

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /

BA 5

R-1 ITEM NOMENCLATURE

0604264N, AIRCREW SYSTEMS DEVELOPMENT

COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	20.093	13.488	12.434	6.365	1.771	1.812	1.562	
0606 AIRCREW SYSTEMS DEVELOPMENT	13.455	10.738	12.434	6.365	1.771	1.812	1.562	
2877 JOINT HELMET MOUNTED QUE SYS	4.993							
9061 INTENSIFIER TUBE ADVANCED DEV	1.645							
9999 NIGHT VISION TUBE TECHNOLOGY DEV		2.750						

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Aircrew Systems Development program provides engineering and manufacturing development (EMD) of Aviation Life Support Systems to protect aircrews from current and future threats including: directed energy weapons, chemical/biological/radiological agents/fallout, ballistic projectiles, temperature extremes, heat/fire, low concentration oxygen environments, high dynamic forces during emergency egress, and high "G" forces. The program also provides development for the following capabilities: head protection, in flight restraint and stability emergency egress and descent, escape and evasion, survival and rescue, crash protection, and anthropometric sizing for small aircrew. Acquisition initiatives include: competition, the application of streamlining initiatives, use of non-developmental items (NDI), joint and tri-service developments, and the pursuit of NATO/allied cooperative ventures, which expedite introduction of new products into Navy and Marine Corps fixed and rotary wing aircraft, reduce costs, and promote commonality.

EXHIBIT R-2a, RDT&E Project Justification								DATE:
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N /		BA 5					0604264N, AIRCREW SYSTEMS DEVELOPMENT	
							0606, AIRCREW SYSTEMS DEVELOPMENT	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
0606 AIRCREW SYSTEMS DEVELOPMENT	13.455	10.738	12.434	6.365	1.771	1.812	1.562	
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>ESCAPE AND CRASH SAFETY: Navy Aircrew Common Ejection Seat Pre-Planned Product Improvement (NACES P3I), Advanced Crashworthy Aircrew Survival Systems (ACASS), Joint Cockpit Air Bag System (JCABS), Advanced Crash Sensor & Restraint (ACSR), Crashworthy Troop Seats (CWTS), Escape System Injury Reduction Program (ESIRP) includes Stability Improvement Program (SIP), Escape and Crashworthy Aircrew Endurance Modifications (ECAE), Mobile Aircrew Restraint System (MARS)/Tri-Service Safety Harness (TSSH).</p> <p>LIFE SUPPORT/THREAT PROTECTION: Extreme Cold Weather Improvement Program/State of the Art (ECWIP/SOA), Personal Protective Apparel (PPA) formerly AMELIA, State of the Art Survival Items (SOASI), Aircrew Accommodation Expansion Program (AAEP), Aviation Oxygen Systems (AOS), Aircrew Exposure Protection Systems (AEPS) formerly Aircrew Cooling/Advanced Integrated Life Support Systems (AILSS), Common Smoke Mask (CSM), Liquid Oxygen to On-Board Oxygen Generating System (LTO), Joint Protective Air Crew Ensemble (JPACE), Combat Survivor Evader Locator (CSEL).</p> <p>HELMET, VISION AND DISPLAYS: Night Vision Systems (NVS), Joint Helmet Mounted Cueing System (JHMCS), Integrated Day/Night All Weather Helmet (IDNAWH), Wide Field of View (WFOV) Night Vision Goggle, JHMCS Night Attack, Agile Frequency Laser Eye Protection, and Laser Eye Protection Improvement Program (LEPIP), Joint Aircrew Laser Eye Protection Visor (JALEPV).</p> <p>*FY 2005 includes Congressional Add for Lightweight Armored Troop Seat (LWATS) for H-60.</p>								

EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006															
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /		PROGRAM ELEMENT NUMBER AND NAME BA 5 0604264N, AIRCREW SYSTEMS DEVELOPMENT		PROJECT NUMBER AND NAME 0606, AIRCREW SYSTEMS DEVELOPMENT															
B. ACCOMPLISHMENTS / PLANNED PROGRAM:																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">SURVIVAL ELECTRONICS/LIFE SUPPORT</td> <td style="width: 10%;">FY 2005</td> <td style="width: 10%;">FY 2006</td> <td style="width: 10%;">FY 2007</td> <td style="width: 10%;"></td> </tr> <tr> <td>Accomplishments / Effort / Sub-total Cost</td> <td style="text-align: center;">4.746</td> <td style="text-align: center;">8.406</td> <td style="text-align: center;">9.320</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					SURVIVAL ELECTRONICS/LIFE SUPPORT	FY 2005	FY 2006	FY 2007		Accomplishments / Effort / Sub-total Cost	4.746	8.406	9.320		RDT&E Articles Qty				
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Accomplishments / Effort / Sub-total Cost	4.746	8.406	9.320																
RDT&E Articles Qty																			
<p>ECWIP/SOASI: Continue evaluation and authorizations of state of the art survival items. Published annual message with 22 authorized items. SOA: Continue evaluations and authorizations of state of the art survival items. Published annual message with 22 authorized items. PPA: Completed fleet assessment, finalized technical data package, began procurement and fielding of the Multi-Climate Protection System. AAEP: Continue evaluating aircraft seat positions in aircraft so equipped for accommodation issues. Updated technical reports on accommodation levels in aircraft. Continue developing detailed cockpit CAD pictures. AEPS: Conduct DT testing, investigating technology improvement. Conducted tri-service users brief on ALSS. Submitted Foreign Comparative Testing (FCT) proposal for cooling system. Evaluated Joint ICD for the Integrated Aircrew Ensemble. LOX TO OBOGS (LTO): Completed oxygen system Analysis of Alternatives to determine LOX-Free solution for Advanced Hawkeye(AHE). Awarded GGU-XXX development contract.</p>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">ESCAPE & CRASHWORTHINESS</td> <td style="width: 10%;">FY 2005</td> <td style="width: 10%;">FY 2006</td> <td style="width: 10%;">FY 2007</td> <td style="width: 10%;"></td> </tr> <tr> <td>Accomplishments / Effort / Sub-total Cost</td> <td style="text-align: center;">5.926</td> <td style="text-align: center;">1.776</td> <td style="text-align: center;">2.524</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					ESCAPE & CRASHWORTHINESS	FY 2005	FY 2006	FY 2007		Accomplishments / Effort / Sub-total Cost	5.926	1.776	2.524		RDT&E Articles Qty				
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Accomplishments / Effort / Sub-total Cost	5.926	1.776	2.524																
RDT&E Articles Qty																			
<p>NACES P3I: Continue retrofit of phase I NACES P3I technologies will be completed in T-45 aircraft 4th quarter FY 05. Conduct studies for integration efforts. JCABS: Continue to conduct technical reviews with Army to develop and integrate airbag technology to Navy H-60 aircraft. ACSR: Performing modeling and simulation to evaluate optimum design for advanced restraint integrated to various rotary wing applications. Conducting trade study to establish pricing for candidate modifications. CWTS: Engineering Change Proposal was required and approved to address restraint system modifications required for two seat installations in the UH-1Y aircraft. Completed detailed design, and proof of concept testing. Conduct studies for integration efforts. Revised design will be delivered as part of new production deliveries to aircraft prime contractor. ESIRP: Completed system developmental testing (DT) of aero stabilization system. Experienced test anomaly during system qualification testing that required a revised design approach to control seat stability. Completed detailed design work and DTI testing of revised design approach (Fast drogue). CDR II and follow on system qualification testing is scheduled for 4th quarter FY 05. ECAE: Commenced limited testing (DT) of endurance modifications for ejection and crashworthy applications. MARS: Completed developmental testing (DT) in SH-60B and SH-60F legacy aircraft. Engineering Change Proposal being reviewed by NAVAIR Configuration Control Board for approval. Retrofit of MARS in SH-60B and SH-60F will commence 4th quarter FY 05. Due to developmental test anomaly in HH-60H, MARS installation will be delayed until completion of enhanced MARS retractor is qualified for in MH-60S. Completed prototype of new aircrew mounted interface system. Developmental test testing has started to qualify the airsave interface. The new aircrew mounted interface system will be fielded concurrently with MARS installation in MH-60S. Common MARS: Commenced work on replacing existing gunners belt with more capable harness. Lightweight Armored Troop Seat (LWATS) H-60: Small Business Innovative Research (SBIR) effort awarded three phase one contracts for the concept development of a light weight troop seat for USN applications that include H-60 and H-46 aircraft. Phase two will be awarded in 3rd quarter FY 05 for the design and testing of a light weight troop seat design. Ejection Seat Endurance: Developing source selection plan and endurance system specification for legacy ejection seat equipped aircraft.</p>																			

