

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET		DATE
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2	P-1 ITEM NOMENCLATURE ROTARY WING UPGRADES AND SUSTAINMENT	
<p>FY2000 PROGRAM JUSTIFICATION: Funds airframe and aircraft system upgrades. Continues to fund MELB. Provides funding for Conformal Fuel tanks, Forward Looking Infra-red (FLIR) A-kits and SOF unique spares.</p> <p>FY 2001 PROGRAM JUSTIFICATION: Continues to fund airframe and system upgrades. Finishes MELB modifications. Continues to install Conformal Tanks and FLIR A-kits. Funds installation of a weapons management system.</p>		

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET						DATE FEBRUARY 1999				
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2				P-1 ITEM NOMENCLATURE ROTARY WING UPGRADES AND SUSTAINMENT						
MODIFICATION SUMMARY										
DESCRIPTION	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	
1. NBC Cockpit Protection	.000						.789	2.632		
2. Onboard Inert Gas Generation System	.000			5.245						
3. MH-53J IDAS/MATT	24.360	16.280	13.758	.894						
4. Aircraft Survivability Equipment Countermeasures	.000	1.479	.839							
5. MH-47 Exhaust Suppressor (MH-47D/E)	.000	1.206	4.058							
6. Aircraft Systems Mod	.000	1.351	1.530							
7. MH-47 Cargo Handling System (MH-47D/E)	.000		1.843							
8. MH-60 Integrated Fuel Panel (MH-60K/L)	.000		3.119							
9. MH-47 Rescue Hoist (MH-47D)	.000		.203							
10. Cockpit Management System 80 Upgrade (MH-47D/60L)	.000	1.045	.679							
11. Embedded GPS and Inertial Nav Sys (MH-47D/E-60K/L)	.000	1.455								
12. Mission Enhanced Little Bird (A/MH-6)	.000	2.113	2.421	1.156	1.208					
13. A/MH-6 Militarization	.000		2.634							
14. A/MH-6 Component Miniaturization	.000	.790	.770		2.123					

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET						DATE FEBRUARY 1999			
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2			P-1 ITEM NOMENCLATURE ROTARY WING UPGRADES AND SUSTAINMENT						
DESCRIPTION	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
15. Integrated Infrared Countermeasures	.000			2.965	3.106	1.936	1.198	.436	
16. Aircraft Survivability Equipment Engineering Fixes	.000	5.907	3.992	2.619					
17. Infrared Exhaust Suppression (MH-47D/E)	.000			4.331	3.926	.532			
18. Ballistic Protection System	.000				1.065	1.038			
19. Infrared Exhaust Suppression (MH-60)	.000								6.465
20. Army Rotary Wing Engineering Changes	.000			1.471	1.579	1.630	1.660	1.697	1.740
21. Mission Processor Upgrade	.000					3.235	6.421	9.546	4.263
22. Modular Avionics	.000						1.848	5.153	5.385
23. Multi-Function Display Processor Upgrade	.000						1.622	4.035	3.469
24. GPS/INS	.000					.920			
25. Second Generation FLIR	.000								5.111
26. Multi Mode Radar Upgrade	.000			2.561	3.342	3.527	2.112		
27. Radar Altimeter Enhancement	.000							.789	2.487
28. OH-6 50 Cal Replacement	.000						1.611	1.478	
29. Forward Looking Infrared Radar A-Kits	.000			.551	.527				

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET						DATE FEBRUARY 1999			
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2			P-1 ITEM NOMENCLATURE ROTARY WING UPGRADES AND SUSTAINMENT						
<u>DESCRIPTION</u>	<u>Prior Years</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
30. External Conformal Tanks	.000			.787	1.376	1.491			
31. MH-47 Cargo Handling System Upgrade	.000			2.581	1.255	1.276	1.305	1.357	1.461
32. MH-47 Forward Cabin Seats	.000			.877	.877				
33. MH-47 IR Strobe Light	.000				.822				
34. MH-47 Rescue Hoist (MH-47D)	.000			.497					
35. MH-47 SLEP	.000							2.436	2.273
36. MH-60 200-Gallon Fuel Tank	.000			1.009	1.008				
37. MH-60 Altitude Hold	.000				1.627	2.674	2.172		
38. MH-60 Aerial Refuel Probes	.000				.986	1.349	.353		
39. MH-60 SLEP	.000							.555	1.705
40. MH-53J Service Life Extension Program	27.790								
*Total does not include Upgrade/Sustainment cost.									
* SUBTOTAL FOR MODS	52.150	31.626	35.846	27.544	24.827	19.608	21.091	30.114	34.359

