0	8	0	
Small Business Innovative Research/Small Business Technology Transfer Programs.									
<p>LINE 139</p>									

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)		March 2004		
BUDGET ACTIVITY 6 - Management support		PE NUMBER AND TITLE 0605606A - AIRCRAFT CERTIFICATION		PROJECT 092
Accomplishments/Planned Program B(continued)		FY 2003	FY 2004	FY 2005
Totals		3555	2999	3485
<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005	
Previous President's Budget (FY 2004)	3618	3098	3132	
Current Budget (FY 2005 PB Amended Budget)	3555	2999	3485	
Total Adjustments	-63	-99	353	
Congressional program reductions				
Congressional rescissions		-26		
Congressional increases				
Reprogrammings	-63	-73		
SBIR/STTR Transfer				
Adjustments to Budget Years			353	
<p>Change Summary Explanation: Funding - FY 2005: Funds to explore commercial solutions to the Army's requirement for a new fixed wing cargo aircraft as directed in the FY 2005 Amended Budget Document.</p>				

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AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							March 2004		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program					
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	206500	276191	242853	201295	309107	149246	249160	0	1729126
028 AERIAL COMMON SENSOR (ACS) (TIARA)	46835	103811	143865	150025	242728	23038	26157	0	736459
179 CH-47D PRODUCT IMPRV	1	0	0	0	0	0	0	0	3451
430 IMPR CARGO HELICOPTER	3271	14102	12935	6902	0	126208	223003	0	386421
504 BLACK HAWK RECAPITALIZATION/MODERNIZATION	111998	156597	86053	24729	5742	0	0	0	385119
508 APACHE 2ND GENERATION FLIR	44395	0	0	0	0	0	0	0	135719
D12 LONGBOW APACHE OPERATIONAL SYSTEMS DEVELOP	0	1681	0	19639	60637	0	0	0	81957
<p>A. Mission Description and Budget Item Justification: The request for FY2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformation. This PE provides for development of modifications and improvements for the Guardrail Common Sensor/Aerial Common Sensor, the Improved Cargo Helicopter (ICH), the UH-60A/L Black Hawk Recapitalization/Modernization, the Apache 2nd Generation Forward Looking Infrared (FLIR), and Longbow Apache Operational Systems Development.</p>									
<p>LINE 157</p>									

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)		March 2004																																									
BUDGET ACTIVITY 7 - Operational system development		PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; padding: 5px;"><u>B. Program Change Summary</u></th> <th style="text-align: center; padding: 5px;">FY 2003</th> <th style="text-align: center; padding: 5px;">FY 2004</th> <th style="text-align: center; padding: 5px;">FY 2005</th> </tr> <tr> <td style="padding: 5px;">Previous President's Budget (FY 2004)</td> <td style="text-align: center; padding: 5px;">204562</td> <td style="text-align: center; padding: 5px;">187959</td> <td style="text-align: center; padding: 5px;">167274</td> </tr> <tr> <td style="padding: 5px;">Current Budget (FY 2005 PB Amended Budget)</td> <td style="text-align: center; padding: 5px;">206500</td> <td style="text-align: center; padding: 5px;">276191</td> <td style="text-align: center; padding: 5px;">242853</td> </tr> <tr> <td style="padding: 5px;">Total Adjustments</td> <td style="text-align: center; padding: 5px;">1938</td> <td style="text-align: center; padding: 5px;">88232</td> <td style="text-align: center; padding: 5px;">75579</td> </tr> <tr> <td style="padding: 5px;"> Congressional program reductions</td> <td></td> <td style="text-align: center; padding: 5px;">-2612</td> <td></td> </tr> <tr> <td style="padding: 5px;"> Congressional rescissions</td> <td style="text-align: center; padding: 5px;">-2423</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px;"> Congressional increases</td> <td style="text-align: center; padding: 5px;">16000</td> <td style="text-align: center; padding: 5px;">89800</td> <td></td> </tr> <tr> <td style="padding: 5px;"> Reprogrammings</td> <td style="text-align: center; padding: 5px;">-7017</td> <td style="text-align: center; padding: 5px;">-451</td> <td></td> </tr> <tr> <td style="padding: 5px;"> SBIR/STTR Transfer</td> <td style="text-align: center; padding: 5px;">-4622</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px;">Adjustments to Budget Years</td> <td></td> <td></td> <td style="text-align: center; padding: 5px;">75579</td> </tr> </table> <p style="margin-top: 20px;">FY 2004: Increases provided for UH-60 prototype development (+\$75.0 million transfer from procurement), MAST program (+\$5.1 million), and HUMS demonstration (\$7.0 million).</p> <p>FY 2005: Increases provided for the Aerial Common Sensor geolocation precision COMINT subsystem (\$4.0 million), engine and rotor hub upgrades for the CH-47 (\$11.0 million), and to support the restructure of the UH-60 Black Hawk modernization program (\$28.9 million).</p> <p style="margin-top: 100px;"><i>LINE 157</i></p>				<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005	Previous President's Budget (FY 2004)	204562	187959	167274	Current Budget (FY 2005 PB Amended Budget)	206500	276191	242853	Total Adjustments	1938	88232	75579	Congressional program reductions		-2612		Congressional rescissions	-2423			Congressional increases	16000	89800		Reprogrammings	-7017	-451		SBIR/STTR Transfer	-4622			Adjustments to Budget Years			75579
<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005																																								
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Adjustments to Budget Years			75579																																								