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EXHIBIT R-2a, RDT&E Project Justification				DATE:	February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /		PROGRAM ELEMENT NUMBER AND NAME BA 5		PROJECT NUMBER AND NAME 0604264N, AIRCREW SYSTEMS DEVELOPMENT	
HELMETS, VISION & DISPLAY		FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost		2.783	0.556	0.590	
RDT&E Articles Qty					
<p>NVS: Continuing Fleet support of fielded product. JHMCS: Completed OPEVAL. JHMCS Night Attack: Completed CDR. First DT asset delivery due September 2005. JALEPV: Continue Fleet assessment. MS III decision scheduled for September 2005. PCA Complete. IDNAWH: Feasibility study completed on integration of capability into JHMCS Night Attack. Agile Frequency Laser: Continue development, conduct PDR.</p>					

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EXHIBIT R-2a, RDT&E Project Justification				DATE:
				February 2006
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME
RDT&E, N /		BA 5		0604264N, AIRCREW SYSTEMS DEVELOPMENT
0606, AIRCREW SYSTEMS DEVELOPMENT				
C. PROGRAM CHANGE SUMMARY				
Funding:	FY 2005	FY 2006	FY 2007	
Previous President's Buget:	14.617	10.902	11.171	
Current BES / President's Budget:	13.455	10.738	12.434	
Total Adjustments	-1.162	-0.164	1.263	
Summary of Adjustments				
Congressional Reductions				
Congressional Rescissions				
Congressional Undistributed Reductions	-0.049	-0.114		
Congressional Increases				
Economic Assumptions		-0.050	0.219	
Miscellaneous Adjustments	-1.113		1.044	
Subtotal	-1.162	-0.164	1.263	

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /		BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604264N, AIRCREW SYSTEMS DEVELOPMENT				PROJECT NUMBER AND NAME 0606, AIRCREW SYSTEMS DEVELOPMENT	

Schedule:	FROM	TO	REASON
1. Acquisition Milestones Changes:			
a. LOX to OBOGS - CDR	1Q 06	2Q 07	Rescoped effort from legacy aircraft to Advanced Hawkeye.
b. PPA - CDR	2Q 05	N/A	Program discontinued.
c. JALEPV - MS III	2Q 05	4Q 05	Program rebaselining is required.
d. LWATS - SBIR PHASE II	3Q 05	4Q 05	GAO received protest from perspective candidate delaying SBIR.
e. JHMCS - P3I NIGHT ATTACK - CDR	2Q 05	3Q 05	Slip due to delay in meeting CDR entry criteria.
f. COMMON MARS - PDR/CDR	2Q 06/3Q 07	N/A	Program has been rescoped - product redesign required.
2. Test and Evaluation Changes:			
a. LOX to OBOGS - DT/DT ASSIST	3Q 05-4Q 08	4Q 05-4Q 08	Rescoped effort from legacy aircraft to Advanced Hawkeye.
b. CWTS - DT/OT	1Q 04-1Q 05	1Q 05-4Q 08	DT/OT extended to develop seats for UH-1Y helicopter.
c. MARS H-60 - DT/OT	1Q 04-1Q 05	1Q 04-3Q 05	Program has been rescoped - product redesign required.
d. NACES II-P3I - DT/OT	1Q 05-4Q 05	4Q 05-4Q 08	Incremental funding delay.
e. JHMCS - P3I NIGHT ATTACK - DT/OT	3Q 04-1Q 06	4Q 05-3Q 06	Redesign required.
f. ESIRP - DT/OT	1Q 04-2Q 05	1Q 04-1Q 06	Technical problems encountered with drogue sub system.
g. COMMON MARS - DT/OT	2Q 06-1Q 08	4Q 05-4Q 08	Program has been rescoped - product redesign required.
3. Production Milestones Changes:			
a. MARS H-60 - LRIP	2Q 05	4Q 05	Program has been rescoped - product redesign required.
b. JALEPV - FRP	1Q 06	4Q 05	Program rebaselining is required.
c. CWTS - LRIP	2Q 05	1Q 05	Accelerated LRIP schedule.
d. COMMON MARS - LRIP	4Q 07	3Q 06	Program has been rescoped.

