CLASSIFICATION:								
EXHIBIT R-2, RDT&E Budget Item Justification						DATE:		
							February 2005	
APPROPRIATION/BUDGET ACTIVITY		5.4.5		R-1 ITEM NOMEN				
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /	1	BA 5		PE 0604721N Bat	le Group Passive	Horizon Extension	System	
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	16.727	29.966	18.456	17.736	16.617	16.950	17.329	17.677
2134/SHIPBOARD IW EXPLOIT	16.727	17.792	18.456	17.736	16.617	16.950	17.329	17.677
9281/NAVY INTELLIGENT AGENT SECURITY MODULE *		0.979						
9581/AIRBORNE COMMUNICATIONS INTERCEPT POD (ACIF) *		1.685						
9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM *		1.090						
9584/SHIPBOARD INFORMATION WARFARE EXPOIT *		4.261						
9585/SHIPS SIGNAL EXPLOITATION EQUIPMENT (SSEE) *		0.989						
9586/SMART SIGNAL PARSER AND ACTIONABLE INTELLIGENCE *		3.170						
Quantity of RDT&E Articles								

#### 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 Communications Data Link System (CDLS) the Program of Record that implements the DoD mandated use of the Common Data Link waveform to downlink un-processed SIGINT/COMINT and imagery. 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.

#### Congressional Adds \*:

928T/NAVY INTELLIGENT AGENT SECURITY MODULE: — Offensive Capabilities (program name recently changed to Sensing, Warning, and Response Manager (SWARM)). Funds provided for SBIR II research, development, testing and evaluation of newly designed "Offensive capabilities technology for the IASM. Assures information dominance and superiority against threats with forensics and countermeasure options.

X9581/AIRBORNE COMMUNICATIONS INTERCEPT POD (ACIF): - Funds will support the test and evaluation of communications module; documentation; test and evaluation of additional interface capabilities for different type aircraft. Test and evaluation of antennas for airborne pod operation. The add will also provide engineering support for flight clearances and for test support engineering.

X9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM: - Funds will support Phase III SBIR to ATTSS for the development of 2 Engineering Development Models to be provided to the Mobile Inshore Undersea Warfare System Upgrade (MIUW-SU).

## **CLASSIFICATION:**

EXHIBIT R-2, RDT&E Budget Item Justification		DATE:
		February 2005
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-5	PE 0604721N Battle Group F	Passive Horizon Extension System
Congressional Adds Continued:		
X9584/SHIPBOARD INFORMATION WARFARE EXPOIT: - Funds are to develop organic ELINT collection, response consolidated SIGINT picture of the threat battle space. This add will address the ORD requirements to provide SSEE X9585/SHIPS SIGNAL EXPLOITATION EQUIPMENT (SSEE): - Funds will provide enhancements to SSEE using con adaptable system that can accommodate new threat signals through software updates. Emergent signals place increexpand system capabilities through the use of new COTS FPGA boards to increase processing capability without increase provided to develop and expand of signal types that are required. Obtain message textual para data for special signal case to create template module and expand actionable intelligence extraction rule set that permit automated actionable intelligence extraction of other	with a tactical organic ELINT mmercial off the shelf hardwar ased demand on system proceesing system cost. the applied Special Signal rule to process new bit data; to ex	capability. e such as Field Programmable Gate Arrays (FPGAs). SSEE is an essing requirements. At the same time, opportunities exist to e set and to expand the subject signal set to cover the larger number pand the AIE data mining capability to cover additional signal types

CLASSIFICATION:									
EXHIBIT R-2a, RDT&E Project Justification								DATE:	
APPROPRIATION/BUDGET ACTIVITY	<u> </u>	PROGRAM ELEM	IFNT NUMBER A	ND NAME		PROJECT NUMB		February 2005	
_	PE 0604721N Battl		_			2134/SHIPBOARI			
COST (\$ in Millions)		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		16.727	17.792	18.456	17.736	16.617	16.950	17.329	17.677
RDT&E Articles Qty									

## (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 Communications Data Link System (CDLS) the Program of Record that implements the DoD mandated use of the Common Data Link waveform to downlink un-processed SIGINT/COMINT and imagery. 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.

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
				February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME	
	PE 0604721N Battle Group Passive Horizon Extension			
RDT&E, N / BA 5	System	2134/SHIPBOARD IW EXPL	_OIT	

## (U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.000	4.000	2.500	2.500
RDT&E Articles Quantity				

Communications Data Link- System (CDLS)

FY04 - Integrated advanced technology Common Data Link (CDL) modem. Continued design and development of CDLS 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 - Design and Develop CDLS Interfaces to Phased Array Antenna Systems. Integrate and Test Cooperative Antenna Program Sub-array Assemblies. Design and develop CDLS Spiral 1 Advanced Networking Technology Insertion Kit. Continue Vendor Interoperability and Integration Testing with emerging Navy sensor systems such as BAMS, MMA, GHMD, F/A-18 SHARP, P-3C AIP, and EP-3E Multi-int systems. Design and Develop KGV-135A communications security Module. Design and Develop CDLS Interfaces with Automated Data Network System (ADNS). Develop JTRS Software Communications Architecture (SCA) Core Framework for CDLS.

FY06 - Continue Integration and Test of Phased Array Antenna Systems sub-array assemblies. Continue Design and develop CDLS Spiral 1 Advanced Networking Technology Insertion Kit. Continue Vendor Interoperability and Integration Testing with emerging Navy sensor systems such as BAMS, MMA, GHMD, F/A-18 SHARP, P-3C AIP, and EP-3E Multi-int systems. Continue Design and Develop KGV-135A COMSEC Module. Continue Design and Develop CDLS Interfaces with ADNS. Continue Development of JTRS SCA Core Framework for CDLS. FY07 - Develop ECP for CDLS Spiral 1 Advanced Networking Technology Insertion Kit for KGV-135A COMSEC Module and CDLS Interfaces with ADNS. Continue Integration and Test of Phased Array Antenna Systems sub-array assemblies. Continue Vendor Interoperability and Integration Testing with emerging Navy sensor systems such as BAMS, MMA, GHMD, F/A-18 SHARP, P-3C AIP, and EP-3E Multi-int systems. Develop ECP for JTRS SCA Core Framework for CDLS.

Note: Name change from CDL-N Block 1 to CDLS.

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
				February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NA	ME	
RDT&E, N / BA 5	PE 0604721N Battle Group Passive Horizon Extension System	2134/SHIPBOARD IW EXPLO	DIT	

## (U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.285	0.800		
RDT&E Articles Quantity				

## Cryptologic On-Line Trainer (COLT)

FY04 - Modified COLT server in support of integration with Cryptologic Unified Build (CUB) 5.X software releases. Upgraded COLT client application functionality (SSEE Inc E, COBLU Phase 1, and CDF) to include additional Signals of Interest (SOI) and other emergent requirements. Began COLT integration with Battle Force Tactical Training (BFTT) system.

FY05 - Complete 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). Complete COLT Battle Force Tactical Trainer (BFTT) integration development.