COST ANALYSIS EXHIBIT (P-5) - Aviation	A. Appropriation/Budget Activity Title/No. Procurement, Defense-Wide/Proc. Just./2		B. Line Item Nomenclature ROTARY WING UPGRADES/SUSTAINMENT				C. DATE: FEBRUARY 1999				
	Work Breakdown Structure		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001
Cost Elements (\$ thousands)	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
1. MH-47/MH-60 MODIFICATIONS/ SUSTAINMENT											
A. Aircraft Survivability Equip (ASE) Countermeasures				1,479		839					
B. ASE Engineering Fixes				5,907		3,992		2,619			
C. Cargo Handling System						1,843		2,581		1,255	
D. Exhaust Suppressor				1,206		4,058					
E. Rescue Hoist						203		497			
F. Cockpit Management System				1,045		679					
G. Embedded Global Posn System				1,455							
H. Integrated Fuel Panel						3,119					
I. Ballistic Protection System				1,351		1,530				1,065	
J. Army ECP Incorporation		4,953						1,471		1,579	
K. Night Vision Devices				946		1,747		1,567		2,608	
L. Integrated Infrared Countermeasures								2,965		3,106	
M. Infrared Exhaust Suppression (MH-47D/E)								4,331		3,926	
N. Onboard Inert Gas Generation System								5,245			
O. Multi-Mode Radar Upgrade								2,561		3,342	
P. MH-47 Forward Cabin Seats								877		877	
Q. MH-47 Infrared Strobe Light										822	
R. MH-47 Spares								840		1,680	
S. Pacific Command Detachment										15,320	
T. MH-60 200 Gallon Fuel Tanks								1,009		1,008	
U. MH-60 Altitude Hold										1,627	
V. MH-60 Aerial Refuel Probes										986	
W. MH-60 Spares								526		945	
Subtotal		4,953		13,389		18,010		27,089		40,146	
2. MH-53J UPGRADES											
A. IDAS/MATT		627		16,280		13,758		894			
B. MH-53J Sustainment		231		1,014		6,143		7,598		4,919	
Subtotal		858		17,294		19,901		8,492		4,919	
3. A/MH-6 UPGRADES/SUSTAINMENT											
A. Mission Enhanced Little Bird				2,113		2,421		1,156		1,208	
B. A/MH-6 Militarization						2,634					
C. Component Miniaturization				790		770				2,123	
D. A/MH-6 Upgrades/Sustainment				2,680		2,785		3,158		3,224	

INDIVIDUAL MODIFICATION

MODIFICATION TITLE: ONBOARD INERT GAS GENERATION SYSTEM

MODELS OF SYSTEMS AFFECTED: 47E, 60K Total of 48 systems and 7 spares.

DESCRIPTION/JUSTIFICATION: Produces a continuous flow of nitrogen-enriched gas into the aircraft fuel cell. Replaces the combustible air/fuel mixture in the tank ullage thereby protecting the aircraft and crew members against fuel tank explosions and fires.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MS III; Sep 98

FINANCIAL PLAN: (\$ in millions)

	PYs		FY98		FY99		FY00		FY01		FY02		FY03		FY04		FY05		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E						1.5															0	1.5	
PROCUREMENT								5.3													0	5.3	
Installation Kits								1.2													0	1.2	
Install Kits Nonrecurring																					0	0.0	
Equipment							55	2.5													55	2.5	
Equipment Nonrecurring																					0	0.0	
Engineering Change Orders																					0	0.0	
Data																					0	0.0	
																					0	0.0	
																					0	0.0	
																					0	0.0	
Installation of Hardware																							
PY																					0	0.0	
FY98																					0	0.0	
FY99																					0	0.0	
FY00							48	1.6													48	1.6	
FY01																					0	0.0	
FY02																					0	0.0	
FY03																					0	0.0	
FY04																					0	0.0	
FY05																					0	0.0	
To Complete																					0	0.0	
Total Installation Cost		0	0.0	0	0.0	0	0.0	48	1.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	48	1.6
Total Procurement			0.0		0.0			5.3		0.0		0.0		0.0		0.0		0.0		0.0		5.3	

