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CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification									DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5						R-1 ITEM NOMENCLATURE 0604270N Electronic Warfare Development					
COST (\$ in Millions)	Prior Years Cost		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Total PE Cost			130.004	117.723	74.742	58.600	141.679	327.190	680.692	Continuing	Continuing
E0556 EW Counter Response			88.075	87.837	66.907	40.693	39.380	36.723	37.387	Continuing	Continuing
E2175 Tactical Air Electronic Warfare	393.066		36.565	25.408	5.758	5.929					466.726
E2635 Integrated Defensive Electronic C			2.972	2.478							5.450
E3063 AEA Follow On						9.880	100.164	288.309	641.125	Continuing	Continuing
R2260 Specific Emitter Identification			1.482	1.003	1.019	1.017	1.016	1.015	1.014	Continuing	Continuing
Z1742 EW Technical Development and Testing	1.687		0.910	0.997	1.058	1.081	1.119	1.143	1.166	1.166	10.327
Quantity of RDT&E Articles	460		2	10							472
<p>*FY2001 budget reflects a \$23,000K Congressional add for Link-16 executed under E2781 which has been reduced by \$570K for Congressional Undistributed Adjustments; a \$8,500K Congressional add for Spraycool technology executed under E2782 which has been reduced by \$311K for Congressional Undistributed Reductions; and a \$3,000K Congressional add for LOCO GPSI executed under E2422 which has been reduced by \$111K for Congressional Undistributed Adjustments.</p> <p>**FY2002 budget reflects a \$3.800K Congressional add for LOCO GPSI that will be executed under E2422. Additionally, \$5.000 million will be used to fund AEA efforts in accordance with FY 2002 Congressional language.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This element includes development of electronic warfare systems for the United States Navy (USN), United States Marine Corps (USMC), and United States Army (USA) tactical aircraft, USMC helicopters, surface combatants, data link vulnerability assessments, precision targeting, USMC communications and non-communications jammers, and development and testing of electronic warfare devices for emergency contingencies.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ENGINEERING & MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to full rate production approval decision.</p>											

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 1 of 24)

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development				PROJECT NUMBER AND NAME E0556 EW Counter Response					
COST (\$ in Millions)	Prior Years Cost	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program	
Project Cost		88.075	87.837	66.907	40.693	39.380	36.723	37.387	Continuing	Continuing	
RDT&E Articles Qty			10							10	
<p>*FY2001 budget reflects a \$23,000K Congressional add for Link-16 executed under E2781 which has been reduced by \$570K for Congressional Undistributed Adjustments; a \$8,500K Congressional add for Spraycool technology executed under E2782 which has been reduced by \$311K for Congressional Undistributed Reductions; and a \$3,000K Congressional add for Loco GPSI executed under E2422 which has been reduced by \$111K for Congressional Undistributed Adjustments.</p> <p>**FY2002 budget reflects a \$3.800K Congressional add for LOCO GPSI that will be executed under E2422. Additionally, \$5.000 million will be used to fund AEA efforts in accordance with FY 2002 Congressional language.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The EA-6B weapon system is designed for jamming and destruction of enemy landbased, shipborne and airborne command, control and communications (C3), and radars associated with early warning, target acquisition surveillance, anti-aircraft artillery, air-to-surface, surface-to-surface, and surface-to-air missiles. In this capacity, it will support carrier based tactical aircraft, battle group operations, and joint forces, in dense radar controlled environments. The efforts under this program element (PE) provide for the electronic countermeasures response to these advanced threat weapon systems and C3 networks which are expanding in density and technical complexity. This PE funds the continuing development and integration of all EW systems for the EA-6B electronic support aircraft. The test articles being funded are; two EA-6B aircraft modified to support the Improved Capability (ICAP) III program and eight Low Band Transmitter (LBT) Engineering Development Models (EDMs). The two EA-6B aircraft modified to the ICAP III configuration are for the Engineering and Manufacturing Development (E&MD) phase of the program, (one validation and one verification aircraft will deliver in FY 2002). These aircraft will be used as test articles during government test and evaluation (TECHEVAL/OPEVAL). The LBT EDMs are broken out as three LBT Antenna Set EDMs and five Amplifier Set EDMs. All Amplifier Set EDM and Antenna Set EDMs will be delivered in FY 2002. The ALQ-99 LBT Antenna Group will provide an expanded war fighting capability against the early warning/acquisition radars and communication links of modern integrated air defense systems. The LBT entered E&MD in September 1996, followed by Low Rate Initial Production (LRIP) anticipated in 1st quarter FY 2004 and Full Rate Production (FRP) approval (Milestone III) anticipated in 1st quarter FY 2005. This effort includes the conversion of the Tactical EA-6B Mission System (TEAMS) software to the Joint Mission Planning System (JMPS), including development of the EA-6B Unique Planning Module.</p> <p>A requirement exists to conduct an Analysis of Alternatives (AoA) for the Airborne Electronic Attack (AEA) aircraft, the replacement to the EA-6B. Transition to this weapon system, known as the AEA follow-on, will commence in 2010 and will coincide with the planned retirement of the EA-6B after the year 2015. In light of this, OSD directed the Navy, with Army and Air Force participation and coordination, to prepare an AoA for airborne electronic attack platforms and methods for use over the next two decades.</p> <p>A requirement exists to allow the EA-6B to participate in Network Centric Warfare. A method of implementing this requirement is to include the EA-6B on the Link-16 Network. Link-16 will allow the EA-6B to receive and send critical situational awareness and tactical data with other aircraft and the battle group.</p> <p>A requirement exists to demonstrate and develop Spray Cool Technology in the EA-6B aircraft. FY 2000 and FY 2001 Congressional Adds were provided for this purpose.</p>											