Note: Current migration plan for COLT to be integrated into the SSEE Program.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.000	1.000		
RDT&E Articles Quantity				

## Cryptologic Unified Build (CUB)

FY04 - Initiated development of Cryptologic Unified Build (CUB) software to incorporate latest DII COE\*. CUB ensures interoperability between Sensor Systems and C4I systems. This development effort targeted the DII COE 4.X baseline.

FY05 - Continue development and integration of CUB software to incorporate DII COE 4.Y baseline. This development effort completes the DII COE 4.Y baseline. Continue development of CUB On-Line Tutorial, CUBOLT, software.

\*DII COE - Defense Information Infrastructure (DII) Common Operating Environment (COE)

Note: Current migration plan for CUB to be integrated into the SSEE Program.

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
				February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAI	ME	
	PE 0604721N Battle Group Passive Horizon Extension			
RDT&E, N / BA 5	System	2134/SHIPBOARD IW EXPLO	IT	

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

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	5.000	3.763	1.000	
RDT&E Articles Quantity				

#### Multi-Mission Payload (MMP)

FY04 - Initiated System Development Phase of the remotely controlled platform independent MMP, intended for use as a pod on ship based aircraft. Awarded contracts for research and development of Engineering Development Models, EDMs. Conducted design review and perform end-to-end system engineering analysis. Performed aircraft data analysis and performed integration planning to develop the appropriate engineering design of the payload and its mechanical, electrical and environmental interface components. Determined 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. Developed Test Plan.

FY05 - Complete development of the EDMs pod and conduct laboratory acceptance tests. Obtain Flight Certification and complete testing. Perform the Office of Naval Intelligence, ONI, certification and accreditation for Interim Authority To Operate, IATO. Perform land-based flight tests and demonstrations.

FY06 - Complete carrier launch qualifications and perform flight demonstrations on carrier launched aircraft.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.000	5.111	12.726	12.962
RDT&E Articles Quantity				

#### Ship Signal Exploitation Equipment

FY04 - Initiated 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 Signals of Interest (SOI) processing capability to priority signal sets. Fully test improved software. Initiate acquisition development for follow-on increments.

FY06 - 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. Conduct Follow-On Test and Evaluation (FOT&E). Modifiy COLT server to upgrade current software releases. Continue development and integration of Cryptologic Unified Build (CUB) software. Continue acquisition development for SSEE Inc F to support Engineering Development Models (EDM), integration, testing and remoting of manned and unmanned platforms.

FY07 - Continue to expand SOI processing capability to priority signal sets. Fully test improved software. Modifiy COLT server to upgrade current software releases. Continue development and integration of CUB software. Continue acquisition development for SSEE Inc F to support Engineering Development Models (EDM), integration, testing and remoting of manned and unmanned platforms.

Note: CUB and COLT will be migrated into SSEE Program beginning FY 06.

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
				February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NA	AME	
	PE 0604721N Battle Group Passive Horizon Extension			
RDT&E, N / BA 5	System	2134/SHIPBOARD IW EXPLO	DIT	

## (U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.792	1.618	1.230	1.254
RDT&E Articles Quantity				

Specific Emitter Identification (SEI)

FY04 - Conducted independent test and evaluation and compatibility testing of SEI software and began retooling existing prototypes into a single platform, Phase II. Formalized Navy SEI data standards for improved collection and dissemination. Began integration of SEI capabilities into the Naval single platform distributed surface EW system. Continued to expand SEI database access, dissemination, and integration within the Theater Correlation Functions (TCFs) and tactical users. Continued to address SEI software operational issues to facilitate SEI tactical employment. Continued 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.

FY06 - Continue incorporation of next generation SEI algorithms into existing fielded SEI systems with new algorithms and software. Increase capabilities to distribute and utilize SEI data in network centric architectures. Enhance automation capabilities of SEI collection, processing, and reporting software. Integrate geolocation information with SEI systems. Continue incorporation of SEI into ELINT and the overall Navy EW architecture, and use of COTS hardware for SEI data extraction. Develop software enhancements in GCCS-M, GALE Lite, and other fielded systems to support next generation SEI capabilities and data types. Pursue SEI-based deinterleaving for tactical and high volume collectors. Pursue enhanced SEI algorithms and techniques.

FY07 - Continue reprogramming of existing fielded SEI systems with new algorithms and software. Continue improvements to network based SEI data distribution and utilization. Continue SEI software enhancements to maximize automation of SEI collection & reporting. Continue integration of geolocation, SEI, and other data. Continue incorporation of SEI into ELINT and the overall Navy EW architecture with the goal of SEI being absorbed into ELINT. Continue software enhancements in GCCS-M, GALE Lite, and other fielded systems to support new SEI capabilities and data types. Continue to pursue enhanced SEI algorithms and techniques, SEI-based deinterleaving, and other SEI applications.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.650	1.500	1.000	1.020
RDT&E Articles Quantity				

### Antenna & RF Distribution

FY04 - Implemented design goals and objectives for existing antenna and future antenna efforts via requirements analysis. Completed development of existing antenna upgrades for enhanced capability. Initiated prototype demonstration effort for future antenna design for low signature direction finding (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 radio frequency distribution (RFD) unit and future antenna upgrades. Continue development of future antenna for low signature DF and acquisition/enhanced performance.
- FY06 Continue development of antenna & radio freguency (RF) tools to enhance future capabilities via new technologies, EDM development, testing and certification.
- FY07 Continue development of antenna & RF tools to enhance future capabilities via new technologies. EDM development, testing and certification.

(HIBIT R-2a, RDT&E Project Justification					DATE:
					February 2005
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME			PROJECT NUMBER AND NAME
T&E, N / BA 5	PE 0604721N Battle Group Passiv	ve Horizon Exte	nsion System		2134/SHIPBOARD IW EXPLOIT
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(U) C. PROGRAM CHANGE SUMMARY:					
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007	
FY2005 President's Budget	16.743	17.981	18.730	16.044	
FY2006 President's Budget	16.727	17.792	18.456	17.736	
Total Adjustments	-0.016	-0.189	-0.274	1.692	
Summary of Adjustments					
Congressional Adjustments Congressional Rescissions		-0.167			
Reprogrammings					
Programmatic Adjustments		-0.022	-0.394	1.509	
Economic Assumptions	-0.016		0.148	0.165	
Pricing Adjustments			-0.028	0.018	
SBIR/STTR Transfers					
Subtotal	-0.016	-0.189	-0.274	1.692	
(U) Schedule:					
Not Applicable.					
(U) Technical:					
Not Applicable.					
ног Аррисавіе.					

