

CLASSIFICATION:							
EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /			R-1 ITEM NOMENCLATURE 0204575N Electronic Warfare (EW) Readiness Support				
BA 7							
COST (\$ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	26.441	33.779	24.276	29.552	30.861	32.196	33.146
2263 Information Warfare Systems	21.501	33.779	24.276	29.552	30.861	32.196	33.146
2462 Retract Barley	4.940	0.000	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: (U) The Navy Information Operations Command Suitland (NIOC) serves as the Program Management Office of the Offensive Information Warfare (IW) program. As such, NIOC Suitland is tasked as the Navy's principal technical agent to research, assess, and develop IW capabilities. The key focus areas include Information Operations (IO) Mission Management, Electronic Attack (EA), and Computer Network Operations. (U) IO Mission Mangement: Develops software to account for antenna modeling, weather calculations, Radio Frequency (RF) modeling, signals mapping and terrain modeling for warfighter use in configuring optimal Electronic Attacks from afloat. Develops command and control mechanism for remote use of Electronic Attack assets to include frequency, antenna alignment and weapon firing data transfer. Develops a modeling and simulation laboratory for the program office to use in the development, intended effect, and risk reduction of new EA capabilities. (U) Electronic Attack (EA): Develops and fields spiral EA capabilities against Fleet Forces Command prioritized signals and target sets. EA capabilities will be integrated into a software architecture baseline that is deployed on subsurface, airborne and surface IO platforms (Classic Troll, Banshee and SSEE-Inc E/ F.) (U) Computer Network Operations (CNO): Funds development and testing of adversary target networks for modeling, simulation, and tailoring of CNO capabilities. Develops specific CNO capabilities to be used against adversary networks. Supports Electronic Target Folder database which provides a means of sharing and storing common CNO data. Studies unique adversary CNO vulnerabilities for exploitation. (U) This program differs greatly between FY07 - FY08 and out due to the designation of NIOC Suitland as the Information Operations Research and Development Innovation Center. This caused a realignment of funds from an existing program (details are held at a higher classification level) and a reappropriation of funds to all RTD&E. Specific variances in FY08 funding will be discussed at the project level.							

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /		BA 7	
		0204575N Electronic Warfare (EW) Readiness Support	
(U) B. Program Change Summary			
(U) Funding:	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>
FY08/09 President's Budget	20.595	34.340	29.576
FY09 President's Submit	<u>26.441</u>	<u>33.779</u>	<u>24.276</u>
Total Adjustments	5.846	-0.561	-5.300
Summary of Adjustments			
Small Business Innovation Research (SBIR) Tax	-0.154	0	0
Miscellaneous Adjustments	6.000	-0.343	-5.300
Congressional Adjustments	<u>0</u>	<u>-0.218</u>	<u>0</u>
	6.154	-0.343	-5.300
(U) Schedule: N/A			
(U) Technical: N/A			

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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2008	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204575N Electronic Warfare (EW) Readiness Support			PROJECT NUMBER AND NAME Information Warfare/ 2263			
COST (\$ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost- IO Mission Management	2.598	4.830	4.878	4.932	5.033	5.134	5.235
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: FY2007 Accomplishments (0.9) – RF modeling development (0.2) – IO Mission Management Remote Control (0.1) – Antenna Modeling (Continued level of effort) (0.1) – Terrain Modeling (Continued level of effort) (1.3) – Modeling & Simulation Lab (Continued level of effort) FY2008 Plans (2.5) – RF modeling architecture integration (0.9) – IO Mission Management Remote Control (0.1) – Antenna Modeling (Applied/projected level of effort) (0.2) – Terrain Modeling (Applied/projected level of effort) (1.1) – Modeling & Simulation Lab (Applied/projected level of effort) In FY08 IO Mission management will fund integration onto a new, web-based architecture, reflecting an increase in funding. FY2009 Plans (2.5) – RF modeling architecture integration (0.9) – IO Mission Management Remote Control (0.1) – Antenna Modeling (Applied/projected level of effort) (0.2) – Terrain Modeling (Applied/projected level of effort) (1.2) – Modeling & Simulation Lab (Applied/projected level of effort)							