R-1 SHOPPING LIST - Item No. 107

**Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 2 of 24)**

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:		
EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	PROJECT NUMBER AND NAME E0556 EW Counter Response
(U) PROGRAM ACCOMPLISHMENTS AND PLANS:		
1. FY 2001 ACCOMPLISHMENTS:		
<ul style="list-style-type: none">- (U) (8.032) Continued software/techniques and test support for ongoing new threat development and testing in ICAP II via the Jammer and Techniques Optimization (JATO) program.- (U) (37.573) Continued development of ICAP III system. Specifically, completed development of EDM units, performed laboratory and flight testing, continued systems design, development and fabrication, and modified two development aircraft with new tactical jamming and display equipment.- (U) (3.962) Continued engineering, manufacturing development, and testing of LBT.- (U) (3.000) Continued Analysis of Alternatives (AoA) for the Airborne Electronic Attack (AEA) aircraft replacement for the EA-6B.- (U) (8.189) Continued demonstration and development of Spray Cool Technology in the EA-6B aircraft.- (U) (2.889) Continued development of a prototype for the GPS Anti-Jamming System (LOCO GPS). Systems developed by SPAWAR.- (U) (22.430) Completed full requirements definition and continued to develop EA-6B Link-16 capability.- (U) (2.000) Initiated Fiber Optic Network development into EA-6B.		
2. FY 2002 PLANS:		
<ul style="list-style-type: none">- (U) (7.770) Continue software/techniques and test support for ongoing new threat development and testing in ICAP II via the Jammer and Techniques Optimization (JATO) program.- (U) (53.729) Continue development of ICAP III system. Specifically, FY02 efforts will concentrate on completion of software development, Developmental and Operational Assessment, and final integration of the hardware and software into the aircraft.- (U) (5.395) Continue engineering and manufacturing development, and contractor testing of LBT. Deliver all EDMs. Begin Navy developmental testing (TECHEVAL).- (U) (2.951) Complete the Analysis of Alternatives (AoA) for the Airborne Electronic Attack (AEA) aircraft replacement for the EA-6B.- (U) (6.647) Continue to develop Link-16 capability. Commence systems integration of Link-16. Anticipate carryover of approximately \$3.000 million into FY03.- (U) (2.545) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.- (U) (3.800) Continue the design and test candidate platform applications for the GPS Anti-Jamming System (LOCO GPS). Systems developed by SPAWAR.- (U) (5.000) Initiate AEA efforts in accordance with FY 2002 Congressional language.		

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 3 of 24)

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	February 2002
PROJECT NUMBER AND NAME E0556 EW Counter Response		
<p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS: Continued</p> <p>3. FY 2003 PLANS:</p> <ul style="list-style-type: none">- (U) (9.926) Continue software/techniques and test support for ongoing new threat development and testing in ICAP II via the Jammer and Techniques Optimization (JATO) program.- (U) (40.144) Continue development of ICAP III system. Specifically, FY-2003 efforts will concentrate on completion of the Operational Assessment (OA), developmental testing (TECHEVAL) and the start of Operational Testing (OPEVAL). LRIP contract will be executed. Continue the baseline ICAP III software update.- (U) (1.737) Continue developmental testing (TECHEVAL). Conduct Operational Assessment (OA) and Operational Test (OPEVAL) of LBT.- (U) (10.000) Commence research and development of miniaturized ICAP III components for use in tactical aircraft or other systems identified by the AOA/AEA.- (U) (3.100) Continue updating the baseline ICAP III system to include integration of avionics items which include the second Embedded GPS/INS (EGI), HARM VI, Low Band Transmitter, Band 7/8, Night Vision Devices (NVDs) and data fusion with national assets. In conjunction with this commence developing dual purpose (ICAP III and AEA) enabling technologies that will reduce risk to, and support transitions to a follow-on system as addressed in the Analysis of Alternatives (AOA) for the Airborne Electronic Attack (AEA).- (U) (2.000) Begin transition of the Tactical EA-6B Mission System (TEAMS) software to the Joint Mission Planning Systems (JMPS).- (U) (*) Anticipate approximately \$3.000 million carryover from FY02 to continue Link-16 systems integration.		