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program				PROJECT 504	
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
504 BLACK HAWK RECAPITALIZATION/MODERNIZATION	111998	156597	86053	24729	5742	0	0	0	385119

A. Mission Description and Budget Item Justification: "The request for FY2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformation."

The UH-60 BLACK HAWK will serve as the Army's utility helicopter in the Future Force. It is used for air assault, general support, aeromedical evacuation (MEDEVAC), and command and control in active and reserve component theater, corps, division, and Table of Distribution and Allowances (TDA) units. The UH-60A entered service in fiscal year 1978 (FY78), and the newer model UH-60L in FY89. The Army continues to procure UH-60L helicopters today. The Army has established a recapitalization goal for its systems of maintaining the fleet's average age at the design half-life or less. The UH-60 was designed for a 20 year service life. The oldest UH-60As are now over 25 years old, and the average age of the UH-60A fleet is 21 years old. The increased operational tempo, coupled with the technological age of the basic airframe, components, and systems, is having an adverse impact on the operational readiness (OR) and operating and support (O&S) costs of the over 1500 aircraft UH-60 fleet. In addition, the UH-60A/L helicopters lack the necessary digital avionics architecture to meet current and future Army and Joint Service interoperability communication requirements. The Army has determined that a recapitalization/upgrade program is required to address these issues. An Operational Requirements Document (ORD) for recapitalization of the BLACK HAWK fleet was approved by the Joint Requirements Oversight Council in March, 2001. The ORD describes an evolutionary, block approach to transform the utility helicopter force to one that is more deployable, responsive, and less expensive to operate. Block 1 recapitalizes the oldest UH-60A BLACK HAWKs to the UH-60M configuration. The UH-60M selected upgrade includes airframe service life extension, structural improvements, upgrade of the propulsion system (UH-60A/L T700-GE-700/701C engine and drive train to T700-GE-701D engine and drive train), and a digital cockpit. The UH-60M provides a common platform for the modernized air ambulance MEDEVAC mission equipment package (MEP). RDTE funds are required to develop, integrate, test and qualify the UH-60M configuration. This system supports the Current-to-Future transition path of the Transformation Campaign Plan (TC).

FY05 funding reflects the initial efforts to move the UH-60M program to the Common Avionics Architecture System (CAAS), which is the common cockpit to be used by UH-60M, CH-47 and Special Forces. Incorporation of CAAS will minimize the future sustainment costs for these aircraft platforms.

