CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	R-1 ITEM NOMENCLATURE **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**						
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Total PE Cost	45.615	41.568	52.716				
3031 / Single Integrated Air Picture Sys Eng	45.615	41.568	52.716				
9999 / CONGRESSIONAL ADDS	0.000	0.000	0.000				

A. MISSION DESCRIPTION:

At the direction of the Office of the Secretary of Defense and working in conjunction with the SIAP Joint Program Office (JPO), the Navy mission is to support the design, development, testing and fielding of a SIAP capability which satisfies requirements mandated by the Global Information Grid (GIG), Theater Air and Missile Defense (TAMD) and Combat Identification (CID) Mission Area Initial Capabilities Documents (MA-ICD). The Undersecretary of Defense Acquisition Memorandum of 3 May 06 validated the requirement for a SIAP capability and concurs with the Navy-designated Pathfinder programs identified for SIAP implementation. VCNO for Resources, Requirements, and Assessments (N8) SIAP implementation guidance of 14 March 06 directs the Navy to implement the SIAP program product, Integrated Architecture Behavior Model (IABM), in the following Navy pathfinder programs: Aegis Cruisers and Destroyers, Hawkeye Aircraft (E-2), and Ship Self Defense System (SSDS) platforms. On 24 September 2007, the Joint Requirements Oversight Council (JROC) approved the Capability Development Document (CDD) establishing official requirements for the SIAP program.

The SIAP capability will provide the Navy warfighter with the ability to better understand the joint battlespace and employ weapons to the full extent of their designed capabilities. The SIAP will support the spectrum of offensive and defensive operations by US, allied, and coalition partners in the airspace within a theater of operations (e.g., attack operations, suppression of enemy air defenses, air and missile defense, intelligence preparation of the battlefield). The SIAP is accomplished through a combination of materiel and nonmaterial improvements. This effort through the application of disciplined System Engineering processes, policies, products and services will enable delivery of an integrated, interoperable, reliable, and maintainable Joint SIAP capability in Navy warfare systems/platforms, in the support of Joint and Navy Mission Capabilities.

SIAP capability is being introduced through a series of improvements called Capability Drops, targeted at eliminating specific interoperability issues, providing Command, Control, Communications, Computers, & Intelligence (C4I) enhancements, and delivering an executable integrated architecture. The engineering specifications and requirements developed by the engineering efforts will be incorporated into the successive versions of the Joint IABM in a spiral development improvement process. The delivered IABM will be used to develop the successive versions of the platform specific applications to be implemented in Navy combat systems requiring the Joint SIAP capability. The IABM will also be used as a standard against which to assess performance of the Navy combat systems in terms of Joint Force interoperability. The Navy is investing in the Open Architecture (OA) construct for many reasons, one of which is to create the combat system computing architecture which will permit the most rapid and least expensive implementation of the IABM and other Joint applications. To that end, this effort also provides some resources to the OA system engineering process.

Implementation of a platform specific application in the Navy Pathfinder combat systems (E-2, Aegis, and SSDS), will reduce risk of fratricide to US/coalition forces caused by incorrect correlation and ID association and enable warfighters to exploit the full kinematic range of their weapons through better Joint Force integration.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	R-1 ITEM NOMENCLATURE **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**	

This PE provides the resources for the Navy system engineering support to the Joint effort to develop SIAP capability, system engineering support to Navy Pathfinder Programs of Record (E-2, Aegis, SSDS) for integration of the Joint SIAP solution, and funding for the implementation of the IABM into the Aegis combat system leveraging the Guided Missile Destroyer (DDG) Modernization program.