XHIBIT R-2a, RDT&I	E Project Justification								DATE: February 2005
PROPRIATION/BUDGE	T ACTIVITY		PROGRAM EI	LEMENT NUM	BER AND NAM	ИE	PROJECT NU	IMBER AND N	
DT&E, N /	BA-5		PE 0604721N	Battle Group F	Passive Horizo	n Extension Sy	2134/SHIPBO	ARD IW EXPL	OIT
(U) D. OTHER PRO	OGRAM FUNDING SUMM	ARY:							
Line Item No. & N OPN Line 2360		<u>FY 2004</u> 119.766	FY 2005 68.772	FY 2006 62.721	FY 2007 77.637	FY 2008 64.598	FY 2009 86.510	FY 2010 96.309	<u>FY 2011</u> 83.919
(U) E. ACQUISITION		etratogiae ara to e	unnort onginee	ring and manu	facturing days	lanment by pro	widing funds to	SSC-Charlocte	on, SSC-San Diego and miscellaneous
	h management oversight l		ирроп епдіпее	ning and mand	racturing deve	юртен ву рго	vialing farius to	OSO-Chanesic	on, 330-3an Diego and miscenarieous

CLASSIFICATION:													
									DATE:				
Exhibit R-3 Cost Analysis (pag										ebruary 20	05		
APPROPRIATION/BUDGET ACTIV	/ITY		PROGRAM EL				PROJECT NU						
RDT&E, N / BA 5					Passive Horizor		y: 2134/SHIPBC		LOIT				
Cost Categories	Contract	Performing		Total	E) / 05	FY 05	E) / 00	FY 06	E) ( 07	FY 07			Target
	Method & Type	Activity & Location		PY s Cost	FY 05 Cost	Award Date	FY 06 Cost	Award Date	FY 07 Cost	Award Date	Cost to Complete	Total Cost	Value of Contract
Primary Hardware Development	Various	Various		39.994	3.970		5.350		6.250		Continuing		Continuing
Ancillary Hardware Development	various	various		33.334	3.970	12/04	3.330	12/03	0.230	12/00	Continuing	0.000	
Systems Engineering	Various	Various		6.669	5.074		4.674		2.933		Continuing		Continuing
Training Development	Various	Various		0.168	0.075		0.093	)	0.100		Continuing	1	Continuing
Licenses												0.000	<b>+</b>
Tooling									-			0.000	1
GFE									-			0.000	
Award Fees												0.000	
Subtotal Product Development				46.831	9.119		10.117		9.283		Continuing	Continuing	Continuing
Development Support												0.000	0.000
Software Development	Various	Various		10.549	3.738		3.811		4.828		Continuing	Continuing	Continuing
Training Development												0.000	0.000
Integrated Logistics Support	Various	Various		0.485	0.136		0.130	)	0.145		Continuing	Continuing	Continuing
Configuration Management	Various	Various		0.199	0.117		0.120	)	0.125		Continuing	Continuing	Continuing
Technical Data												0.000	0.000
GFE												0.000	0.000
Subtotal Support				11.233	3.991		4.061		5.098		Continuing	Continuing	Continuing
	•	•			•		•	•		•			
Remarks:													
					DINOLIOT		404						

CLASSIFICATION:													
									DATE:				
Exhibit R-3 Cost Analysis (pa	ige 2)								F	ebruary 200	05		
APPROPRIATION/BUDGET ACTI	VITY		PROGRAM EL	EMENT			PROJECT NU	MBER AND N	IAME				
RDT&E, N / BA 5			PE 0604721N	Battle Group	Passive Horizor								
Cost Categories	Contract	Performing	•	Total		FY 05		FY 06		FY 07			Target
	Method	Activity &		PY s	FY 05		FY 06	Award		Award	Cost to	Total	Value of
	& Type	Location		Cost	Cost		Cost	Date	Cost	Date	Complete	Cost	Contract
Developmental Test & Evaluation	Various	Various		3.927	•	12/04	0.868		0.680	12/06	Continuing	Continuing	
Operational Test & Evaluation	Various	Various		0.716	0.421		0.395		0.250		Continuing	Continuing	
Live Fire Test & Evaluation												0.000	0.000
Test Assets	Various	Various		0.746	0.439		0.412		0.150		Continuing	Continuing	Continuing
Tooling												0.000	0.000
GFE												0.000	0.000
Subtotal T&E				5.389	1.787		1.675		1.080		Continuing	Continuing	Continuing
Contractor Engineering Support												0.000	0.000
Government Engineering Support												0.000	0.000
Program Management Support	Various	Various		5.923	2.743		2.461		2.123		Continuing	Continuing	Continuing
Travel	Various	Various		0.25	7 0.152		0.142		0.152		Continuing	Continuing	Continuing
Subtotal Management				6.180	2.895		2.603		2.275		0.000	13.953	0.000
Remarks:													
Total Cost				69.633	17.792	0.000	18.456	0.000	17.736	0.000	Continuing	Continuing	Continuing
Remarks:	•	•	,		•				•				
					DINOLIOT		101						

EXHIBIT R4, Schedule F																										uary :	2005					
APPROPRIATION/BUDGET													NUMBE											ER AN ARD I	W EXF	PLOIT/			ATION	S DAT	A LINI	K-
RDT&E, N /	BA-		004			20	005		PE 06		N Batt	ile Gro	up Pas	20		Exten	sion Sy	stem 20	08			20	009		S	YSTEM 20	и (CDL )10	.S)		20	11	
	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									MSD 			FOC																				
Test & Evaluation Milestones  Development Test  Operational Test  Interoperability Testing			DT	-c		OA-C																										
Production Milestones  LRIP I  LRIPII  FRP FY04																																
Deliveries								7																								
Development Milestones Phased Array Ant Interfaces Spiral 1 Design Spiral 1 ECP Dev  JTRS SCA Core Framework JTRS SCA ECP Dev Vendor Interop & Int Testing																																

Exhibit R-4a, Schedule Detail						DATE:	E	
PPROPRIATION/BUDGET ACTIVITY RDT&BA-5	PROGRAM E System	LEMENT .			PROJECT NUMBER	AND NAME  EXPLOIT/COMMUNICATION  RESPLOIT/COMMUNICATION  RESPLOIT/COMMUNICATIO	February 2005	STEM (CDLS)
NO TO DATE	Cystem				2104 OF III BOYARD IV	EXI EGIT/GGIVINGINIGA	TIONS BY THE CITY	OTEM (OBLO)
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 201
Material Support Date			Q1					
Full Operational Capability			Q4					
Developmental Testing (DT)	Q3-Q4	Q1						
Operational Analysis	40 41	Q2-Q3						
Interoperability Testing	Q2-Q3		Q1-Q2					
Phased Array Antenna Interfaces		Q1-Q4	Q1-Q4	Q1-Q4				
Sprial 1 Design		Q1-Q4	Q1-Q4					
Sprial 1 Design Spiral 1 ECP Dev				Q1-Q4				
JTRS SCA Core Framework		Q1-Q4	Q1-Q4					
JTRS SCA Core Framework JTRS SCA ECP Dev				Q1-Q4				
Vendor Interoperability and Integration Testing		Q1-Q4	Q1-Q4	Q1-Q4				
					<del> </del>			
		1						

R-1 SHOPPING LIST - Item No.

