

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5					R-1 ITEM NOMENCLATURE 0604270N Electronic Warfare Development			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006*	FY 2007*	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	270.264	49.655	42.667	39.936	35.631	36.628	37.574	38.451
0556 EW Counter Response	42.406	33.558	33.362	32.775	33.718	34.773	35.682	36.523
2175/2635 Tactical Air Electronic Warfare	21.578	13.226	7.631	5.339				
3063 EA-18G	203.737							
2260 Specific Emitter Identification	0.756	0.708	0.726	0.675	0.745	0.666	0.681	0.696
1742 EW Readiness Support	0.812	0.875	0.948	1.147	1.168	1.189	1.211	1.232
9374 ACETEF and JRAAC	0.975							
9499 IR Signature		1.288						
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
(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.								
NOTE:								
* RDT&E project 3063 EA-18G was executed under PE 0604270N in FY 2004 and prior. In FY 2005 and later PU 3063 has been moved to PE 0604269N. Detailed budget justification is shown under the new PE.								

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 Exhibit R-2, RDTEN Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development				PROJECT NUMBER AND NAME 0556 EW Counter Response			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	42.406	33.558	33.362	32.775	33.718	34.773	35.682	36.523
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This Program Element (PE) develops upgrades to cope with the increasingly complex and dense threat environment. The required improvements in EA-6B Electronic Attack (EA) will be achieved by applying state-of-the-art signal exploitation/processing/display techniques, improved tactics and jamming capabilities. Tactical communications connectivity improvements include Joint Tactical Terminal and Tactical Receive Equipment (TRE) Related Applications (TRAP), Tactical Digital Information Exchange System-B (TADIXS-B), Tactical Digital Information Link-J (TADIL-J), Tactical Information Broadcast Services (TIBS), Tactical Reconnaissance Information Exchange System (TRIXS), USN/USAF Advisory Support Network (ASN) Intelnet, Demand Assigned Multiple Access (DAMA)-capabilities. The EA-6B weapon system is ultimately designed for precision and strike targeting, 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, the EA-6B will support both carrier based tactical aircraft battle group operations, and joint forces, in dense radar controlled environments. The efforts under this program element 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 and EA systems for the EA-6B electronic attack aircraft including improvements within precision Direction of Arrival (DOA), geo-location, Specific Emmitter Identification (SEI), auto-ESM, and selective reactive jamming.

The test articles begun in FY 1999 are; two EA-6B aircraft modified to support the Improved Capability (ICAP) III program and Low Band Transmitter (LBT) Engineering Development Models (EDMs). The two EA-6B aircraft will be used as test articles during government test and evaluation (TECHEVAL/OPEVAL). The LBT EDMs are broken out as LBT Antenna Set EDMs and Amplifier Set EDMs. 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 FY 2005 and Full Rate Production (FRP) approval (Milestone III) anticipated in FY 2006. All efforts and system upgrades include the conversion of and transition from the Tactical EA-6B Mission System (TEAMS) mission planner software to the Joint Mission Planning System (JMPS), including development of EA-6B Unique Planning Modules.

A requirement exists to allow the EA-6B to participate in various coordinated targetting scenarios such as Network Centric Warfare, Force Net, improved Suppression of Enemy Air Defenses/Destruction of Enemy Air Defenses, (SEAD/DEAD), and other strategic-and theatre-based DOD networks and strategies. Likewise, the ICAP III system shall be matured to enable the fusion and correlation of both organic and non-organic threat information to better present sensor and targetting information to the theatre commander via coordinated efforts with other airborne, ground and ship-based operations. A method of implementing this requirement is to include the EA-6B on the Link-16 EW Network. Incorporation of the full EW Link-16 message set into the EA-6B and participation of the ICAP III within the Network Centric Warfare arena will greatly improve the Strike Group Commander's situational awareness.

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Exhibit R-2a, RDTE Project Justification
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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 0556 EW Counter Response		
B. Accomplishments/Planned Program				
ICAP III	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	12.566	12.501	4.135	1.826
RDT&E Articles Quantity				
<p>(U) Continue development of ICAP III system. Efforts will concentrate on completion of Operational Testing (OPEVAL), correction of high priority deficiencies, and continued maturation of the ALQ-218 receiver/jammer system and associated tactics.</p>				
ICAP III UPDATE	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	16.417	6.402	14.403	14.361
RDT&E Articles Quantity				
<p>(U) Continue optimizing the ICAP III weapon system performance to include integration of both software upgrades and avionics items which include the second Embedded Global Positioning System/Inertial Navigation System (EGI), HARM, ALE-47, Low Band Transmitter, Band 7/8, Night Vision Devices (NVDs), USQ-113 software improvements and data fusion with national assets. The course of maturing ICAP III to full potential will consist of 4 Block upgrades to deliver approximately 15 months apart.</p>				
Mission Planning	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.849	1.974	1.810	2.700
RDT&E Articles Quantity				
<p>(U) Replacement of the Tactical EA-6B Mission System (TEAMS) with the Joint Mission Planning Systems (JMPS) and associated EA-6B Unique Planning Components (UPC's).</p>				