R-1 SHOPPING LIST - Item No. 107

**Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 4 of 24)**

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2002																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	PROJECT NUMBER AND NAME E0556 EW Counter Response																
<p>(U) B. PROGRAM CHANGE SUMMARY:</p> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY2001</u></th> <th style="text-align: center;"><u>FY2002</u></th> <th style="text-align: center;"><u>FY2003</u></th> </tr> </thead> <tbody> <tr> <td>(U) FY 2002 President's Budget:</td> <td style="text-align: center;">89.081</td> <td style="text-align: center;">84.804</td> <td></td> </tr> <tr> <td>(U) Adjustments from the FY2002 President's Budget:</td> <td style="text-align: center;">-1.006</td> <td style="text-align: center;">3.033</td> <td></td> </tr> <tr> <td>(U) FY 2003 President's Budget Submit:</td> <td style="text-align: center;">88.075</td> <td style="text-align: center;">87.837</td> <td style="text-align: center;">66.907</td> </tr> </tbody> </table> <p>CHANGE SUMMARY EXPLANATION:</p> <p>(U) Funding:</p> <p style="margin-left: 40px;">The FY 2001 net decrease of \$1.006 million reflects a decrease of \$1.968 million for a Small Business Innovative Research (SBIR) assessment and a decrease of \$1.683 million for a reprioritization of requirements within the Navy offset by an increase of \$1.891 million for the EA-6B Prowler Wave Division Fiber Optic Network Chief Technology Officer (CTO) initiative BTR and an increase of \$.754 thousand for ICAP III.</p> <p style="margin-left: 40px;">The FY 2002 net increase of \$3.033 million reflects an increase of \$3.800 million for LOCO GPSI and a decrease of \$.767 thousand for an undistributed congressional reduction.</p> <p>(U) Schedule:</p> <p style="margin-left: 40px;">Start of Low Band Tx DT moved from 1Q/02 to 2Q/02. Schedule adjusted based on current program schedule for Navy Antenna pattern testing.</p> <p>(U) Technical: Not Applicable</p>				<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	(U) FY 2002 President's Budget:	89.081	84.804		(U) Adjustments from the FY2002 President's Budget:	-1.006	3.033		(U) FY 2003 President's Budget Submit:	88.075	87.837	66.907
	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>															
(U) FY 2002 President's Budget:	89.081	84.804																
(U) Adjustments from the FY2002 President's Budget:	-1.006	3.033																
(U) FY 2003 President's Budget Submit:	88.075	87.837	66.907															

R-1 SHOPPING LIST - Item No. 107

UNCLASSIFIED

UNCLASSIFIED

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<p>(U) C. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Line Item No. & Name</u></th> <th style="text-align: right;">FY 2001</th> <th style="text-align: right;">FY 2002</th> <th style="text-align: right;">FY 2003</th> <th style="text-align: right;">FY 2004</th> <th style="text-align: right;">FY 2005</th> <th style="text-align: right;">FY 2006</th> <th style="text-align: right;">FY 2007</th> <th style="text-align: right;">To Complete</th> </tr> </thead> <tbody> <tr> <td>P-1 #23 EA-6 Series Modifications</td> <td style="text-align: right;">184.425</td> <td style="text-align: right;">149.677</td> <td style="text-align: right;">223.527</td> <td style="text-align: right;">242.793</td> <td style="text-align: right;">209.203</td> <td style="text-align: right;">195.651</td> <td style="text-align: right;">192.856</td> <td style="text-align: right;">586.9</td> </tr> </tbody> </table> <p>(U) D. ACQUISITION STRATEGY:</p> <ul style="list-style-type: none"> - The LBT development contract occurred following a full and open competition and was awarded to BAE Systems (formerly MARCONI). Following development and successful DT/OA, sole source LRIP contracts will be awarded. Following successful OT, a sole source production contract will be awarded. - The ICAP III contract, an E&MD CPIF/AF basic contract with two Fixed Price Incentive (FPI) production options, was awarded to a Northrop Grumman team in March 1998 following Milestone II and a full and open competition. The contract was changed to a CPAF contract in FY 1999. LRIP is scheduled for FY 2003. Milestone III and Full Rate Production are scheduled for FY 2004 with Initial Operating Capability to follow in FY 2005. 									<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	P-1 #23 EA-6 Series Modifications	184.425	149.677	223.527	242.793	209.203	195.651	192.856	586.9
<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete																		
P-1 #23 EA-6 Series Modifications	184.425	149.677	223.527	242.793	209.203	195.651	192.856	586.9																		

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 6 of 24)

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2002	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-5	0604270N Electronic Warfare Development	E0556 EW Counter Response		
(U) E. SCHEDULE PROFILE:				
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>
(U) Program Milestones			2Q ICAP III LRIP	1Q/04 Low Band Tx LRIP 1Q/05 Low Band Tx Milestone III 2Q/04 ICAP III Milestone III 2Q/05 ICAP III IOC
(U) Engineering Milestones				
(U) T&E Milestones		2Q to 4Q ICAP III DT	1Q to 4Q ICAP III OA/TECHEVAL and OPEVAL (start)	1Q/05 Complete OPEVAL
		2Q to 4Q Low Band Tx DT	1Q to 4Q Low Band Tx DT/OA/OT	
(U) Contract Milestones			2Q ICAP III LRIP	1Q/04 Low Band Tx LRIP 1Q/05 Low Band TX FRP 2Q/04 ICAP III FRP

