

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5					R-1 ITEM NOMENCLATURE 0604264N/Aircrew Systems Development			
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost		7.354	16.183	8.838	3.446	2.382	2.508	2.506
W0606 Aircrew Systems Development		6.396	8.668	8.838	3.446	2.382	2.508	2.506
W2877 Joint Helmet Mounted Cueing System			4.153					
W2879 SIIS Ejection Program		0.958						
W9061 Intensifier Tube Advanced Development			3.362					

U) 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.

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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5				PROJECT NUMBER AND NAME W0606/Aircrew Systems Development			
COST (\$ in Millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	6.396	8.668	8.838	3.446	2.382	2.508	2.506
RDT&E Articles Qty							

U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) SUBPROJECTS:

- (U) 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), Crashworthy Troop Seats (CWTS), Escape System Injury Reduction Program (ESIRP) for aircrew using helmet mounted systems and small occupants (formerly NON-NACES and Small Occupant Escape System).

- (U) LIFE SUPPORT/THREAT PROTECTION: Extreme Cold Weather Improvement Program/State of the Art Survival Items (ECWIP/SOASI), Personal Protective Apparel (PPA) formerly AMELIA, Aircrew Accommodation Expansion Program (AAEP), Aviation Oxygen Systems (AOS), Aircrew Exposure Protection Systems (AEPS) formerly Aircrew Cooling/Advanced Integrated Life Support Systems (AILSS), Liquid Oxygen to ON-Board Oxygen Generating System (LTO), Common Smoke Mask (CSM), Joint Protective Air Crew Ensemble (JPACE), Combat Survivor Evader Locator (CSEL), and Mobile Aircrew Restraint System (MARS)/Tri-Service Safety Harness (TSSH).

- (U) 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).

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(U) B. Accomplishments/Planned Program																
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Accomplishments/Effort/Subtotal Cost	2.235	2.855	2.632													
RDT&E Articles Quantity																
<p>FY 2003 - NACES P3I: Continued A/C platform installation of phase I technologies. Began retrofit of JHMCS provisions. Initiated system design interface and system demonstration testing (DT) on selected phase II injury risk reduction candidate technology improvements. Continued production incorporation of selected phase II candidate modifications. AV-8B: Continued A/C platform installation of performance improvements and began EAAS installation. CWTS: Implemented design weight changes for H-1 and conducted delta demonstration testing (DT). Continued H-3/H-46 design efforts and incorporated ECP's. ESIRP: Conducted system level risk reduction demonstration (DT). Conducted component qualification (component DT) on selected stability and restraint candidate system technologies. Conducted CDR. FY 2004 - NACES P3I: Complete aircraft platform installation of phase I technologies. Complete design interface and system demonstration testing (DT) of selected phase II technologies and begin qualification efforts. AV-8B: Complete A/C platform installations of performance improvements and EAAS. Complete component qualification testing (DT) of restraint upgrades. CWTS: Commence installation of H-1 crashworthy seats. Conduct seat integration and demonstration testing (DT) for H-3/H-46 designs. ESIRP: Conduct system level qualification testing (DT) on select stability and restraint candidate system technologies. Commence preparation of platform ECP's. FY 2005 - NACES P3I: Complete system qualification testing and commence A/C incorporation of select phase II technologies. AV-8B: Complete ECP's and begin incorporation of restraint improvements. CWTS: Complete qualification (DT) of H-3/H-46 designs. ESIRP: Complete platform ECP's and begin aircraft introduction of stability and restraint candidate technologies.</p>																
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RDT&E Articles Quantity																
<p>FY 2003 - ECWIP/SOASI: Continued evaluations and authorizations of state of the art survival items. PPA: Conducted DT IIB testing to evaluate fit, performance and capability, finalized designs and procured systems in LRIP quantity for a fleet assessment. AAEP: Evaluated additional aircraft seat position (crew seats, flight engineer) in aircraft to equip for accommodation issues. Continued development of detailed cockpit CAD images and establish updated population anthropometric data collected by Digital Anthropometric Video Imaging Device (DAVID) or whole body scanners. AEPS/AILSS: ORD Staffing. Program Planning. Prepared Acquisition Plan and Risk Assessment demonstrated technology. LOX TO OBOGS (LTO): Concluded integration studies of EA-6B aircraft and continued risk reduction and acquisition planning for remaining LOX equipped Naval Aircraft. CSM/AOS: Published sources sought and continued DT of full face smoke masks and O2 containment devices for Naval fixed wing non-ejection aircraft. Performed technical evaluation for CSM. Completed program development plans for all platforms. TSSH/MARS: Conducted DT on H-60 MARS. Conducted modeling studies on other USN/USMC platforms. Prepared/revised system performance specification to accommodate additional platform requirements. Prepared solicitation data package for additional platforms.</p>																

