CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification										DATE: **February 2004**	
APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5**						R-1 ITEM NOMENCLATURE PE 0604721N SHIPBOARD INFORMATION WARFARE EXPLOIT SYSTEM					
COST ($ in Millions)	Prior Years Cost		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Total PE Cost	**39.279**	**0.000**	**16.849**	**16.743**	**17.981**	**18.730**	**16.044**	**16.369**	**16.701**	**Continuing**	**Continuing**
2134/SHIPBOARD IW EXPLOIT	**39.279**	**0.000**	**13.611**	**16.743**	**17.981**	**18.730**	**16.044**	**16.369**	**16.701**	**Continuing**	**Continuing**
9242/COBLU DIGITAL UPGRADE	**0.000**	**0.000**	**3.238**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**3.238**
											0.000
											0.000
											0.000
											0.000
Quantity of RDT&E Articles											**0**

Note: Received Congressional Plus Up in FY03 of $3,238K for the COBLU program.

U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Shipboard Information Warfare line includes the following programs: Ships Signal Exploitation Equipment (SSEE), the Program of Record that executes the Maritime Cryptologic Systems for the 21st Century (MCS 21) and Common Data Link – Navy (CDL-N) the Program of Record that implements the DoD mandated use of the Common Data Link waveform to downlink un-processed SIGINT/COMINT and imagery. FY 03 Congressional Plus-up supports the Cooperative Outboard Logistics Update (COBLU) , the Program of Record provides Comprehensive Surface Tactical (CESM) capability. These systems provide the Battle Group with real time Indications and Warnings (I&W) by acquisition and localization of signals of interest (SOI). This program's funding is required to incorporate new commercial off-the-shelf (COTS) based technologies and software into the existing systems. The funding will focus on merging the current IW sensor systems into a scalable sensor package that can be tailored to different ship types and be compliant with the Maritime Cryptologic Architecture.

(U) JUSTIFICATION FOR BUDGET ACTIVITY:

This program is funded under BA-5, ENGINEERING & MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

R-1 SHOPPING LIST - Item No. 125

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM					PROJECT NUMBER AND NAME 2134 / SHIPBOARD IW EXPLOIT					
COST ($ in Millions)	Prior Years Cost		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Project Cost	**39.279**	**0.000**	**13.611**	**16.743**	**17.981**	**18.730**	**16.044**	**16.369**	**16.701**	**Continuing**	**Continuing**
RDT&E Articles Qty											**0**

Note: Received Congressional Plus Up in FY02 of $2,478K for the CDL-N program. Project X2135 has been incorporated into Project X2134 beginning in FY 02.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Shipboard Information Warfare line includes the following programs: Ships Signal Exploitation Equipment (SSEE), the Program of Record that executes the Maritime Cryptologic Systems for the 21st Century (MCS 21) and Common Data Link – Navy (CDL-N) the Program of Record that implements the DoD mandated use of the Common Data Link waveform to downlink un-processed SIGINT/COMINT and imagery. FY 03 Congressional Plus-up supports the Cooperative Outboard Logistics Update (COBLU) , the Program of Record provides Comprehensive Surface Tactical (CESM) capability. These systems provide the Battle Group with real time Indications and Warnings (I & W) by acquisition and localization of signals of interest (SOI). This program's funding is required to incorporate new commercial off-the-shelf (COTS) based technologies and software into the existing systems. The funding will focus on merging the current IW sensor systems into a scalable sensor package that can be tailored to different ship types and be compliant with the Maritime Cryptologic Architecture.

R-1 SHOPPING LIST - Item No. 125

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT NUMBER AND NAME 0604721N / SHIPBOARD IW EXPLOIT SYSTEM	PROJECT NUMBER AND NAME 2134 / SHIPBOARD IW EXPLOIT

(U) B. Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	2.472	4.000	4.000
RDT&E Articles Quantity			

Common Data Link- Navy (CDL-N)
FY03 - Continued development and integration of advanced technology CDL modem, design and development of CDL-N Block 1 integrated operator station and development efforts for interoperability and integration with emerging Navy sensor systems such as VTUAV, F/A-18 SHARP and EP-3E Multi-int systems.
FY04 - Integrate advanced technology CDL modem. Continue design and development of CDL-N Block 1 integrated operator station, development efforts for interoperability and integration with emerging Navy sensor systems such as BAMS, F/A-18 SHARP and EP-3E Multi-int systems.
FY05 - Integrate and Test Cooperative Antenna Program EDM Panels. Design and development of CDL-N Block 2 Advanced Technology Insertion and development efforts for interoperability and integration with emerging Navy sensor systems such as BAMS, F/A-18 SHARP and EP-3E Multi-int systems.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT NUMBER AND NAME 0604721N / SHIPBOARD IW EXPLOIT SYSTEM	PROJECT NUMBER AND NAME 2134 / SHIPBOARD IW EXPLOIT

(U) B. Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.500	1.500	1.500
RDT&E Articles Quantity			

Cryptologic On-Line Trainer (COLT)

FY03 - Continued to expand and modify the COLT server for Shipboard IW programs and integration with CUB 4.X software releases. Upgraded COLT client application functionality (SSEE Inc E, COBLU Phase 1, and CDF) to include additional SOI's and other emergent requirements.

FY04 - Modify COLT server in support of integration with CUB 5.X software releases. Upgrade COLT client application functionality (SSEE Inc E, COBLU Phase 1, and CDF) to include additional SOI's and other emergent requirements. Begin COLT integration with Battle Force Tactical Training (BFTT) system.

FY05 - Continue modifications and improvements to COLT server in support of CUB 5.X integration. Upgrade existing COLT client applications (SSEE Inc E, COBLU Phase 1, and CDF). Continue COLT BFTT integration development. Begin COLT automated performance monitoring/assessment functionality development.

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.750	1.000	1.000
RDT&E Articles Quantity			

Cryptologic Unified Build (CUB)

FY03 - Continued development of CUB software to incorporate latest DII COE releases/updates for interoperability of Shipboard IW programs. CUB software is utilized on all Shipboard IW programs and is the DII COE 4.X baseline effort. Continued development of CUB on-line tutorial software, CUBOLT, software. Initiated development of Blue Forces IW database.

FY04 - Initiate development of CUB software to incorporate latest DII COE. CUB ensures interoperability between Sensor Systems and C4I systems. This development effort targets the DII COE 5.X baseline.

FY05 - Continue development and integration of CUB software to incorporate DII COE 5.X baseline. This development effort completes the DII COE 5.X baseline. Continue development of CUB On-Line Tutorial, CUBOLT, software.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT NUMBER AND NAME 0604721N / SHIPBOARD IW EXPLOIT SYSTEM	PROJECT NUMBER AND NAME 2134 / SHIPBOARD IW EXPLOIT

(U) B. Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	5.000	3.063
RDT&E Articles Quantity			

Multi-Mission Payload (MMP)

FY04 - Initiate System Development Phase of the remotely controlled platform independent MMP, intended for use as a pod on ship based aircraft. Award contracts for research and development of Engineering Development Models, EDMs. Conduct design review and perform end-to-end system engineering analysis. Perform aircraft data analysis and perform integration planning to develop the appropriate engineering design of the payload and its mechanical, electrical and environmental interface components. Determine design and interfaces of the data link equipment, which will be part of or co-located with the MMP to carry the command, control, and data exchange signals.