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2008	FY 2009	FY 2010
FY09 President's Budget	45.456	41.807	42.875
FY10 President's Budget	45.615	41.568	52.716
Total Adjustments	0.159	-0.239	9.841
(U) Summary of Adjustments			
Congressional Rescissions	0.000	0.113	0.000
Congressional Adjustments	0.000	0.000	0.000
SBIR/STTR/FTT Assessment	-0.483	0.907	0.000
Program Adjustments	0.642	0.000	10.630
Rate/Misc Adjustments	0.000	-1.259	-0.789
Total	0.159	-0.239	9.841

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2008	FY 2009	FY 2010						Total Cost
PE 0603327A Air and Missile Defense Systems Engineering	33.700	54.700	53.100						141.500
PE 0604307N 1447 Surface Combatant Combant System Engineering	149.440	198.909	178.495						526.844

D. ACQUISITION STRATEGY:

The Navy is committed to IABM integration into Navy platforms as model functionality matures and system programmatic considerations (funding and schedules) permit. Individual Pathfinder program IABM implementation will allow identification and resolution of key technical, operational and programmatic issues, and provide lessons learned for future integration into Navy systems which have approved SIAP / IABM requirements. Implementation of IABM in Aegis, E-2, and SSDS platforms will occur per the Office of the Chief of Naval Operations (OPNAV) N8 SIAP Requirements letter and during scheduled software upgrades, to the extent feasible. This implementation of the IABM into Navy platforms will occur upon demonstration of certain critical factors and assumptions. These factors include: "IABM Capability Drop One (CD-1) and CD-1 Follow-On meet Navy Requirements as defined in the OPNAV N8 SIAP Requirements letter and adjudicated System Requirements/Derived System Requirements (SRs/DSRs)" IABM is interoperable / backward compatible with the Cooperative Engagement Capability (CEC) baseline 2.1" IABM capability is equal to or better than existing Pathfinder system capability.

E. MAJOR PERFORMERS:

Naval Surface Warfare Center, Dahlgren VA - Surface Combatant System Engineering and Computer Integration

Naval Air Warfare Center Aircraft Division, Patuxent River MD - Aircraft Platform Integration and System Engineering

Space and Warfare Systems Command, San Diego CA - System Communication

Lockheed Martin Corporation, Moorestown NJ

Raytheon Corporation, St. Petersburg, FL and San Diego, CA

John Hopkins University Applied Physics Laboratory, Laurel MD

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**				PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**		
COST (In Millions)	FY 2008	FY 2009	FY 2010				
Project Cost	45.615	41.568	52.716				
RDT&E Articles Qty	0	0	0				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

At the direction of the Office of the Secretary of Defense and working in conjunction with the SIAP Joint Program Office (JPO), the Navy mission is to support the design, development, testing and fielding of a SIAP capability which satisfies requirements mandated by the Global Information Grid (GIG), Theater Air and Missile Defense (TAMD) and Combat Identification (CID) Mission Area Initial Capabilities Documents (MA-ICD). The Undersecretary of Defense Acquisition Memorandum of 3 May 06 validated the requirement for a SIAP capability and concurs with the Navy-designated Pathfinder programs identified for SIAP implementation. VCNO for Resources, Requirements, and Assessments (N8) SIAP implementation guidance of 14 March 06 directs the Navy to implement the SIAP program product, Integrated Architecture Behavior Model (IABM), in the following Navy pathfinder programs: Aegis Cruisers and Destroyers, Hawkeye Aircraft (E-2), and Ship Self Defense System (SSDS) platforms. On 24 September 2007, the Joint Requirements Oversight Council (JROC) approved the Capability Development Document (CDD) establishing official requirements for the SIAP program.

The SIAP capability will provide the Navy warfighter with the ability to better understand the joint battlespace and employ weapons to the full extent of their designed capabilities. The SIAP will support the spectrum of offensive and defensive operations by US, allied, and coalition partners in the airspace within a theater of operations (e.g., attack operations, suppression of enemy air defenses, air and missile defense, intelligence preparation of the battlefield). The SIAP is accomplished through a combination of materiel and nonmaterial improvements. This effort through the application of disciplined System Engineering processes, policies, products and services will enable delivery of an integrated, interoperable, reliable, and maintainable Joint SIAP capability in Navy warfare systems/platforms, in the support of Joint and Navy Mission Capabilities.

SIAP capability is being introduced through a series of improvements called Capability Drops, targeted at eliminating specific interoperability issues, providing Command, Control, Communications, Computers, & Intelligence (C4I) enhancements, and delivering an executable integrated architecture. The engineering specifications and requirements developed by the engineering efforts will be incorporated into the successive versions of the Joint IABM in a spiral development improvement process. The delivered IABM will be used to develop the successive versions of the platform specific applications to be implemented in Navy combat systems requiring the Joint SIAP capability. The IABM will also be used as a standard against which to assess performance of the Navy combat systems in terms of Joint Force interoperability. The Navy is investing in the Open Architecture (OA) construct for many reasons, one of which is to create the combat system computing architecture which will permit the most rapid and least expensive implementation of the IABM and other Joint applications. To that end, this effort also provides some resources to the OA system engineering process.

