

<b>CLASSIFICATION:</b>								
EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY /</b>				R-1 ITEM NOMENCLATURE PE 0204574N Cryptologic Direct Support				
<b>BA 7</b>								
<b>COST (\$ in Millions)</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Total PE Cost	1.402	1.420	1.443	1.435	1.639	1.652	1.705	2.066
3091 / Advanced Cryptologic Systems Engineering	1.402	1.420	1.443	1.435	1.639	1.652	1.705	2.066
Quantity of RDT&E Articles								
<b>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b>								
<p>The Advanced Cryptologic Systems Engineering program develops state-of-the-art signal acquisition software in response to Combatant Command requirements for a quick-reaction surface, subsurface and airborne cryptologic carry-on capability. There are approximately 100 cryptologic capable surface ships in the current Navy inventory. Each of these ships is a potential user of this carry-on equipment, depending on deployment schedules and the tempo of operations. In addition, there are numerous subsurface and air platforms that are also potential users. This funding line will provide the resources to enable rapid transition of available Commercial Off The Shelf (COTS) and Government Off The Shelf (GOTS) technologies that apply to Fleet requirements for carry-on system functionalities. These technologies typically require various levels of integration to leverage on-board systems that provide system and mission management, product reporting and data analysis. COTS/GOTS system documentation and training materials usually require some level of adaptation or modification to meet fleet operator requirements, or entirely new training materials may need to be developed. Before deployment for operational use, systems must be systematically tested to ensure suitable and reliable operation, tested for network vulnerabilities if connected to shipboard LANs, and tested relative to interoperability requirements. This RDT&amp;E will provide resources to address rapid deployment of enhancements or improvements to the common hardware and/or software baseline of all other carry-on subsystems to meet emergent requirements.</p>								
<b>(U) JUSTIFICATION FOR BUDGET ACTIVITY:</b>								
<p>This program is funded under BA-7, OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrade of existing operational systems.</p>								

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA 7</b>	PROGRAM ELEMENT NUMBER AND NAME PE 0204574N Cryptologic Direct Support	PROJECT NUMBER AND NAME 3091 / Advanced Cryptologic Systems Engineering			
<b>(U) B. PROGRAM CHANGE SUMMARY:</b>					
(U) Funding:		FY 2006	FY 2007	FY 2008	FY 2009
FY07 President's Budget Submit		1.401	1.425	1.443	1.431
FY08 President's Budget Submit		1.402	1.420	1.443	1.435
Total Adjustments		0.001	-0.005	0.000	0.004
Summary of Adjustments					
Congressional Action 1% Reduction		0.001			
Sec. 8106: Revised Economic Assumptions			-0.005		
FY08/09 NWCF Rate Adjustments - SPAWAR Systems Centers					0.003
PBD 426 Non-Purchase Inflation Adj.					0.001
Subtotal		0.001	-0.005	0.000	0.004
(U) Schedule: Not Applicable					
(U) Technical: Not Applicable					

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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>			PROGRAM ELEMENT NUMBER AND NAME PE 0204574N Cryptologic Direct Support			PROJECT NUMBER AND NAME 3091 / Advanced Cryptologic Systems Engineering			
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost		1.402	1.420	1.443	1.435	1.639	1.652	1.705	2.066
RDT&E Articles Qty									
<p><b>(U) (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b></p> <p>The Advanced Cryptologic Systems Engineering program develops state-of-the-art signal acquisition software in response to Combatant Command requirements for a quick-reaction surface, subsurface and airborne cryptologic carry-on capability. There are approximately 100 cryptologic capable surface ships in the current Navy inventory. Each of these ships is a potential user of this carry-on equipment, depending on deployment schedules and the tempo of operations. In addition, there are numerous subsurface and air platforms that are also potential users. This funding line will provide the resources to enable rapid transition of available Commercial Off The Shelf (COTS) and Government Off The Shelf (GOTS) technologies that apply to Fleet requirements for carry-on system functionalities. These technologies typically require various levels of integration to leverage on-board systems that provide system and mission management, product reporting and data analysis. COTS/GOTS system documentation and training materials usually require some level of adaptation or modification to meet fleet operator requirements, or entirely new training materials may need to be developed. Before deployment for operational use, systems must be systematically tested to ensure suitable and reliable operation, tested for network vulnerabilities if connected to shipboard LANs, and tested relative to interoperability requirements. Additionally, the future Maritime Cryptologic Architecture (MCA) realized under Ships Signals Exploitation Equipment (SSEE) Increment E and subsequent increments will be procured under Cryptologic Carry-On Equipment. This RDT&amp;E will provide resources to address rapid deployment of enhancements or improvements to the common hardware and/or software baseline of all other carry-on subsystems to meet emergent requirements.</p>									

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**(U) B. Accomplishments/Planned Program**

Cryptologic Carry-On Equipment	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	1.402	1.420	1.443	1.435
RDT&E Articles Quantity				

FY06 - Continued to integrate, test, and document identified Commercial and Government off-the-shelf technologies and subsystems that meet emergent and on-going Fleet requirements. Developed and integrated software and/or hardware improvements to Carry-on Cryptologic Systems. Efforts supported various servers and Hostile Forces Integrated Targeting Subsystem (HITS). Completed studies necessary to modify topside antenna configuration.