Exhibit R-2a, RDTEN Project Justification

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0204575N Electronic Warfare (EW) Readiness Support			PROJECT NUMBER AND NAME Information Warfare/ 2263			
COST (\$ in Millions)		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost- Electronic Attack		3.429	10.153	10.287	12.798	12.878	13.854	14.439
RDT&E Articles Qty		N/A	N/A	N/A	N/A	N/A	N/A	N/A
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: FY2007 Accomplishments (0.1) – Completed development of prototype combined DF/ES/EA antenna (3.1) – IW/IO EA capability development (Details held at higher classification level) (0.2) – Testing FY2008 Plans (5.5) – EA Systems Development (Details held at higher classification level) (0.8) – EA antenna development - Continue development work on Photonics antenna (3.0) – IW/IO EA capability development (Details held at higher classification level) (0.9) – Testing FY2009 Plans (5.7) – EA Systems Development (Details held at higher classification level) (0.8) – EA antenna development - Continue development work on Photonics antenna (3.1) – IW/IO EA capability development (Details held at higher classification level) (0.7) – Testing								

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COST (\$ in Millions)		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Project Cost- Computer Network Operations		11.821	15.057	5.271	7.907	8.971	9.149
RDT&E Articles Qty		N/A	N/A	N/A	N/A	N/A	N/A
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: FY2007 Accomplishments (0.6) – Navy IO Architecture (1.8) – Counter Anti-Ship Missile (0.8) – Tactical IO Initiatives (0.5) – Electronic Target Folder Development (0.3) – CNO for boarding teams (6.0) – CNO Project Liberty development (Details held at higher classification level) (1.8) – Computer Network Attack Capabilities Development FY2008 Plans (0.6) – Navy IO Architecture (3.6) – Complete Counter Anti-Ship Missile (1.0) – Tactical IO Initiatives - Complete assessments initial prototypes (0.6) – Electronic Target Folder Development (0.2) – CNO for boarding teams - (Transition Operations) (8.8) – Computer Network Attack Capabilities Development (0.3) – CNO for Maritime Domain Awareness FY2009 Plans (0.6) – Navy IO Architecture (0.4) – Electronic Target Folder Development (4.0) – Computer Network Attack Capabilities Development (0.3) – CNO for Maritime Domain Awareness							

Exhibit R-2a, RDTEN Project Justification

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0204575N Electronic Warfare (EW) Readiness Support			PROJECT NUMBER AND NAME Information Warfare/ 2263		
COST (\$ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost: NVACM/Computer Network Defense	2.753	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: FY2007 Accomplishments (2.4) – Computer Network Defense (0.4) - Secure Infrastructure Technology The NVACM program was terminated beginning FY08.							

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0204575N Electronic Warfare (EW) Readiness Support			PROJECT NUMBER AND NAME Information Warfare/ 2263			
COST (\$ in Millions)		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost: Research & Analysis		0.900	3.739	3.840	3.915	3.979	4.059	4.139
RDT&E Articles Qty		N/A	N/A	N/A	N/A	N/A	N/A	N/A
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: FY2007 Accomplishments (0.9) – Systems Engineering FY2008 Plans (.9) – Systems Engineering (2.8) – *Continue Research & Analysis (Details held at higher classification level) FY2009 Plans (1.0) – Contractor Engineering Support (2.8) –*Continue Research & Analysis (Details held at higher classification level)								

Exhibit R-2a, RDTEN Project Justification

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME	
RDT&E, N /		BA-7		0204575N Electronic Warfare (EW) Readiness Support	
				Information Warfare/ 2263	

(U) B. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
OMN Line 4B7N	4.1	0	.0	0	0	0	0
OPN 234000	5.0	0	0	0	0	0	0
0604270N/Z1742	0.7	7.7	5.5	6.1	6.2	6.3	6.4
OMN Line 4A1M	0	4.5	3.7	3.4	4.7	4.8	4.9

(U) C. ACQUISITION STRATEGY:

NIOC Suitland programs are designated non-ACAT and operate under streamlined acquisition as designated by the ASN(RDA). This designation supports a streamlined acquisition process using the Advanced Concept Technology Demonstration (ACTD) documentation of the Defense Acquisition Guidance.