FY05 - Complete development of the EDMs pod and conduct laboratory acceptance tests. Develop Test Plan. Perform planning for, and make arrangements for, flight certification tests and evaluations. Plan for and obtain the Office of Naval Intelligence, ONI, certification and accreditation for Interim Authority To Operate, IATO.

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	5.050	2.000	5.300
RDT&E Articles Quantity			

Ship Signal Exploitation Equipment

FY03 - Initiated P3I development and testing of SSEE Increment E upgrades. Upgrade includes incorporation of latest CUB release and expansion of Signal of Interest, SOI, database. Initiated special/modern signal collection and processing development.

FY04 - Initiate P3I development of Command and Control software portion of the Hostile force Integrated Targeting Sub-system, HITS, and Time/Frequency Difference of Arrival functions into SSEE Incr E.

FY05 - Continue with effort to improve Command and Control software portion of the HITS in SSEE Incre E. Continue to expand SOI processing capability to priority signal sets. Fully test improved software. Initiate acquisition development for follow-on increments.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT NUMBER AND NAME 0604721N / SHIPBOARD IW EXPLOIT SYSTEM	PROJECT NUMBER AND NAME 2134/SHIPBOARD IW EXPLOIT

(U) B. Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.980	1.792	1.618
RDT&E Articles Quantity			

Specific Emitter Identification (SEI)

FY03 - Initiated development of improved Specific Emitter Identification, SEI, software by independent test and evaluation, and begin retooling existing prototypes into a single platform. Conducted testing with SEI collection hardware and software. Initiated expansion of Navy's SEI data dissemination and management architecture. Facilitated the tactical employment of Navy SEI by addressing various operational issues. Continued development, testing, and documentation of SEI software enhancements in GCCS-M (CORRUS), GALE-LITE (SEI-GALE), and other fielded systems.

FY04 - Conduct independent test and evaluation and compatibility testing of SEI software and begin retooling existing prototypes into a single platform, Phase II. Formalize Navy SEI data standards for improved collection and dissemination. Begin integration of SEI capabilities into the Naval single platform distributed surface EW system. Continue to expand SEI database access, dissemination, and integration within the Theater Correlation Functions, TCFs, and tactical users. Continue to address SEI software operational issues to facilitate SEI tactical employment. Continue SEI software enhancements in GCCS-M (CORRUS), GALE-LITE, and other fielded systems.

FY05 - Continue to improve SEI software Phase III to support additional tactical installations, surface combatants, and airborne platforms. Enhance the exchange of Navy SEI data. Begin incorporation of future SEI algorithms corresponding to the next generation of multi-mission combatants and changing target sets. Continue incorporation of SEI into the overall Navy EW architecture for enhanced correlation and integration into Navy single platform distributed EW systems, to include surface, subsurface, and airborne.

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	2.000	1.650	1.500
RDT&E Articles Quantity			

Antenna & RF Distribution

FY03 - Completed development of the High Frequency Non-Line-of-Sight capability. Initiated development of low signature Direction Finding, DF, and Acquisition antenna sub-system. Initiated development of improved Radio Frequency, RF, distribution sub-system. Both antenna and distribution systems will support existing and future ship classes for Shipboard IW programs, handle modern Signals of Interest, SOI, and increase both shipboard and operational environment interference.

FY04 - Implement design goals and objectives for existing antenna and future antenna efforts via requirements analysis. Complete development of existing antenna upgrades for enhanced capability. Initiate prototype demonstration effort for future antenna design for low signature DF and acquisition/enhanced capability and initiation of shipboard EDM plans.

FY05 - Update requirements analysis to maintain growing Signals of Interest, SOI, threat capability support via system RFD unit and future antenna upgrades. Continue development of future antenna for low signature DF and acquisition/enhanced performance.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604721N / SHIPBOARD IW EXPLOIT SYSTEM	2134 / SHIPBOARD IW EXPLOIT

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2003	FY 2004	FY 2005
President's Budget:	14.070	16.942	18.078
Current BES/President's Budget	13.752	16.743	17.981
Total Adjustments	-0.318	-0.199	-0.097
Summary of Adjustments			
Management Improvements (Sec. 8094)		-0.045	
Efficiencies/Revised Econ. Assumptions (Sec. 8126)		-0.144	
Economic Assumptions (Sec. 8135)	-0.079		
Busniess Process Reform (Sec. 8100)	-0.056		
WCF R&D SPAWAR PBD 430			-0.005
IT Growth (Sec. 8109)	-0.026		
FFRDC Reduction (Sec. 8029)	-0.008		
Inflatin Savings	-0.149		
PBD 604 Inflation			-0.058
PBD 426 Rates SSC			0.012
Misc. Navy Adjustments		-0.010	-0.046
Subtotal	-0.318	-0.199	-0.097

(U) Schedule:

Not Applicable

(U) Technical:

Not Applicable

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604721N / SHIPBOARD IW EXPLOIT SYSTEM	PROJECT NUMBER AND NAME 2134 / SHIPBOARD IW EXPLOIT

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Complete	To Cost	Total
OPN Line 2360	82.147	122.206	69.194	35.930	112.948	78.100	79.691	Continuing	Continuing	
OMN 1C2C PE 0702827N	9.567	10.609	12.127	13.737	15.085	15.463	15.865	Continuing	Continuing	

(U) E. ACQUISITION STRATEGY:

Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to SSC-Charleston, SSC-San Diego and miscellaneous contractors, with management oversight by SPAWAR.

R-1 SHOPPING LIST - Item No. 125

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: **February 2004**				
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA5**		PROGRAM ELEMENT 0604721N / Shipboard IW Exploit System				PROJECT NUMBER AND NAME 2134 / Shipboard IW Exploit						
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
Primary Hardware Development	Various	Various	35.726	1.912	12/02	2.356	12/03	2.514	12/04	Continuing	Continuing	Continuing
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	Various	Various		2.988		3.681		3.927		Continuing	Continuing	Continuing
Training Development	Various	Various		0.075		0.093		0.100		Continuing	Continuing	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			35.726	4.975		6.130		6.541		Continuing	Continuing	Continuing

Remarks:
1. "Total PYs Cost" is shown as Primary Hardware Development was taken from the previous budget submit which combined Hardware, Software development and integration into one number.

Development Support											0.000	
Software Development	Various	Various		4.738		5.811		6.316		Continuing	Continuing	Continuing
Integrated Logistics Support	Various	Various	0.254	0.104		0.127		0.136		Continuing	Continuing	
Configuration Management	Various	Various		0.089		0.110		0.117		Continuing	Continuing	
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			0.254	4.931		6.048		6.569		Continuing	Continuing	Continuing

Remarks:

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: **February 2004**				
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA5**		PROGRAM ELEMENT 0604721N / Shipboard IW Exploit System			PROJECT NUMBER AND NAME 2134 / Shipboard IW Expoit							
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
Developmental Test & Evaluation	Various	Various	2.354	0.705	12/02	0.868	12/03	0.927	12/04	Continuing	Continuing	Cont.
Operational Test & Evaluation	Various	Various		0.321		0.395		0.421		Continuing	Continuing	
Live Fire Test & Evaluation											0.000	
Test Assets	Various	Various		0.334		0.412		0.439		Continuing	Continuing	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			2.354	1.360		1.675		1.787		Continuing	Continuing	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	Various	Various	0.945	2.230		2.748		2.932		Continuing	Continuing	Continuing
Travel	Various	Various		0.115		0.142		0.152		Continuing	Continuing	Continuing
Transportation											0.000	
											0.000	
Subtotal Management			0.945	2.345		2.890		3.084		Continuing	Continuing	
Remarks:												
Total Cost			39.279	13.611		16.743		17.981		Continuing	Continuing	
Remarks:												