D. OTHER PROGRAM FUNDING SUMMARY:	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
Aviation Life Support - OPN 424400	31.895	34.390	18.624						
Aviation Life Support Mods - APN 057500	0.500	0.319	14.315						

E. ACQUISITION STRATEGY:

Commercial Off-The-Shelf (COTS)/NDI where possible, cost plus award fee contracts. Majority of programs non-Acat programs with no specific acquisition.

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Exhibit R-3 Cost Analysis (page 1)									DATE:		February 2006		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME							
RDT&E, N /		0604264N, AIRCREW SYSTEMS DEVELOPMENT				0606, AIRCREW SYSTEMS DEVELOPMENT							
BA 5													
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
PRODUCT DEVELOPMENT													
Systems Eng SOA	VARIOUS	VARIOUS	0.363	0.181	VARIOUS	0.350	VARIOUS	0.307	VARIOUS	1.299	2.500		
Systems Eng AAEP	WX	NAWCAD, PATUXENT RIVER MD	0.175	0.100	12/1/2005						0.275		
Systems Eng AEPS	VARIOUS	VARIOUS	0.240	0.586	VARIOUS						0.826		
Systems Eng CWTS	VARIOUS	VARIOUS	0.395	0.439	VARIOUS	0.250	VARIOUS	0.165	VARIOUS	0.743	1.992		
Systems Eng EJECTION SEAT ENDUR	WX	NAWCAD, PATUXENT RIVER MD						1.700	12/1/2007	0.585	2.285		
Systems Eng ESIRP	VARIOUS	VARIOUS	3.100	1.482	VARIOUS						4.582		
Systems Eng IDNAWH	WX	NAWCAD, PATUXENT RIVER MD	0.211	0.228	12/1/2005						0.439		
Systems Eng JALEPV	VARIOUS	VARIOUS	0.122	0.025	VARIOUS						0.147		
Systems Eng JHMCS NIGHT ATTACK	VARIOUS	VARIOUS	0.794	1.009	VARIOUS	0.300	VARIOUS	0.300	VARIOUS	0.646	3.050		
Systems Eng LTO	WX	NAWCAD, PATUXENT RIVER MD	0.435	0.065	VARIOUS	1.207	VARIOUS	2.181	VARIOUS	0.750	4.638		
Systems Eng LTO	SS/CPAF	NORTHROP GRUMMAN SYS, NY		3.244	7/29/2005	7.275	12/31/2006	6.542	12/31/2007	3.431	20.492	20.492	
Systems Eng LWATS	VARIOUS	VARIOUS		1.000	VARIOUS						1.000		
Systems Eng MARS	WX	NAWCAD, PATUXENT RIVER MD	1.194	1.339	12/1/2005	0.252	12/1/2006				2.785		
Systems Eng MARS	WX	NADEP, CHERRY POINT NC		0.031	12/1/2005						0.031		
Systems Eng NACES	WX	NAWCAD, PATUXENT RIVER MD	0.138			0.250	12/1/2006				0.388		
Systems Eng NVS	WX	NAWCAD, PATUXENT RIVER MD		0.329	12/1/2005						0.329		
Systems Eng SOASI	WX	NAWCAD, PATUXENT RIVER MD	0.177	0.266	12/1/2005						0.443		
SUBTOTAL PRODUCT DEVELOPMEN			7.343	10.324		9.884		11.195		7.455	46.202		
Remarks:													
SUPPORT													
Integrated Logistics Sup (CWTS)	VARIOUS	VARIOUS		0.168	VARIOUS						0.168		
Integrated Logistics Sup ESIRP	VARIOUS	VARIOUS		0.129	VARIOUS						0.129		
Integrated Logistics Sup IDNAWH	WX	NSWC DET, CRANE IN		0.033	12/1/2005						0.033		
Integrated Logistics Sup LTO	WX	NAWCAD, PATUXENT RIVER MD		0.168	12/1/2005						0.168		
Integrated Logistics Sup Nt Attack	WX	NSWC DET, CRANE IN		0.051	12/1/2005						0.051		
SUBTOTAL SUPPORT				0.548							0.548		
Remarks:													
TEST & EVALUATION													
SUBTOTAL TEST & EVALUATION													
Remarks:													