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CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**	PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**

This PE provides the resources for the Navy system engineering support to the Joint effort to develop SIAP capability, system engineering support to Navy Pathfinder Programs of Record (E-2, Aegis, SSDS) for integration of the Joint SIAP solution, and funding for the implementation of the IABM into the Aegis combat system leveraging the Guided Missile Destroyer (DDG) Modernization program.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**	PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
SIAP Engineering Requirements and Architecture Alignment	2.772	1.868	1.700
RDT&E Articles Quantity	0	0	0

FY08: Continued the refinement of the SIAP systems requirements baseline for IABM. Worked to finalize interface specifications in support of adaptation and interface development for the IABM and host systems. Completed support system development and the System Engineering Review Process for IABM CD-1 capabilities. Efforts continued in the interface specifications in support of adaptation and interface development for the IABM and Navy Pathfinder systems. Supported the SIAP IABM Capability Drop 1 (CD-1) System Engineering Design Review Process (Preliminary Design Review) for IABM integration into representative Navy Aegis and E-2 platforms in support of a Joint Combined Hardware-in-the loop Evaluation (JCHE) test event.

FY09: Continue to refine the systems requirements baseline for the additional capabilities in IABM CD-1 Follow-On (FO) for fielding the IABM into the Navy Pathfinder combat systems (Aegis, E-2, and SSDS). Update and finalize CD-1 FO interface specifications in support of adaptation and interface development for the IABM and Navy Pathfinder systems. Support system development and the System Engineering Review Process for additional IABM CD-1 FO capabilities. Develop pathfinder's adaptation layer phasing plans (phasing and mapping of the CD-1 FO Derived System Requirements) and complete associated Host Interface Description Documents. Support interface and architecture specifications in support of the IABM CD-1 FO Design Preliminary Design Review (PDR) and address revised functional alignment of Navy Pathfinder systems.

FY10: Complete Combat Systems Engineering Design Reviews for IABM CD-1 FO integration. Begin to develop requirements and architecture artifacts required to enable post CD-1 FO integration into the Navy Pathfinder systems.

	FY 2008	FY 2009	FY 2010
SIAP System Development	17.710	12.913	9.085
RDT&E Articles Quantity	0	0	0

FY08: Working toward completion of IABM CD-1 domain development in the areas of composite tracking capability and CEC interoperability (CEC Data Manager), combat ID (ASNT/CCID), Tactical Data Link (TDL) management and Peer-to-Peer forwarding (Link Data Dissemination Manager), and Automated Battle Management Aids (Distributed Weapons Coordination (DWC)). Complete development of prototype level interfaces and Adaptation Layers (AL) to accommodate pre-CD-1 (Time Boxes) integration into Aegis and E-2 Hawkeye 2000 test facilities. Complete CD-1 development of prototype Adaptation Layer and interface development including Sensors (SPY OA, UPX 29, SPQ 9B, APS 145, and OL-483/AP), TDLs (JTAL), Sensor Network (Data Distribution System), and Host Command and Control (C2). Convert, adapt, and integrate pre-IABM CD-1 builds into platform specific implementations in Aegis and E-2 Hawkeye 2000 program to enable Navy platform Test and Evaluation (T&E) events (E-2 Integrated Lab Demonstration and Aegis Integration & Test).