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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 0556 EW Counter Response		
B. Accomplishments/Planned Program (Cont.)				
LINK-16 Message Sets and Data Links	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.334	2.376	2.510	2.280
RDT&E Articles Quantity				
<p>(U) Complete testing and correction of deficiencies of the Link-16 modification. Mature the ICAP III weapon system and Link 16 network participation to its full potential by incorporating additional Electronic Warfare message sets enabling full integration with other EW national assets. These datalink enhancements will enable the EA-6B ICAP III participation within Force Net and facilitate the EA contributions to the greater situational awareness allowed by NetWork Centric Warfare efforts.</p>				
JATO	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	9.640	10.305	10.504	11.608
RDT&E Articles Quantity				
<p>(U) Continue software development and test support required to address and counter new threat development for both the ICAP II and ICAP III EA configurations. JATO will continue to optimize and generate tactics and techniques as the full potential of the ALQ-218's selective reactive jamming capabilities are developed and employed. JATO will optimize the fusion and correlation of the ALQ-218 tracks with other national asset contacts.</p>				
FIBER OPTIC	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.600			
RDT&E Articles Quantity				
<p>(U) Continued development of the Fiber Optic Wave Division Multiplexing Flight Testing Optical Communication using Open Standards (FOCUS) 2 for the developmental testing, and the EA-6B lab at Point Mugu and Crane, for the Highly Integrated Photonics (HIP).</p>				

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APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	PROJECT NUMBER AND NAME 0556 EW Counter Response

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 04	FY 05	FY 06	FY 07
Previous President's Budget	35.366	33.968	35.229	35.846
Current BES/President's Budget	42.406	33.558	33.362	32.775
Total Adjustments	7.040	-0.410	-1.867	-3.071
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions		-0.369		
Congressional rescissions				
SBIR/STTR Transfer				
Other adjustments		-0.041	-2.895	-3.592
Economic Assumptions	-0.033		1.028	0.521
Reprogrammings	7.073			
Congressional increases				
Subtotal	7.040	-0.410	-1.867	-3.071

Schedule:

ICAP III Full Rate Production (FRP) moved to FY05. The two primary factors in the schedule slip were software development and lack of test assets. The ICAP III program completed operational testing (OPEVAL) on 3 Sept 2004, and is currently completing Verification for Correction of Deficiencies.

Technical:

Not Applicable

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D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</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>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
P-1 # 24, EA-6 Series	235.839	115.828	120.619	49.152	22.976	18.378	18.85	19.331	119.413	3072.4
E. ACQUISITION STRATEGY:										
<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 contract award was completed in FY 2003. Milestone III and Full Rate Production are scheduled for FY 2005 with Initial Operating Capability in FY 2005.										