R-1 SHOPPING LIST - Item No. 107

UNCLASSIFIED

**Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 7 of 24)**

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604270N Electronic Warfare Development			E0556 EW Counter Response						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	FPI	BAE Systems Lansdale, PA	24.210	3.962	10/00	3.395	10/01	0.737	10/02		32.304	32.304
Primary Hardware Development	C/CPAF	Northrop Grumman, Bethpage, NY	131.352	33.481	11/00	32.599	11/01	34.240	11/02	2.500	234.172	234.172
Systems Engineering	WX	NRL, Wash. DC	6.856	0.751	10/00	0.934	10/01	0.510	10/02	Continuing	Continuing	
Systems Engineering	WX	NADEP, JAX	3.919	0.628	10/00	0.680	10/01	0.200	10/02	Continuing	Continuing	
Systems Engineering	WX	NSWC, CRANE	6.810	0.459	10/00	0.700	10/01	0.600	10/02	Continuing	Continuing	
Systems Engineering	WX	NAWCAD, PAX	10.419	2.633	10/00	2.200	10/01	3.272	10/02	Continuing	Continuing	
Systems Engineering	WX	NAWCAD, LKE	2.048	0.406	10/00	0.350	10/01	0.150	10/02	Continuing	Continuing	
Systems Engineering	WX	NAWCWD, PT MUGU	15.059	6.021	10/00	6.200	10/01	6.000	10/02	Continuing	Continuing	
Systems Engineering	Various	VARIOUS	43.063	1.573	11/00	1.200	11/01	1.180	10/02	Continuing	Continuing	
Award Fees	C/CPAF	Northrop Grumman, Bethpage, NY	2.474	1.163	05/01	8.000	05/02	4.500	05/03		16.137	16.137
Miniaturization of ICAPIII Components	TBD	Various						3.600	12/02	28.341	31.941	31.941
H/W Dev Enabling Tech	TBD	Various				2.636	02/02	3.100	02/03	33.458	39.194	39.194
Mission Planning System Development	TBD	TBD						2.000	12/02	4.000	6.000	6.000
LOCO GPSI (E2422)	TBD	SPAWAR	5.897	2.889	06/01	3.800	06/02				12.586	
EA-6B Connectivity/Link 16	CPFF	Northrop Grumman	29.230	19.920	05/01	6.647	01/02				55.797	56.631
ICAP III Spray Cool Technology	CPFF	Isothermal Systems Research	4.872	8.189	06/01						13.061	13.061
AEA Studies and AoA	Various	Various	9.743	3.000	11/00	6.951	11/00				19.694	
Subtotal Product Development			295.952	85.075		76.292		60.089		Continuing	Continuing	
<p>Remarks: 1. The total cost figure for the BAES and the Northrop Grumman contracts are the Independent Government Estimate figures for total contract efforts less award fees, which are listed separately. The target value of contract figures are the total estimated cost of the awarded contracts less the award fees.</p> <p>2. The Northrop Grumman ICAP III EMD contract award fee paid in FY 01 was \$.870M or 70% of the award fee pool.</p> <p>3. Anticipate FY02 Link-16 carryover into FY03 of approximately \$3.000 million.</p>												

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 8 of 24)

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5				0604270N Electronic Warfare Development			E0556 EW Counter Response					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support	SS/FP	JHU/APL, Colombia, MD	3.353	2.000	01/01	2.000	01/02	1.818	01/03		9.171	9.171
Development Support	Various	MISC	12.009								12.009	
SBIR Assessment						2.545					2.545	
Subtotal Support			15.362	2.000		4.545		1.818			23.725	
Remarks: JHU/APL effort is expected to continue for the service life of the aircraft in support of the Jammer and Techniques Optimization (JATO) program.												
Developmental Testing - ICAP III	WX	NAWCAD, Pax		0.500	11/00	2.500	12/01	0.750	11/02	Continuing	Continuing	
Operational Test & Evaluation - ICAP II	WX	OPTEVFOR, Norfolk, VA	2.146	0.500	11/00	2.500	12/01	3.250	11/02	Continuing	Continuing	
Developmental Testing - LBT	WX	NAWCAD, Pax				2.000	12/01				2.000	
Operational Test & Evaluation - LBT	WX	OPTEVFOR, Norfolk, VA						1.000	11/02		1.000	
Operational Test & Evaluation - Link-16	WX	OPTEVFOR, Norfolk, VA										
Subtotal T&E			2.146	1.000		7.000		5.000		Continuing	Continuing	
Remarks: Funding is required to conduct ICAP III and LBT developmental/operational assessment planning, execution, and reporting.												
Total Cost			313.460	88.075		87.837		66.907		Continuing	Continuing	
Remarks: No Management Costs												

R-1 SHOPPING LIST - Item No. 107

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 9 of 24)

UNCLASSIFIED

CLASSIFICATION:

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development					PROJECT NUMBER AND NAME E2175 TACAIR EW & E2635 IDECM					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	393.066		39.537	27.886	5.758	5.929					472.176
RDT&E Articles Qty	460		2								462
<p>*The FY 2001 budget consists of \$36,565K for project E2175 and a \$3,000K Congressional add for Integrated Defensive Electronic Countermeasures (IDECM) executed under project E2635; which, has been revised by \$28K for Congressional Undistributed Adjustments. The FY 2002 budget consists of \$25,408K for project E2175 and a \$2,500K Congressional add for IDECM, project E2635 which has been revised by \$22K for Congressional Undistributed Adjustments.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: INTEGRATED DEFENSIVE ELECTRONIC COUNTERMEASURES (IDECM): This joint service subproject develops the new techniques generator and fiber optic towed decoy of the Radio Frequency Countermeasures (RFCM) Subsystem as well as the Navy-unique portions of the Common Missile Warning System (CMWS) and Advanced Strategic and Tactical Expendables (ASTE). It also integrates RFCM, CMWS and ASTE with Radar Warning Receiver (RWR), Countermeasures Dispensing Set (CMDS) and associated cockpit controls and displays to provide the lead aircraft (F/A-18E/F) with increased survivability against Infrared/Radio Frequency (IR/RF) threats. Note: As of FY 2001, CMWS is no longer funded under project E2175.</p> <p>(U) AN/ALR-67(V)3&4 RADAR WARNING RECEIVER: This subproject developed the system which provides enhanced situational awareness by providing accurate azimuth display of all programmed threats, independent of aircraft attitude. This also acted as Electronic Warfare (EW) Bus Controller.</p> <p>(U) AN/ALE-50 ADVANCED AIRBORNE EXPENDABLE DECOY (AAED): This Joint Service (with Air Force) subproject is developing the system which will decoy enemy radio frequency homing missiles away from friendly aircraft.</p> <p>(U) FLEET ELECTRONIC WARFARE SUPPORT GROUP (FEWSG): This subproject developed new EW equipment and technology which is used to provide realistic hostile EW threat environment, and support the evaluation and development of tactics and training.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> (U) (\$18.794) IDECM: Continued funding engineering and manufacturing (E&MD) contract for IDECM RFCM subsystem. Included the \$3.0M (Project E2635) Congressional add. (U) (\$ 2.318) IDECM: Continued A-Kit design efforts for integration of the RFCM subsystem into the F/A-18E/F. (U) (\$18.425) IDECM: Continued engineering, technical and logistic support. Started development testing of system. <p>2. FY 2002 PLANS:</p> <ul style="list-style-type: none"> (U) (\$7.855) IDECM: Complete funding of engineering and manufacturing (E&MD) contract for IDECM RFCM subsystem. (U) (\$2.500) IDECM: Continue A-Kit efforts for integration of the RFCM subsystem into the F/A-18 E/F. (U) (\$16.762) IDECM: Continue engineering, technical and logistic support and complete testing of the on-board portion including OPEVAL. (U) (\$.769) Portion of extramural program reserved for Small Business Innovative Research assessment in accordance with 15 USC 638. <p>3. FY 2003 PLANS:</p> <ul style="list-style-type: none"> (U) (\$1.795) IDECM: Support start of IDECM Block (BLK) 3 DT testing. (U) (\$.500) IDECM: Complete A-Kit integration of the RFCM subsystem into F/A-18 E/F. (U) (\$3.463) IDECM: Continue engineering, technical and logistic support. 											

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 10 of 24)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	February 2002																																														
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA5	PROGRAM ELEMENT NUMBER AND NAME 0604270N ELECTRONIC WARFARE DEVELOPMENT	PROJECT NUMBER AND NAME E2175 TACAIR EW & E2635 IDECM																																															
<p>(U) B. PROGRAM CHANGE SUMMARY:</p> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY2001</u></th> <th style="text-align: center;"><u>FY2002</u></th> <th style="text-align: center;"><u>FY2003</u></th> </tr> </thead> <tbody> <tr> <td>(U) FY 2002 President's Budget:</td> <td style="text-align: right;">41.869</td> <td style="text-align: right;">25.630</td> <td></td> </tr> <tr> <td>(U) Adjustments from the FY2002 President's Budget:</td> <td style="text-align: right;">(2.332)</td> <td style="text-align: right;">2.256</td> <td></td> </tr> <tr> <td>(U) FY 2003 President's Budget Submit:</td> <td style="text-align: right;">39.537</td> <td style="text-align: right;">27.886</td> <td style="text-align: right;">5.758</td> </tr> </tbody> </table> <p>CHANGE SUMMARY EXPLANATION:</p> <p>(U) Funding: The FY 2001 decrease of \$2.332 million reflects a decrease of \$1.197 million for reprioritization of requirements within the Navy and a decrease of \$1.135 million for a Small Business Innovative Research assessment. FY 2002 net increase of \$2.256 million reflects a \$2.500 million Congressional Add for IDECM and an increase of \$.005 million for integration and test efforts of RFCM offset by a decrease of \$.249 million for Undistributed Congressional reduction.</p> <p>(U) Schedule: Restructure of the test schedule into phases and production Milestones into on-board and off-board blocks is driven by test schedule changes, aircraft availability, F/A-18E/F priorities, maturity of the decoy and funding availability. IDECM DT-IID and OT-IIA in 1Q/01 and 4Q-01 have changed to IDECM Block 2 DT-IID/OT-IIA Phase 1, 1Q01-2Q/02, OT-IIA Phase 2 in 3Q/02 and IDECM Block 3 DT-IIE/OT-IIB Phase 1 to follow. The RFCM MSIII has been changed to Block 2 FRP and has been moved to the right.</p> <p>(U) Technical: Not applicable.</p> <p>(U) C. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Line Item No. & Name</u></th> <th style="text-align: center;">FY 2001</th> <th style="text-align: center;">FY 2002</th> <th style="text-align: center;">FY 2003</th> <th style="text-align: center;">FY 2004</th> <th style="text-align: center;">FY 2005</th> <th style="text-align: center;">FY 2006</th> <th style="text-align: center;">FY 2007</th> <th style="text-align: center;">To Complete</th> <th style="text-align: center;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>APN Line 46-IDECM</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">7.7</td> <td style="text-align: center;">20.7</td> <td style="text-align: center;">37.5</td> <td style="text-align: center;">50.8</td> <td style="text-align: center;">41.4</td> <td style="text-align: center;">558.1</td> <td style="text-align: center;">716.3</td> </tr> <tr> <td>Related RDT&E:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	(U) FY 2002 President's Budget:	41.869	25.630		(U) Adjustments from the FY2002 President's Budget:	(2.332)	2.256		(U) FY 2003 President's Budget Submit:	39.537	27.886	5.758	<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Cost	APN Line 46-IDECM	0	0	7.7	20.7	37.5	50.8	41.4	558.1	716.3	Related RDT&E:									
	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>																																														
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Related RDT&E:																																																	