124

EXHIBIT R4, Schedule									1								-Missi	on Pa	yload							uary	2005					
APPROPRIATION/BUDGE	FACTIV B <b>A-</b>									GRAM															ID NAN		T	201011	DAM	045 (	41.40\	
RDT&E, N /	BA-	<u> </u>			1				PE 06	504721	N Batt	le Gro	up Pas	ssive H	lorizon	Exten	sion Sy	/stem			2134	SHIPB	OARL	) IW E	XPLO	1/MUL	_ I I-MIS	SSION	PAYLO	OAD (I	имР)	
Fiscal Year		20	004			20	005	1		20	06	1		20	07	1		20	80			20	09	1		20	)10	1		20	11	
	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	EDM Award	ı		AoA								мѕ в																				
System Development		А	A/C nalysis			ration	1	IATO																								
Equipment Delivery EDM Delivery							EDM Delive	ries																								
Software																																
Test & Evaluation Milestones  Development Test  Operational Test							Lab Tests	Flig	Tech E	ts	OP EV	ral																				
Production Milestones  LRIP I  LRIPII  FRP																																
Deliveries																																

# **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail						DATE:	ebruary 200	5
APPROPRIATION/BUDGET ACTIVITY  RDT&E, N / BA 5	PROGRAM E PE 0604721N System		Passive Horizor	n Extension	PROJECT NL 2134 SHIPBC PAYLOAD (M	IMBER AND N ARD IW EXPL	AME OIT/MULTI-MI	
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
EDM Award	Q1				1			
Update Analysis of Alternatives	Q4							
Design Review	Q4							
Aircraft Integration Planning		Q1-Q2						
Laboratory Acceptance Tests		Q3						
Eng Dev Model (EDM) Deliveries - Lab		Q3						
Plan & Obtain Interim Authority to Operate (IATO)		Q4						
Flight Tests		Q4	Q1-Q3					
Technical Evaluation			Q1					
Operational Evaluation			Q3					
Milestone B Decision			Q4					

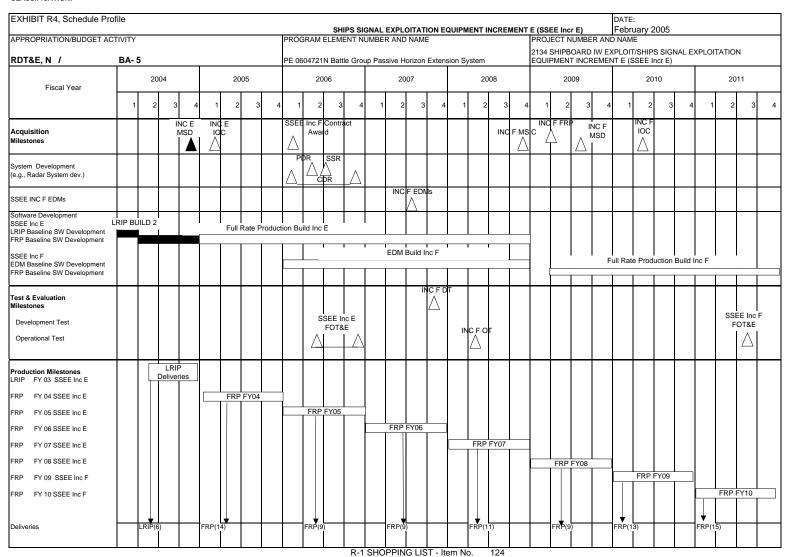


Exhibit R-4a, Schedule Detail						DATE:	- h	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	MENT			PROJECT NU		February 200 AME	5
RDT&E, N /BA 5	PE 0604721N Bat	ttle Group Passiv	ve Horizon Exte	ension System	2134 SHIPBO EXPLOITATION			
Schedule Profile	FY2004	FY2005	FY2006	FY2007	FY 2008	FY 2009	FY 2010	FY 2011
Increment E								
System Development	Q1-Q4	Q1-Q4	Q1-Q4					
Follow-On Test & Evaluation (FOTE)			Q2-Q4					
IOC		Q1						
Full Rate Production	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4			
Pre-Planned Improvements (P3I)	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4			
Material Support Date	Q4							
Increment F								
Contract Award			Q1-Q4					
Software Specification Review (SSR)			Q2-Q3					
Preliminary Design Review (PDR)			Q2					
System Development			Q1-Q4					
Critical Design Review (CDR)			Q3-Q4					
Developmental Testing			Q3-Q4					
Operational Testing			Q1					
EDM SSEE Delivery - Ship				Q3-Q4				
Milestone III (MS C) FullRate Production Decision					Q4	Q1		
FOLLOW-ON Operational Evaluation (FOTE)								Q3
Full Rate Production Start						Q1		
Pre-Planned Improvements (P3I)						Q1-Q4	Q1-AQ4	Q1-Q4
Material Support Date						Q3	00	
IOC		+					Q2	
								<del> </del>
								<del>                                     </del>
								<del>                                     </del>
								<b>i</b>

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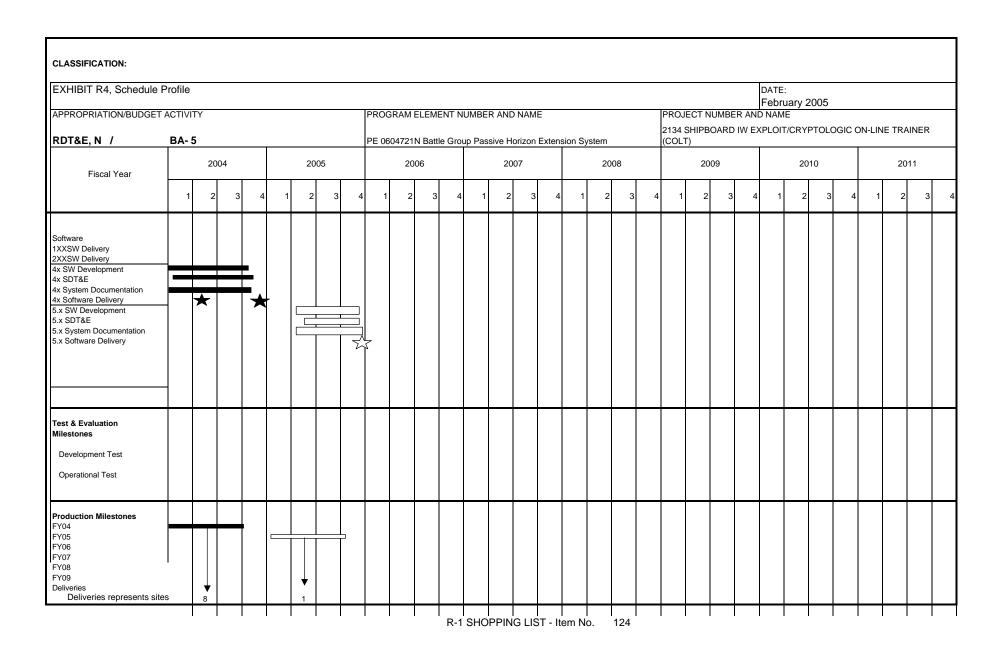
SSEE is a spiral development program.

FY09 will introduce a future Increment with new antenna design and P3I.