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Exhibit R-3 Cost Analysis (page 1)								DATE:				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604270N Electronic Warfare Development			0556 EW Counter Response						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev - LBT	C/FPI	BAE Systems Lansdale, PA	31.567								31.567	31.567
Primary Hdw Develop - ICAP III	C/CPAF	Northrop Grumman, NY	245.304	4.553	01/05	3.508	10/05	1.642	10/06		255.007	255.007
Primary Hdw Develop - Spray Cool	C/CPFF	Isothermal Sys Research	2.612								2.612	2.612
Primary Hdw Develop - Link 16	SS/CPFF	Northrop Grumman, NY	56.687								56.687	56.687
Primary Hdw Develop - Min of ICAP	SS/CPFF	Northrop Grumman, NY	2.636								2.636	2.636
Primary Hdw Develop - LOCO GPSI	TBD	SPAWAR	8.786								8.786	8.786
Primary Hdw Develop - Fiber Optic	C/CPFF	DMEA, McClellan AFB	1.082								1.082	1.082
Primary Hdw Develop - EA-18G	SS/CPFF	McDonnell Douglas	2.024								2.024	2.024
PHD - ICAP III Blk Updates/MIDS	BOA	Northrop Grumman, NY	6.474	4.576	11/04	7.209	10/05	8.128	10/06	17.500	43.887	43.887
Aircraft Integration - Spray Cool	C/CPFF	Isothermal Sys Research	6.531								6.531	6.531
Primary Hdw Develop-EA-18G	SS/CPFF	McDonnell Douglas	2.024								2.024	2.024
Systems Engineering	WX	NRL, Wash DC	9.787	0.625	10/04	0.800	10/05	1.000	10/06	Continuing	Continuing	
Systems Engineering	WX	NADEP JAX	6.845	0.850	10/04	0.725	10/05	0.750	10/05	Continuing	Continuing	
Systems Engineering	WX	NSWC Crane	12.967	2.463	10/04	1.175	10/05	1.020	10/06	Continuing	Continuing	
Systems Engineering	WX	NAWCAD PAX	29.752	4.954	10/04	6.331	10/05	5.147	10/06	Continuing	Continuing	
Systems Engineering	WX	NAWCAD LKE	3.337	0.200	10/04	0.200	10/05	0.200	10/06	Continuing	Continuing	
Systems Engineering	WX	NAWCWD, PT MUGU	30.866	5.300	10/04	4.557	10/05	4.790	10/06	Continuing	Continuing	
Systems Engineering	WX	VARIOUS	49.319	1.507	10/04	0.400	10/05	0.769	10/06	Continuing	Continuing	
Award Fees - ICAP III	C/CPAF	Northrop Grumman, NY	6.474	4.000	10/04						10.474	10.474
Subtotal Product Development			515.074	29.028		24.904		23.446		Continuing	Continuing	
Remarks: FY03 and prior year award fee earned is 46% (ICAP III)												

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 1)								DATE:				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604270N Electronic Warfare Development			0556 EW Counter Response						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support - JATO	SS/FP	JHU/APL, Columbia MD	11.853	2.400	01/05	2.114	01/06	2.304	01/07	6.200	24.871	24.871
Development Support	Various	MISC	12.009								12.009	12.009
Studies & Analysis - AEA Studies	Various	Various	19.694								19.694	19.694

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604270N Electronic Warfare Development			0556 EW Counter Response						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Testing - ICAP III	WX	NAWCAD, PAX	8.522								8.522	
Dev Test - ICAP III Blk I/II/III	WX	NAWCAD, PAX		1.530	10/04	2.475	10/05	2.650	10/06		6.655	
Developmental Testing - Mission Plan	WX	NAWCWD, PT MUGU	0.400	0.200	12/04	0.484	12/05	0.850	12/06		1.934	
Developmental Testing - Fiber Optic	WX	NAWCAD, PAX	0.398								0.398	
Developmental Testing - LBT	WX	NAWCAD, PAX	3.893								3.893	
Developmental Testing - Spray Cool	WX	NAWCWD, PT MUGU	1.306								1.306	
Operational Test & Eval: Mission Plan	WX	OPTEVFOR, Norfolk, VA	0.200	0.300	12/04	0.200	12/05	0.200	12/06		0.900	
Operational Test & Eval: ICAP III	WX	OPTEVFOR, Norfolk, VA	11.756			2.785	11/05	2.850	10/06		17.391	
Operational Test & Eval: LBT	WX	OPTEVFOR, Norfolk, VA	1.000								1.000	
Subtotal T&E			27.475	2.030		5.944		6.550		0.000	41.999	
Remarks: Funding is required to conduct ICAP III and LBT developmental/operational test planning, execution and reporting.												
Government Eng Supt - Mission Plan	WX	NAWCWD, PT MUGU	0.200	0.100	02/05	0.400	11/04	0.475	02/07		1.175	
Program Mgmt Support- Spray Cool	WX	NAWCAD, PAX	1.306								1.306	
Subtotal Management			1.506	0.100		0.400		0.475		0.000	2.481	
Remarks:												
Total Cost			587.611	33.558		33.362		32.775		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												0604270N Electronic Warfare Development								0556 EW Counter Response												
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				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	1	2	3	4
Acquisition Milestones LBT																																
LBT																																
Acquisition Milestones ICAP III																																
Test & Evaluation Milestones LBT																																
ICAP III Development Test/Operational Test																																
Production Milestones LBT																																
LRIP Start - FY05																																
FRP Start - FY07																																
ICAP III LRIP Award - FY03																																
FRP Award - FY05																																
FRP FY 07																																
Deliveries																																

* Not required for Budget Activities 1, 2, 3, and 6

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Exhibit R-4, Schedule Profile
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Exhibit R-4a, Schedule Detail
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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/ BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development				PROJECT NUMBER AND NAME 2175/2635 TACAIR ELECTRONIC WARFARE			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	21.578*	13.226	7.631	5.339				
RDT&E Articles Qty	Not Applicable							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This 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 Advanced Strategic and Tactical Expendables (ASTE). It also integrates RFCM 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.