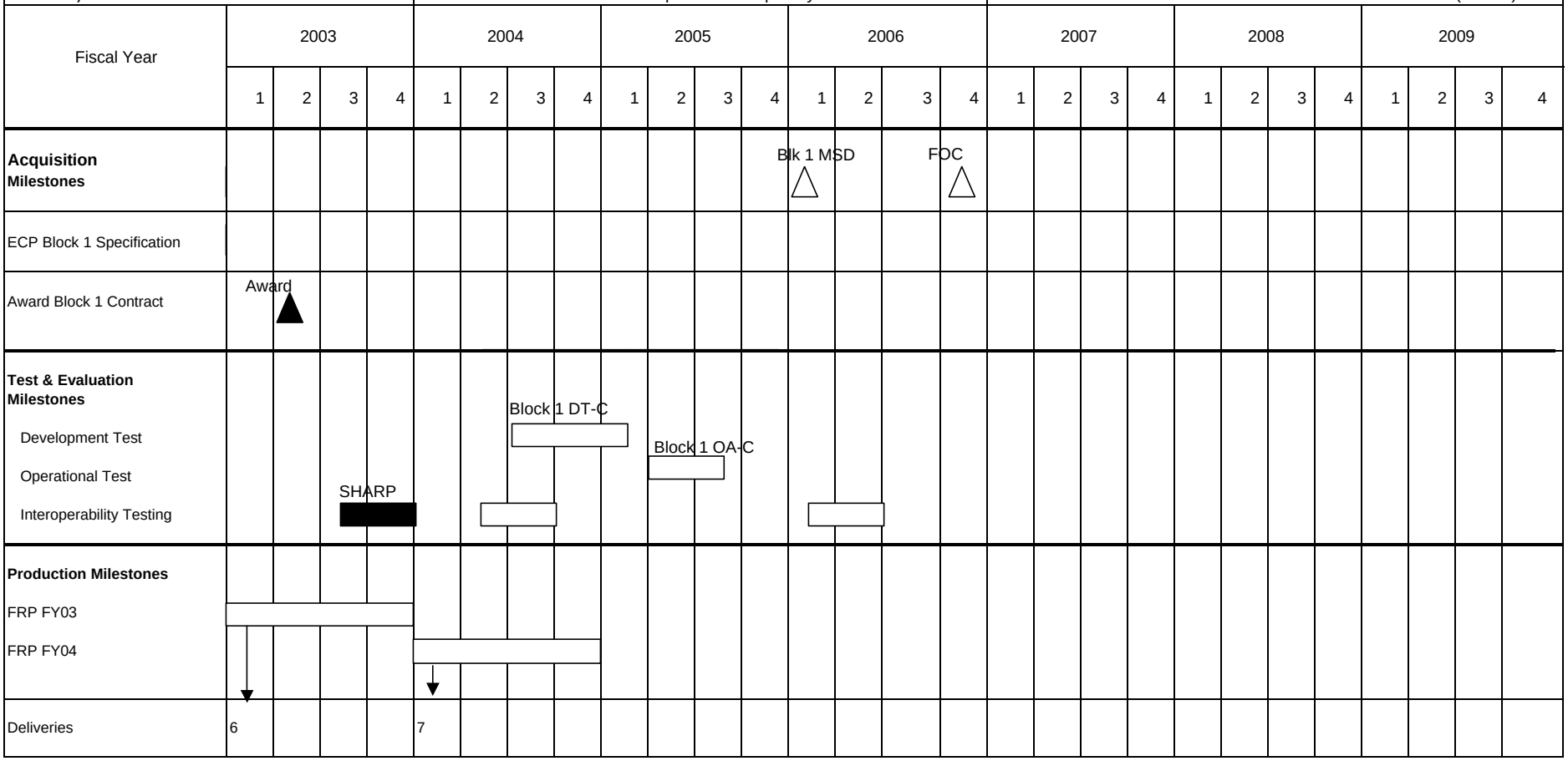
R-1 SHOPPING LIST - Item No. 125

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604721N / Shipboard IW Expoit System	2134 SHIPBOARD IW EXPLOIT/COMMON DATA LINK-NAVY (CDL-N)



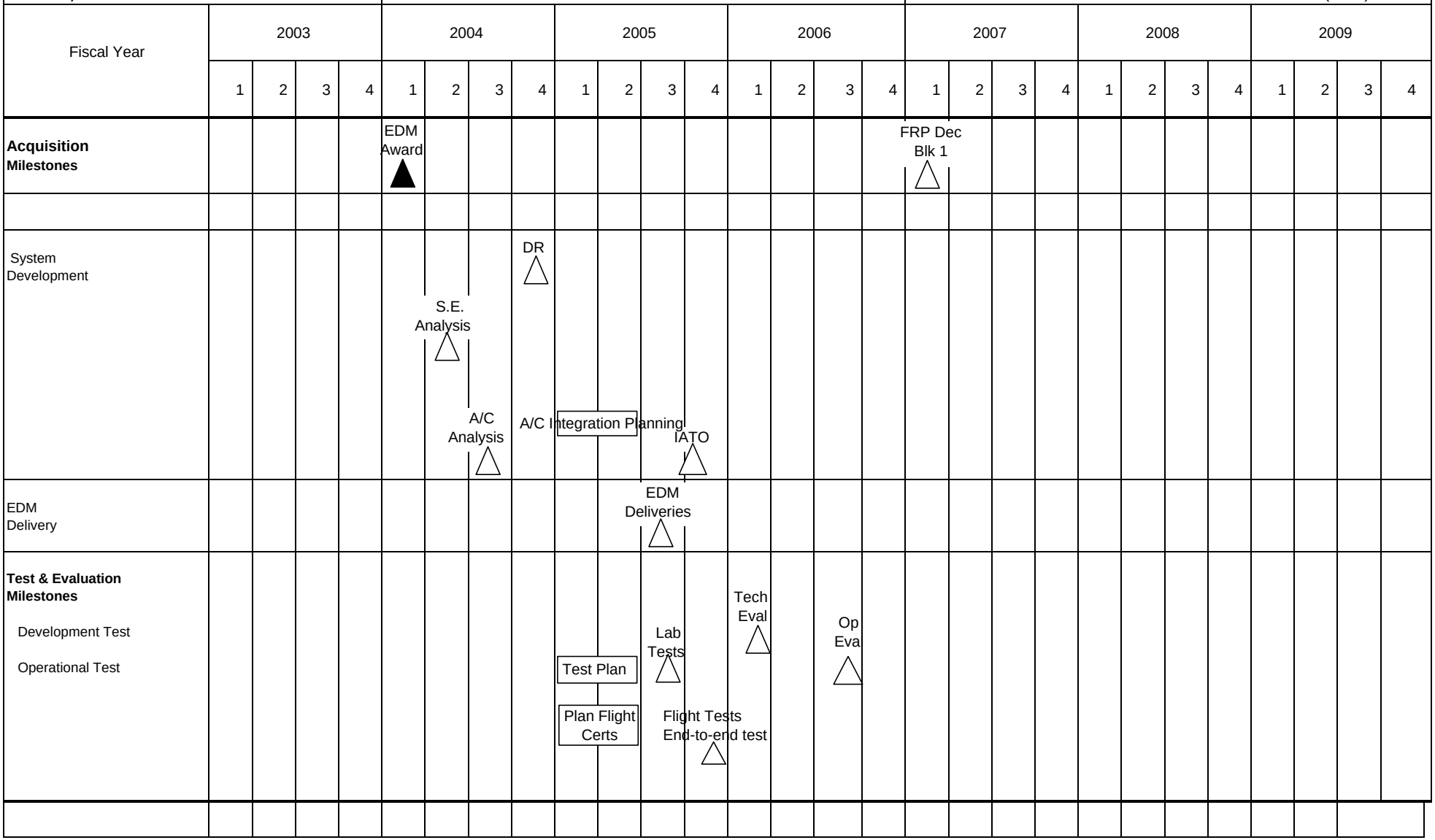
R-1 SHOPPING LIST - Item No. 125

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

CLASSIFICATION:

EXHIBIT R4, Schedule Profile — **Multi-Mission Payload (MMP)** — DATE: **February 2004**

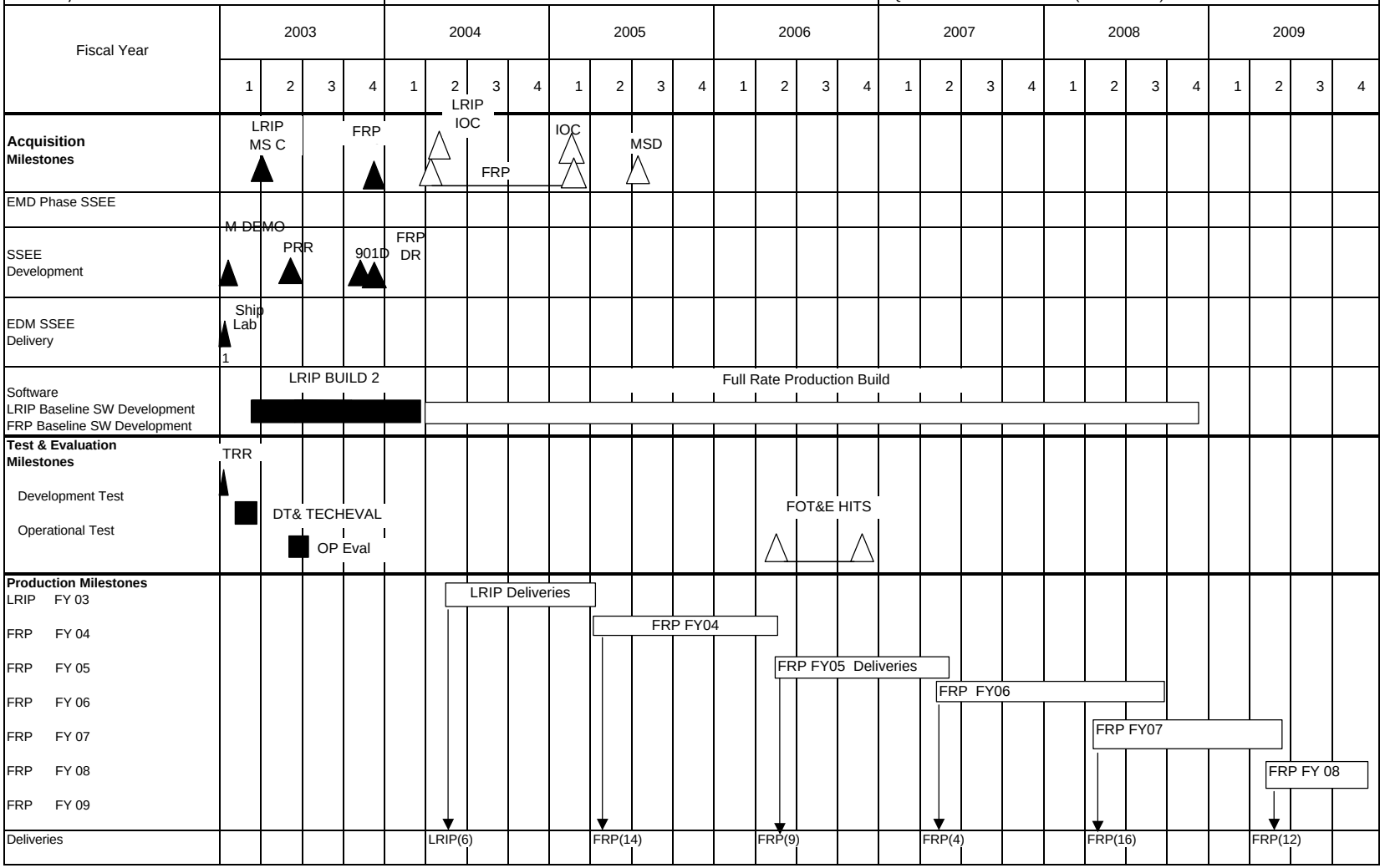
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /	0604721N / SHIPBOARD IW EXPLOIT SYSTEM	2134 SHIPBOARD IW EXPLOIT/MULTI-MISSION PAYLOAD (MMP)



CLASSIFICATION:

EXHIBIT R4, Schedule Profile — DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /	0604721N/ SHIPBOARD IW EXPLOIT SYSTEM	2134 SHIPBOARD IW EXPLOIT/SHIPS SIGNAL EXPLOITATION EQUIPMENT INCREMENT E (SSEE Incr E)



R-1 SHOPPING LIST - Item No. 125

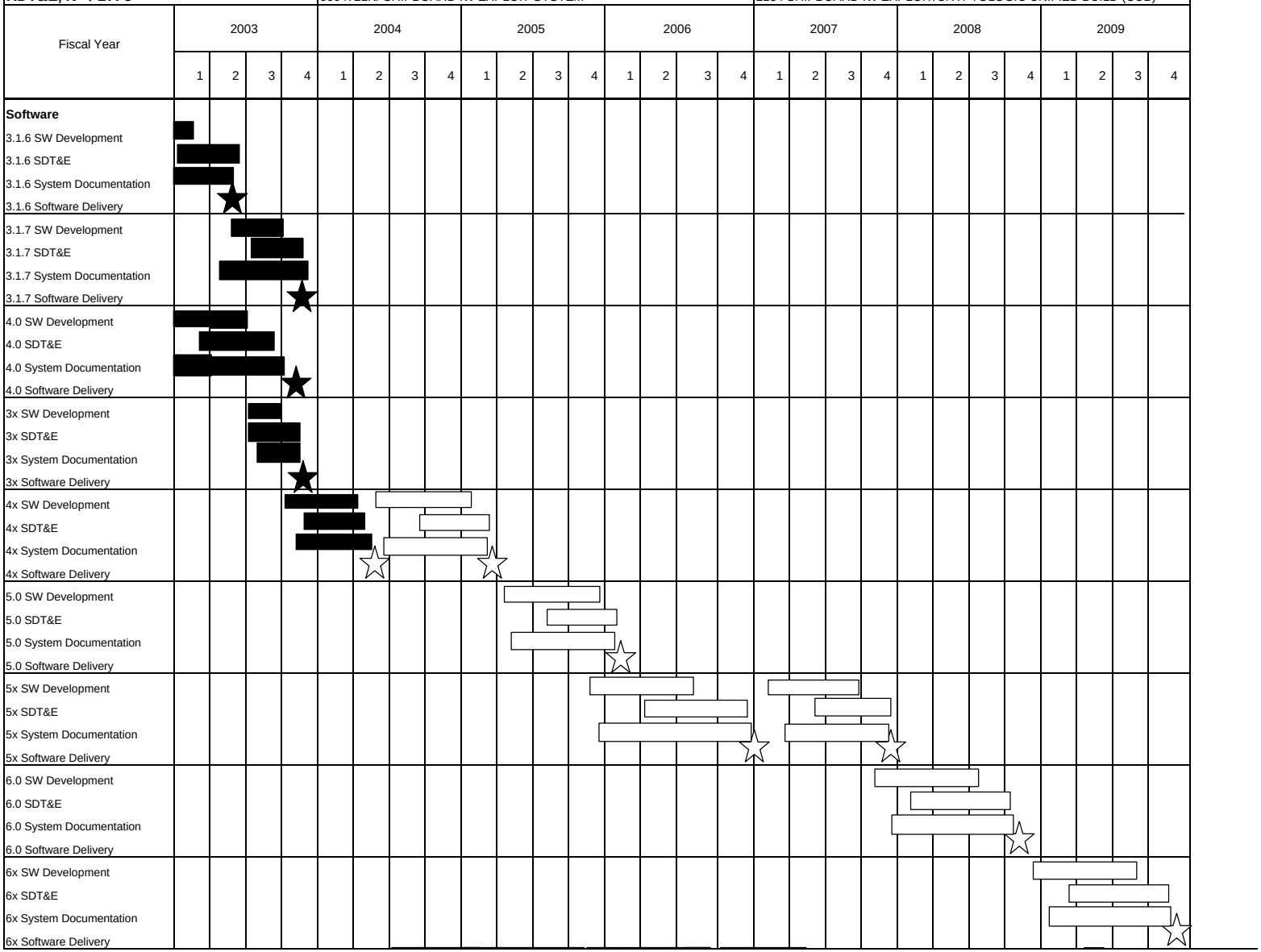
* Not required for Budget Activities 1, 2, 3, and 6