FY09: Support IABM CD-1 FO domain development in the areas of composite tracking capability and CEC interoperability (CEC Data Manager) and support the SIAP JPO Rapid Capability Insertion Process (RCIP) in examining Science and Technology (S&T) insertion efforts such as Distributed Multiple-Sensor Integration, Distributed

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**	PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**

Multiple-Hypothesis Tracking, Air Tasking Order / Airspace Control Order (ATO/ACO) Associator, and Automated Battle Management Aids (Distributed Weapons Coordination (DWC)). Migrate the developed prototype level interfaces and Adaptation Layers (AL) towards production level in parallel with CD-1 FO development (Time Boxes) to enable integration into Aegis and E-2 Hawkeye 2000 for SIAP Initial Operating Capability (IOC). Continue CD-1 FO prototype Adaptation Layer and interface development for Sensors (SPY OA, UPX 29, SPQ 9B, APS 145, and OL-483/AP) and TDLs (JTAL). Convert, adapt, and integrate IABM CD-1 into platform specific implementations in Aegis and E-2 Hawkeye 2000 programs to enable Navy platform Test and Evaluation (T&E) events (E-2 and Aegis Integration Testing) as well as Joint T&E events (JCHE-5).

FY10: Support IABM CD-1 FO domain development in the areas of composite tracking capability, CEC interoperability (CEC Data Manager), combat ID and selected JPO RCIP initiatives to include, Distributed Multiple-Sensor Integration, Distributed Multiple-Hypothesis Tracking, Air Tasking Order / Airspace Control Order (ATO/ACO) Associator, and Automated Battle Management Aids (Distributed Weapons Coordination (DWC)). Continue to migrate the developed prototype level interfaces and Adaptation Layers (AL) towards production level in parallel with CD-1 FO development (Time Boxes) to enable integration into Aegis, E-2 Hawkeye 2000, and SSDS for Navy SIAP Initial Operating Capability (IOC). Begin SSDS, RSM, and ES protoytype Adaptation Layer and interface development for additional Sensors such as ALQ-217, SLQ 32, Shipboard Advanced Radar Target Identification System (SARTIS), SPS 67, SPS 48E, SPS 49A, and SPS 73. Convert, adapt, and integrate pre-CD-1 FO builds into platform specific implementations in Aegis, E-2 Hawkeye 2000, and SSDS programs to enable Navy platform Test and Evaluation (T&E) events (E-2, Aegis, and SSDS Integration Testing) as well as prepare for Joint T&E events in subsequent years.

	FY 2008	FY 2009	FY 2010
SIAP Test Planning and Execution	6.466	6.229	6.280
RDT&E Articles Quantity	0	0	0

FY08: Perform, element, platform, and System of System level testing to include:
- Update SIAP CD-1 Test and Evaluation (T&E) documentation in support of the SIAP Acquisition Milestones.
- Commence development of T&E Metrics and Data Set
- Conduct T&E planning and execution of E-2 and Aegis Integration of the early IABM Time Boxes to mitigate production implementation risk of IABM.
- Conduct T&E planning of Navy SIAP IV&V and Navy participation in Joint Combined Hardware-in-the-loop Evaluation (JCHE-5) events.

FY09: Perform, element, platform, and System of System level testing to include:
- Update SIAP CD-1 and CD-1 FO Test and Evaluation (T&E) documentation in support of the SIAP Acquisition Milestones.
- Continue development of T&E Metrics and Data Set
- Plan and execute Engineering Assessments of the IABM to support fielding of the IABM CD-1 Follow-On.
- Support CD-1 Operational Assessment
- Assist with JTIC conformance testing
- Develop plan for conducting CEC Backward Compatibility test using near-target AMOD and E-2 hardware configurations
- Complete T&E planning and conduct execution of Navy SIAP IV&V and Navy participation in Joint Combined Hardware-in-the-loop Evaluation (JCHE-5) events.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**	PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**

FY10: Perform, element, platform, and System of System level testing to include:
- Update SIAP CD-1 FO Test and Evaluation (T&E) documentation in support of the SIAP Acquisition Milestones.
- Finalize T&E Metrics and Data Set
- Plan and execute Engineering Assessments of the IABM to support fielding of the IABM CD-1 Follow-On.
- Conduct T&E planning and execution of CEC Backward Compatibility test using E-2 and Aegis assets.
- Coordinate and obtain required assets in preparation for formal Navy SIAP Developmental Testing (DT) for CD-1 FO.
- Conduct E-2 flight demonstration
- Continue T&E planning of Navy SIAP IV&V and Navy participation in Joint Combined Hardware-in-the-loop Evaluation (JCHE-6) events.