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 an Electronic Warfare (EW) Bus Controller.

AN/ALE-50 ADVANCED AIRBORNE EXPENDABLE DECOY (AAED): This subproject developed the system to decoy enemy radio frequency homing missiles away from friendly aircraft.

*FY 2004 reflects a \$9.000M Congressional Add for IDECM , Project 2635 which has been revised by -\$0.008M Congressional undistributed reduction, -\$0.100M for Economic Assumptions, and - \$0.143M for Small Innovative Research. Project 2635 does not have any funding after FY 2004.

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B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	21.578	13.226	7.631	5.339
RDT&E Articles Quantity				
<p>Fund engineering and manufacturing (E&MD) contract and engineering, technical and logistic support. Fund A-Kit Block 2 (ALQ-214) efforts for integration of the Radio Frequency Countermeasure (RFCM) subsystems into the F/A-18 E/F.</p> <p>Fund Block 3 (Fiber Optic Towed Decoy (FOTD) efforts for integration of the RFCM subsystems into the F/A-18 E/F.</p> <p>Fund Block 3 (FOTD) Combined Developmental Testing and Operational Testing. Fund Block 3 (FOTD) OPEVAL and Milestone III decision.</p>				

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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 2175/2635 TACAIR ELECTRONIC WARFARE

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget:	22.057	13.354	7.582	5.289
Current BES/President's Budget	21.578	13.226	7.631	5.339
Total Adjustments	-0.479	-0.128	0.049	0.050
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions		-0.117		
Congressional rescissions				
SBIR/STTR Transfer	-0.143			
Other adjustments		-0.011	-0.011	-0.030
Economic Assumptions	-0.008		0.060	0.080
Reprogrammings	-0.328			
Congressional increases				
Subtotal	-0.479	-0.128	0.049	0.050

Schedule:

Schedule has been restructured due to the Air Force no longer participating in the IDECM program.

Technical: Not Applicable.

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APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N/BA-5			0604270N Electronic Warfare Development			2175/2635 TACAIR ELECTRONIC WARFARE				
D. OTHER PROGRAM FUNDING SUMMARY:										
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
APN-5 Line 52 Common ECM (OSIP 007-03 - IDECM)	11.818	36.098	42.942	35.121	36.027	36.459	37.238	38.511	148.444	422.658
E. ACQUISITION STRATEGY:										
<p>IDECM sole source radio frequency countermeasure full rate production (FRP) in FY 04 and Fiber optic towed decoy sole source FRP in FY 07.</p>										

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N/BA-5			0604270N Electronic Warfare Development			2175/2635 TACAIR ELECTRONIC WARFARE						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Develop (IDECM)	C-CPIF	BAE/NH	231.713								231.713	231.713
Ancillary Hardware Develop (IMPLC)	SS/CPFF	RAYTHEON/GOLETA, CA	28.312	1.250	12/04	0.600	12/05	0.400	12/06		30.562	30.562
Training Development												
Aircraft Platform Integration (IDECM)	SS/FFP	BOEING, MO	70.761	0.400	10/04	0.500	12/05	0.250	12/06		71.911	71.911
Ship Suitability												
Systems Engineering	WX/RX	CHINA LAKE/CA	61.559	0.925	10/04	0.600	10/05	0.450	10/06		63.534	
EMD Support (IDECM)	BOA	BAE/NH	16.383	0.400	12/04	0.550	12/05	0.500	12/06		17.833	17.833
Navy Only Fiber Optic Towed Decoy	CPFF	Raytheon/Goleta, CA		0.380	12/04	0.300	12/05	0.250	12/06		0.930	0.930
Tooling												
Award Fees												
Miscellaneous (effort < \$1M each)	WX/RX	VARIOUS	46.390								46.390	
Navy Only Fiber Optic Towed Decoy	CPFF	ITT/NJ		0.200	12/04	0.150	12/05	0.100	12/06		0.450	0.450

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 16 of 38)