SSEE Inc X is a spiral development program. Current migration plan for Increment E includes Cryptologic Unified Build (CUB) and Cyrptologic On-Line Trainer (COLT) as shown in succeeding pages. FY08 will introduce Increment F with new antenna design and P3I.

EXHIBIT R4, Schedule Profile

DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604721N/ SHIPBOARD IW EXPLOIT SYSTEM	2134 SHIPBOARD IW EXPLOIT/CRYPTOLOGIC UNIFIED BUILD (CUB)



R-1 SHOPPING LIST - Item No. 125

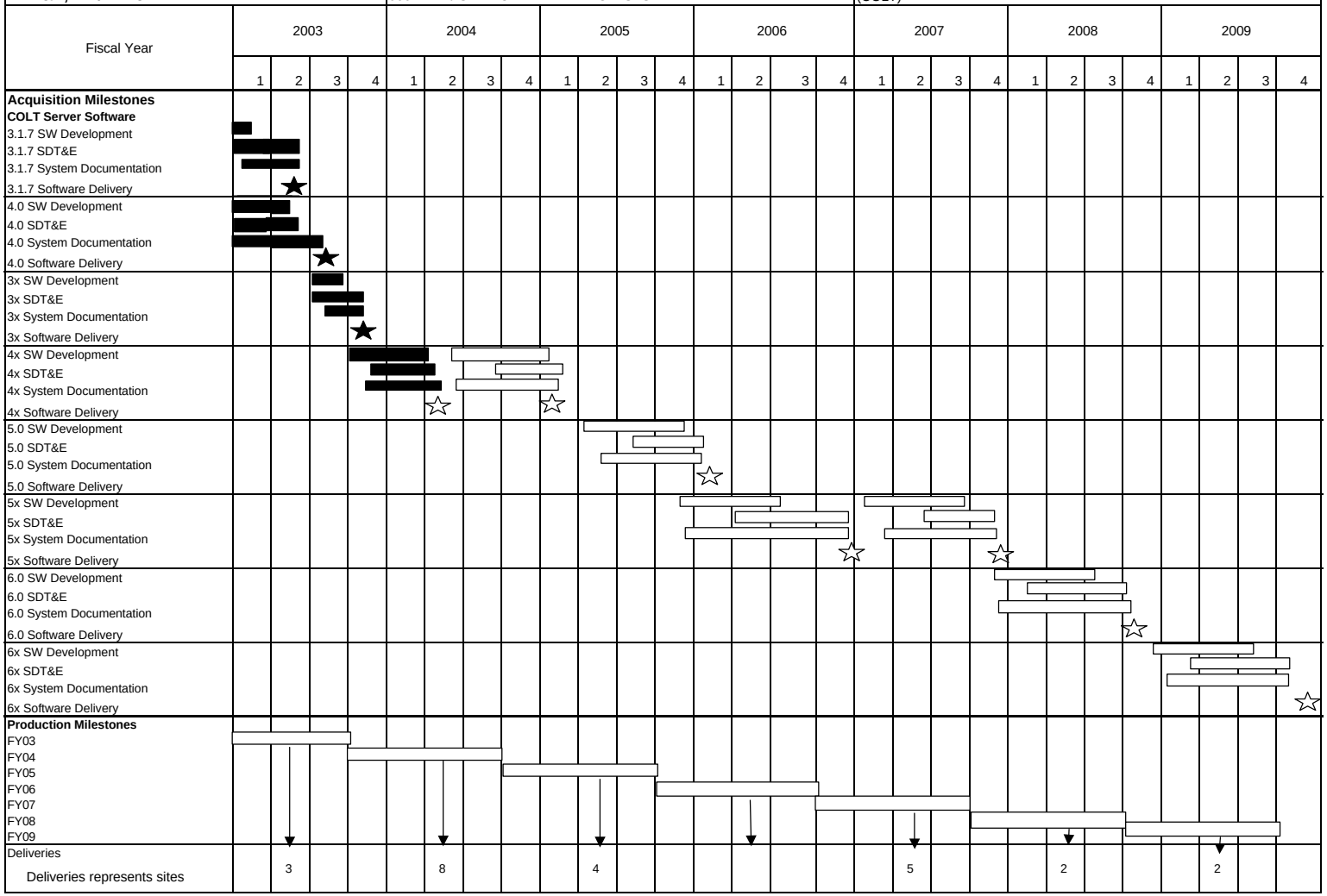
* Not required for Budget Activities 1, 2, 3, and 6

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604721N/ SHIPBOARD IW EXPLOIT SYSTEM	2134 SHIPBOARD IW EXPLOIT/CRYPTOLOGIC ON-LINE TRAINER (COLT)



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

R-1 SHOPPING LIST - Item No. 125

EXHIBIT R4, Schedule Profile | DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604721N/ SHIPBOARD IW EXPLOIT SYSTEM	2134 SHIPBOARD IW EXPLOIT/ANTENNA RF DISTRIBUTION (ARFD)

Fiscal Year	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
Acquisition Milestones	Award Contract							Award Contract																				
Prototype Phase	■	■	■	■	■	■	■																					
System Development												SDR				FDR												
EDM Delivery							EDM											EDM										
Software 1XXSW Delivery 2XXSW Delivery																												
Test & Evaluation Milestones FAT LBTF																												
Production Milestones FRP FY07																					Production Rolled into SSEE							
Deliveries																												