FY 02-05 includes funding to demonstrate the benefits of an on-board Integrated Mechanical Diagnostic (IMD) – Health Usage Monitoring System (HUMS). The Army entered into a Commercial Operational Support Sharing (COSSI) Program with the Navy and Goodrich to explore the IMD-HUMS concept from the Navy's SH-60 and for the Army's UH60-L. The demonstration includes data collection and analysis to determine which features of an IMD-HUMS/Cockpit Voice/Flight data Recorder is beneficial to the Army.

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AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

March 2004

BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE

0203744A - Aircraft Modifications/Product Improvement Program

PROJECT

504

Data collected will be processed from field units to decision makers through an automated Maintenance Management Information System (MMIS). As a result of this demonstration program the Army will determine the configuration of the IMD-HUMS that will be installed on the UH-60 fleet.

The Maintenance Analysis Safety Training (MAST) Program will integrate a Smith Industries HUMS variant into the MH-60 and MH-47 and analyze the data for improvements to maintenance, training and safety.

	FY 2003	FY 2004	FY 2005
Accomplishments/Planned Program	16313	28379	7260
Continue airframe, avionics and powerplant development based on finalized configuration as a result of airframe CDR.			
Conduct System Preliminary Design Review and Critical Design Review.			
Software Development - includes failure modes and effects criticality analysis; software design descriptions; qualification testing of mission critical computer resources; update software requirements specifications and multiplex interface control documents; and prepare software design descriptions.	12489	20094	4406
Continue Producibility Engineering and Planning (PEP) as well as manufacturing planning and control.	7099	14732	2255
Prototype build and delivery to support Development Testing (DT).	26703	32756	27129
Test planning to include update and approval of Test & Evaluation Master Plan.	1409	0	0
Testing (Conduct flight testing, EME testing and ground testing).	30051	36056	13870
Preparation of training documentation for Logistics Demonstration Familiarization Course, Government Test Pilot Familiarization Course and Test Data Collection Training Course.	3245	5535	1979
Conduct training course to support test.	201	418	661
Maintain Continuous Acquisition and Life Cycle Support (CALs)/Contractor Integrated Technical Information Service (CITIS) and deliver Interface Control Documents (ICD's).	493	665	486
Depot Study	832	0	0
Support Equipment	0	308	108
Performance Support System (NG)	0	1000	0
IMD-HUMS demonstration program.	13163	7000	13100
MAST demonstration program.	0	5100	0
Common Avionics Architecture Initiation	0	0	14799
Small Business Innovative Research/Small Business Technology Transfer Programs.	0	4554	0
Totals	111998	156597	86053

LINE 157

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program				PROJECT 504	
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
<u>B. Other Program Funding Summary</u>									
AA0492 UH-60 MODS	47370	36225	149019	138232	299294	677104	693067	Continuing	Continuing
<p>C. Acquisition Strategy: The UH-60 BLACK HAWK will serve as the Army's utility helicopter in the Future Force. The recapitalization/upgrade of the Current UH-60 fleet for the interim/future force will be accomplished using an evolutionary, block approach to transform the system. The Block 1 program will selectively upgrade the UH-60A/L fleet to the UH-60M configuration. This includes airframe structural improvements, a propulsion upgrade, and a digital cockpit that will meet lift, range, survivability, and interoperability requirements while decreasing O&S costs. This will extend the useful life of these aircraft another 20 years. These improvements will be accomplished through integration of existing technologies, by upgrading the UH-60A propulsion system to that currently in the UH-60L, and by adding the UH-60Q advanced MEDEVAC medical equipment package (MEP) to the air ambulance fleet. This program addresses current UH-60 fleet aging problems such as decreasing operational readiness (OR) and increasing O&S costs, including all top-ten cost drivers, and provides a common, modernized platform for the UH-60 utility and MEDEVAC fleet of the future. The program will be executed over four phases: pre-System Development/Demonstration Phase (FY00-01), System Development/Demonstration Phase (FY01-07), Production/Readiness Phase (FY05-27), and Operations and Sustainment Phase (FY06-FY46).</p>									
<i>LINE 157</i>									