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Exhibit R-3 Cost Analysis (page 1)									DATE:				
									February 2006				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME							
RDT&E, N /		0604264N, AIRCREW SYSTEMS DEVELOPMENT				0606, AIRCREW SYSTEMS DEVELOPMENT							
		Contract Method & Type		Total PY s Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Cost Categories			Performing Activity & Location										
MANAGEMENT													
Mgt & Prof Suppt Srvs (NON-FFRDC)		VARIOUS	VARIOUS				0.057	VARIOUS	0.098	VARIOUS	0.432	0.587	
Program Mgmt Sup CWTS		VARIOUS	VARIOUS		0.030	VARIOUS					0.108	0.138	
Program Mgmt Sup JHMCS		WX	VARIOUS	1.671	1.109	12/1/2005						2.780	
Program Mgmt Sup LTO		WX	NAWCAD, PATUXENT RIVER MD		0.136	12/1/2005						0.136	
Program Mgmt Sup NACES		WX	VARIOUS	0.845	0.969	12/1/2005						1.814	
Program Mgmt Sup Nt Attack		WX	NAWCAD, PATUXENT RIVER MD				0.797	12/1/2006			2.089	2.886	
TRAVEL CWTS		TO	NAVAIRHQ, PATUXENT RIVER, MD						1.141	12/1/2007	1.149	2.290	
Travel NACES		TO	NAVAIRHQ, PATUXENT RIVER, MD	0.300	0.338	12/1/2005						0.638	
SUBTOTAL MANAGEMENT				2.816	2.582		0.854		1.239		3.778	11.269	
Remarks:													
Total Cost				10.159	13.455		10.738		12.434		11.233	58.019	
Remarks:													

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CLASSIFICATION:																													
EXHIBIT R4, Schedule Profile																								DATE:		February 2006			
APPROPRIATION/BUDGET ACTIVITY								PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME									
RDT&E, N / BA-5								0604264N, AIRCREW SYSTEMS DEVELOPMENT												0606, AIRCREW SYSTEMS DEVELOPMENT									
Fiscal Year	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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	
Acquisition Milestones																													
LOX TO OBOGS																													
CWTS																													
MARS H-60																													
JALEPV																													
LWATS																													
JHMCS P31 NIGHT ATTACK																													
ESIRP																													
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ESIRP																													
COMMON MARS																													
Production Milestones																													
MARS H-60																													
JALEPV																													
CWTS																													
COMMON MARS																													
ESIRP																													
Deliveries																													

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Exhibit R-4a, Schedule Detail						DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY RDT&BA-5		PROGRAM ELEMENT 0604264N, AIRCREW SYSTEMS DEVELOPMENT				PROJECT NUMBER AND NAME 0606, AIRCREW SYSTEMS DEVELOPMENT		
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
LOX TO OBOGS - PDR/CDR		2Q	2Q					
LOX TO OBOGS - DT, DT ASSIST	4Q	1Q-4Q	1Q-4Q	1Q-4Q				
CWTS - UH-1Y CDR 11/PCA	2Q							
CWTS - DT/OT	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q				
CWTS - LRIP	1Q							
CWTS - DELIVERIES	4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q			
MARS H60 - PCA	4Q							
MARS H-60 - DT/OT	1Q-3Q							
MARS DELIVERIES			4Q	1Q-4Q	1Q-4Q	1Q-4Q		
JALEPV - MSIII, FRP	4Q							
JALEPV - DELIVERIES		2Q						
ESIRP - CDR II	4Q							
ESIRP - DT/OT	1Q-4Q	1Q						
ESIRP - DELIVERIES	4Q	1Q-3Q						
JHMCS P3I NIGHT ATTACK - CDR	3Q							
JHMCS P3I NIGHT ATTACK - DT/OT	4Q	1Q-3Q						
COMMON MARS - DT/OT	4Q	1Q-4Q	1Q-4Q	1Q-4Q				
COMMON MARS - LRIP (MH-60S)	3Q							
COMMON MARS - DELIVERIES		4Q	1Q-4Q	1Q-4Q				
LWATS - SBIR PHASE II	4Q							
WFOV NVG NIGHT ATTACK - DT/OT	1Q-4Q	1Q						
NACES P3I - DT/OT	4Q	1Q-4Q	1Q-4Q	1Q-4Q				