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Exhibit R-3 Cost Analysis (page 2)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY RD&E, N/BA-5			PROGRAM ELEMENT 0604270N Electronic Warfare Development			PROJECT NUMBER AND NAME 2175/2635 TACAIR ELECTRONIC WARFARE						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support												
Software Development (IDECM)	SS/CPFF	Raytheon, Goleta CA	6.349								6.349	6.349
Integrated Logistics Support	WX/RX	Jacksonville, FL	0.695	0.300	03/05	0.250	12/05	0.200	11/06		1.445	
Configuration Management												
Technical Data												
Studies & Analyses	WX/RX	Various	0.500	0.222	02/05	0.150	12/05				0.872	
GFE												
Award Fees												
Software Development (IDECM)	SS/CPFF	Litton, CA	4.336								4.336	4.336
Subtotal Support			11.880	0.522		0.400		0.200			13.002	
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 3)										DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5			PROGRAM ELEMENT 0604270N Electronic Warfare Development				PROJECT NUMBER AND NAME 2175/2635 TACAIR ELECTRONIC WARFARE						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
ENGINEERING/LOGISTIC SPT	WX/RX	NAWC-AD/PAX	26.972	1.500	11/04						28.472		
ENGINEERING TECH FLT TEST	WX/RX	NAWC-WD, CL	39.538	6.850	12/04	2.049	10/05	1.850	10/06		50.287		
Miscellaneous (efforts < \$1M each)	WX/RX	Various	3.087	0.099	12/04	0.150	12/05	0.100	12/06		3.436		
Test Support	WX/RX	OPTEVFOR	3.045			1.700	11/05	0.800	10/06		5.545		
Tooling													
GFE													
Award Fees													
Subtotal T&E			72.642	8.449		3.899		2.750			87.740		
Remarks:													
Contractor Engineering Support													
Government Engineering Support													
Program Management Support	WX/RX	NAWC-AD/Pax/Various	22.797	0.700	11/04	0.632	10/05	0.439	10/06		24.568		
Miscellaneous (efforts < \$1M each)	WX/RX	Various	6.421								6.421		
Transportation													
SBIR Assessment													
Subtotal Management			29.218	0.700		0.632		0.439			30.989		
Remarks:													
Total Cost			568.858	13.226		7.631		5.339			595.054		
Remarks:													

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 18 of 38)

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:								
February 2005																																
APPROPRIATION/BUDGET ACTIVITY									PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N/BA-5									0604270N Electronic Warfare Development												2175/2635 TACAIR ELECTRONIC WARFARE											
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				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	1	2	3	4
Acquisition Milestones		MS III ▲ IB-2			IOC ★ IB-2							MS III △ IB-3	IOC ☆ IB-3																			
IB-3 Development	▲	Envelope Expansion /DT / Combined DT/OT								△																						
Software	[REDACTED]																															
		IB-2 / IB-3 UPDATES																														
Navy Only Requirement FOTD					▲	Development				△																						
Test & Evaluation Milestones																																
IB-3 Development				DT				△																								
Navy Only Requirement FOTD								△					△																			
IB-3 Integrated DT/OT												△	Integrated DT/OT			△																
Production Milestones																																
ALQ-214 (IB2)			FRP 1 ▲		FRP 2 ▲				FRP 3 △				FRP 4 △				FRP 5 △				FRP 6 △				FRP 7 △				FRP 8 △			
Navy Only Requirement FOTD (IB3)										LRIP 2 △			FRP 1 △				FRP 2 △				FRP 3 △				FRP 4 △				FRP 5 △			
Deliveries																																
ALQ-214			LRIP 2			LRIP 3			FRP1				FRP2				FRP3				FRP 4				FRP 5				FRP 6			
Navy Only Requirement FOTD														LRIP 2				FRP 1			FRP 2				FRP 3				FRP 4			

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Exhibit R-4, Schedule Profile
(Exhibit R-4, page 19 of 38)