R-1 SHOPPING LIST - Item No. 107

**Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 11 of 24)**

UNCLASSIFIED

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2002	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-5	0604270N ELECTRONIC WARFARE DEVELOPMENT	E2175 TACAIR EW & E2635 IDECM		
<p>(U) D. ACQUISITION STRATEGY: IDECM- Sole source LRIP I contract (FY01), LRIP II onboard contract (FY02), sole source onboard FRP (FY03) with one option contract (FY04); sole source offboard FRP with one option (FY05); full and open competition. FRP contract with options (FY06 and beyond). Changes due to program production funding reductions, FY01 through FY04. NPDM, 2Q/02</p>				
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>
(U) Program Milestones	2Q/01 RFCM LRIP I	1Q/02 RFCM LRIP II	1Q/03 IDECM BLK 2 FRP	1Q/05 IDECM BLK 3 FRP
(U) Engineering Milestones				
(U) T&E Milestones	1Q/01-2Q/02 IDECM BLK 2 DT-IID/OT-IIA Phase 1	3Q/02 IDECM BLK 2 OT-IIA Phase 2 OPEVAL	1Q/03 IDECM BLK 3 DT-IIE/OT- IIB Phase 1	1Q/04 IDECM BLK 3 OT-IIB Phase 2 IDECM OPEVAL
(U) Contract Milestones				

R-1 SHOPPING LIST - Item No. 107

UNCLASSIFIED

**Exhibit R-2, RDTEEN Budget Item Justification
(Exhibit R-2, page 12 of 24)**

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604270N ELECTRONIC WARFARE DEVELOPMENT			E2175 TACAIR EW & E2635 IDECM						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Ancillary Hardware Develop (IMPLC)	SS/CPFF	RAYTHEON/ GOLETA, CA	26.742	1.320	11/00	0.250	11/01	0.200	11/02	0.200	28.712	28.712
Software Development (IDECM)	SS/CPFF	RAYTHEON/CA EL SEGUNDO	4.873	0.482	11/00	0.300	11/01	0.200	11/02	0.200	6.055	6.055
Primary Hardware Develop (IDECM)	*C-CPIF	BAE/NH	131.549	17.450	11/00	7.500	11/01	1.000	11/02	1.000	158.499	222.000
Software Development (IDECM)	SS/CPFF	LITTON/CA	4.336								4.336	4.336
Aircraft Platform Integration (IDECM)	SS/FFP	BOEING, MO	59.691	5.418	12/00	2.500	12/01	0.500	12/02	0.499	68.608	68.608
Government Engineering Support	WX/RX	CHINA LAKE/CA	49.623	6.000	12/00	3.136	12/01			1.500	60.259	
Miscellaneous (efforts < \$1M each)	WX/RX	VARIOUS	45.121	0.435	12/00	0.384	12/01	0.190	12/02	2.530	48.660	
Subtotal Product Development			321.935	31.105		14.070		2.090		5.929	375.129	
<p>*Remarks: BAE (IDECM) target contract value includes Air Force funding and contractor investments. Navy portion of BAE (IDECM RFCM) contract is only \$158.5M. The difference between the target value of contract (BAE) and total cost above reflects the Air Force portion of the contract.</p>												

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 13 of 24)