																									Febr	uary 2	2005					
																	aian C	.atama									DTO! (	2010 1	INIIFIF	.D DI II	I D (C	
	Fiscal Year  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 1 1 2 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										20		UB																			
	1	2	: 3	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	j
Acquisition Milestones Software 4.X SW Development 4.X SDT&E 4.X System Documentation 4.X Software Delivery 4.Y SW Development 4.Y SDT&E 4.Y System Documentation 4.Y Software Delivery 4.Y System Documentation 4.Y Software Delivery		*							N																							
Test & Evaluation Milestones																																
Development Test Operational Test																																
Production Milestones																																t

# CLASSIFICATION: UNCLASSIFIED//FOR OFFICIAL USE ONLY

Exhibit R-4a, Schedule Detail						DATE:	ebruary 200	5
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E PE 0604721N	LEMENT Battle Group F	assive Horizor	n Extension		JMBER AND N DARD IW EXPL	AME	
RDT8BA-5	System	•				BUILD	(CUB)	
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Software Development v 4.X	Q1-Q4	Q1						
System Developmental Test & Eval v 4.X	Q1-Q4	Q1						
System Documentation v 4.X	Q1-Q4	Q1						
Software Delivery v 4.X	Q2	Q1						
Software Development v 4.Y		Q2-Q4						
System Developmental Test & Eval v 4.Y		Q3-Q4						
System Documentation v 4.Y		Q3-Q4						
Software Delivery v 4.Y			Q1					



# **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail						DATE:		
						<u> </u>	ebruary 200	5
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT			PROJECT NU	IMBER AND N	AME	
	PE 0604721N	Battle Group F	Passive Horizor	n Extension	2134 SHIPBO	ARD IW EXPL	OIT/CRYPTOL	OGIC ON-
RDT&E, N / BA 5	System	•			LINE TRAINE			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008		FY 2010	FY 2011
COLT Server Software					1			
4x SW Development	Q1-Q4							
4x SDT&E	Q1-Q4							
4x System Documentation	Q1-Q4							
4x Software Delivery	Q2/Q4							
5.0 SW Development		Q2-Q4						
5.0 SDT&E		Q2-Q4						
5.0 System Documentation		Q2-Q4						
5.0 Software Delivery		Q4						

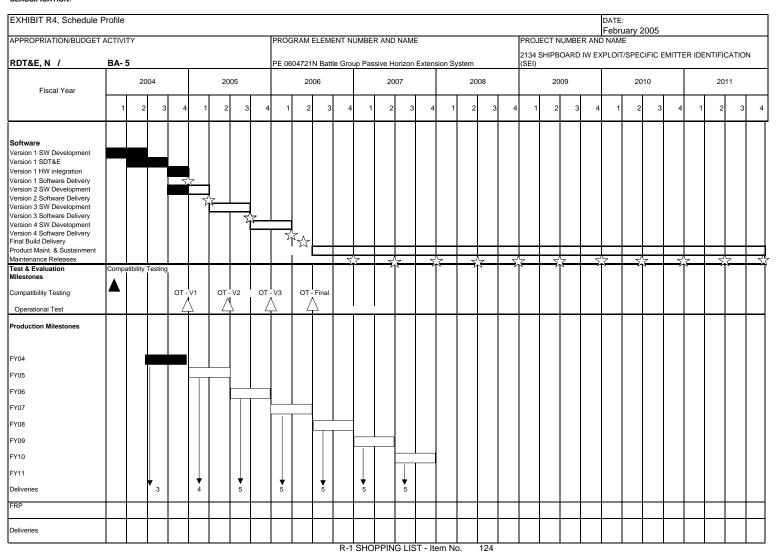
EXHIBIT R4, Schedule	Profile	<del></del>																							DATI Feb	ruary	200	)5					
APPROPRIATION/BUDGET	ACTIV	'ITY							PROC	GRAM	ELEM	ENT N	UMBE	R AND	NAM	IE					PROJ	ECT N	IUMBE	ER AN	iàn di	ME							
RDT&E, N /	BA-	5							PE 06	04721	N Batt	le Gro	up Pas	ssive H	orizon	Extens	sion Sy	stem			2134	SHIPB	OARD	IW E	XPLO	IT/AN	TENI	NA R	F DIS	TRIBU	JTION	(ARF	D)
Fiscal Year		2	004			20	005			20	006			20	07			20	800			20	09			2	2010				20	11	
	1	:	2 3	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				Awa	ard Co	ntract																											
Prototype Phase																																	
System Development								SDR				SDR				SDR																	
EDM Delivery Four EDMs				EDM				EDM				EDM				EDM																	
Test & Evaluation Milestones			FAT				FAT				FAT				FAT																		
FAT Developmental Test												DT 																					
Production Milestones  Deliver Design Package to SSE	EE														Prod	duction	rolled i	into S	SEE														
Deliveries																																	

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Prototype Phase consist of antenna performance/probability studies.

# **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail						DATE:	February 20	ns
APPROPRIATION/BUDGET ACTIVITY  RDT&E, N /BA 5	PROGRAM E PE 0604721N System	LEMENT Battle Group F	assive Horizor	Extension	PROJECT NU 2134 SHIPBO DISTRIBUTIO	MBER AND NA ARD IW EXPL	AME	
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Contract Award		1Q						
Prototype Phase	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4				
EDM Delivery	4Q	4Q	4Q	4Q				
System Design Review (SDR)		4Q	4Q	4Q				
Factory Acceptance Testing	3Q	3Q	3Q	3Q				
Developmental Test			4Q					
Deliver Design Package to SSEE					1Q			
<u> </u>								
			-					



# **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail						DATE:		
						F	ebruary 200	)5
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT			PROJECT NU	MBER AND N	AME	
	PE 0604721N	Battle Group F	Passive Horizor	Extension	2134 SHIPBO	ARD IW EXPL	OIT/SPECIFIC	EMITTER
RDT&E, N / BA 5	System				IDENTIFICAT			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
SURPAS Development								
Phase 1 - Software Delivery	Q1-4							
Phase 2 - Software Delivery	Q4	Q1						
Phase 3 - Software Delivery		Q2-3						
Phase 4 - Software Delivery		Q4	Q1					
Technical Information Meeting	Q1-Q4	Q1-Q4	Q1-Q4					
Software Delivery	Q4	Q2 & Q4	Q2					
Software Maintenance Release				Q1 & Q3	Q1 & Q3	Q1 & Q3	Q1 & Q3	Q1 & Q3
Hardware/software compatibility testing	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4
Test Readiness Review (TRR)	Q4	Q2 & Q4	Q2					
Developmental Testing (DT-IIA)	Q1-Q4	Q1-Q4	Q1-Q2					
Logistics								
Operational Testing (OT-IIA)	Q4	Q2 & Q4	Q2					
Start Low-Rate Initial Production I (LRIP I)			Q3					
IOC			Q3					

CLASSIFICATION:									
EXHIBIT R-2a, RDT&E Project Justification								DATE:	
·								February 2005	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEM	IENT NUMBER A	ND NAME		PROJECT NUMB	ER AND NAME	•	
RDT&E, N / BA-5	PE 0604721N Battl	e Group Passive H	lorizon Extension	System		9581/AIRBORNE	COMMUNICATION	ONS INTERCEPT I	POD (ACIF)
COST (\$ in Millions)		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		0.000	1.685	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty									

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

AIRBORNE COMMUNICATIONS INTERCEPT POD (ACIF): - Funds will support the test and evaluation of communications module; documentation; test and evaluation of additional interface capabilities for different type aircraft. Test and evaluation of antennas for airborne pod operation. The add will also provide engineering support for flight clearances and for test support engineering.