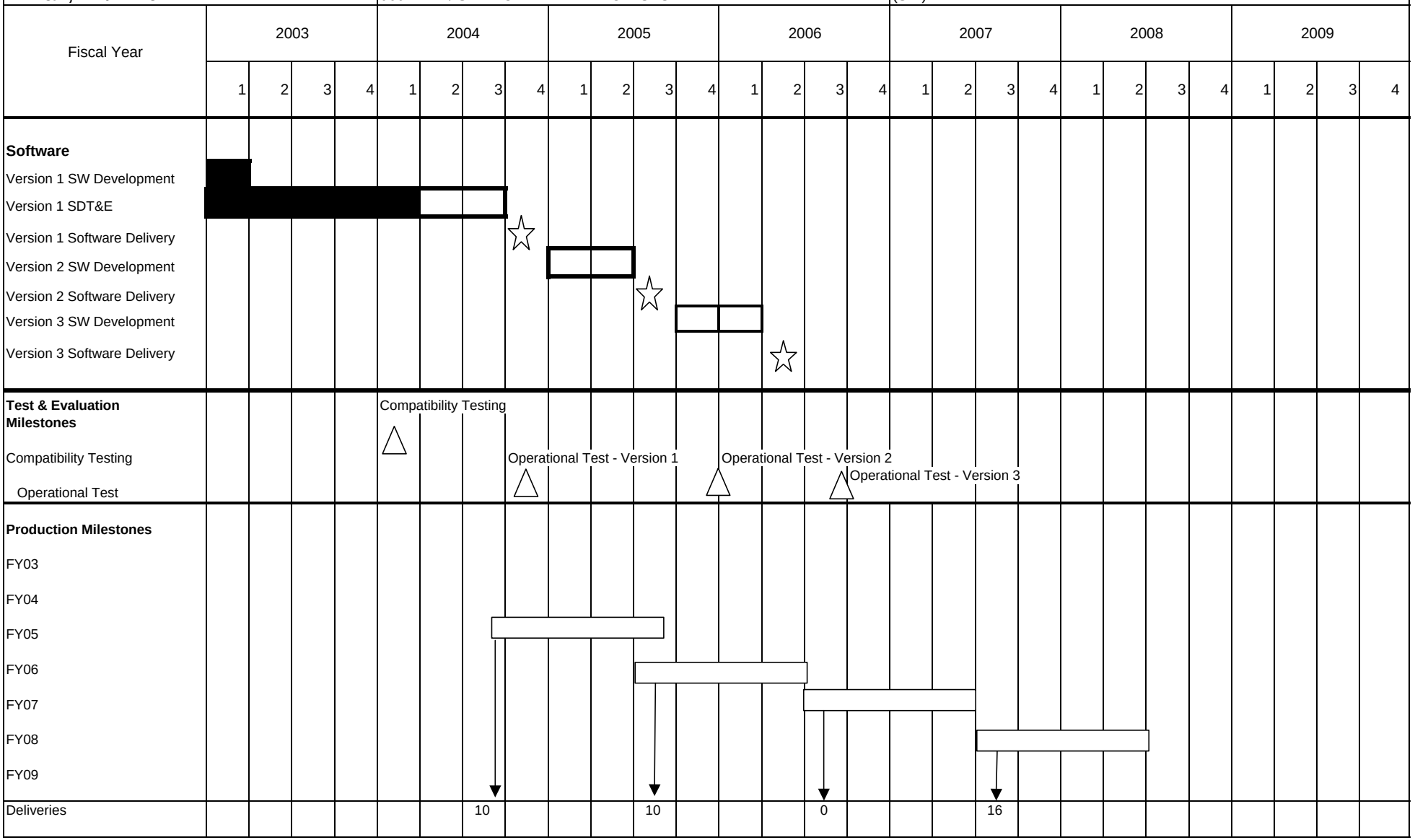
R-1 SHOPPING LIST - Item No. 125

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

Prototype Phase consist of antenna performance/probability studies.

EXHIBIT R4, Schedule Profile | DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604721N/ SHIPBOARD IW EXPLOIT SYSTEM	2134 SHIPBOARD IW EXPLOIT/SPECIFIC EMITTER IDENTIFICATION (SEI)



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

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2004**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**	PROGRAM ELEMENT 0604721N / Shipboard IW Exploit System				PROJECT NUMBER AND NAME 2134 SHIPBOARD IW EXPLOIT/COMMON DATA LINK-NAVY (CDL-N)			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Contract Award		Q2						
Developmental Testing (DT)			Q3-Q4					
Operational Analysis				Q2-Q3				
Interoperability Testing		Q3-Q4	Q2-Q3		Q1-Q2			
FOC					Q4			

R-1 SHOPPING LIST - Item No. 125

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **February 2004**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT 0604721N / Shipboard IW Exploit System				PROJECT NUMBER AND NAME 2134 SHIPBOARD IW EXPLOIT/MULTI-MISSION PAYLOAD (MMP)			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
EDM Award			Q1					
System Engineering Analysis			Q2					
Aircraft Data Analysis			Q3					
Design Review (DR)			Q4					
Aircraft Integration Planning				Q1-Q2				
Develop Test Plan				Q1-Q2				
Arrange/Plan for Flight Certifications				Q1-Q2				
Laboratory Acceptance Tests				Q3				
Eng Dev Model (EDM) Deliveries - Lab				Q3				
Plan & Obtain Interim Authority to Operate (IATO)				Q4				
Flight Certification Tests				Q4				
TECHEVAL					Q1			
OPEVAL					Q3			
Full Rate Production (FRP) Decision Block One						Q1		

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **February 2004**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM				PROJECT NUMBER AND NAME 2134 SHIPBOARD IW EXPLOIT/SHIPS SIGNAL EXPLOITATION EQUIPMENT INCR E (SSEE Incr E)			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Software Specification Review (SSR)		Q1-Q4						
Preliminary Design Review (PDR)		Q4						
System Development		Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4
Critical Design Review (CDR)			Q2					
Test Readiness Review (TRR)		Q2						
Developmental Testing		Q1						
Eng Dev Model (EDM) SSEE Delivery - Lab								
Software Delivery - System LRIP Config S/W			Q2					
Preproduction Readiness Review (PRR)		Q2						
EDM SSEE Delivery - Ship		Q1						
Operational Testing		Q2						
Milestone III (MS C)		Q2						
Start Low-Rate Initial Production (LRIP)		Q2						
Low-Rate Initial Production Delivery			Q2					
Technical Evaluation (TECHEVAL)		Q1						
M-DEMO		Q1						
Operational Evaluation (OPEVAL)		Q2-Q3						
FOLLOW-ON Operational Evaluation (FOTE)					Q2-Q4			
IOC			Q2	Q1				
Full Rate Production (FRP) Decision		Q4						
Full Rate Production Start			Q1-Q4					
First Deployment FRP Config				Q4				
Pre-Planned Improvements (P3I)		Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4
Material Support Date				Q3				

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SSEE Inc X is a spiral development program. Current migration plan for Increment E includes Cryptologic Unified Build (CUB) and Cyrptologic On-Line Trainer (COLT) as shown in succeeding pages.

FY07 will introduce Increment F with new antenna design and P3I.