METHOD OF IMPLEMENTATION: GOCO

ADMINISTRATIVE LEADTIME: 3 MONTHS

PRODUCTION LEADTIME: 2 MONTHS

CONTRACT DATE: Current Year : N/A

Budget Year 1: 10/99

Budget Year 2: N/A

DELIVERY DATE: Current Year : N/A

Budget Year 1: 12/99

Budget Year 2: N/A

Exhibit P-3a, Individual Modification (Cont)

MODIFICATION TITLE: ONBOARD INERT GAS GENERATION SYSTEM

INSTALLATION SCHEDULE

	PYs	1998				1999				2000				2001				2002				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In										12	12	12	12									
Out										12	12	12	12									

	2003				2004				2005				To Complete	Total	
	1	2	3	4	1	2	3	4	1	2	3	4			
In															48
Out															48

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET							DATE FEBRUARY 1999		
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2				P-1 ITEM NOMENCLATURE SOF TRAINING SYSTEMS					
	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
QUANTITY									
COST (In Millions \$)	25.101	5.102	6.053	2.107	2.379	.113	.097	2.467	27.775
<p>MISSION AND DESCRIPTION: This P-1 line funds Special Operations Forces Army and Air Force ground-based trainers to support initial refresher and continuation training and mission rehearsal. Also, funds Data Base Generating Equipment required for building and maintaining real-world training and mission rehearsal scenarios.</p> <p>FY 2000 PROGRAM JUSTIFICATION: Integrates a Blade Element Model into MH-47E/MH-60K Combat Mission Flight Simulators to improve aircraft performance modeling. Also integrates a tactical operational scene image generator, joint service capable, to provide simultaneous real-world mission rehearsal capability for the 160th Special Operations Aviation Regiment (Airborne) in both flight simulators.</p> <p>FY 2001 PROGRAM JUSTIFICATION: Integrates and supports MH-47E/MH-60K aircraft concurrency with upgrades including avionics 15.0, aircraft survivability equipment, and integrated aircraft systems.</p>									

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET							DATE FEBRUARY 1999		
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2				P-1 ITEM NOMENCLATURE MC-130H, COMBAT TALON II					
	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
QUANTITY									
COST (In Millions \$)	319.582	26.387	18.519	16.895	10.470	7.492	5.862	5.110	7.039
<p>MISSION AND DESCRIPTION: The Combat Talon (CT II) is a production and sustainment program in which a specialized avionics suite has been integrated into a C-130H airframe. Its mission is to conduct night, adverse weather, low-level, long-range operations in hostile, politically denied/sensitive, defended areas to infiltrate, resupply, or exfiltrate special operations forces and equipment. All 24 MC-130H aircraft have been procured in prior years. Ongoing efforts focus on meeting operational requirements in the System Operational Requirements Document by establishing organic intermediate and depot level maintenance capability on the APQ-170 Radar, Nose Radome, and AP-102A Mission Computer.</p> <p>FY 2000 PROGRAM JUSTIFICATION: Transition program from acquisition to post-production improvement and sustainment. Resolves critical deficiency with cargo compartment noise. Continues organic radar depot capability establishment. Continues software support, configuration control, and technical database currency.</p> <p>FY 2001 PROGRAM JUSTIFICATION: Continues transition from acquisition to post-production improvement and sustainment. Completes organic radar repair depot. Continues software support, configuration control, and technical database currency.</p>									

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET							DATE FEBRUARY 1999		
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2				P-1 ITEM NOMENCLATURE CV-22 SOF MOD					
	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
QUANTITY					4	6	9	9	9
COST (In Millions \$)			3.983	3.582	8.588	100.542	123.683	142.327	167.906

MISSION AND DESCRIPTION: The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical lift, multi-mission aircraft. The CV-22 will provide long range, high speed infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. The Navy is the lead service for the joint V-22 program and is responsible for managing and funding the development of all V-22 variants, including the CV-22. The Air Force will procure and field 50 CV-22 aircraft and support equipment for USSOCOM, conduct IOT&E, and provide Type I training. USSOCOM funds the procurement of SOF unique systems, e.g. terrain following radar, electronic warfare suite, etc. The Air Force will fund 85% of the procurement cost for CV-22 training systems; USSOCOM funds 15%. The Air Force and Navy will utilize joint training facilities at Marine Corp Air Station New River, NC to conduct all maintenance training and initial V-22 aircrew qualification training. CV-22 SOF-unique aircrew mission training will be conducted at the Special Operations Mission Qualification Schoolhouse at Kirtland AFB, NM.