EXHIBIT R-2a, RDT&E Project Justifica	ation			DATE:	
					February 2005
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	IBER AND NAME	PROJECT NUMBER AND N	IAME	
	PE 0604721N Battle Group	Passive Horizon Extension			
DT&E, N / BA 5	System		9581/AIRBORNE COMMUN	ICATIONS INTERCEPT	POD (ACIF)
B. Accomplishments/Planned Program					
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost		1.685			
RDT&E Articles Quantity					

EXHIBIT R-2a, RDT&E Project Justification					DATE:
PPROPRIATION/BUDGET ACTIVITY	DDOODAM ELEMENT NUMBER A	NID NIAME			February 2005
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER A	ND NAME			PROJECT NUMBER AND NAME
RDT&E, N / BA 5	PE 0604721N Battle Group Passive	Horizon Exte	ension System		9581/AIRBORNE COMMUNICATIONS INTERCEPT POD (ACII
(U) C. PROGRAM CHANGE SUMMARY:					
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007	
FY2005 President's Budget	0.000	0.000	0.000	0.000	
FY2006 President's Budget	0.000	1.685	0.000	0.000	
Total Adjustments	0.000	1.685	0.000	0.000	
Summary of Adjustments					
Congressional Increase		1.700			
Congressional Rescissions		-0.015			
Subtotal		1.685			
Subtotal		1.685			
(U) Schedule:					
Not Applicable.					
(U) Technical:					
Not Applicable.					

CLASSIFICATION:													
									DATE:				
Exhibit R-3 Cost Analysis (page	ge 1)									ebruary 200	)5		
APPROPRIATION/BUDGET ACTIV	/ITY		PROGRAM E					UMBER AND N					
RDT&E, N / BA 5	-1-	T= -	PE 0604721N		Passive Horizo		/: 9581/AIRBO		ICATIONS INT		(ACIF)	1	
Cost Categories	Contract	Performing		Total	E) / 05	FY 05	E) ( 00	FY 06	E) ( 07	FY 07			Target
	Method & Type	Activity & Location		PY s Cost	FY 05 Cost	Award Date	FY 06 Cost	Award Date	FY 07 Cost		Cost to Complete	Total Cost	Value of Contract
Primary Hardware Development	а туре	Location		Cosi	Cost	Date	Cosi	Date	Cost	Date	Complete		-
Ancillary Hardware Development											Continuing	Continuing	Continuing
'													
Systems Engineering													
Training Development								+					
Licenses								+					
Tooling													
GFE 													
Award Fees								1					
Subtotal Product Development													i
Development Support													
Software Development													
Training Development													
Integrated Logistics Support													
Configuration Management													
Technical Data													
GFE													
Subtotal Support													
Remarks:													

CLASSIFICATION:													
									DATE:				
Exhibit R-3 Cost Analysis (pag	e 2)									ebruary 200	5		
APPROPRIATION/BUDGET ACTIV			PROGRAM E	LEMENT			PROJECT NU	IMBER AND N		j			
RDT&E, N / BA 5			PE 0604721N	Battle Group F	Passive Horizor			NE COMMUNI			(ACIF)		
Cost Categories		Performing	•	Total		FY 05		FY 06		FY 07			Target
	Method	Activity &			FY 05								Value of
B 1 117 105 1 11	& Type	Location		Cost	Cost		Cost	Date	Cost	Date	Complete	Cost	Contract
Developmental Test & Evaluation	CPFF	Sensytech			1.348								
Operational Test & Evaluation													
Live Fire Test & Evaluation													
Test Assets													
Tooling													
GFE													
Subtotal T&E					1.348								
Contractor Engineering Support													
Government Engineering Support													
Program Management Support	Various	Various			0.169								
Travel	Various	Various			0.168								
Subtotal Management					0.337								
Remarks:													
Total Cost					1.685								
Remarks:													

CLASSIFICATION:									
EXHIBIT R-2a, RDT&E Project Justification								DATE:	
								February 2005	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEN	IENT NUMBER A	ND NAME		PROJECT NUMB	ER AND NAME		
RDT&E, N / BA-5	PE 0604721N Battl	e Group Passive H	lorizon Extension	System		9582 ANTI-TERR	ORISM TECHNO	LOGY SURVEILLA	ANCE SYSTEM
COST (\$ in Millions)		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		0.000	1.090	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty									

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

AIRBORNE COMMUNICATIONS INTERCEPT POD (ACIF): - Funds will support the test and evaluation of communications module; documentation; test and evaluation of additional interface capabilities for different type aircraft. Test and evaluation of antennas for airborne pod operation. The add will also provide engineering support for flight clearances and for test support engineering.

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PE 0604721N Battle Group Passive Horizon Extension System  PE 0604721N Battle Group Passive Horizon Extension 9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM	EXHIBIT R-2a, RDT&E Project Justific	ation			DATE:	
PE 0604721N Battle Group Passive Horizon Extension System  9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM  PE 0604721N Battle Group Passive Horizon Extension System  9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM  PE 0604721N Battle Group Passive Horizon Extension System  9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM  PE 0604721N Battle Group Passive Horizon Extension System  9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM: - Funds will support Phase III SBIR to ATTSS for the development of 2 Engineering Development Models to be						February 2005
B. Accomplishments/Planned Program  FY 04 FY 05 FY 06 FY 07  Accomplishments/Effort/Subtotal Cost 1.090 TOTALE Articles Quantity  X9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM: - Funds will support Phase III SBIR to ATTSS for the development of 2 Engineering Development Models to be	PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	BER AND NAME	PROJECT NUMBER AND N	AME	•
B. Accomplishments/Planned Program  FY 04 FY 05 FY 06 FY 07  Accomplishments/Effort/Subtotal Cost 1.090 TOTAL COST TOTAL		PE 0604721N Battle Group F	Passive Horizon Extension			
Accomplishments/Effort/Subtotal Cost 1.090 FY 07  RDT&E Articles Quantity 1.090 SurveilLANCE SYSTEM: - Funds will support Phase III SBIR to ATTSS for the development of 2 Engineering Development Models to be	DT&E, N / BA 5	System		9582 ANTI-TERRORISM TE	CHNOLOGY SURVEIL	_ANCE SYSTEM
RDT&E Articles Quantity  X9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM: - Funds will support Phase III SBIR to ATTSS for the development of 2 Engineering Development Models to be		FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost 1.090  RDT&E Articles Quantity 1.090  X9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM: - Funds will support Phase III SBIR to ATTSS for the development of 2 Engineering Development Models to be	B. Accomplishments/Planned Program					
X9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM: - Funds will support Phase III SBIR to ATTSS for the development of 2 Engineering Development Models to be	Accomplishments/Effort/Subtotal Cost	1104		1100	1107	
	RDT&E Articles Quantity					
provided to the Mobile Midrico Chadrica Variatie Cystem opgrade (Mic V CC).	X9582 ANTI-TERRORISM TECHNOLOGY S		I support Phase III SBIR to	ATTSS for the development of	f 2 Engineering Develop	ment Models to be
		male System Opgrade (MIOVV-SO).				