Exhibit R-4a, Schedule Detail					DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**	PROGRAM ELEMENT 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM				PROJECT NUMBER AND NAME 2134 SHIPBOARD IW EXPLOIT/CRYTOLOGIC UNIFIED BUILD (CUB)			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Software Development v 3.1.6		Q1						
System Developmental Test & Eval v 3.1.6		Q1-Q2						
System Documentation v 3.1.6		Q1-Q2						
Software Delivery v 3.1.6		Q2						
Software Development v 3.1.7		Q2-Q3						
System Developmental Test & Eval v 3.1.7		Q3-Q4						
System Documentation v 3.1.7		Q1-Q3						
Software Delivery v 3.1.7		Q4						
Software Development v 4.0		Q1-Q2						
System Developmental Test & Eval v 4.0		Q1-Q3						
System Documentation v 4.0		Q1-Q3						
Software Delivery v 4.0		Q4						
Software Development v 3x		Q3						
System Developmental Test & Eval v 3x		Q3-Q4						
System Documentation v 3x		Q3-Q4						
Software Delivery v 3x		Q4						
Software Development v 4x		Q4	Q1-Q4	Q1				
System Developmental Test & Eval v 4x		Q4	Q1-Q4	Q1				
System Documentation v 4x		Q4	Q1-Q4	Q1				
Software Delivery v 4x			Q2	Q1				
Software Development v 5.0				Q2-Q4				
System Developmental Test & Eval v 5.0				Q3-Q4	Q1			
System Documentation v 5.0				Q2-Q4	Q1			
Software Delivery v 5.0					Q1			
Software Development v 5x				Q4	Q1-Q3	Q1-Q3		
System Developmental Test & Eval v 5x					Q2-Q4	Q2-Q4		
System Documentation v 5x				Q4	Q1-Q4	Q1-Q4		
Software Delivery v 5x					Q4	Q4		
Software Development v 6.0						Q4	Q1-Q3	
System Developmental Test & Eval v 6.0							Q1-Q4	
System Documentation v 6.0						Q4	Q1-Q4	
Software Delivery v 6.0							Q4	
Software Development v 6x							Q4	Q1-Q3
System Developmental Test & Eval v 6x								Q1-Q4
System Documentation v 6x								Q1-Q4
Software Delivery v 6x								Q4

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **February 2004**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM				PROJECT NUMBER AND NAME 2134 SHIPBOARD IW EXPLOIT/CRYPTOLOGIC ON-LINE TRAINER (COLT)			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
COLT Server Software								
3.1.7 SW Development		Q1						
3.1.7 SDT&E		Q1-Q2						
3.1.7 System Documentation		Q1-Q2						
3.1.7 Software Delivery		Q2						
4.0 SW Development		Q1-Q2						
4.0 SDT&E		Q1-Q3						
4.0 System Documentation		Q1-Q3						
4.0 Software Delivery		Q3						
3x SW Development		Q3						
3x SDT&E		Q3-Q4						
3x System Documentation		Q3-Q4						
3x Software Delivery		Q4						
4x SW Development		Q4	Q1-Q4	Q1				
4x SDT&E		Q4	Q1-Q4	Q1				
4x System Documentation		Q4	Q1-Q4	Q1				
4x Software Delivery			Q2	Q1				
5.0 SW Development				Q2-Q4				
5.0 SDT&E				Q3-Q4	Q1			
5.0 System Documentation				Q2-Q4	Q1			
5.0 Software Delivery					Q1			
5x SW Development				Q4	Q1-Q3	Q1-Q3		
5x SDT&E					Q2-Q4	Q2-Q4		
5x System Documentation				Q4	Q1-Q4	Q1-Q4		
5x Software Delivery					Q4	Q4		
6.0 SW Development						Q4	Q1-Q3	
6.0 SDT&E							Q1-Q4	
6.0 System Documentation						Q4	Q1-Q4	
6.0 Software Delivery							Q4	
6x SW Development							Q4	Q1-Q3
6x SDT&E								Q1-Q4
6x System Documentation								Q1-Q4
6x Software Delivery								Q4

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2004**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM				PROJECT NUMBER AND NAME 2134 SHIPBOARD IW EXPLOIT/ANTENNA RF DISTRIBUTION (ARFD)			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Select HF Acquisition MCCP Contract Award								
Optimize SIGINT RF Performance via CBM			4Q					
Ship Demonstration								
Contract Award		1Q	2Q					
Test & Evaluate HF DF Antennas			4Q					
Test, Evaluate, Certify & Validate HF DF & Reference (EDM)			4Q					
Test, Evaluate, Certify & Validate VHF/UHF DF (EDM)			4Q					
Award Contracts for HF DF& Ref & VHF/UHF DF (EDM)				1Q				
Optimzed IW Antennas RFI		4Q						
Draft Optimized IW Antennas Specification		4Q						
Optimized IW Antennas Final Draft			4Q					
EDM Delivery			4Q					
System Design Review (SDR)				4Q				
Final Design Review (FDR)					4Q			
EDM Delivery						2Q		
Factory Acceptance Testing						2Q		
Land Based Test Facility						4Q		
Deliver capability to SSEE							1Q	

R-1 SHOPPING LIST - Item No. 125

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **February 2004**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM				PROJECT NUMBER AND NAME 2134 SHIPBOARD IW EXPLOIT/SPECIFIC EMITTER IDENTIFICATION (SEI)			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
SPAWAR Pgm Development								
Additional Requirements								
Contract Award		Q2						
System Requirements		Q1						
Systems Requirements Review		Q2						
Technical Information Meeting		Q2						
Architecture Definition		Q2						
Foreign Comparison Test (FCT) Planning		Q1						
FCT Test		Q3						
FCT Test Analysis		Q4						
Preliminary Design Review		Q4						
Critical Design Review		Q4						
Development Lab Set-up		Q4						
Platform Independent Prototype Development		Q4						
Phase 1 - Software Development		Q1-Q4	Q1-Q3					
Phase 2 - Software Delivery			Q2-Q4	Q4	Q1			
Phase 3 - software development				Q1				
Technical Information Meeting		Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4			
Software Delivery			Q3	Q3	Q3	Q3		
Hardware/software compatibility testing			Q1-Q4	Q1-Q4	Q1-Q2			
Test Readiness Review (TRR)			Q1-Q2		Q1-Q2	Q4		
Developmental Testing (DT-IIA)			Q1-Q2		Q1-Q2	Q4		
Logistics			Q4	Q3	Q2	Q1-Q4		
Phase 1/2/3 delivery			Q2-Q4	Q1-Q2	2Q			
Software only configuration Installation			Q2-Q4		Q1-Q2	Q4		
Hardware only configuration Installation			Q2-Q3	Q1-Q2	Q1-Q2			
Hardware/software configuration Installation			Q2-Q4		Q3			
Operational Testing (OT-IIA)			Q4	Q4	Q3			
Start Low-Rate Initial Production I (LRIP I)			Q3		Q3			
IOC			Q4					

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: **February 2004**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604721N/SHIPBOARD IW EXPLOIT SYSTEM					PROJECT NUMBER AND NAME 9242 / COOPERATIVE OUTBOARD LOGISTICS UPDATE (COBLU)					
COST ($ in Millions)	Prior Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Total Program
Project Cost	**0.000**	**0.000**	**3.238**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**3.238**
RDT&E Articles Qty											**0**

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Cooperative Outboard Logistics Update, COBLU, is a cooperative program between the United States and the United Kingdom. The existing OUTBOARD system (AN/SSQ-108) has been updated to provide comprehensive surface tactical capability. The program maximizes use of already developed military and commercial signal exploitation equipment. The system architecture requires minimal effort to implement future technologies necessary to handle the evolving threat. This effort will develop, integrate and test an engineering prototype of Low Probability of Intercept (LPI) subsystem to detect recognize and process the most current threat signals. Once development effort is completed it will be included as a pre-planned product improvement for COBLU introduced through field change kits.

