

Exhibit R-2, RDT&E Budget Item Justification				DATE:	May 2009
Appropriation/Budget Activity RDT&E, N / BA 5			R-1 Item Nomenclature: 0304785N Tactical Cryptologic Systems		
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010		
Total PE Cost	38.262	18.228	19.016		
Shipboard Information Warfare (IW) Exploit / 2134	21.100	12.607	18.514		
Automatic Identification System (AIS) / 3165	15.615	4.025	0.502		
Congressional Adds/ 9999	1.547	1.596	0.000		

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

The Shipboard Information Warfare (IW) line includes the Ships Signal Exploitation Equipment (SSEE) program and the Program of Record (POR) that executes a major component of the Maritime Cryptologic Systems for the 21st Century (MCS 21). These systems provide the battle group and Combatant Commanders with the surfaces Fleets only Information Operations (IO) non-kinetic capabilities ("Finish"). In addition they provide the battle groups with real time Indications and Warnings (I&W) by acquisition ("Find") and localization ("Fix") of Signals of Interest (SOI). This program's funding is required to incorporate Pre-Planned Product Improvements (P3I), new Commercial Off-the-Shelf (COTS) based technologies and software into the existing systems. Funding will also focus on developing and delivering expanded non-kinetic IO capabilities and net-centric Service Oriented Architecture (SOA), which includes the development, integration and test of "Mockingbird/Ballistic Missile Defense (BMD) Executive Committee (EXCOM) Anti-Submarine Warfare (ASW) Chief of Naval Operations Executive Board (CEB) IO Countermeasure Red Flash" (classified description) and Paragon (Frequency Extension/Targeting Enhancement).

The SSEE program is a classified IW / IO and tactical cryptologic system that subsequently provides critical tactical intelligence, situational awareness/Battlespace Awareness (BA), I&W, and hostile threat assessment. As a spiral acquisition program, RDT&E funding is required to have new technologies and associated new operational capabilities rapidly developed and transitioned as P3I upgrades into the system's hardware/software configuration.

Automatic Identification System (AIS), Increment 1 and 2, is an International Maritime Very High Frequency (VHF) Communication system that allows any ship to exchange information (machine to machine) on Navigation (Position, Course, Speed, etc), Ship Info (Ship Name, Call Sign, Length/Beam), and Cargo Info (Draft, Type, Destination, Route, Estimated Time of Arrival (ETA)), and Messaging (Safety, Text). This technology will improve capability in three diverse areas: (a) Situational Awareness/Common Operational Picture (COP) (b) Navigation/Safety of Ship and (c) Other intelligence gathering/correlation. Funding will support the integration of Commercial Off-The-Shelf (COTS) AIS equipment with the existing Global Command and Control - Maritime/Common Operational Picture (GCCS-M/COP), navigation and bridge display capabilities, surface search / weapons systems and intelligence / Cryptologic capabilities.

Congressional Adds:

ANS/SSQ-137(V) SSEE supports the effort to develop the latest P3I enhancements upgrades to maintain the IW / IO systems operational capability against evolving modern and future digital communications signals. P3I technology upgrades include: development of Communications Intelligence (COMINT) mapping and task synchronization; development of Time Differential Multiplexing (TDM) and Networked High Frequency (HF)/ Direction Finding (DF) capability; and Radio Frequency Distribution Unit (RFDU) enhancements. These upgrades will improve SSEE Increment E and F capability to collect, process and analyze hostile threat communications emitters in order to provide precision IW / IO capabilities and subsequent tactical intelligence, situational awareness, I&W, and hostile threat assessment to deployed Carrier Strike Group (CSG)/Expeditionary Strike Group (ESG) forces.

PARAGON System Updates is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into SSEE Inc E/F programs. This capability will provide simultaneous detection, collection, processing, IO and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today.