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT				PROJECT NUMBER AND NAME			
RDT&E, N/BA-5	0604270N Electronic Warfare Development				2175/2635 TACAIR ELECTRONIC WARFARE			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
IB-2 MILESTONE III (IB-2)	2Q							
IB-2 IOC (IDECM BLOCK 2)		1Q						
IB-3 MILESTONE III			4Q					
IB-3 IOC				2Q				
IB-3 Development, Envelope Expansion/DT/Combined DT/OT	1Q-4Q	1Q-4Q	1Q					
IB-2/ IB-3 Updates (Software)	1Q-4Q	1Q-4Q						
Navy Only FOTD Development		1Q-4Q	1Q					
IB-3 Development DT	1Q-4Q	1Q-2Q						
Navy Only FOTD Combined DT/OT (T&E)		3Q-4Q	1Q					
IB-3 Integrated DT/OT			1Q-3Q					
ALQ-214 FRP 1 (Production IB-2)	3Q							
ALQ-214 FRP 2 (Production IB-2)		1Q						
ALQ-214 FRP 3 (Production IB-2)			1Q					
ALQ-214 FRP 4 (Production IB-2)				1Q				
ALQ-214 FRP 5 (Production IB-2)								
ALQ-214 FRP 6 (Production IB-2)								
ALQ-214 FRP 7 (Production IB-2)								
ALQ-214 FRP 8 (Production IB-2)								
Navy Only Requirement FOTD LRIP 2 (IB-3)			2Q					
Navy Only Requirement FOTD FRP 1 (Production - IB-3)				1Q				
Navy Only Requirement FOTD FRP 2 (Production - IB-3)								
Navy Only Requirement FOTD FRP 3 (Production - IB-3)								
Navy Only Requirement FOTD FRP 4 (Production - IB-3)								
Navy Only Requirement FOTD FRP 5 (Production - IB-3)								
ALQ-214 LRIP 2 DELIVERIES	2Q							
ALQ-214 LRIP 3 DELIVERIES		2Q						
ALQ-214 FRP 1 DELIVERIES			1Q					
ALQ-214 FRP 2 DELIVERIES				1Q				
ALQ-214 FRP 3 DELIVERIES								
ALQ-214 FRP 4 DELIVERIES								
ALQ-214 FRP 5 DELIVERIES								
ALQ-214 FRP 6 DELIVERIES								
Navy Only Requirement FOTD LRIP 2 DELIVERIES				2Q				
Navy Only FOTD FRP 1 Deliveries								
Navy Only FOTD FRP 2 Deliveries								
Navy Only FOTD FRP 3 Deliveries								
Navy Only FOTD FRP 4 Deliveries								

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 20 of 38)

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CLASSIFICATION: UNCLASSIFIED								
EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development					PROJECT NUMBER AND NAME R2260 Specific Emitter ID		
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.756	0.708	0.726	0.675	0.745	0.666	0.681	0.696
RDT&E Articles Qty								
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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>								

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Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 21 of 38)

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CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																																														
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	PROJECT NUMBER AND NAME R2260 Specific Emitter ID																																															
<p>(U) B. Accomplishments/Planned Program</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr> <th style="width: 25%;"></th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>Sensor Fusion</td> <td>0.200</td> <td>0.100</td> <td>0.200</td> <td>0.275</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>This effort supports systems development and information fusion of improved Specific Emitter Identification (SEI) technology for automation of hardware, national collection systems, signal processing and analysis, and de-interleaving of signals. Work was performed on increasing sensor fusion and automation to reduce staffing and support remote access and control capability. In FY04 this effort supported the deployment and real world tuning of highly automated SEI systems with sensor fusion, achieving goals of increased performance and reduced staffing. In FY05 - FY07 this effort supports the fusion, development, and deployment for new sources of sensor data with the SEI technology to enable more robust signal detection and tracking.</p> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr> <th style="width: 25%;"></th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>System Automation</td> <td>0.342</td> <td>0.308</td> <td>0.226</td> <td>0.200</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>This effort supports development of a autonomous surveillance system capable of providing emitter signal information to a central location. In FY04 - FY07, this effort supports the deployment and real world tuning of an autonomous emitter signal surveillance system, monitor base station, and remote site operations.</p> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr> <th style="width: 25%;"></th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> <tr> <td>Technology Refresh & Communication Enhancement</td> <td>0.214</td> <td>0.300</td> <td>0.300</td> <td>0.200</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 5px;"> <p>This effort improves SEI system performance, real-time communication and tactical use of SEI which will be expanded with next generation SEI technology. In FY04, this effort developed and demonstrated enhanced system support for real-time communication and tactical use of SEI and other signal data. In FY05, this effort will improve and deploy enhanced system support for real-time communication and tactical use of SEI and other signal data. In FY06-FY07 next generation SEI hardware will be available for integration into deployed SEI systems.</p> </div>						FY 04	FY 05	FY 06	FY 07	Sensor Fusion	0.200	0.100	0.200	0.275	RDT&E Articles Quantity						FY 04	FY 05	FY 06	FY 07	System Automation	0.342	0.308	0.226	0.200	RDT&E Articles Quantity						FY 04	FY 05	FY 06	FY 07	Technology Refresh & Communication Enhancement	0.214	0.300	0.300	0.200	RDT&E Articles Quantity				
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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																																														
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	PROJECT NUMBER AND NAME R2260 Specific Emitter ID																																															
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 35%;">(U) Funding:</th> <th style="text-align: right; width: 12.5%;">FY 2004</th> <th style="text-align: right; width: 12.5%;">FY 2005</th> <th style="text-align: right; width: 12.5%;">FY 2006</th> <th style="text-align: right; width: 12.5%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget:</td> <td style="text-align: right;">0.756</td> <td style="text-align: right;">0.723</td> <td style="text-align: right;">0.725</td> <td style="text-align: right;">0.673</td> </tr> <tr> <td>Current BES/President's Budget</td> <td style="text-align: right;">0.756</td> <td style="text-align: right;">0.708</td> <td style="text-align: right;">0.726</td> <td style="text-align: right;">0.675</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">-0.015</td> <td style="text-align: right; border-top: 1px solid black;">0.001</td> <td style="text-align: right; border-top: 1px solid black;">0.002</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>Congressional undistributed reductions</td> <td></td> <td style="text-align: right;">-0.014</td> <td></td> <td></td> </tr> <tr> <td>Other adjustments</td> <td></td> <td style="text-align: right;">-0.001</td> <td></td> <td></td> </tr> <tr> <td>Economic Assumptions</td> <td style="text-align: right;">0.000</td> <td></td> <td style="text-align: right;">0.001</td> <td style="text-align: right;">0.002</td> </tr> <tr> <td>Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">-0.015</td> <td style="text-align: right; border-top: 1px solid black;">0.001</td> <td style="text-align: right; border-top: 1px solid black;">0.002</td> </tr> </tbody> </table> <p>(U) Schedule: Not Applicable</p> <p>(U) Technical: Not Applicable</p>					(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007	Previous President's Budget:	0.756	0.723	0.725	0.673	Current BES/President's Budget	0.756	0.708	0.726	0.675	Total Adjustments	0.000	-0.015	0.001	0.002	Summary of Adjustments					Congressional undistributed reductions		-0.014			Other adjustments		-0.001			Economic Assumptions	0.000		0.001	0.002	Subtotal	0.000	-0.015	0.001	0.002
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007																																													
Previous President's Budget:	0.756	0.723	0.725	0.673																																													
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Economic Assumptions	0.000		0.001	0.002																																													
Subtotal	0.000	-0.015	0.001	0.002																																													