(U) D. MAJOR PERFORMERS:

<u>Name</u>	<u>Location</u>	<u>Description of Work Performed</u>	<u>FY07</u>	<u>Award Date</u> <u>FY08</u>	<u>FY09</u>
Argon ST	Fairfax, VA	EA Systems Development	1Q-2Q FY07	1Q FY08	1Q FY09
L3 Communications	Reston, VA	Mission Management Development	1Q FY07	1Q FY08	1Q FY09
		Modeling & Simulation	2Q FY07	1Q FY08	1Q FY09
ARL Penn State University	State College, PA	Modeling & Simulation	2Q FY07	1Q FY08	1Q FY09
Naval Research Laboratory	Washington, DC	Research & Analysis	1Q FY07	1Q FY08	1Q FY09
		EA Systems Development	1Q FY07	1Q FY08	1Q FY09
NAWC/WD	China Lake, CA	IO Test Development & Support	1Q FY07	1Q FY08	1Q FY09

R-2a RDTEN Project Justification

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Exhibit R-3 Cost Analysis (page 1)

DATE:

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APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT

PROJECT NUMBER AND NAME

RD&E, N / BA-7

0204575N

Information Warfare/ 2263

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	Various	10.353	0.000	Various	1.910	Various	1.915	Various	Continuing	Continuing	
Ancillary Hardware Development	Various	Various	3.500	1.500	Various	3.750	Various	2.167	Various	Continuing	Continuing	
Systems Engineering												
Systems Engineering												
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			13.853	1.500	Various	5.660	Various	4.082	Various	Continuing	Continuing	