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Appropriation/Budget Activity RDT&E, N / BA 5	R-1 Item Nomenclature: 0304785N Tactical Cryptologic Systems		
<b>B. PROGRAM CHANGE SUMMARY:</b>			
Funding:	FY 2008	FY 2009	FY 2010
FY09 President's Budget Submit	39.819	16.678	15.550
FY10 President's Budget Submit	38.262	18.228	19.016
Total Adjustments	-1.557	1.550	3.466
Summary of Adjustments			
Program Adjustments	-1.557	1.600	3.737
Miscellaneous Adjustments	0.000	-0.050	-0.271
Subtotal	-1.557	1.550	3.466
Schedule:			
<u>Ship Signal Exploitation Equipment (SSEE) Inc E (Project x2134)</u>			
SSEE Inc E Follow-on Test and Evaluation (FOT&E) moved from FY08 4QTR to FY09 2QTR due to LHD ship availability.			
<u>Ship Signal Exploitation Equipment (SSEE) Inc F (Project x2134)</u>			
SSEE Inc F Milestone C (MS-C) decision moved from FY08 4QTR to FY10 1QTR. Initial Operational Capability (IOC) moved from 4QTR FY10 to 3QTR FY11; Material Support Date (MSD) moved from 1QTR FY11 to 2QTR FY12; Engineering Development Models (EDM) 1 moved from 3QTR FY08 to 3QTR FY09. In order to continue Information Warfare (IW) / Information Operation (IO) capable, Tactical Cryptologic System (TCS) deliveries to the Fleet, procurement of SSEE Increment E's will continue in FY09.			
<u>AIS (Project x3165)</u>			
AIS Inc 1 is now a Program of Record and recieved FRP Dec 08. Increment 2 is scheduled for MS-C FY10 2QTR.			
Technical:			
N/A			

Exhibit R-2, Budget Item Justification

Exhibit R-2a, RDT&E Project Justification				DATE: May 2009			
Appropriation/Budget Activity RDT&E, N / BA 5				Project Name and Number Shipboard Information Warfare (IW) Exploit / 2134			
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010				
Shipboard Information Warfare (IW) Exploit / 2134	21.100	12.607	18.514				
RDT&E Articles Qty	2						

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

The IW line includes the SSEE program and the POR that executes a major component of the Maritime Cryptologic Systems for the 21st Century (MCS 21). These systems provide the battle group and Combatant Commanders with the surfaces fleets only IO non-kinetic capabilities ("Finish"). In addition they provide the battle groups with real time IW by acquisition ("Find") and localization ("Fix") of SOI. This program's funding is required to incorporate P3I, new COTS based technologies and software into the existing systems. Funding will also focus on developing and delivering expanded non-kinetic IO capabilities and net-centric SOA, which includes the development, integration and test of "Mockingbird/Ballistic Missile Defense (BMD) Executive Committee (EXCOM) Anti-Submarine Warfare (ASW) Chief of Naval Operations Executive Board (CEB) IO Countermeasure Red Flash" (classified description) and Paragon (Frequency Extension/Targeting Enhancement). Paragon is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into SSEE Inc E/F programs. This capability will provide simultaneous detection, collection, processing, IO and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today.

The Ships Signal Exploitation Equipment (SSEE) program is a classified IW/IO and tactical cryptologic system that subsequently provides critical tactical intelligence, situational awareness/BA, I&W, and hostile threat assessment. As a spiral acquisition program, RDT&E funding is required to have new technologies and associated new operational capabilities rapidly developed and transitioned as P3I upgrades into the system's hardware/software configuration.

FY10 funding will incorporate P3I, new COTS based technologies and software into the existing systems. Funding will also focus on developing and delivering IO capabilities and net-centric SOA, which includes the development, integration and test of "Mockingbird/Ballistic Missile Defense (BMD) Executive Committee (EXCOM) Anti-Submarine Warfare (ASW) Chief of Naval Operations Executive Board (CEB) IO Countermeasure Red Flash" (classified description) and Paragon (Frequency Extension/Targeting Enhancement).