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CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N Electronic Warfare Development	PROJECT NUMBER AND NAME R2260 Specific Emitter ID
<p>(U) D. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Not Applicable</p> <p>(U) E. ACQUISITION STRATEGY:</p> <p>This is a non-acquisition Research and Development Program.</p>		

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* Not required for Budget Activities 1, 2, 3, and 6

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.812	0.875	0.948	1.147	1.168	1.189	1.211	1.232
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Skunkworks is a CNO N614 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 successful mission accomplishment.</p>								

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																
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																	
B. Accomplishments/Planned Program (Cont.)																			
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;"></td><td style="width: 15%;">FY 04</td><td style="width: 15%;">FY 05</td><td style="width: 15%;">FY 06</td><td style="width: 15%;">FY 07</td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>0.400</td><td>0.431</td><td>0.435</td><td>0.445</td></tr><tr><td>RDT&E Articles Quantity</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr></table> <div style="border: 1px solid black; height: 60px; margin-top: 10px; padding: 5px;">-(U) Continue airborne IW jammer development, test and evaluation.</div>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.400	0.431	0.435	0.445	RDT&E Articles Quantity	N/A	N/A	N/A	N/A
	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.400	0.431	0.435	0.445															
RDT&E Articles Quantity	N/A	N/A	N/A	N/A															
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;"></td><td style="width: 15%;">FY 04</td><td style="width: 15%;">FY 05</td><td style="width: 15%;">FY 06</td><td style="width: 15%;">FY 07</td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>0.000</td><td>0.000</td><td>0.223</td><td>0.248</td></tr><tr><td>RDT&E Articles Quantity</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr></table> <div style="border: 1px solid black; height: 60px; margin-top: 10px; padding: 5px;">-(U) Continue unmanned aerial vehicle IW payload test and development.</div>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.223	0.248	RDT&E Articles Quantity	N/A	N/A	N/A	N/A
	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.223	0.248															
RDT&E Articles Quantity	N/A	N/A	N/A	N/A															
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%;"></td><td style="width: 15%;">FY 04</td><td style="width: 15%;">FY 05</td><td style="width: 15%;">FY 06</td><td style="width: 15%;">FY 07</td></tr><tr><td>Accomplishments/Effort/Subtotal Cost</td><td>0.412</td><td>0.444</td><td>0.290</td><td>0.454</td></tr><tr><td>RDT&E Articles Quantity</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr></table> <div style="border: 1px solid black; height: 60px; margin-top: 10px; padding: 5px;">-(U) Continue aircraft IW system design.</div>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	0.412	0.444	0.290	0.454	RDT&E Articles Quantity	N/A	N/A	N/A	N/A
	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	0.412	0.444	0.290	0.454															
RDT&E Articles Quantity	N/A	N/A	N/A	N/A															