FY07 - Continue to integrate, test, and document identified Commercial and Government off-the-shelf technologies and subsystems that meet emergent and on-going Fleet requirements. Continue with developing upgrades to existing systems and subsystems according to Fleet requirements.

FY 08 - Continue to integrate, test, and document identified Commercial and Government off-the-shelf technologies and subsystems that meet emergent and on-going Fleet requirements. Continue with developing upgrades to existing systems and subsystems according to Fleet requirements.

FY 09 - Continue to integrate, test, and document identified Commercial and Government off-the-shelf technologies and subsystems that meet emergent and on-going Fleet requirements. Continue with developing upgrades to existing systems and subsystems according to Fleet requirements.

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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>		PROGRAM ELEMENT NUMBER AND NAME PE 0204574N Cryptologic Direct Support			PROJECT NUMBER AND NAME 3091 / Advanced Cryptologic Systems Engineering			
<b>(U) C. OTHER PROGRAM FUNDING SUMMARY:</b>								
<u>Line Item No. &amp; Name</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>FY 2012</u>	<u>FY 2013</u>
OPN Line 3501, Cryptologic Equipment	15.937	17.545	12.355	11.305	12.748	13.444	14.022	14.577
<b>(U) D. ACQUISITION STRATEGY:</b>								
Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to SPAWAR Systems Centers (SSCs) Charleston and San Diego, and miscellaneous contractors, with management oversight by SPAWAR.								
<b>(U) E. MAJOR PERFORMERS:</b>								
N/A								
<b>(U) F. METRICS:</b>								
Earned Value Management (EVM) is used for metrics reporting and risk management.								

CLASSIFICATION:												
Exhibit R-3 Cost Analysis (page 1)										DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			PE 0204574N Cryptologic Direct Support			3091 / Advanced Cryptologic Systems Engineering						
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											0.000	0.000
Ancillary Hardware Development											0.000	0.000
Systems Engineering	Various	Various	1.380	0.164	12/06	0.167	12/07	0.172	12/08	Continuing	Continuing	Continuing
Licenses											0.000	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Award Fees											0.000	0.000
Subtotal Product Development			1.380	0.164		0.167		0.172		0.000	0.000	0.000
Remarks:												
Development Support											0.000	0.000
Software Development	Various	Various	2.986	1.002	12/06	1.015	12/07	1.003	12/08	Continuing	Continuing	Continuing
Training Development											0.000	0.000
Integrated Logistics Support											0.000	Continuing
Configuration Management											0.000	Continuing
Technical Data											0.000	0.000
GFE											0.000	0.000
Subtotal Support			2.986	1.002		1.015		1.003		Continuing	Continuing	Continuing
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			PE 0204574N Cryptologic Direct Support			3091 / Advanced Cryptologic Systems Engineering						
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			0.156	0.055	12/06	0.056	12/07	0.056	12/08	Continuing	Continuing	Continuing
Operational Test & Evaluation											0.000	0.000
Live Fire Test & Evaluation											0.000	0.000
Test Assets											0.000	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Subtotal T&E			0.156	0.055		0.056		0.056		0.000	0.323	0.000
Remarks:												
Contractor Engineering Support											0.000	0.000
Government Engineering Support											0.000	0.000
Program Management Support			0.457	0.155		0.161		0.160		Continuing	Continuing	0.000
Travel			0.129	0.044		0.044		0.044		Continuing	Continuing	0.000
Subtotal Management			0.586	0.199		0.205		0.204		Continuing	Continuing	0.000
Remarks:												
Total Cost			5.108	1.420		1.443	Various	1.435	Various	Continuing	Continuing	Continuing
Remarks:												

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EXHIBIT R4, Schedule Profile																	DATE: February 2007																			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>										PROGRAM ELEMENT NUMBER AND NAME PE 0204574N Cryptologic Direct Support								PROJECT NUMBER AND NAME 3091 / Advanced Cryptologic Systems Engineering																		
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013							
	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				
<b>Acquisition Milestones</b>																																				
Prototype Phase	■				▬				▬				▬				▬				▬				▬											
System Development (e.g., Radar System dev.)		▲				△				△				△				△				△				△				△				△		
Equipment Delivery (e.g., EDM Radar Delivery)			▲				△				△				△				△				△				△				△				△	
<b>Test &amp; Evaluation Milestones</b>																																				
Operational Assessment			OA				OA				OA				OA				OA				OA				OA				OA				OA	
<b>Production Milestones</b>																																				
LRIP I																																				
LRIP II																																				
FRP																																				
Deliveries																																				

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Exhibit R-4a, Schedule Detail					DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;BA-7</b>	PROGRAM ELEMENT PE 0204574N Cryptologic Direct Support				PROJECT NUMBER AND NAME 3091/ Advanced Cryptologic Systems Engineering			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Prototype Phase	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
System Design Review (SDR)	2Q	2Q	2Q	2Q	2Q	2Q	2Q	2Q
Operational Assessment (OA)	3Q	3Q	3Q	3Q	3Q	3Q	3Q	3Q
HW/SW Delivery	3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q	3Q/4Q