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>			DATE: May 2009
Appropriation/Budget Activity RDT&E, N / BA 5	Project Name and Number Shipboard Information Warfare (IW) Exploit / 2134		
<b>B. Accomplishments/Planned Program</b>			
Ship Signal Exploitation Equipment (SSEE) Inc E	FY08	FY09	FY10
Accomplishments/Effort/Subtotal Cost	3.409	1.974	1.739
RDT&E Articles Quantity			
<p>FY08 - Continued to expand Signals of Interest (SOI) processing capability to allow collection of the newest high priority modern technology threat signals for processing and analysis for timely and accurate situational awareness for force protection and for support to time critical strike military operation. Developed and integrated upgrades to Hostile Force Integration Targeting Subsystems (HITS) to integrate both national and tactical Intelligence, Surveillance, and Reconnaissance (ISR) sensor data to provide geolocation of intercepted communication signals. Fully tested improved software.</p> <p>FY09 - Continue to expand SOI processing capability to allow collection of the newest high priority modern technology threat signals for tightly integrated Information Operation (IO) / non-kinetic, and processing and analysis capabilities. Development and integration of Cryptologic Unified Build (CUB) software to support battlegroup interoperability. Continue to develop and integrate upgrade to HITS to integrate both national and tactical ISR sensors for new and emerging SOI. Fully test improved software. Continue Follow-on Test and Evaluation (FOT&amp;E).</p> <p>FY10 - Continue to expand SOI processing capability to allow collection of the newest high priority modern technology threat signals for tightly integrated IO / non-kinetic, and processing and analysis capabilities. Development and integration of CUB software to support battlegroup interoperability. Continue to develop and integrate upgrade to HITS to integrate both national and tactical ISR sensors for new and emerging SOI. Fully test improved software.</p>			

Exhibit R-2a, Project Justification

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>		DATE: May 2009		
Appropriation/Budget Activity RDT&E, N / BA 5		Project Name and Number Shipboard Information Warfare (IW) Exploit / 2134		
<b>B. Accomplishments/Planned Program</b>				
Ship Signal Exploitation Equipment (SSEE) Inc F	FY08	FY09	FY10	
Accomplishments/Effort/Subtotal Cost	17.691	10.633	16.775	
RDT&E Articles Quantity	2			
<p>FY08 - Continued SSEE Inc F development and system design and integration test and producing Engineering Development Models (EDMs). Continued development efforts for remoting of manned and unmanned platforms. Continued development in the areas of signal recognition, suitability, and Net-Centric Enterprise Solutions for Interoperability (NCESI). Conducted EDM interoperability testing, platform integration efforts, and operational assessment.</p> <p>FY09 - Continue SSEE Inc F development and system design EDMs. Integrate, test and deliver EDMs. Continue development efforts for remoting of manned and unmanned platforms. Continue development in the areas of signal recognition, suitability, and NCESI. Conduct EDM interoperability testing, platform integration efforts, and operational assessment. The majority of technical publication development will commence during this period as well. Complete engineering and management data. Continue development efforts for remoting and evolving NCESI/Service Oriented Architecture (SOA) and services.</p> <p>FY10 - Expand Signals of Interest (SOI) processing capability to allow collection of the newest high priority modern technology threat signals for tightly integrated Information Operation (IO) / non-kinetic capabilities for support to time critical military strike operation and subsequent processing and analysis capabilities for timely and accurate situational awareness for force protection. Funding will focus on developing and delivering IO capabilities and Net-Centric Service Oriented Architecture (SOA) including development integration and test of "Mockingbird/Ballistic Missile Defense (BMD) Executive Committee (EXCOM) Anti-Submarine Warfare Chief of Naval Operations Executive Board (ASW CEB) IO Countermeasure Red Flash" (program details classified), and Paragon (Frequency Extension/Targeting Enhancement) for integration into SSEE Inc F.</p>				