UNCLASSIFIED

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: February 2002				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604270N Electronic Warfare Development			E2175 TACAIR EW & E2635 IDECM						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ENGINEERING/LOGISTIC/SPT	WX/RX	NAWC-AD/PAX	22.001	0.768	11/00	2.278	11/01	1.332	11/02		26.379	
ENGINEERINGTECH DATA	WX/RX	NAWC-WD, CA	21.334	5.895	11/00	9.223	11/01	1.429	11/02		37.881	
Miscellaneous (efforts < \$m each)	WX/RX	Various	0.860	0.595	11/00	0.153	11/01	0.061	11/02		1.669	
Subtotal T&E			44.195	7.258		11.654		2.822			65.929	
Remarks:												
Program Management Support	WX/RX	NAWC-AD/PAX/Various	19.684	1.070	11/00	0.695	11/01	0.425	11/02		21.874	
Miscellaneous (efforts < \$m each)	WX/RX	Various	7.252	0.104	11/00	0.698	11/01	0.421	11/02		8.475	
SBIR Assessment	RX					0.769					0.769	
Subtotal Management			26.936	1.174		2.162		0.846			31.118	
Remarks:												
Total Cost			393.066	39.537		27.886		5.758		5.929	472.176	
Remarks:												

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 14 of 24)

UNCLASSIFIED

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604270N Electronic Warfare Development					R2260 Specific Emitter ID					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost			1.482	1.003	1.019	1.017	1.016	1.015	1.014	Continuing	Continuing
RDT&E Articles Qty											
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports systems development and collection of Specific Emitter Identification (SEI) information from National Technical Means (NTM) to track commercial ships over 200 gross registered tons world-wide. Research and development will cover improvements and enhancements to Electronic Intelligence technology. This will include improved/next generation SEI technology for miniaturization and automation of hardware, national collection systems, signal processing and analysis, and de-interleaving of signals. Propagation in a multi-path signal environment will also be assessed. All work on this project will be undertaken in pursuit of goals stated by the Office of Naval Intelligence and the National Security Agency in support of the Worldwide Ship Tracking Program.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS: 1. FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$.390) SEI technology was extended to address intentionally modulated and other complex waveform threats. - (U) (\$.590) Miniaturized SEI technology finalized for transition in tactical platforms and national-technical-means. - (U) (\$.502) The development and demonstration of an integrated and remotely operated surveillance system has been accelerated. <p>2. FY 2002 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$.603) Work will focus on increased sensor fusion and automation to reduce staffing and support remote access and control capability. - (U) (\$.400) Development will commence on an autonomous surveillance system capable of providing emitter signal information to a central location. <p>3. FY 2003 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$.519) Demonstrate the sensor fusion and automation aspects of SEI systems to reduce staffing and support remote access and control capability. - (U) (\$.500) Continue development and demonstrate feasibility of an autonomous surveillance system capable of providing emitter signal information to a central location. 											

R-1 SHOPPING LIST - Item No. 107

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2002
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-5	0604270N Electronic Warfare Development	R2260 Specific Emitter ID	
(U) B. PROGRAM CHANGE SUMMARY:			
	FY2001	FY2002	FY2003
(U) FY 2002 President's Budget:	1.527	1.012	
(U) Adjustments from the President's Budget:	-0.045	-0.009	
(U) FY 2003 President's Budget:	1.482	1.003	1.019
CHANGE SUMMARY EXPLANATION:			
(U) Funding: The FY 2001 net decrease of \$.045 million consists of -.011 for .7% pro-rata rescission; -.003 government-wide rescission; -.001 SBIR reduction; and -.030 execution adjustments .			
The FY 2002 net decrease of \$.009 million is due to Section 8123 management reform initiative adjustment.			
(U) Schedule: Not Applicable			
(U) Technical: Not Applicable			
(U) C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable			

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 16 of 24)

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	RT
PROJECT NUMBER AND NAME R2260 Specific Emitter ID		
<p>(U) D. ACQUISITION STRATEGY: This an Engineering Development Program.</p> <p>(U) E. SCHEDULE PROFILE: Not Applicable</p>		

R-1 SHOPPING LIST - Item No 107

UNCLASSIFIED

**Exhibit R-2, RDTEEN Budget Item Justification
(Exhibit R-2, page 17 of 24)**

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604270N Electronic Warfare Development				R2260 Specific Emitter ID					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/FFP	ITT, Virginia		0.400	02/01	0.200	02/02	0.200	02/03	0.350	1.150	1.150
Software Development	WR	NRL, Washington, DC		0.300	10/00	0.200	10/01	0.200	10/02	Continuing	Continuing	
Government Engineering Support	WR	NRL, Washington, DC		0.150	10/00	0.100	10/01	0.100	10/02	Continuing	Continuing	
Contractor Engineering Support	C/FFP	AIMS, Maryland		0.150	03/01	0.150	03/02	0.150	03/03	0.300	0.750	0.750
Award Fees												
Subtotal Product Development				1.000		0.650		0.650		Continuing	Continuing	
Remarks:												
Subtotal Support												
Remarks:												

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 18 of 24)

UNCLASSIFIED

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604270N Electronic Warfare Development				R2260 Specific Emitter ID					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NRL, Washington, DC		0.289	10/00	0.164	10/01	0.180	10/02	0.543	1.176	
Developmental Test & Evaluation	C/FFP	CACI, Virginia		0.150	03/01	0.150	03/02	0.150	03/03	0.500	0.950	0.950
Subtotal T&E				0.439		0.314		0.330		1.043	2.126	
Remarks:												
Program Management	WR	NRL, Washington, DC		0.043	10/00	0.039	10/01	0.039	10/02	Continuing	Continuing	
Subtotal Management				0.043		0.039		0.039		Continuing	Continuing	
Remarks:												
Total Cost				1.482		1.003		1.019		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 19 of 24)