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program					PROJECT 504		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Design, Integration & Qualification Contract	SS/CPAF	Sikorsky Aircraft Co 30 Moffitt Street Stratford, CT 06601	73302	89988	1-4Q	121491	1-2Q	44359	1-2Q	13602	342742	0
b . Development Support - Organic	MIPR	UH PMO/matrix	2962	2613	1-4Q	5690	1-3Q	3830	1-3Q	3756	18851	0
c . Development Support - Contractor	C/FP	Support Contractors	4049	3400	1-3Q	555	1-3Q	523	1-3Q	931	9458	0
d . IMD-HUMS Development Support - Organic	MIPR	Aviation Applied Tech Directorate (AATD) Matrix	2994	1754	1-4Q	836		4100	1-3Q	0	9684	0
e . IMD-HUMS Development Support - Contractor	C/FP	Goodrich, 100 Pantan Road, Vergennes, Vermont 05491	10534	11409	3-4Q	6164		9000	1-3Q	0	37107	0
f . MAST Development Support - Organic	MIPR'S	Other Government Agency Support	0	0	2-4Q	350		0		0	350	0
g . MAST Development Support - Contractor	MIPR	Smith Industries Clear Water , FLI	0	0	3-4Q	4750		0		0	4750	0
h . Performance Support System - NF	MIPR	Other Government Agency Support	0	0	2-4Q	1000		0		0	1000	0
LINE 157												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)									March 2004			
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program						PROJECT 504	
I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
i. Common Avionics Architecture Initiation - Organic	MIPR		0	0		0	1-4Q	1703		0	1703	0
j. Common Avionics Architecture Initiation - Contractor	CPAF		0	0		0	1-4Q	13096		0	13096	0
Subtotal:			93841	109164		140836		76611		18289	438741	0
<p>Remarks: IMD-HUMS demonstration program was funded in FY02-05 and is separate from the UH-60M program.</p> <p>MAST demonstration program was funded in FY04 and is separate from the UH-60M and the HUMS programs.</p>												
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Cost Analysis Support	MIPR	AMCOM Matrix	288	77	1-3Q	212	2Q	212	1-3Q	424	1213	0
b. Logistics Analysis Support - Organic	MIPR	AMCOM Matrix	0	0	1-4Q	280	1-3Q	297	1-3Q	529	1106	0
c. Logistics Analysis Support - Support Contractor	MIPR	Support Contractor	0	0	1-3Q	247	1-3Q	523	1-3Q	699	1469	0
Subtotal:			288	77		739		1032		1652	3788	0
<p>LINE 157</p>												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program					PROJECT 504		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Test Planning, Test and Evaluation	MIPR	Various Activities	1920	1238	1-4Q	7787	1-3Q	6162	1-3Q	6273	23380	0
b . Test Planning, Test and Evaluation	MIPR	Various Activities	0	0	1-4Q	123	1-3Q	131	1-3Q	233	487	0
Subtotal:			1920	1238		7910		6293		6506	23867	0
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . PM Support - Organic	MIPR	UH PMO/matrix	1683	1261	1-4Q	1291	1-3Q	1413	1-3Q	2818	8466	0
b . PM Support - Contract	C/FP	O2K Contractor	613	258	1-3Q	1267	1-3Q	704	1-3Q	1206	4048	0
c . SIBR/STTR			0	0		4554		0		0	4554	0
Subtotal:			2296	1519		7112		2117		4024	17068	0
<i>LINE 157</i>												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)						March 2004						
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program			PROJECT 504					
Project Total Cost:			98345	111998		156597		86053		30471	483464	0
LINE 157												

AMENDED BUDGET

Schedule Profile (R4 Exhibit)