FY 2000 PROGRAM JUSTIFICATION: Peculiar Training procures a high fidelity Operational Flight Trainer (OFT) for Special Operations aircrew mission qualification training. The OFT is a non-motion training device that provides a realistic visual simulated environment and full fidelity aircraft functionality. Initial V-22 flight training will be conducted at a joint schoolhouse at New River, NC for both USMC and USAF pilots. After completing initial training, USAF pilots will go through mission qualification training using Weapon System Trainers (WST), OFTs, and training aircraft at Kirtland AFB, NM. The OFT will be used to train special operations mission requirements that don't require full motion fidelity as in the WST. The OFT is being procured with 15% USSOCOM and 85% USAF funding and requires a two year lead time for delivery. In order to support CV-22 initial operational capability in 4QFY04, initial operational aircraft delivery in 2QFY03, and ready for training milestone in 4QFY02, procurement of the OFT must begin in FY 2000. A total of 2 OFTs and 2 WSTs will be required at Kirtland AFB to support training throughput.

FY 2001 PROGRAM JUSTIFICATION: Procures second OFT for Kirtland AFB and first unit training OFT for Hurlburt Field. Production

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET		DATE FEBRUARY 1999
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2	P-1 ITEM NOMENCLATURE CV-22 SOF MOD	
<p>Engineering provides CV-22 unique software engineering support. Pre-planned Product Improvement funds the recurring costs to incorporate items in the first CV-22 production lot.</p>		

This Page Intentionally Left Blank

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET							DATE FEBRUARY 1999		
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2				P-1 ITEM NOMENCLATURE OH-6J PROCUREMENT AND MODIFICATIONS					
	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
QUANTITY	5	5							
COST (In Millions \$)	7.311	7.712							
<p>MISSION AND DESCRIPTION: The H-6J McDonnell-Douglas 530FF is commercially acquired and modified for Special Operations use. These 5 aircraft will complete the procurement of 10 replacement MDHS 530FF helicopters for the 13 obsolete Vietnam era OH-6C and 8 A/MH-6 training aircraft in the Special Operations Aviation Training Company (SOATC). The SOATC is required to train special operations pilots in night vision device navigation skills, provide transition training for all newly recruited pilots and provide Basic Mission Qualification to all new A/MH-6 pilots. The MH-6J aircraft's low cost per flying hour provides training in navigation skills cheaper than doing initial training in the MH-60 or MH-47 aircraft. Delivery of these aircraft ensures a standard airframe across the MH-6J fleet, commonality between training and mission aircraft, and commonality in parts for the authorized stockage list and prescribed load list. Parts for the OH-6C are no longer in the Army system and must be obtained through individual contracts with commercial vendors, which significantly increases the operations and sustainment costs. In summary, the procurement of the remaining 5 replacement aircraft will reduce the number of Primary Aircraft Training in the SOATC from 21 obsolete aircraft down to 10 common A/MH-6 mission aircraft.</p>									

