

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2003</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-05</b>	PROGRAM ELEMENT NUMBER AND NAME 0604507N / Enhanced Modular Signal Processor (EMSP)				PROJECT NUMBER AND NAME Q1440 / Enhanced Modular Signal Processor			
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	0.972	0.502	1.006	1.085	1.103	0.000	0.000	0.000
RDT&E Articles Qty								

### A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The objective of this Program Element (PE) is to improve Navy Signal Processing Hardware and Software Capabilities.

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**Exhibit R-2a, RDTEN Project Justification**  
(Exhibit R-2a, page 1 of 13)

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<b>B. Accomplishments/Planned Program</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 25%;"></th><th style="width: 15%;">FY 02</th><th style="width: 15%;">FY 03</th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th></tr></thead><tbody><tr><td>AN/UYS-X Portable Test Set</td><td style="text-align: center;">0.880</td><td style="text-align: center;">0.502</td><td></td><td></td></tr><tr><td>RDT&amp;E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table> <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>						FY 02	FY 03	FY 04	FY 05	AN/UYS-X Portable Test Set	0.880	0.502			RDT&E Articles Quantity				
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PDOS Development			0.230	0.250															
RDT&E Articles Quantity																			

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<b>B. Accomplishments/Planned Program (Cont.)</b>				
	FY 02	FY 03	FY 04	FY 05
Legacy Host Computer Replacement of AN/UYS-1/2/2A			0.776	0.835
RDT&E Articles Quantity				
<div>Investigate and commence replacement of AN/UYS-1/2/2A legacy host computer resources which are obsolete, unreliable and unsupportable.</div>				

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**C. PROGRAM CHANGE SUMMARY:**

	FY 2002	FY 2003	FY 2004	FY2005
Previous President's Budget: (FY03 Pres Controls) :	1.093	0.513	1.335	1.341
Current BES/President's Budget: (FY04 President Controls)	0.972	0.502	1.006	1.085
Total Adjustments	-0.121	-0.011	-0.329	-0.256
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions	-0.014	-0.006		
Congressional rescissions				
SBIR/STTR Transfer	-0.002			
Economic Assumptions/Rate Adjustments		-0.005	-0.022	-0.021
Reprogrammings	-0.105		-0.307	-0.235
Congressional increases				
Subtotal	-0.121	-0.011	-0.329	-0.256

Schedule:

Not Applicable

Technical:

Not Applicable

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**D. OTHER PROGRAM FUNDING SUMMARY:**

Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost
2980 / Items Less Than \$5M (N61 NSP portion only)	1.3	0.0	0.3	0.4	0.6	0.0	0.0	0.0	0.0	2.6

**E. ACQUISITION STRATEGY:**

Development work in this project is performed primarily by NAWC/Pax River and NAVSEA/Crane.

**F. MAJOR PERFORMERS:**

Naval Air Warfare Center/Patuxent River (NAWC/Pax River): EMSP Computer Program Support Activity (CPSA), Technical Design Agent  
 Naval Sea Systems Command (NAVSEA/Crane): EMSP ISEA/Hardware Support Activity

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: <b>February 2003</b>				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-05			0604507N / Enhanced Modular Signal Processor (EMSP)			Q1440 / Enhanced Modular Signal Processor						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Signal Processor COTS Technology	Var.	Var.	3.215							0.000	3.215	
Subtotal Product Development			3.215	0.000		0.000		0.000		0.000	3.215	
Remarks:												
Software Development	WR	NAWC/Pax River, MD	3.705	0.345	12/02	0.545	11/03	0.663	11/04	Continuing	Continuing	
Hardware Development	WR	NAVSEA/Crane, IN	0.307	0.132	12/02	0.439	11/03	0.400	11/04	Continuing	Continuing	
Common Processing	Var.	Var.	0.050								0.050	
Common Processing	MIPR	ARI, CT	0.225								0.225	
Subtotal Support			4.287	0.477		0.984		1.063		Continuing	Continuing	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: <b>February 2003</b>		
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Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Program Management Support	C/CPFF	TWD & Associates, VA	0.328	0.025	01/03	0.022	12/03	0.022	12/04	Continuing	Continuing	
											0.000	
											0.000	
											0.000	
											0.000	
											0.000	
Subtotal Management			0.328	0.025		0.022		0.022		Continuing	Continuing	
Remarks:												
Total Cost			7.830	0.502		1.006		1.085		Continuing	Continuing	
Remarks:												

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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-05									0604507N / Enhanced Modular Signal Processor (EMSP)																Q1440 / Enhanced Modular Signal Processor									
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Portable Test Set																																		
Acquisition Milestones																																		
Develop/Design System Specs for Portable Test Set																																		
Contract for Delivery of COTS Components																																		
Develop COTS Version Interfaces																																		
Develop SW Device Drivers																																		
Develop SW for COTS																																		
Fabricate/Integrate Systems																																		
Test & Evaluation Milestones																																		
Conduct System Test																																		
Production Milestones																																		
Deliveries																																		

NAVSEA/CRANE



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Exhibit R-4, Schedule Profile  
(Exhibit R-4, page 8 of 13)



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**Exhibit R-4a, Schedule Detail**  
(Exhibit R-4a, page 9 of 13)

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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-05												0604507N / Enhanced Modular Signal Processor (EMSP)												Q1440 / Enhanced Modular Signal Processor											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
PDOS and Tools																																			
Acquisition Milestones																																			
PDOS & Tools Development, Research, Investigation																																			
Develop PDOS Specification																																			
Develop Prototype OS, Tools																																			
Develop PDOS test suites																																			
Develop Signal Processing benchmark																																			
Test & Evaluation Milestones																																			
Demonstrated PDOS																																			
Production Milestones																																			
Work with Industry to Productize PDOS																																			
Deliveries																																			

NAWC

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Exhibit R-4, Schedule Profile  
(Exhibit R-4, page 10 of 13)

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[illegible]

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**Exhibit R-4a, Schedule Detail**  
(Exhibit R-4a, page 11 of 13)

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APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-05												0604507N / Enhanced Modular Signal Processor (EMSP)												Q1440 / Enhanced Modular Signal Processor											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Legacy Host Computer Replacement																																			
Acquisition Milestones																																			
AN/UYS-1 Investigate Legacy Computer Replacement																																			
AN/UYS-2/2A Investigate Legacy Computer Replacement																																			
AN/UYS-1 COTS Software Development																																			
AN/UYS-2/2A COTS Software Development																																			
Test & Evaluation Milestones																																			
AN/UYS-1 Validation Testing																																			
AN/UYS-2/2A Validation Test																																			
Production Milestones																																			
AN/UYS-1 Contract for Delivery of Replacement host																																			
AN/UYS-2/2A Contract for Delivery of Replacement host																																			
Deliveries																																			

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Exhibit R-4, Schedule Profile  
(Exhibit R-4, page 12 of 13)

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**Exhibit R-4a, Schedule Detail**  
(Exhibit R-4a, page 13 of 13)