March 2004

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product
Improvement Program

PROJECT
504

Event Name	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
UH-60A RECAP (REBUILD)																																
UH-60A RECAP (REBUILD)																																
UH-60L																																
UH-60M RECAP (UPGRADE)																																
MYP VII PRODUCTION (UH-60M NEW)																																
(1) MS C, (2) FRP, (3) FUE																																
Test Article Fab/Checkout																																
DT/Flight Test																																
LRIP																																
OT																																
UH-60M RECAP (UPGRADE)																																
HH-60M MED Kit																																

UH-60A RECAP (REBUILD) PRODUCITON

MYP VII PRODUCTION

1

MS C

2

FRP

3

FUE

Test Article Fab/Checkout

DT/Flight Test

LRIP

OT

UH-60M RECAP (UPGRADE) PRODUCTION

MED KIT

LINE 157

LINE 157

AMENDED BUDGET

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AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							March 2004		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles					
COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	68650	68629	45627	30113	47627	42442	18003	0	321091
114 TACTICAL UNMANNED AERIAL VEHICLE (TUAV) (JMIP)	48501	20414	14103	14342	8619	8733	8932	0	123644
11A ADVANCED PAYLOAD DEVELOP & SPT (JMIP)	17887	17419	20303	959	958	961	969	0	59456
11B TSP DEVELOPMENT (JMIP)	0	5708	8952	12455	7114	0	0	0	34229
123 JOINT TECHNOLOGY CENTER SYSTEM INTEGRATION (JMIP)	2262	2233	2269	2357	2359	2187	2283	0	15950
D09 EXTENDED RANGE UAV (JMIP)	0	22855	0	0	28577	30561	5819	0	87812

A. Mission Description and Budget Item Justification: The Tactical Unmanned Aerial Vehicle (TUAV) provides the Army with dedicated day/night reconnaissance, surveillance and target acquisition (RSTA) and intelligence. TUAV provides the tactical warfighting commander with critical battlefield information in the rapid cycle time required for success at the tactical level. The TUAV system consists of multiple air vehicles, each configured with an electro-optic (EO)/infrared (IR) sensor payload, ground control equipment (including communications equipment, launch and recovery equipment), remote video terminal, and High Mobility Multipurpose Wheeled Vehicles with trailer(s). Each system is supported by a Maintenance Section-Multifunctional (MSM). Each division is supported by a Mobile Maintenance Facility (MMF). Near term RDT&E includes C4I interoperability and testing, BIT/BITE integration and testing, and initiation of a Small UAV Program. The Shadow UAV system has proven itself under combat conditions while deployed in support of OIF. Continued fielding and war time lessons learned have identified critical areas for improvement. These areas include enhanced C4I, survivability enhancement (noise and signature reduction), Automatic landing system enhancements, software optimization including increased JTAA-A compliance, and reduction of Total Ownership Cost through design enhancements. Future initiatives will focus on the transition of technologies that directly support the Army's Future Force, such as counter camouflage, and other specialty payloads as appropriate. The Advanced Payload Development & Support efforts will establish the infrastructure to evaluate the maturity of the technology efforts and transition an employable TUAV capability. Development and fielding of the TRADOC System Manager (TSM) UAV's top 5 priorities include Synthetic Aperture Radar/Moving Target Indicator, Communication Relay Payload, Laser Designation, and Objective EO/IR. The Joint Technology Center/System Integration Lab (JTC/SIL) is a joint integration center that develops the Multiple Unified Simulation Environment (MUSE), which provides simulations of tactical UAVs and strategic Intelligence, Surveillance and Reconnaissance (ISR) assets. The simulation is used with a broad range of joint systems, including the Army Tactical Exploitation Station, the Navy Joint Fires Network, and the Air Force ISR-Manager and Distributed Common Ground Station. The MUSE provides for the development of real-time interoperable hardware and operator-in-the-loop simulations of multiple intelligence systems, and is routinely employed in warfighter exercises throughout the world.

LINE 174

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)	March 2004
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BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE

0305204A - Tactical Unmanned Aerial Vehicles

The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformation. FY 2005 will be increased by 18.5 million in Project 11A.