(U) JUSTIFICATION FOR BUDGET ACTIVITY:

This program is funded under BA-5, ENGINEERING & MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

R-1 SHOPPING LIST - Item No. 125

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604721N/SHIPBOARD IW EXPLOIT SYSTEM	9242 / COOPERATIVE OUTBOARD LOGISTICS UPDATE

(U) B. Accomplishments/Planned Program

		FY 03	FY 04	
Accomplishments/Effort/Subtotal Cost		3.238	0.000	
RDT&E Articles Quantity				

Cooperative Outboard Logistics Update (COBLU)

FY03 - Developed, integrated and tested an engineering prototype of a Low Probability of Intercept (LPI) subsystem.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604721N/SHIPBOARD IW EXPLOIT SYSTEM	9242 / COOPERATIVE OUTBOARD LOGISTICS UPDATE

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2002	FY 2003	FY 2004
Previous President's Budget:	0.000	0.000	0.000
Current BES/President's Budget	0.000	3.238	0.000
Total Adjustments	0.000	3.238	0.000
Summary of Adjustments			
Cong. Add for COBLU Upgrade		3.400	
Business Process Reform (Sec. 8100)		-0.014	
Economic Assumptions (Sec. 8135)		-0.019	
IT Cost Growth (Sec. 8109)		-0.006	
Inflation Savings		-0.036	
SBIR Assessment		-0.087	
Subtotal	0.000	3.238	0.000

(U) Schedule:

Not Applicable

(U) Technical:

Not Applicable

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2004**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604721N/SHIPBOARD IW EXPLOIT SYSTEM	9242 / COOPERATIVE OUTBOARD LOGISTICS UPDATE

(U) 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

(U) E. ACQUISITION STRATEGY:

Not Applicable

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: **February 2004**				
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604721N/SHIPBOARD IW EXPLOIT SYSTEM			PROJECT NUMBER AND NAME 9242/COOPERATIVE OUTBOARD LOGISTICS UPDATE						
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
Primary Hardware Development				0.250	02/03						0.250	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering											0.000	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	0.250		0.000		0.000		0.000	0.250	
Remarks:												
Development Support											0.000	
Software Development				2.988	02/03						2.988	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			0.000	2.988		0.000		0.000		0.000	2.988	
Remarks:												

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: **February 2004**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**		PROGRAM ELEMENT 0604721N/SHIPBOARD IW EXPLOIT SYSTEM				PROJECT NUMBER AND NAME 9242/COOPERATIVE OUTBOARD LOGISTICS UPDATE						
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
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support											0.000	
Travel											0.000	
Transportation											0.000	
											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												
Total Cost			0.000	3.238		0.000		0.000		0.000	3.238	
Remarks:												

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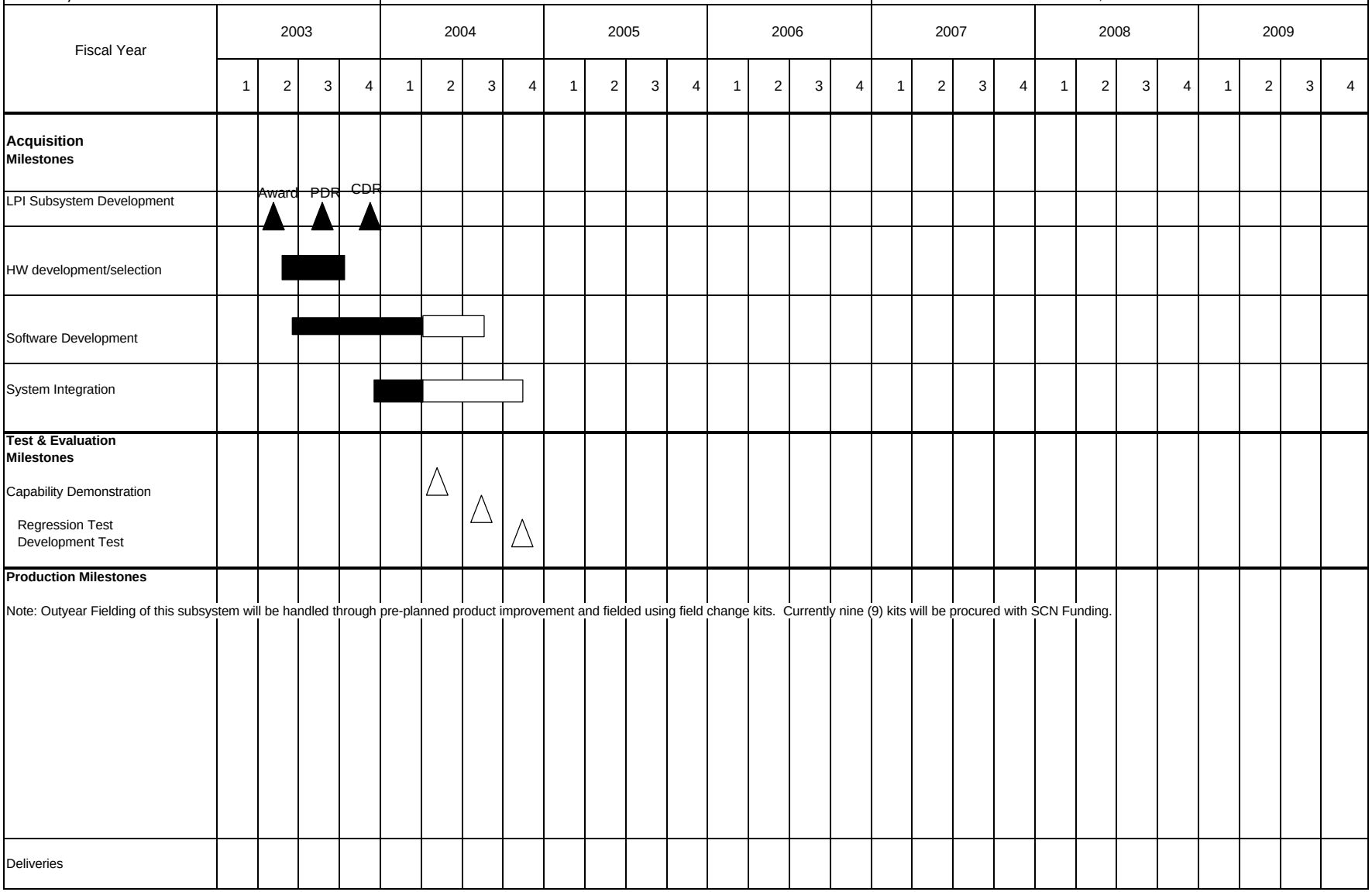
CLASSIFICATION:

EXHIBIT R4, Schedule Profile | DATE: **February 2004**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-5**

PROGRAM ELEMENT NUMBER AND NAME: 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM

PROJECT NUMBER AND NAME: 9242 SHIPBOARD IW EXPLOIT/SHIPS SIGNAL COOPERATIVE OUTBOARD LOGISTICS UPDATE, COBLU



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

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2004**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA 5**	PROGRAM ELEMENT 0604721N/ SHIPBOARD IW EXPLOIT SYSTEM				PROJECT NUMBER AND NAME COOPERATIVE OUTBOARD LOGISTICS UPDATE, COBLU			
Schedule Profile		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Contract Award		Q2						
Preliminary Design Review (PDR)		Q3						
System Design Review (SDR)		Q2						
System Development		Q2 -Q4	Q1-Q3					
Critical Design Review (CDR)		Q4						
System Integration			Q1-Q4					
Eng Dev Model (EDM) Delivery - Lab			Q3					
Software Delivery -			Q3					
Test Readiness Review (TRR)			Q4					
Developmental Testing			Q4					
Capability Demo			Q4					
EDM Delivery -			Q4					

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