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME			PROJECT NUMBER AND NAME
RDT&E, N / BA 5	PE 0604721N Battle Group Passi	ve Horizon Exte	ension System		9582 ANTI-TERRORISM TECHNOLOGY SURVEILLANCE SYSTEM
(U) C. PROGRAM CHANGE SUMMARY:					
(U) Funding: FY2005 President's Budget FY2006 President's Budget Total Adjustments	FY 2004 0.000 0.000 0.000	FY 2005 0.000 1.090 1.090	FY 2006 0.000 0.000 0.000	FY 2007 0.000 0.000 0.000	
Summary of Adjustments Congressional Increase Congressional Rescissions		1.100 -0.010			
Subtotal		1.090			
(U) Schedule: Not Applicable.					
(U) Technical: Not Applicable.					

CLASSIFICATION:													
Exhibit R-3 Cost Analysis (pa	ge 1)								DATE:	February 20	005		
APPROPRIATION/BUDGET ACTIV	VITY		PROGRAM	ELEMENT						NUMBER AND	NAME		
RDT&E, N / BA 5			PE 0604721	N Battle Gro	oup Passive Horizor	n Extension	System		9582 ANTI-	TERRORISM T	ECHNOLOGY SUR	/EILLANCE SYSTI	ΞM
Cost Categories		Performing	•	Total		FY 05		FY 06		FY 07			Target
	Method	Activity &		PY s	FY 05	Award	FY 06	Award	FY 07	Award	Cost to	Total	Value of
	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	Contract
Primary Hardware Development											Continuing	Continuing	Continuing
Ancillary Hardware Development													
Systems Engineering	CPFF	Promia, San	Diego, CA		0.400								
Training Development													
Licenses													
Tooling													
GFE													
Award Fees													
Subtotal Product Development					0.400								
Development Support													
Software Development	Various	Various			0.500								
Training Development													
Integrated Logistics Support													
Configuration Management													
Technical Data													
GFE													
Subtotal Support					0.500								
Remarks:													

CLASSIFICATION:														
									DATE:					
Exhibit R-3 Cost Analysis (pag	e 2)								February 2005					
APPROPRIATION/BUDGET ACTIV	ITY		PROGRAM E						PROJECT NUMBER AND NAME					
RDT&E, N / BA 5			PE 0604721N	Battle Group	Passive Horizo		/stem		9582 ANTI-TE		CHNOLOGY SUR\	EILLANCE SYSTE		
Cost Categories	Contract	Performing		Total	E) / 05	FY 05	E) / 00	FY 06	E) / 07	FY 07		<b>-</b>	Target	
	Method & Type	Activity & Location		PY s Cost	FY 05 Cost	Award Date	FY 06 Cost	Award Date	FY 07 Cost	Award Date	Cost to Complete		Value of Contract	
Developmental Test & Evaluation														
Operational Test & Evaluation														
Live Fire Test & Evaluation														
Test Assets														
Tooling														
GFE														
Subtotal T&E														
Contractor Engineering Support														
Government Engineering Support														
Program Management Support	Various	Various			0.190	)								
Travel														
Subtotal Management					0.190	)								
Remarks:														
Total Cost					1.090									
Remarks:														

CLASSIFICATION:										
EXHIBIT R-2a, RDT&E Project Justification								DATE:		
								February 2005		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEN	MENT NUMBER A	ND NAME		PROJECT NUMB	ER AND NAME			
RDT&E, N / BA-5	PE 0604721N Battl	e Group Passive H	lorizon Extension	System		9584/SHIPBOARI	BOARD INFORMATION WARFARE EXPOIT			
COST (\$ in Millions)		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost		0.000	4.261	0.000	0.000	0.000	0.000	0.000	0.000	
RDT&E Articles Qty										

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

SHIPBOARD INFORMATION WARFARE EXPOIT: - Funds are to develop organic Electronic Intelligence (ELINT) collection, response, processing and integration, which will provide individual ships with an integrated and consolidated SIGINT picture of the threat battle space. This add will address the ORD requirements to provide SSEE with a tactical organic ELINT capability.

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EXHIBIT R-2a, RDT&E Project Justifica	ation			DATE:			
					February 2005		
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBI	ER AND NAME	PROJECT NUMBER AND NAME				
	PE 0604721N Battle Group Pa	assive Horizon Extension	9584/SHIPBOARD INFORMATION WARFARE EXPOIT				
DT&E, N / BA 5	System						
J) B. Accomplishments/Planned Program							
	FY 04	FY 05	FY 06	FY 07			
Accomplishments/Effort/Subtotal Cost		4.261					
RDT&E Articles Quantity							
RETAL Articles Quartity							
X9584/SHIPBOARD INFORMATION WARFA							
integrated and consolidated SIGINT picture of	f the threat battle space. This add will	address the ORD require	ements to provide SSEE with a	tactical organic ELINT	capability.		

EXHIBIT R-2a, RDT&E Project Justification	(HIBIT R-2a, RDT&E Project Justification								
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME			February 2005 PROJECT NUMBER AND NAME				
RDT&E, N / BA 5	PE 0604721N Battle Group Passi	ve Horizon Exte	nsion System		9584/SHIPBOARD INFORMATION WARFARE EXPOIT				
(U) C. PROGRAM CHANGE SUMMARY:									
(U) Funding: FY2005 President's Budget FY2006 President's Budget Total Adjustments	FY 2004 0.000 0.000 0.000	FY 2005 0.000 4.261 4.261	FY 2006 0.000 0.000 0.000	FY 2007 0.000 0.000 0.000					
Summary of Adjustments  Congressional Increase  Congressional Rescissions		4.300 -0.039							
Subtotal		4.261							
(U) Schedule: Not Applicable.									
(U) Technical: Not Applicable.									

PE 0604721N Battle Group Passive Horizon Extension System   9584(SHIPBOARD INFORMATION WARFARE EXPOIT	CLASSIFICATION:															
PROGRAM ELEMENT										DATE:						
PE 0604721N Battle Group Passive Horizon Extension System   S984/SHIPBOARD INFORMATION WARFARE EXPOIT	Exhibit R-3 Cost Analysis (pa	ge 1)														
Cost Categories								PROJECT	NUMBER ANI	O NAME						
Method   Activity &   PY s   FY 05   Award   FY 06   Date   Cost   Date   Complete   Cost   Continuing   Co				PE 06047		up Passive Horizoi		System		9584/SHIF		RMATION WARFARE	EXPOIT			
Style   Location   Cost   Cost   Date   Cost   Date   Complete   Cost   Continuing   Continuin	Cost Categories		Performing		Total											
Primary Hardware Development																
Ancillary Hardware Development Systems Engineering FFP ARGON, Fairfax, VA 1.278 02/05	Diament I and the Development	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date					
Systems Engineering												Continuing	Continuin	g Continuing		
Training Development																
Licenses		FFP	ARGON, Fair	tax, VA		1.278	02/05									
Tooling	•															
Subtotal Product Development   Support   Support   Support   FFP   ARGON, Fairfax, VA   Substance																
Award Fees																
Subtotal Product Development         1.278 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																
Development Support	Award Fees															
Development Support	Subtotal Product Development					1.278										
Software Development         FFP         ARGON, Fairfax, VA         1.492         02/05         —																
Training Development	Development Support															
Integrated Logistics Support	Software Development	FFP	ARGON, Fairfa	ax, VA		1.492	02/05									
Configuration Management         FFP         ARGON, Fairfax, VA         0.213         02/05         Image: Configuration Management of the configuration of the configuratio	Training Development															
Configuration Management         FFP         ARGON, Fairfax, VA         0.213         02/05         Substitution         Configuration Management         FFP         ARGON, Fairfax, VA         0.213         02/05         Configuration         Configuration Management	Integrated Logistics Support	FFP	ARGON, Fairfa	ax, VA		0.426	02/05							·		
Technical Data		FFP	ARGON, Fairfa	ax, VA		0.213	02/05									
GFE Subtotal Support 2.131																
Subtotal Support 2.131 Subtotal Support																
						2 131								· L		
Remarks:	Custotal Cupport	l l	I		ı	2.101	ı		l l	l l	l		1			
Remarks.	Domorko															
	Remarks.															