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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		

C. PROGRAM CHANGE SUMMARY:

	FY 04	FY 05	FY 06	FY 07
Funding:				
Previous President's Budget:	0.823	0.911	0.941	1.137
Current BES/President's Budget	0.812	0.875	0.948	1.147
Total Adjustments	-0.011	-0.036	0.007	0.010
Summary of Adjustments				
Congressional Adj. Sect 8105: Reduce IT Dev Cost Growth		-0.022		
Congressional Adj. Sect 8122: Mgmt Improvements Savings		-0.003		
Congressional Adj. Sect 8131 : Non-Statutory Funding Reduction		-0.005		
SBIR/STTR Assessment	-0.010			
OSD				
PBD 604 Inflation Savings	-0.001	-0.001	-0.001	-0.004
Economic Assumptions		-0.005	0.008	0.014
Reprogrammings				
Congressional increases				
Subtotal	-0.011	-0.036	0.007	0.010

Schedule:

Not Applicable

Technical:

Not Applicable

R-1 SHOPPING LIST - Item No. 98

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005			
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					
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</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>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
Not Applicable										
E. ACQUISITION STRATEGY: *										
- Not Applicable										

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 31 of 38)

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 32 of 38)

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604270N Electronic Warfare Development			Z1742 EW Technical Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various	1.110	0.200	Var	0.200	Var	0.200	Var	0.600	2.310	
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fee												
											0.000	
Subtotal T&E			1.110	0.200		0.200		0.200		0.600	2.310	
Remarks:												
Contractor Engineering Support	Various	Various	0.558	0.114	Various	0.127	Various	0.135	Various	0.390	1.324	
Government Engineering Support	Various	Various	0.515	0.111	Various	0.115	Various	0.120	Various	0.480	1.341	
Program Management Support											0.000	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			1.073	0.225		0.242		0.255		0.870	2.665	
Remarks:												
Total Cost			4.458	0.875		0.948		1.147		4.781	12.209	
Remarks:												

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CLASSIFICATION:

[illegible]

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 34 of 38)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N EW DEVELOPMENT				PROJECT NUMBER AND NAME 9499 IR SIGNATURE REDUCTION			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		1.288						
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

IR Signature Reduction to Mitigate Terrorist Missile Threat. FY 2005 Congressional Add.

The proliferation of fourth generation shoulder-launched infrared (IR) sensing missiles provides one of the greatest challenges to national security at the present time. The Navy is looking for ways to reduce the threat of IR missiles to aircraft from sources such as MANPADS (Man Portable Air Defense Weapon Systems), especially against those slow climbing aircraft that contribute to the transportation of armed forces around the world. The resulting product of this research could give the military a more secure and dependable capability to guard against this threat.

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Exhibit R-2a, RDTEN Project Justification
(Exhibit R-2a, page 35 of 38)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N EW DEVELOPMENT	PROJECT NUMBER AND NAME 9499 IR SIGNATURE REDUCTION		
B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	1.288	0.000	0.000
RDT&E Articles Quantity				
<p>This FY 2005 Congressional add funding will be used to focus on research and lab equipment necessary to develop a laboratory for working with Infrared (IR) signature reduction. Crane Naval Surface Warfare Center, along with Purdue University, will provide the technology evaluation and testing for the research carried out to counteract these threats. Research will include candidate design assessments against various current and coming-in-service IR missiles, including the effect of various atmospheric condition and clutter background.</p>				

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604270N EW DEVELOPMENT	PROJECT NUMBER AND NAME 9499 IR SIGNATURE REDUCTION

C. PROGRAM CHANGE SUMMARY:

	FY 2004	FY 2005	FY 2006	FY 2007
Funding:				
Previous President's Budget:		0.000		
Current BES/President's Budget		1.288		
Total Adjustments	0.000	1.288	0.000	0.000
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions		-0.012		
Congressional rescissions				
SBIR/STTR Transfer				
Economic Assumptions				
Reprogrammings				
Congressional increases		1.300		
Subtotal	0.000	1.288	0.000	0.000

Schedule: Not Applicable.

Technical: Not Applicable.

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CLASSIFICATION:

[illegible]