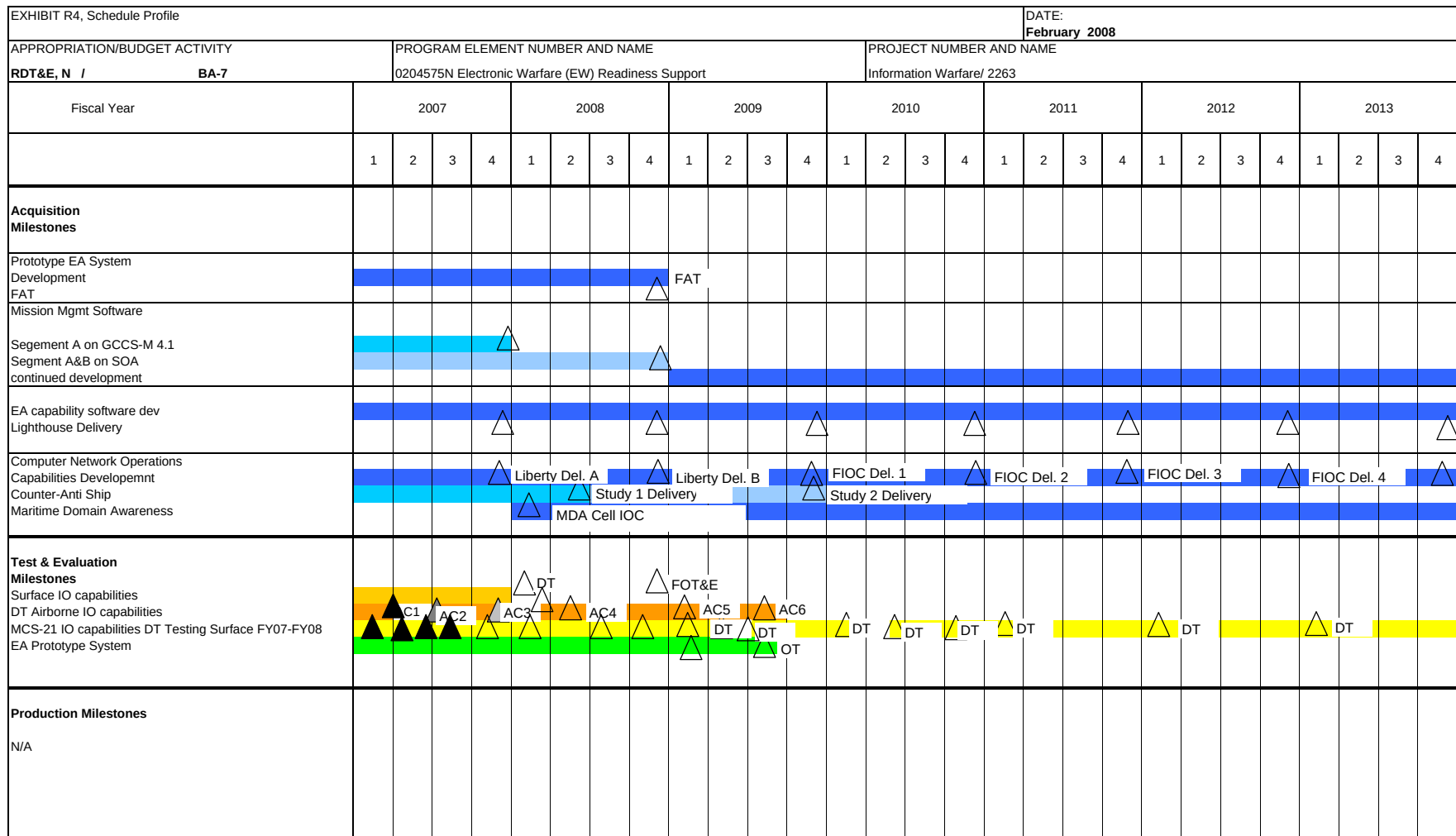
Development Support	Various	Various	6.237	0.000	Various	1.511	Various	2.050	Various	Continuing	Continuing	
Software Development	Various	Various	14.954	18.901	Various	22.057	Various	13.692	Various	Continuing	Continuing	
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
GFE												
Subtotal Support			21.191	18.901		23.568		15.742		Continuing	Continuing	

Remarks: Development support for Mission Management starts in FY07 since the first prototype software model was deployed.

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-7			0204575N				Information Warfare/ 2263					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various	3.100	0.200	Various	0.851	Various	0.652	Various	Continuing	Continuing	
Operational Test & Evaluation												
Live Fire Test & Evaluation												
Test Assets												
Tooling												
GFE												
Subtotal T&E	Various	Various	3.100	0.200	Various	0.851	Various	0.652	Various	Continuing	Continuing	
Remarks:												
Research, Studies and Vul Anal	Various	Various	0.350	0.900	N/A	3.700	10/07	3.800	10/08	Continuing	Continuing	
Subtotal Management	Various	Various	0.350	0.900	Various	3.700	Various	3.800	Various	Continuing	Continuing	
Remarks:												
Total Cost	Various	Various	38.494	21.501	Various	33.779	Various	24.276	Various	Continuing	Continuing	

R-3 RDTEN Project Cost Analysis

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Note: EA Software deliveries will be integrated into existing programs of record on surface, subsurface and airborne platforms to include SSEE-Inc E/F, Classic Troll and Banshee.

Exhibit R-4, Schedule Profile

[illegible]

Exhibit R-4, Schedule Detail

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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7				R-1 ITEM NOMENCLATURE 0204575N/Electronic Warfare (EW) Readiness			
COST (\$ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	4.940	0.000	0.000	0.000	0.000	0.000	0.000
2462 - Retract Barley	4.940	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