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<p>(U) B. Accomplishments/Planned Program</p> <p>FY 2004 - ECWIP/SOASI: Continue evaluation and authorizations of state of the art survival items. PPA: Complete fleet assessment, finalize technical data package, begin procurement and fielding of the Multi-Climate Protection System. AAEP: Continue evaluating additional aircraft seat positions in aircraft so equipped for accommodation issues. Publish technical reports on accommodation levels in aircraft. Continue developing detailed cockpit CAD pictures. Reevaluate aircraft and anthropometric restriction codes as modifications to existing aircraft and/or aircrew clothing and equipment occur or as new aircraft are introduced. AEPS/AILSS: Continue PDRR, MS B. Release competitive solicitation. LOX TO OBOGS (LTO): Conclude integration studies of E-2 aircraft and continue risk reduction and acquisition planning for remaining LOX equipped Naval Aircraft. CSM/AOS: Continue DT of full face smoke masks and O2 containment devices for Naval fixed wing non-ejection aircraft. TSSH/MARS: Conduct DT on follow-on USN/USMC platforms. Provide upgraded MARS specifications to Joint Service platforms and identify Joint Service requirements. FY 2005 - ECWIP/SOASI: Continue evaluations and authorizations of state of the art survival items. PPA: Continue procurement and fielding of MCP system. AAEP: Reevaluate aircraft and anthropometric restriction codes as modifications to existing aircraft and/or aircrew clothing and equipment occur, or as new aircraft are introduced. AEPS/AILSS: Conduct DT testing. LOX TO OBOGS (LTO): Conclude integration studies of F-18 equipped aircraft and continue risk reduction for remaining LOX equipped Naval Aircraft. CSM/AOS: Conduct initial product demonstrations of full smoke masks and O2 containment devices for Naval fixed wing non-ejection aircraft. TSSH/MARS: Commence DT and prepare ECP.</p>																			
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Accomplishments/Effort/Subtotal Cost		2.430	2.953	2.526															
RDT&E Articles Quantity																			
<p>FY 2003 - NVS: Continued to monitor and participate in WFOVNVG testing. JHMCS: F/A-18 E/F Corrected OT deficiencies, F/A-18 E/F LRIP IV. JHMCS Night Attack: Interface Control Design (CD). JALEPV: Started Fleet assessment. LRIP II. IDNAWH: Program Design Review (PDR). FY 2004 - JHMCS P3I Night Attack: Initiate DT. JALEPV: MS III. LEPIP: (formerly Laser Spectacle Improvements): Commence DT. IDNAWH: Initiate DT/OT. FY 2005 - JHMCS P3I Night Attack: Initiate OT. IDNAWH: Continue DT/OT. NVS: WFOVNVG testing. Agile Frequency Laser PDR.</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 W0606/Aircrew Systems Development

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2003	FY 2004	FY 2005
Previous President's Budget:	6.547	8.765	8.032
Current BES/Presidents Budget:	6.396	8.668	8.838
Total Adjustments	-0.151	-0.097	0.806

Summary of Adjustments			
SBIR/STTR Transfer	-0.056		
Misc. Adjustments	-0.095	-0.097	0.806
Subtotal	-0.151	-0.097	0.806

(U) Schedule:

Due to delays in awarding the H-60 MARS, common MARS has been delayed. The follow-on spec for common MARS is now scheduled for 3Q FY 04.