Exhibit R-2a, Project Justification

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>			DATE: May 2009
Appropriation/Budget Activity RDT&E, N / BA 5	Project Name and Number Shipboard Information Warfare (IW) Exploit / 2134		
<b>C. Other Program Funding Summary:</b>			
	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
OPN Line Item 2360, Shipboard IW Exploit	61.452	94.172	105.883
<b>D. Acquisition Strategy:</b>			
Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to a Prime Contractor and SPAWAR Systems Center (SSC) - Charleston, SSC - San Diego and miscellaneous contractors, with management oversight by SPAWAR.			
<b>E. Major Performers:</b>			
N/A			

Exhibit R-2a, Project Justification

Exhibit R-3, RDT&E Project Cost Analysis								DATE: May 2009				
Appropriation/Budget Activity RDT&E, N / BA 5			Program Element 0304785N					Project Name and Number Shipboard Information Warfare (IW) Exploit / 2134				
Cost Categories	Contract Method & Type	Performing Activity and Location	Total PY Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Primary Hardware Development	Various	Various	68.764	4.631	11/08							
Ancillary Hardware Development												
Systems Engineering	Various	Various	19.621	1.141	11/08	3.692	11/09					
Training Development	WX	SSC SD	0.491	0.086	11/08	0.899	11/09					
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			88.876	5.858		4.591						
Remarks:												
Development Support												
Software Development	Various	Various	35.114	4.375	11/08	7.632						
Training Development				0.079	11/08							
Integrated Logistics Support	Various	Various	1.353	0.339	11/08	0.514						
Configuration Management	WX	SSC CH	0.760	0.251	11/08	0.325						
Technical Data			0.264			0.278						
GFE												
Subtotal Support			37.491	5.044		8.749						
Remarks:												

Exhibit R-3, Project Cost Analysis

Exhibit R-3, RDT&E Project Cost Analysis (page 2)								DATE: May 2009				
Appropriation/Budget Activity RDT&E, N / BA 5			Program Element 0304785N					Project Name and Number Shipboard Information Warfare (IW) Exploit / 2134				
Cost Categories	Contract Method & Type	Performing Activity and Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Developmental Test & Evaluation	Various	Various	6.544	0.100	11/08	0.731	11/09					
Operational Test & Evaluation	WX	OPTEVFOR	2.060	0.331	11/08	0.400	11/09					
Live Fire Test & Evaluation												
Test Assets	WX	SSC SD	1.747									
Tooling												
GFE												
Subtotal T&E			10.351	0.431		1.131						
Remarks:												
Contractor Engineering Support						0.933						
Government Engineering Support						2.040	10/09					
Program Management Support	Various	Various	14.596	1.015	11/08	0.600	10/09					
Travel	DTS	SPAWAR	0.841	0.259	11/08	0.470						
Subtotal Management			15.437	1.274		4.043						
Remarks:												
Total Cost			152.155	12.607		18.514						
Remarks: 1. PY funding reflects PE 0604721N. Funding moved to PE 0304785N starting in FY07.												

Exhibit R-4, RDT&E Program Schedule Profile																DATE: May 2009																
Appropriation/Budget Activity RDT&E, N / BA 5								Program Element Name and Number 0304785N Tactical Cryptologic Systems								Project Name and Number Shipboard Information Warfare (IW) Exploit / 2134 (SSEE Inc E)																
Fiscal Year	2008				2009				2010																							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
<b>Acquisition Milestones</b>																																
FRP Baseline SW Development																																
	Full Rate Production Build Inc E																															
<b>Test &amp; Evaluation Milestones</b>																																
Development Test																																
Operational Test																																
<b>Production Milestones</b>																																
FRP FY 08 SSEE Inc E	FRP FY08																															
FRP FY 09 SSEE Inc E					FRP FY09																											
Procurements																																
Remarks:	1/ Follow-on Test and Evaluation (FOT&E) moved from FY08 4QTR to FY09 2QTR due to LHD ship availability.																															