CLASSIFICATION:													
									DATE:				
Exhibit R-3 Cost Analysis (pag										ebruary 200			
APPROPRIATION/BUDGET ACTIV	ITY		PROGRAM E						PROJECT NU				
RDT&E, N / BA 5			PE 0604721N		Passive Horizor						ATION WARFARE I		
Cost Categories		Performing		Total		FY 05		FY 06		FY 07	0		Target
	Method & Type	Activity & Location		PY s Cost		Award Date	FY 06 Cost	Award Date					Value of Contract
Developmental Test & Evaluation	FFP	ARGON, Fair	fax V/A	Cost	0.426		COSt	Date	0031	Date	Complete	0031	Contract
Operational Test & Evaluation	111	AROON, I am	iax, vA		0.420	02/03							
Live Fire Test & Evaluation													
Test Assets													
Tooling													
GFE													
Subtotal T&E					0.426								
Contractor Engineering Support													
Government Engineering Support													
Program Management Support	FFP	ARGON, Fair	fax, VA		0.426	02/05							
Travel													
Subtotal Management					0.426								
Remarks:													
Total Cost					4.261								
Remarks:													

CLASSIFICATION:										
EXHIBIT R-2a, RDT&E Project Justification								DATE:		
								February 2005		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEN	MENT NUMBER A	ND NAME		PROJECT NUMB	ER AND NAME			
RDT&E, N / BA-5	PE 0604721N Battl	le Group Passive H	lorizon Extension	System		9586/SMART SIGNAL PARSER AND ACTIONABLE INTELLIGENCE				
COST (\$ in Millions)		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost		0.000	3.170	0.000	0.000	0.000	0.000	0.000	0.000	
RDT&E Articles Qty			·	`	·		`	-	·	

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

SMART SIGNAL PARSER AND ACTIONABLE INTELLIGENCE: - Funds are provided to develop and expand the applied Special Signal rule set and to expand the subject signal set to cover the larger number of signal types that are required. Obtain message textual para data for special signal case to create template module to process new bit data; to expand the AIE data mining capability to cover additional signal types and expand actionable intelligence extraction rule set that permit automated actionable intelligence extraction of other key signals of interest in the war on terror.

R-1 SHOPPING LIST - Item No.

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EXHIBIT R-2a, RDT&E Project Justificati	on		DATE:
			February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
	PE 0604721N Battle Group Passive Horizon Extension		
RDT&E, N / BA 5	System	9586/SMART SIGNAL PAR	SER AND ACTIONABLE INTELLIGENCE

# (U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		3.170		
RDT&E Articles Quantity				

X9586/SMART SIGNAL PARSER AND ACTIONABLE INTELLIGENCE: - Funds are provided to develop and expand the applied Special Signal rule set and to expand the subject signal set to cover the larger number of signal types that are required. Obtain message textual para data for special signal case to create template module to process new bit data; to expand the AIE data mining capability to cover additional signal types and expand actionable intelligence extraction rule set that permit automated actionable intelligence extraction of other key signals of interest in the war on terror.

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME			PROJECT NUMBER AND NAME
RDT&E, N / BA 5	PE 0604721N Battle Group Pass	ve Horizon Exte	ension System		9586/SMART SIGNAL PARSER AND ACTIONABLE INTELLIGENCE
(U) C. PROGRAM CHANGE SUMMARY:					
(U) Funding: FY2005 President's Budget FY2006 President's Budget Total Adjustments	FY 2004 0.000 0.000 0.000	FY 2005 0.000 3.170 3.170	FY 2006 0.000 0.000 0.000	FY 2007 0.000 0.000 0.000	
Summary of Adjustments Congressional Increase Congressional Rescissions		3.200 -0.030			
Subtotal		3.170			
(U) Schedule: Not Applicable.					
(U) Technical: Not Applicable.					

CLASSIFICATION:															
Exhibit R-3 Cost Analysis (page 1)  APPROPRIATION/BUDGET ACTIVITY   PROGRAM ELEMENT									DATE: February 2005 PROJECT NUMBER AND NAME						
RDT&E, N / BA 5			PE 0604721N I	Passive Horizor	n Extension S	vstem	9586/SMART SIGNAL PARSER AND ACTIONABLE INTELLIGENCE								
Cost Categories				Total			ysterri	FY 06	9300/3WAKT	FY 07	1	DEL INTELLIGEN	Target		
	Method & Type	Activity & Location	I	PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	Award Date	FY 07 Cost	Award	Cost to Complete		Value of Contract		
Primary Hardware Development											Continuing	Continuing	Continuing		
Ancillary Hardware Development															
Systems Engineering	Various	Various			1.043	02/05									
Training Development															
Licenses															
Tooling															
GFE															
Award Fees															
Subtotal Product Development					1.043										
Development Support															
Software Development	Various	Various			1.557	02/05									
Training Development															
Integrated Logistics Support															
Configuration Management															
Technical Data															
GFE															
Subtotal Support					1.557								<u> </u>		
Remarks:															

CLASSIFICATION:													
	DATE:												
Exhibit R-3 Cost Analysis (pag		February 2005											
APPROPRIATION/BUDGET ACTIV	PROGRAM E					PROJECT NUMBER AND NAME							
			PE 0604721N		Passive Horizor		/stem	9586/SMART SIGNAL PARSER AND ACTIONABLE INTELLIGENCE					
Cost Categories		Performing		Total		FY 05		FY 06		FY 07	_		Target
	Method & Type	Activity & Location		PY s Cost	FY 05 Cost	Award Date	FY 06 Cost	Award Date		Award Date			Value of Contract
Developmental Test & Evaluation	Various	Various			0.150	02/05							
Operational Test & Evaluation													
Live Fire Test & Evaluation													
Test Assets													
Tooling													
GFE													
Subtotal T&E					0.150								
Contractor Engineering Support													
Government Engineering Support													
Program Management Support	Various	Various			0.400	02/05							
Travel	Various	Various			0.020	02/05							
Subtotal Management					0.420								
Remarks:													
Total Cost					3.170								
Remarks:													