The USAF (lead Service) and USN have decided to delay MS III of JHMCS to FY 04 due to reliability concerns. An LRIP IV was inserted in FY 03 to meet aircraft production schedules.

An LRIP for the Escape Injury Reduction Program was inserted in FY 06 to show planned date of aircraft modifications for this program. Due to test delays, the CDR was delayed to 4Q FY 03.

An LRIP for Crash Worthy Troop Seats was added to the schedule for the 4Q FY 2004.

(U) Technical:

Not Applicable.

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<p>(U) D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 35%;"><u>Line Item No. & Name</u></th> <th style="text-align: right; width: 8%;"><u>FY 2003</u></th> <th style="text-align: right; width: 8%;"><u>FY 2004</u></th> <th style="text-align: right; width: 8%;"><u>FY 2005</u></th> <th style="text-align: right; width: 8%;"><u>FY 2006</u></th> <th style="text-align: right; width: 8%;"><u>FY 2007</u></th> <th style="text-align: right; width: 8%;"><u>FY 2008</u></th> <th style="text-align: right; width: 8%;"><u>FY 2009</u></th> <th style="text-align: right; width: 8%;"><u>To Complete</u></th> <th style="text-align: right; width: 8%;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td style="padding-left: 20px;">Aviation Life Support - OPN 424400</td> <td style="text-align: right;">18.104</td> <td style="text-align: right;">32.154</td> <td style="text-align: right;">19.040</td> <td style="text-align: right;">26.987</td> <td style="text-align: right;">13.258</td> <td style="text-align: right;">20.594</td> <td style="text-align: right;">22.718</td> <td style="text-align: right;">CONT</td> <td style="text-align: right;">CONT</td> </tr> <tr> <td style="padding-left: 20px;">Aviation Life Support Mods - APN 057500</td> <td style="text-align: right;">0.493</td> <td style="text-align: right;">6.311</td> <td style="text-align: right;">7.371</td> <td style="text-align: right;">9.923</td> <td style="text-align: right;">25.398</td> <td style="text-align: right;">24.828</td> <td style="text-align: right;">16.047</td> <td style="text-align: right;">21.712</td> <td style="text-align: right;">112.117</td> </tr> </tbody> </table> <p>(U) E. ACQUISITION STRATEGY:</p> <p>Commercial Off-The-Shelf (COTS)/NDI where possible, cost plus award fee contracts. Cost as an Independent Variable. Majority of programs non-ACAT programs with no specific acquisition strategies.</p>										<u>Line Item No. & Name</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Complete</u>	<u>Total Cost</u>	Aviation Life Support - OPN 424400	18.104	32.154	19.040	26.987	13.258	20.594	22.718	CONT	CONT	Aviation Life Support Mods - APN 057500	0.493	6.311	7.371	9.923	25.398	24.828	16.047	21.712	112.117
<u>Line Item No. & Name</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Complete</u>	<u>Total Cost</u>																														
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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604264N/Aircrew Systems Development			W0606/Aircrew Systems Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Systems Engineering	WX/RX	NAWCAD, PAX RIVER, MD	38.485	2.592	Various	4.696	Various	4.466	Various	Continuing	Continuing	
Systems Engineering	WX/RX	NAWCWD, CHINA LAKE, CA	3.826	0.731	Various	0.764	Various	0.377	Various	Continuing	Continuing	
Systems Engineering	WX/RX	NSWC, INDIAN HEAD, MD	0.425	0.264	Various	0.340	Various	0.180	Various	Continuing	Continuing	
Systems Engineering	WX/RX	NADEP, CHERRY PT, NC		0.180	Various	0.115	Various	0.090	Various	Continuing	Continuing	
Systems Engineering	WX/RX	NAWCAD, LAKEHURST, NJ		0.071	Various	0.073	Various	0.073	Various	Continuing	Continuing	
Ancillary Hardware Development	TBD	TBD		1.150	Various	1.250	Various	0.603	Various	Continuing	Continuing	
Award Fees												
Subtotal Product Development			42.736	4.988		7.238		5.789		Continuing	Continuing	
Remarks:												
Integrated Logistics Support	WX/RX	NAWCAD, PAX RIVER, MD	16.785	0.304	Various	0.500	Various	0.430	Various	Continuing	Continuing	
Integrated Logistics Support	WX/RX	NSWC, CRANE, IN		0.200	Various	0.250	Various	0.200	Various	Continuing	Continuing	
Studies & Analyses	WX/RX	NAWCAD, PAX RIVER, MD		0.300	Various						0.300	
Award Fees												
Subtotal Support			16.785	0.804		0.750		0.630		Continuing	Continuing	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5			PROGRAM ELEMENT 0604264N/Aircrew Systems Development				PROJECT NUMBER AND NAME W0606/Aircrew Systems Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation	WX/RX	NAWCAD, PAX RIVER, MD	35.880	0.394	Various	0.492	Various	0.682	Various	Continuing	Continuing		
Developmental Test & Evaluation	WX/RX	NADEP, CHERRY PT., NC	0.221	0.090	Various	0.075	Various	0.230	Various	Continuing	Continuing		
Developmental Test & Evaluation	WX/RX	NSWC, INDIAN HEAD, MD		0.120	Various	0.113	Various	0.150	Various	Continuing	Continuing		
Operational Test & Evaluation	WX/RX	COMOPTEVFOR, Norfolk						0.600	Various	Continuing	Continuing		
Developmental Test & Evaluation	WX/RX	NAWCWD, CHINA LAKE, CA						0.600	Various	Continuing	Continuing		
								0.157	Various	Continuing	Continuing		
Award Fees													
Subtotal T&E			36.101	0.604		0.680		2.419		Continuing	Continuing		
Remarks:													
SBIR Assessment			0.041	0.000							0.041		
Subtotal Management			0.041	0.000		0.000		0.000		0.000	0.041		
Remarks:													
Total Cost			95.663	6.396		8.668		8.838		Continuing	Continuing		
Remarks:													