This system supports the Current to Future transition path of the Transformation Campaign Plan (TCP). The TUAV is a Future Force System.

<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	67435	60493	66730
Current Budget (FY 2005 PB Amended Budget)	68650	68629	45627
Total Adjustments	1215	8136	-21103
Congressional program reductions		-633	
Congressional rescissions			
Congressional increases		8900	
Reprogrammings	1215	-131	
SBIR/STTR Transfer			
Adjustments to Budget Years			-21103

FY 04: Plus-up for Shadow 200 TUAV Airframe is +\$5.3M and for Tactical Common Data Link it is \$3.6M for Project 114. In December, 2003, ER/MP program was approved in an Army, AROC. FY04 ER/MP funds will cover requirements for both FY04 and FY05.

FY05: Decrease of \$21.1 million consists of program decreases for engineering support and testing; ER/MP program's pace has been slowed to effect a decrease in the amount of \$33.629 million in Project D09; and the FY 2005 Budget Amendment for Army Aviation Transformation includes an increase of \$18.5 million in Project 11A.

LINE 174

Schedule Detail (R4a Exhibit)		March 2004
BUDGET ACTIVITY 7 - Operational system development	PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles	PROJECT 0305204A
<p><u>Schedule Detail:</u> Not applicable for this item.</p>		
<p>LINE 174</p>		

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004					
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles				PROJECT 11A				
COST (In Thousands)				FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
11A	ADVANCED PAYLOAD DEVELOP & SPT (JMIP)			17887	17419	20303	959	958	961	969	0	59456
<p>A. Mission Description and Budget Item Justification: Development of Payloads to support the Army's Unmanned Air Vehicles (UAV) in accordance with the TRADOC UAV priorities. The Synthetic Aperture Radar/Ground Moving Target Indicator (SAR/GMTI) Payload will provide a wide area search capability with a built-in imaging sensor that provides essential all-weather surveillance and increased situational awareness. The SAR/GMTI Payload is a core complementary system of the Army's Future Combat System (FCS) and will meet the recently approved Extended Range/Multi-Purpose (ER/MP) UAV. Future initiatives will continue to focus on the transition of technologies directly supporting emerging UAV requirements and the Army's Future Force. The Light Detection and Ranging (LIDAR) payload provides high-resolution elevation data for detailed mapping. Funding provides for up to four LIDAR payloads to be downsized for use on the Hunter UAV.</p> <p>The request for FY 2005 has been adjusted to reflect the Fiscal Year 2005 Budget Amendment for Army Aviation Transformation. FY 2005 will be increased by 18.5 million (12.5 million EO/IR/LD)(6 million SAR/GMTI).</p> <p>The SAR/GMTI and EO/IR/LD payload supports the Future Force transition path of the Transformation Campaign Plan (TCP).</p>												
								FY 2003	FY 2004	FY 2005		
Accomplishments/Planned Program								11687	15419	7803		
SAR/GMTI Development and Integration - includes Development Test.								200	0	0		
Initiate EO/IR Development and Integration for UAV.								6000	2000	0		
Light Detection and Ranging (LIDAR) sensor package development efforts.								0	0	12500		
Electro-optic(EO)/infrared (IR)/laser designation (LD) development.								17887	17419	20303		
Totals												
<p>LINE 174</p>												

AMENDED BUDGET

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							March 2004		
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles			PROJECT 11A	
B. Other Program Funding Summary	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
Advanced TUAV Payloads (B00302)	0	0	0	8513	24426	18052	19662	0	70653
Night Vision Systems - Engineering Development (654710A)	6143	10338	10333	17462	17770	14421	10670	0	87137
<p>C. Acquisition Strategy: The System Development and Demonstration (SDD) contract for the SAR/GMTI Payload was competitively awarded 1QFY04 for the design/modification and fabrication of SDD articles. The SAR/GMTI SDD articles will be refurbished and provided to FCS for integration and testing and participation in FCS LUT 1. Additional capabilities will be added via spiral development depending on need, technology maturity and funding availability.</p>									