Exhibit R-4a, Schedule Detail

(Exhibit R-4a, page 10 of 20)

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EXHIBIT R-2a, RDT&E Project Justification								DATE:
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N / BA 5		0604264N, AIRCREW SYSTEMS DEVELOPMENT					2877, JOINT HELMET MOUNTED CUEING SYSTEM	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
2877 JOINT HELMET MOUNTED CUEING SYSTEM	4.993							
RDT&E Articles Qty	8							
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>JOINT HELMET MOUNTED CUEING SYSTEM currently has the capability to cue and verify cueing of high off-axis sensors and weapons in the air-to-ground and air-to-air arena (TFLIR and AIM-9X). To take advantage and enhance the war fighting capability at night, the program is integrating night vision capabilities into the JHMCS. This will increase the pilot's situational awareness through all phases of flight. Many friendly and threat aircraft already employ helmet mounted systems. FY05 articles include eight developmental test/operational test flight worthy devices.</p>								

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /		BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604264N, AIRCREW SYSTEMS DEVELOPMENT		PROJECT NUMBER AND NAME 2877, JOINT HELMET MOUNTED CUEING SYSTEM
		FY 2005	FY 2006	FY 2007		
Accomplishments / Effort / Sub-total Cost		4.993				
RDT&E Articles Qty		8				
<p>Initiate development, procure DT assets. Conduct DT, Integrated T&E, and OTRR. Initiate OT.</p>						

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EXHIBIT R-2a, RDT&E Project Justification			DATE:
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /	BA 5	0604264N, AIRCREW SYSTEMS DEVELOPMENT	2877, JOINT HELMET MOUNTED CUEING SYSTEM
C. PROGRAM CHANGE SUMMARY			
Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	5.048		
Current BES / President's Budget:	4.993		
Total Adjustments	-0.055		
Summary of Adjustments			
Congressional Reductions			
Congressional Rescissions			
Congressional Undistributed Reductions	-0.056		
Congressional Increases	0.001		
Economic Assumptions			
Miscellaneous Adjustments			
Subtotal	-0.055		
Schedule:			
Not Applicable.			
Technical:			
Not Applicable.			

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APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME			
RDT&E, N / BA 5		0604264N, AIRCREW SYSTEMS DEVELOPMENT					2877, JOINT HELMET MOUNTED CUEING SYSTEM			
D. OTHER PROGRAM FUNDING SUMMARY:		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
Not Applicable.										0.000
E. ACQUISITION STRATEGY:										
Not Applicable.										

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EXHIBIT R-2a, RDT&E Project Justification								DATE:
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N / BA 5		0604264N, AIRCREW SYSTEMS DEVELOPMENT					9061, INTENSIFIER TUBE ADVANCED DEVELOPMENT	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
9061, INTENSIFIER TUBE ADVANCED DEVELOPMENT	1.645							
RDT&E Articles Qty	3							
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Congressional Add: The funding is needed to develop and integrate smaller and lighter night vision intensifier tubes (16mm) for narrow and wide field of view night vision systems. The advanced intensifier tubes will be the foundation for night vision devices that can be integrated with the Joint Helmet Mounted Cueing System (JHMCS) helmet mounted display system to provide a night vision cueing capability. This capability is necessary for rapid targeting of air-to-air missiles and air-to-ground weapons at night. Funding for the development of enhanced night vision imaging systems and the incorporation of the capability in current and future helmet mounted cueing systems will extend current daytime only technology for night use.</p> <p>RDT&E Articles are state of the art 16mm image intensifier tubes.</p>								