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Exhibit R-3, Project Cost Analysis
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EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-5												0604264N/Aircrew Systems Development												W0606/Aircrew Systems Development											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009						
	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	1	2	3	4			
Acquisition Milestones																																			
FOLLOW-ON PLATFORM SOW/SPEC																																			
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Deliveries																																			

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Exhibit R-4a, RDTE Schedule Detail
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COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost			4.153					
RDT&E Articles Qty								

U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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.

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Accomplishments/Effort/Subtotal Cost			4.153																
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<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">FY 2004 - JHMCS P3I Night Attack: Initiate development, procure DT assets. Initiate DT.</div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 25%;"></td><td style="width: 20%; text-align: center;">FY 02</td><td style="width: 20%; text-align: center;">FY 03</td><td style="width: 20%; text-align: center;">FY 04</td><td style="width: 15%; text-align: center;">FY 05</td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td></td><td></td><td></td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></table>						FY 02	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost					RDT&E Articles Quantity				
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<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%; text-align: right;">FY 2003</th> <th style="width: 15%; text-align: right;">FY 2004</th> <th style="width: 15%; text-align: right;">FY 2005</th> </tr> </thead> <tbody> <tr> <td>(U) Funding:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Previous President's Budget:</td> <td></td> <td style="text-align: right;">0.000</td> <td></td> </tr> <tr> <td>Current BES/Presidents Budget:</td> <td></td> <td style="text-align: right;">4.153</td> <td></td> </tr> <tr> <td>Total Adjustments</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">4.153</td> <td></td> </tr> <tr> <td colspan="4" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td> Congressional Increases</td> <td></td> <td style="text-align: right;">4.200</td> <td></td> </tr> <tr> <td> Congressional undistributed reductions</td> <td></td> <td style="text-align: right;">-0.047</td> <td></td> </tr> <tr> <td> Subtotal</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">4.153</td> <td></td> </tr> </tbody> </table> <p style="margin-top: 20px;">(U) Schedule:</p> <p style="margin-left: 20px;">FY 04 - JHMCS Night Attack Program will initiate development and test.</p> <p style="margin-top: 40px;">(U) Technical:</p> <p style="margin-left: 20px;">Not Applicable.</p>						FY 2003	FY 2004	FY 2005	(U) Funding:				Previous President's Budget:		0.000		Current BES/Presidents Budget:		4.153		Total Adjustments		4.153		Summary of Adjustments				Congressional Increases		4.200		Congressional undistributed reductions		-0.047		Subtotal		4.153	
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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604264N/Aircrew Systems Development			W2877/Joint Helmet Mounted Cueing System						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Systems Engineering	WX/RX	NAWCAD, PAX RIVER, MD				0.100	Various			0.000	0.100	
Ancillary Hardware Development	TBD	TBD				3.803	06/04			0.000	3.803	
Award Fees												
Subtotal Product Development			0.000	0.000		3.903		0.000		0.000	3.903	
Remarks:												
Integrated Logistics Support	WX/RX	NSWC, CRANE. IN				0.100	Various			0.000	0.100	
Award Fees												
Subtotal Support			0.000	0.000		0.100		0.000		0.000	0.100	
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604264N/Aircrew Systems Development				PROJECT NUMBER AND NAME W2877/Joint Helmet Mounted Cueing System					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX/RX	NAWCAD, PAX RIVER, MD				0.150	Various			0.000	0.150	
Award Fees												
Subtotal T&E			0.000	0.000		0.150		0.000		0.000	0.150	
Remarks:												
SBIR Assessment												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			0.000	0.000		4.153		0.000		0.000	4.153	
Remarks:												