<b>Exhibit R-4a, RDT&amp;E Program Schedule Detail</b>				<b>DATE:</b> May 2009			
Appropriation/Budget Activity	Program Element Name and Number			Project Name and Number			
RDT&E, N / BA 5	0304785N Tactical Cryptologic Systems			Shipboard Information Warfare (IW) Exploit / 2134 (SSEE Inc E)			
Schedule Profile	FY 2008	FY 2009	FY 2010				
SSEE Inc E							
Full Operational Capability (FOC)			4Q				
Follow-On Test & Evaluation (FOTE)		2Q					
Full Rate Production (FRP)	1-4Q	1-4Q					
Pre-Planned Improvements (P3I)	1-4Q	1-4Q					
Remarks:							

Exhibit R-4a, Program Schedule Detail

Exhibit R-4, RDT&E Program Schedule Profile		Program Element Name and Number																Project Name and Number															
Appropriation/Budget Activity		0304785N Tactical Cryptologic Systems																Shipboard Information Warfare (IW) Exploit / 2134 (SSEE Inc F)															
RDT&E, N / BA 5		2008				2009				2010																							
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	2	3	4
<b>Acquisition Milestones</b>																																	
Prototype Phase																																	
System Development			▲	DRR					△																								
SSEE INC F EDM Deliveries									△																								
Software Development																																	
SSEE Inc F																																	
FRP Baseline SW Development																																	
SSEE Inc F																																	
EDM Baseline SW Development																																	
LRIP Baseline SW Development																																	
FRP Baseline SW Development																																	
<b>Test &amp; Evaluation Milestones</b>																																	
Development Test																																	
Operational Test																																	
<b>Production Milestones</b>																																	
LRIP FY 10 SSEE Inc F																																	
FRP FY 11 SSEE Inc F																																	
FRP FY 12 SSEE Inc F																																	
FRP FY 13 SSEE Inc F																																	
FRP FY 14 SSEE Inc F																																	
FRP FY 15 SSEE Inc F																																	
Procurements																																	
Remarks:																																	
1 / SSEE Inc F MS-C decision moved from FY08 4QTR to FY10 1QTR. In order to continue Information Warfare (IW) / Information Operation (IO) capable, Tactical Cryptologic System (TCS) deliveries to the Fleet, procurement of SSEE Increment E will continue in FY09.																																	



<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>				DATE: May 2009	
Appropriation/Budget Activity RDT&E, N / BA 5			Project Name and Number Automatic Identification System (AIS) / 3165		
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010		
Automatic Identification System (AIS) / 3165	15.615	4.025	0.502		
RDT&E Articles Qty					

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

Automatic Identification System (AIS), Increment 1 and 2, is an International Maritime Very High Frequency (VHF) Communication system that allows any ship to exchange information (machine to machine) on Navigation (Position, Course, Speed, etc), Ship Info (Ship Name, Call Sign, Length/Beam), and Cargo Info (Draft, Type, Destination, Route, Estimated Time of Arrival (ETA)), and Messaging (Safety, Text). This technology will improve capability in three diverse areas: (a) Situational Awareness/Common Operational Picture (COP) (b) Navigation/Safety of Ship and (c) Other intelligence gathering/correlation. Funding will support the integration of Commercial Off-The-Shelf (COTS) AIS equipment with the existing Global Command and Control - Maritime/Common Operational Picture (GCCS-M/COP), navigation and bridge display capabilities, surface search / weapons systems and intelligence / Cryptologic capabilities.

The warfighting enhancement in FY08 was to achieve an all-source Maritime Domain Awareness (MDA) capability. The Chief of Naval Operations (CNO) endorsed requirements for an unclassified (a) shipboard track management and (b) operational and tactical aggregation services capability for AIS data, organic shipboard sensors (including radar and Electronic Optical (EO)/ Infrared (IR)), and airborne surface search radar. This capability must be exportable to those countries that have the capability to participate in MDA, with minimum additional manning and technical expertise. Finally, cross domain solutions that provide multi-layer security while allowing access to information across classified domains is needed to complete the fusion of AIS data with other data sources. This effort enhances current capability in two diverse areas: (a) improves situational awareness, navigation and safety of ship by fusing AIS data with organic ship sensors (and airborne radars), and (b) provides a cross domain solution for integration of AIS data with other forms of unclassified data from a variety of platforms (including classified domains).