In accordance with NAVSEA Notice 5400, Ser 09B/240, Subj: ESTABLISHMENT OF THE NAVY DIRECTED ENERGY WEAPONS PROGRAM OFFICE (PMS 405), dated 4 Jan 02 and NAVSEA Instruction 5400.101, Ser SEA 06/058, Subj: DIRECTED ENERGY AND ELECTRIC WEAPONS PROGRAM OFFICE (PMS 405) CHARTER, dated 21 Jul 04 - COMNAVSEASYSOM (PMS 405) was assigned as the single Point of Contact for matters related to Directed Energy and Electric Weapons development and acquisition initiation for the Navy and for those matters being coordinated with other Federal agencies and military services. The Naval Directed Energy and Electric Weapon Systems Program Office's (PMS 405) mission is to change the way the Navy fights in the 21st century by transitioning Directed Energy and Electric weapon technology, providing the war fighter with additional tools to fight today's and tomorrow's wars. In order to meet Navy requirements, we must effectively manage the transition of 6.3 advanced technology development initiatives through early 6.4 development, demonstration, and validation. PMS 405 will manage development of Directed Energy and Electric Weapon Systems onboard future naval surface ships that incorporate: Weapons Grade High Energy Lasers, Free Electron Lasers (Megawatt class), Electromagnetic Rail Gun (EMRG), High Power Microwave Weapons and Sensor Systems, and other systems.

Exhibit R-2, RDTEN Budget Item Justification

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EXHIBIT R-2, RDT&E Project Justification			DATE:	
			February 2008	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-7	0204575N - Electronic Warfare (EW) Readiness	2462 - Retract Barley		
B. PROGRAM CHANGE SUMMARY:				
Funding:	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
FY08 President's Budget:	4.983	0.000	0.000	0.000
FY09 President's Budget:	4.940	0.000	0.000	0.000
Total Adjustments	-0.043	0.000	0.000	0.000
Summary of Adjustments				
Miscellaneous Adjustments	-0.043	0.000	0.000	0.000
Subtotal	-0.043	0.000	0.000	0.000
Schedule:				
Not Applicable.				
Technical:				
Not Applicable.				

Exhibit R-2, RD TEN Budget Item Justification

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0204575N - Electronic Warfare (EW) Readiness		PROJECT NUMBER AND NAME 2462 - Retract Barley			

C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
0603925N - Congressional Plus Ups	27.197								45.09
0601108F - JTO ***									
0602890F - JTO ***									
0601108F - JTO ***									
0602114N - ONR ***									
0603114N - ONR ***									

Notes *** Funding from these other sources varies from year to year based on the development efforts required/funded.

D. ACQUISITION STRATEGY:

Not Applicable (R&D effort only)

E. MAJOR PERFORMERS:

Government Field Activities: NRL; NSWC CD; NSWC Crane; NSWC DD.

Contractors: SAIC; Envisioneering; SYS.

Exhibit R-2, RDTEN Budget Item Justification

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0204575N - Electronic Warfare (EW) Readiness	PROJECT NUMBER AND NAME 2462 - Retract Barley		
B. Accomplishments/Planned Program				
Retract Barley - 2462	FY 07	FY 08	FY 09	FY 10
Accomplishments/Effort/Subtotal Cost	4.940	0.000	0.000	0.000
RDT&E Articles Quantity	N/A	N/A	N/A	N/A
Retract Barley is a program to develop/determine the viability of a unique Information Operations concept based on utilizing high power RF technology. The purpose is electronic attack of military and/or civilian infrastructure systems to achieve graded effects on targets, ranging from operational disruption to permanent damage. The potential capability would be useful in scenarios for which kinetic attack is now allowed based on possible collateral damage or rules-of-engagement restrictions.				

Exhibit R-2a, RDTEN Project Justification

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2008				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7			PROGRAM ELEMENT 0204575N - Electronic Warfare (EW) Readiness			PROJECT NUMBER AND NAME 2462 - Retract Barley						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Retract Barley	Various	Various		4.940	06/07						4.940	
Total			0.000	4.940		0.000		0.000			4.94	
Remarks: Mutiple funding documents and contract vehicles were utilized to obtain the services of the government field activities, academia, and contractors listed on the R-2a Page(s) 7-10. Costs shown reflect all expenses (management, engineering, cost of doing business, travel, etc.).												

Exhibit R-3, Project Cost Analysis