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development			PROJECT NUMBER AND NAME W9061/Intensifier Tube Advanced Development			
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost			3.362					
RDT&E Articles Qty								
<p>U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>INTENSIFIER TUBE ADVANCED DEVELOPMENT - The funding is needed to develop and integrate smaller and lighter night vision intensifier tubes (16mm) for wide field of view night vision systems. The advanced intensifier tubes will be the foundation for wide field of view 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 wide field of view 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>								

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Exhibit R-3, Project Cost Analysis
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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 W9061/Intensifier Tube Advanced Development		
(U) B. Accomplishments/Planned Program				
		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost			3.362	
RDT&E Articles Quantity				
<div>FY 2004 - Refine 16 mm Intensifier Tube Technology. Continue development of automated intensifier measurement system.</div>				
		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
<div></div>				

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2004
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604264N/Aircrew Systems Development	PROJECT NUMBER AND NAME W9061/Intensifier Tube Advanced Development

(U) C. PROGRAM CHANGE SUMMARY:

	FY 2003	FY 2004	FY 2005
(U) Funding:			
Previous President's Budget:		0.000	
Current BES/Presidents Budget:		3.362	
Total Adjustments		3.362	
Summary of Adjustments			
Congressional Increases		3.400	
Congressional undistributed reductions		-0.038	
Subtotal		3.362	

(U) Schedule:
Not Applicable.

(U) Technical:
Not Applicable.

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604264N/Aircrew Systems Development			W9061/Intensifier Tube Advanced Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Systems Engineering	WX/RX	NAWCAD, PAX RIVER, MD				0.100	Various			0.000	0.100	
Ancillary Hardware Development	TBD	TBD				2.900	Various			0.000	2.900	
Award Fees												
Subtotal Product Development			0.000	0.000		3.000		0.000		0.000	3.000	
Remarks:												
Integrated Logistics Support	WX/RX	NSWC, CRANE. IN				0.362	Various			0.000	0.362	
Award Fees												
Subtotal Support			0.000	0.000		0.362		0.000		0.000	0.362	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)								DATE: February 2004				
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5			PROGRAM ELEMENT 0604264N/Aircrew Systems Development			PROJECT NUMBER AND NAME W9061/Intensifier Tube Advanced Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Developmental Test & Evaluation												
Developmental Test & Evaluation												
Operational Test & Evaluation												
Award Fees												
Subtotal T&E			0.000	0.000		0.000		0.000			0.000	
Remarks:												
SBIR Assessment												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			0.000	0.000		3.362		0.000		0.000	3.362	
Remarks:												

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