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604270N Electronic Warfare Development					Z1742 EW TECHNICAL DEVELOPMENT					
COST (\$ in Millions)	Prior Years Cost	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program	
Project Cost	1.687	0.910	0.997	1.058	1.081	1.119	1.143	1.166	1.166	10.327	
RDT&E Articles Qty											
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Skunkworks is a CNO N64 funded effort that focuses on the quick reaction prototyping of tactical information warfare systems. This program directly addresses various fleet requirements, airborne and surface cryptologic operational requirements documents and the joint requirements oversight council mission needs statement for information warfare systems and capabilities across the spectrum of conflict. The projects developed under this program are designed to deny, degrade, disrupt or destroy enemy command and control communications. These systems provide information dominance to friendly forces during conflict which is necessary for success.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$.275) Final integration of airborne IW pod - (U) (\$.300) Heliborne IW jammer test support and follow-on development - (U) (\$.100) FURY development and support - (U) (\$.200) Unmanned aerial vehicle IW payload development - (U) (\$.035) Concept exploration of high performance aircraft pod <p>2. FY 2002 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$.300) Airborne IW pod test and certification - (U) (\$.400) Heliborne jammer development - (U) (\$.200) Unmanned aerial vehicle IW payload development - (U) (\$.097) High performance aircraft IW pod design <p>3. FY 2003 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$.400) Heliborne jammer development, test and evaluation - (U) (\$.200) Unmanned aerial vehicle IW payload test and development - (U) (\$.458) High performance aircraft IW pod development 											

R-1 SHOPPING LIST - Item No. 107

UNCLASSIFIED

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	February 2002	
PROJECT NUMBER AND NAME Z1742 EW TECHNICAL DEVELOPMENT			
(U) B. PROGRAM CHANGE SUMMARY: (Show total funding, schedule, and technical changes for the program element that have occurred since the last President's submission.)			
	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>
(U) FY 2002 President's Budget:	0.945	1.005	
(U) Adjustments from the FY 2002 President's Budget:	-0.035	-0.008	
(U) FY 2003 President's Budget submit:	0.910	0.997	1.058
CHANGE SUMMARY EXPLANATION:			
(U) Funding:	The FY 2001 net decrease of \$.035 million consists of SBIR Reduction. The FY 2002 net decrease of \$.008 million consists of Congressional adjustment.		
(U) Schedule:	N/A		
(U) Technical:	N/A		
(U) C. OTHER PROGRAM FUNDING SUMMARY: N/A			

R-1 SHOPPING LIST - Item No. 107

UNCLASSIFIED

**Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 21 of 24)**

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	PROJECT NUMBER AND NAME Z1742 EW TECHNICAL DEVELOPMENT			
(U) D. ACQUISITION STRATEGY: N/A					
(U) E. SCHEDULE PROFILE:					
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>
(U) Engineering Milestones	FURY	FURY Upgrade HELIBORNE Jammer HPA IW POD Airborne Antennas	UAV Payload HPA IW POD Portable Jammer	Mult-Functional Jammer	Mult-Functional Jammer
(U) T&E Milestones	HELIBORNE RUBICON FURY Test	UAV IW Payload Test	Airborne Antenna FURY Upgrade	HPA IW POD Portable Airborne Jammer UAV Payload Test	HPA IW POD Portable Airborne Jammer UAV Payload Test
(U) Contract Milestones					

R-1 SHOPPING LIST - Item No.

107

UNCLASSIFIED

**Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 22 of 24)**

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA 5			0604270N Electronic Warfare Development				Z1742 EW TECHNICAL DEVELOPMENT					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Var	Var	0.266	0.278	Var	0.400	Var	0.450	Var		1.394	
Ancillary Hardware Development												
Systems Engineering												
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.266	0.278		0.400		0.450			1.394	
Remarks:												
Development Support Equipment												
Software Development	Var	Var	0.100	0.150	Var	0.156	Var	0.097	Var		0.503	
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0.100	0.150		0.156		0.097			0.503	
Remarks:												

R-1 SHOPPING LIST - Item No. 107

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 23 of 24)

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604270N Electronic Warfare Development			PROJECT NUMBER AND NAME Z1742 EW TECHNICAL DEVELOPMENT						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Var	Var	0.250	0.250	Var	0.200	Var	0.200	Var		0.900	
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0.250	0.250		0.200		0.200			0.900	
Remarks:												
Contractor Engineering Support	Var	Var	0.100	0.100	Var	0.100	Var	0.120	Var		0.420	
Government Engineering Support	Var	Var	0.100	0.100	Var	0.100	Var	0.130	Var		0.430	
Program Management Support												
Travel	Var	Var	0.050	0.032	Var	0.041	Var	0.061	Var		0.184	
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.250	0.232		0.241		0.311			1.034	
Remarks:												
Total Cost			0.866	0.910		0.997		1.058			3.831	
Remarks:												

R-1 SHOPPING LIST - Item No. 107

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Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 24 of 24)