This Page Intentionally Left Blank

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET							DATE FEBRUARY 1999		
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2				P-1 ITEM NOMENCLATURE AC-130U GUNSHIP ACQUISITION					
	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
QUANTITY									
COST (In Millions \$)	279.514	58.852	28.600	26.796	21.361	12.152	8.824	6.833	5.818
<p>MISSION AND DESCRIPTION: The AC-130U is a new production C-130H airframe converted to a side-firing gunship configuration with advanced sensors, weapons and a digital avionics suite that will provide enhanced operational capability and reliability over the current AC-130H. Mission equipment includes automated fire control radar that gives the AC-130U all-weather strike capability, Infrared Detection System and All Light Level Television. A Trainable Gun Mount System for the 25mm cannon gives the AC-130U dual target attack capability. Further enhancements to the AC-130U are a pressurized cabin for deployment plus inflight reconfiguration-for-firing ability. The primary mission for the AC-130U will be precision fire support for Special Operations Forces, but it has the flexibility to perform armed escort, surveillance, search and rescue, and armed reconnaissance.</p> <p>FY 2000 PROGRAM JUSTIFICATION: The AC-130U program funds continuation of Interim Contract Support (ICS), procurement of depot-level peculiar support equipment, flightline maintenance job guides, test program set modifications, support for the System Integration Laboratory (SIL), post-production support efforts, and piece part spares in support of the ICS effort.</p> <p>FY 2001 PROGRAM JUSTIFICATION: Program funds a reduced level of ICS and piece part spares procurement, completes procurement of depot-level peculiar support equipment, and begins a reliability and maintainability assessment of system line replaceable and shop replaceable units. Program also continues SIL support, post-production support, and test program set modification efforts.</p>									

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET							DATE FEBRUARY 1999			
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2				P-1 ITEM NOMENCLATURE C-130 MODIFICATIONS						
	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	
QUANTITY										
COST (In Millions \$)	706.639	96.586	66.987	98.893	34.407	44.544	73.423	60.476	30.493	
<p>MISSION AND DESCRIPTION: Program provides for numerous modifications to various models of the C-130 aircraft. Program is comprised of modifications generated from mission performance deficiencies, logistics problems and changes in the mission of the C-130 aircraft. In FY 1997 this program also resourced program quality deficiency reports.</p> <p>FY 2000 PROGRAM JUSTIFICATION: Completes procurement of DIRCM. Begins NRE activity for the existing ALE-40 chaff and flare dispenser on AC-130U/H and MC-130E/H aircraft to the ALE-47 configuration. Procures remaining four low light level TV modified systems for AC-130H aircraft. Begins replacement of the current GTC with the 85-185L(A) Auxiliary Power Unit (APU) on AC-130H aircraft. Begins Interim Contractor Support (ICS) on the 85-185L(A) APU on MC-130H and AC-130U aircraft. Begins procurement of a covert laser illuminator for the all light level television on the AC-130U. Begins NRE activity on the SOF common infrared suppression modification for the MC-130E/H and AC-130H/U.</p> <p>FY 2001 PROGRAM JUSTIFICATION: Continue ALE-47 modification. Continue AC-130H GTC replacement program. Complete AC-130H low light level TV program. Completes ICS on the 85-185L(A) APU on the MC-130H and AC-130U aircraft.</p>										

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET		DATE FEBRUARY 1999								
APPROPRIATION / BUDGET ACTIVITY PROCUREMENT, DEFENSE - WIDE / 2		P-1 ITEM NOMENCLATURE C-130 MODIFICATIONS								
MODIFICATION SUMMARY										
DESCRIPTION	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	
1. APQ-170 Radar Upgrade (MC-130H)	17.031	8.058								
2. ALQ-172 Electronic CM Jammer Upgrade (AC-130H)	113.346	3.786								
3. Directional Infrared Countermeasures (DIRCM) (AC-130H/U, MC-130E/H)	45.588	47.044	8.469	65.094						
4. DIRCM Laser Upgrade	.000					12.659	14.587	11.657		
5. DIRCM Multi-Spectral Missile Warning System Upgrade	.000						8.752	10.686	8.735	
6. MC-130H Communications Navigation Upgrade	20.446	9.641	4.773							
7. MC-130H Underbelly Protection Program	.000	.875								
8. MC-130H Auxillary Power Unit Upgrade	5.440	.844		.199	.195					
9. ALQ-172 Low Band Jammer Upgrade/ECP-93 (AC-130U, MC-130H)	.000	.796	22.021							
10. AC-130H Weight Reduction	1.018	.499	2.688	.993						
11. AC-130H Low Light Level TV Replacement	2.152	7.000	14.131	11.791	1.076					
12. AC-130U P3I (Comm Upgrade)	.000		6.300							
13. AC-130U P3I (ALLTV, EW Upgrade, R.A.D. Upgrade)	.000		6.112				18.477	15.544		