Funding in FY10 will support Developmental Testing (DT), Operational Assessment (OA), and Initial Operational Test and Evaluation (IOT&E) for Increment 2 configurations for ship, submarines and shore sites that incorporate new AIS interoperability requirements, such as AIS Consolidated Afloat Networks and Enterprise Services (CANES) configuration and AIS interoperability with the Maritime Security and Safety Information System (MSSIS). Funds will also continue the refinement of the Global AIS architecture, and its relation to the overall USN MDA effort and CONOP as well as the National MDA CONOP. This will provide a secure end-to-end AIS data sharing capability in-line with National MDA CONOPs.

Exhibit R-2, Budget Item Justification

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>		DATE: May 2009		
Appropriation/Budget Activity RDT&E, N / BA 5		Project Name and Number Automatic Identification System (AIS) / 3165		
<b>B. Accomplishments/Planned Program</b>				
Automatic Identification System (AIS)	FY08	FY09	FY10	
Accomplishments/Effort/Subtotal Cost	15.615	4.025	0.502	
RDT&E Articles Quantity				
<p>FY08 - Efforts included designing and developing the Engineering Change Proposal (ECP) to the unclassified Maritime Domain Awareness (MDA) Community of Interest (COI) Data Sharing (DS) pilot effort Automatic Identification System (AIS) Increment (Inc) 2 implementation. Further defined the global AIS architecture, and its relation to emerging United States Navy (USN) and National MDA Concept of Operations (CONOP).</p> <p>The warfighting enhancement funded the integration of Commercial Off-The-Shelf (COTS) AIS equipment into unmanned aerial systems (b) implementation of Government off-the-shelf (GOTS) software on USN ships (c) for aggregation of fused track management data, and (d) for acceleration and transition of cross-domain solutions.</p> <p>FY09 - Funds will design and develop a Net-Centric Enterprise Solution (NCES)-compliant AIS Inc 2, within a service oriented architecture (SOA). Additionally, funds will consolidate and streamline data sharing between the USN/Department of Defense (DoD) AIS capability and other agencies, such as the Department of Transportation emerging Maritime Security and Safety Information System (MSSIS). Funds will also continue the refinement of the Global AIS architecture, and its relation to the overall USN MDA effort and CONOP as well as the National MDA CONOP. This will provide a secure end-to-end AIS data sharing capability in-line with National MDA CONOPs and current DoD guidance and policies.</p> <p>FY10 - Funds will support developmental testing (DT) and operational assessment (OA) of AIS Inc 2 configurations for ship, submarines and shore sites that incorporate new AIS interoperability requirements, such as AIS Consolidated Afloat Networks and Enterprise Services (CANES) configuration and AIS interoperability with the MSSIS. Funds will also continue the refinement of the Global AIS architecture, and its relation to the overall USN MDA effort and CONOP as well as the National MDA CONOP.</p>				

Exhibit R-2a, Project Justification

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>			DATE: May 2009
Appropriation/Budget Activity RDT&E, N / BA 5		Project Name and Number Automatic Identification System (AIS) / 3165	
<b>C. Other Program Funding Summary:</b>			
	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
OPN Line Item 2360, Shipboard IW Exploit	61.452	94.172	105.883
<b>D. Acquisition Strategy:</b>			
<p>Acquisition management and contracting strategies are to support the integration of Commercial Off-The-Shelf (COTS) Automatic Identification System (AIS) data into the existing and emerging United States Navy (USN) Command and Control and Network infrastructure capabilities, Navigation Sensor System Interface (NAVSSI) navigation and bridge capabilities surface search/weapons systems and intelligence/cryptologic capabilities. COTS will be procured from a contractor with government over sight from Space and Naval Warfare (SPAWAR) Systems Center (SSC) - Charleston, SSC - San Diego with management oversight by SPAWAR .</p>			
<b>E. Major Performers:</b>			
N/A			