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EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604264N, AIRCREW SYSTEMS DEVELOPMENT		PROJECT NUMBER AND NAME 9061, INTENSIFIER TUBE ADVANCED DEVELOPMENT
B. ACCOMPLISHMENTS / PLANNED PROGRAM:				
	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	1.645			
RDT&E Articles Qty	3			
Night Vision Tube Development				
Refine 16 mm Intensifier Tube Technology. Continue development of automated intensifier measurement system. Deliver prototype state-of-the art 16 mm image intensifier tubes.				

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EXHIBIT R-2a, RDT&E Project Justification				DATE:
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME
RDT&E, N / BA 5		0604264N, AIRCREW SYSTEMS DEVELOPMENT		9061, INTENSIFIER TUBE ADVANCED DEVELOPMENT
C. PROGRAM CHANGE SUMMARY				
Funding:	FY 2005	FY 2006	FY 2007	
Previous President's Budget:	1.682			
Current BES / President's Budget:	1.645			
Total Adjustments	-0.037			
Summary of Adjustments				
Congressional Reductions				
Congressional Rescissions				
Congressional Undistributed Reductions	-0.037			
Congressional Increases				
Economic Assumptions				
Miscellaneous Adjustments				
Subtotal	-0.037			
Schedule:				
Not Applicable				
Technical:				
Not Applicable				

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EXHIBIT R-2a, RDT&E Project Justification								DATE:
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N /		BA 5					0604264N, AIRCREW SYSTEMS DEVELOPMENT	
							9999, Congressional Adds	
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
9999, Congressional Adds			2.750					
RDT&E Articles Qty			16					
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Congressional Add: The funding is needed to develop and integrate smaller and lighter night vision intensifier tubes (16mm) for narrow and wide field of view night vision systems. The advanced intensifier tubes will be the foundation for night vision devices that can be integrated with the Joint Helmet Mounted Cueing System (JHMCS) helmet mounted display system to provide a night vision cueing capability. This capability is necessary for rapid targeting of air-to-air missiles and air-to-ground weapons at night. Funding for the development of enhanced night vision imaging systems and the incorporation of the capability in current and future helmet mounted cueing systems will extend current daytime only technology for night use.</p> <p>RDT&E Articles are state of the art 16mm image intensifier tubes.</p>								

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5		PROGRAM ELEMENT NUMBER AND NAME 0604264N, AIRCREW SYSTEMS DEVELOPMENT		PROJECT NUMBER AND NAME 9999, Congressional Adds
B. ACCOMPLISHMENTS / PLANNED PROGRAM:				
9061C	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost		2.750		
RDT&E Articles Qty		16		
Night Vision Tube Technology Development				
<p>Advance the development of an integrated night vision camera and intensifier tubes. Refine 16 mm Intensifier Tube Technology. Continue development of automated intensifier measurement system. Deliver prototype state-of-the art 16 mm image intensifier tubes.</p>				

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EXHIBIT R-2a, RDT&E Project Justification				DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /		PROGRAM ELEMENT NUMBER AND NAME BA 5	PROJECT NUMBER AND NAME 0604264N, AIRCREW SYSTEMS DEVELOPMENT	February 2006
C. PROGRAM CHANGE SUMMARY				
Funding:	FY 2005	FY 2006	FY 2007	
Previous President's Budget:				
Current BES / President's Budget:		2.750		
Total Adjustments		2.750		
Summary of Adjustments				
Congressional Reductions				
Congressional Rescissions				
Congressional Undistributed Reductions				
Congressional Increases				
Economic Assumptions				
Miscellaneous Adjustments				
	Subtotal	2.750		
Schedule:				
Not Applicable				
Technical:				
This Congressional Add is a continuation of Project Unit 9061. The Project Unit was changed to 9061C and the title was changed to Night Vision Tube Technology Development.				

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