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AMENDED BUDGET

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)									March 2004				
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles					PROJECT 11A			
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . SAR/GMTI Program MUA (MDAF) and Technical Assessment		Various	2856	264	1-2Q	0		0		0	3120	3120	
b . SAR/GMTI System Development & Demonstration	COMP/CPI F	General Atomics, San Diego, CA	0	7100		9496	1-2Q	6000	1-2Q	0	22596	16596	
c . Advanced EO/IR* Operational Capabilities Assessment	MIPR	CECOM NVESD Ft. Belvoir, VA	2800	200	1-2Q	0		0		0	3000	3000	
d . Develop Miniaturized Light Detection and Ranging Sensor Package	MIPR	PO JPSPD Fort Belvoir, VA	0	6000	1-3Q	2000	1Q	0		0	8000	8000	
e . Payload plug-and-play	MIPR	NSWC, Crane, IN	300	0		0		0		0	300	300	
f . Advanced Payload Modeling & Simulation	MIPR	WSMR/TBE	360	0		0		0		0	360	360	
g . TUAV GCS Integration	MIPR	PM UAVS, Huntsville, AL	1400	0		2200	3Q	0		0	3600	3600	
h . EO/IR/LD Development			0	0		0		12500	1-2Q	0	12500	0	
Subtotal:			7716	13564		13696		18500		0	53476	34976	

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AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles					PROJECT 11A		
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Engineering Support	MIPR	Various	1857	3240	1-3Q	3171	1-3Q	0		Continue	8268	Continue
Subtotal:			1857	3240		3171		0		Continue	8268	Continue
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . MDAF Demo Support	MIPR	Various	0	333	1-3Q	0		0		0	333	333
b . Payload Test Support	MIPR	DTC, Aberdeen Proving Grounds, MD	0	70	1Q	0		1300	2-3Q	Continue	1370	1370
Subtotal:			0	403		0		1300		Continue	1703	1703
<p><i>LINE 174</i></p>												

AMENDED BUDGET

ARMY RDT&E COST ANALYSIS(R3)										March 2004		
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles					PROJECT 11A		

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Mgt Personnel	In House	PM RUS, Ft. Monmouth, NJ	247	680	1-4Q	552	1-4Q	503	1-4Q	Continue	1982	Continue
Subtotal:			247	680		552		503		Continue	1982	Continue
Project Total Cost:			9820	17887		17419		20303		Continue	65429	Continue

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AMENDED BUDGET

Schedule Profile (R4 Exhibit)																	March 2004															
BUDGET ACTIVITY 7 - Operational system development										PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles										PROJECT 11A												
Event Name	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Perform SAR/GMTI Military Utility Assessment																																
Develop LIDAR Sensor Package																																
(1) SAR/GMTI MS B																																
SAR/GMTI SDD																																
SAR/GMTI DT																																
FCS UAV Systems Integration & Test Support																																
(2) SAR/GMTI MS C																																
(3) Award SAR/GMTI FRP																																
LINE 174																																

AMENDED BUDGET

Schedule Detail (R4a Exhibit)						March 2004			
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0305204A - Tactical Unmanned Aerial Vehicles				PROJECT 11A		
Schedule Detail			FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Perform SAR/GMTI Military Utility Assessment			1-3Q						
Develop Miniaturized Light Detection and Ranging (LIDAR) Sensor Package			1-4Q	1-4Q	1-2Q				
Milestone B for SAR/GMTI				1Q					
SAR/GMTI System Development and Demonstration (SDD) Contract				1-4Q	1-4Q	1-3Q			
SAR/GMTI DT					3-4Q	1Q			
FCS UAV Systems Integration & Test Support						2-4Q	1-4Q	1Q	
MS C for SAR/GMTI						4Q			
Award SAR/GMTI FRP							1Q		

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