Exhibit R-2a, Project Justification

Exhibit R-3, RDT&E Prohect Cost Analysis								DATE: May 2009				
Appropriation/Budget Activity RDT&E, N / BA 5		Program Element 0304785N						Project Name and Number Automatic Identification System (AIS) / 3165				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Primary Hardware Development	Various	Various	0.500									
Ancillary Hardware Development	CPFF	CSIC	0.730									
Systems Engineering	WX	SSC SD	1.000									
Training Development	WX	SSC SD	0.200									
Subtotal Product Development			2.430			0.000						
Remarks:												
Development Support												
Software Development	Various	Various	13.303	1.525	11/08							
Training Development	WX	SSC SD	0.500	0.300	11/08							
Integrated Logistics Support	Various	Various	0.700	0.300	11/08							
Configuration Management	Various	Various	0.500	0.300	11/08							
Technical Data	Various	Various		0.225	11/08							
Subtotal Support			15.003	2.650		0.000						
Remarks:												

Exhibit R-3, Project Cost Analysis

Exhibit R-3 Cost Analysis (page 2)								DATE: May 2009				
Appropriation/Budget Activity RDT&E, N / BA 5		Program Element 0304785N						Project Name and Number Automatic Identification System (AIS) / 3165				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Developmental Test & Evaluation	WX	SSC SD	0.304			0.393	11/09					
Operational Test & Evaluation	Various	Various	0.130	0.400	11/08							
Subtotal T&E			0.434	0.400		0.393						
Remarks:												
Contractor Engineering Support	Various	Various	0.200	0.300	11/08							
Government Engineering Support	Various	Various	0.100	0.300	11/08	0.099	11/09					
Program Management Support	Various	Various	0.301	0.300	11/08							
Travel			0.140	0.075	11/08	0.010	11/09					
Subtotal Management			0.741	0.975		0.109						
Remarks:												
Total Cost			18.608	4.025		0.502						
Remarks:												





Exhibit R-2a, RDT&E Project Justification				DATE:	May 2009
Appropriation/Budget Activity RDT&E, N / BA 5			Project Name and Number Various Congressional Adds		
<b>B. Accomplishments/Planned Program</b>					
ANS/SSQ-137(V) Ships Signal Exploitation Equipment	FY08	FY09	FY10		
Accomplishments/Effort/Subtotal Cost	1.547	0.000	0.000		
RDT&E Articles Quantity					
<p>FY08 - ANS/SSQ-137 (v) Ships Signal Exploitation Equipment (SSEE) - ANS/SSQ supported efforts to develop the latest Pre-Planned Product Improvements (P3I) enhancements upgrades to maintain the Information Warfare (IW) / Information Operation (IO) systems operational capability against evolving modern and future digital communications signals. P3I technology upgrades included; development of Communications Intelligence (COMINT) mapping and task synchronization, development Time Differential Multiplexing (TDM) and Networked High Frequency (HF)/ Direction Finding (DF) capability, and Radio Frequency Distribution Unit (RFDU) enhancements. These upgrades improved SSEE Increment E and F capability to collect, process and analyze hostile threat communications emitters in order to provide precision IW / IO / non-kinetic capabilities and subsequent tactical intelligence, Situational Awareness (SA), indications and warning, and hostile threat assessment to deployed Carrier Strike Group (CSG)/Expeditionary Strike Group (ESG) forces.</p>					
Paragon System Updates	FY08	FY09	FY10		
Accomplishments/Effort/Subtotal Cost	0.000	1.596	0.000		
RDT&E Articles Quantity					
<p>FY09 - PARAGON system updates is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into SSEE Inc E/F programs. This capability will provide simultaneous detection, collection, processing, IO and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today.</p>					

Exhibit R-2a, Project Justification