	FY 2008	FY 2009	FY 2010
SIAP Integration Coordination and Planning	2.379	1.747	1.500
RDT&E Articles Quantity	0	0	0

FY08: For yearly SIAP DAB Milestones, update documentation for Capability Development Document (CDD), Acquisition Program Baseline (APB), Program Protection Plan (PPP), Information Support Plan (ISP), and update Cost Analysis Requirements Document (CARD), Program Life Cycle Cost Estimate (PLCCE), Independent Cost Estimate (ICE), Systems Engineering Plan (SEP), and Acquisition Strategy (AS). Conduct planning for Risk Mitigation and configuration management activities. Monitor and support execution of the Navy SIAP Implementation Plan.

FY09: For yearly SIAP DAB Milestones, update documentation for Capability Development Document (CDD), Acquisition Program Baseline (APB), Program Protection Plan (PPP), Information Support Plan (ISP), and update Cost Analysis Requirements Document (CARD), Program Life Cycle Cost Estimate (PLCCE), Independent Cost Estimate (ICE), Systems Engineering Plan (SEP), and Acquisition Strategy (AS). Conduct planning for Risk Mitigation and configuration management activities. Monitor and support execution of the Navy SIAP Implementation Plan.

FY10: For yearly SIAP DAB Milestones, update documentation for Capability Development Document (CDD), Acquisition Program Baseline (APB), Program Protection Plan (PPP), Information Support Plan (ISP), and update Cost Analysis Requirements Document (CARD), Program Life Cycle Cost Estimate (PLCCE), Independent Cost Estimate (ICE), Systems Engineering Plan (SEP), and Acquisition Strategy (AS). Conduct planning for Risk Mitigation and configuration management activities. Monitor and support execution of the Navy SIAP Implementation Plan.

	FY 2008	FY 2009	FY 2010
DDG Mod Platform Specific Model	15.646	19.050	32.140
RDT&E Articles Quantity	0	0	0

FY08: Specific FY08 activity includes:
Aegis SIAP Requirements and Architecture: Perform requirements and gap analysis to support mapping existing Aegis requirements to SIAP IABM System Requirement List (SRLs) /

Derived Requirements List (DSRLs) and Interface Definition Document (IDDs). Account for SIAP requirements in AMOD specifications (from A-Spec through B-5 Spec.). Establish requirements management process to track which requirements are to be implemented in a given AMOD computer program build. Conduct a combined SSR/Delta SDR to review specifications and architecture changes. Establish an allocated Baseline that includes objective architecture alignment by PDR. Assist in development of IABM Interface Design Description (IDD) external and internal interface definitions. Participate in Navy Open Architecture Enterprise Interface Working Groups to define common data model and coordinated interfaces for track management components and any other components that impact IABM CD-1 implementation into Surface Navy Combat Systems. JCHE-5: Support: Develop a prototype SPY adaptation layer to support JCHE-5 that interfaces with the SPY OA Radar control program and the IABM (using the common SAL framework). Deliver associated SPY Sal B-5 level requirements, component interface descriptions (including UML representations), traceability from A-spec to B5 level component specifications. Coordinate with NSWC/DD for upgrades to the ASATS simulation to model the SPY OA radar variant planned for AMOD in preparation for JCHE-5. Begin integration of the SPY, SPQ 9B, and UPX-29 adaptation layers with the IABM in preparation for JCHE-5. Participate in software IPT review of Timebox 43, 44 and 45, as available, and identify design issues that may conflict with open architecture initiatives or adversely impact IABM integration into AMOD. Coordinate through the Navy SIAP IPTs and NTSG to form consensus on Navy feedback to SIAP JPO.

FY09: Specific FY09 activity includes:
Aegis SIAP Requirements and Architecture: Establish an allocated Baseline that includes JTM alignment by PDR. Define common data model and coordinated interfaces for the enterprise track server and the common track manager components for surface Navy combat systems, including component framework Application Programmer Interfaces (APIs), host services APIs, track server APIs from a client perspective, Sensor Adaptation Layer component IDDs, and system track management APIs for the host to use. Develop and/or review requirements and design products and contribute to coordinated Navy comments on SIAP JPO baseline products and other SIAP PDR artifacts, as well as the JAWG JTM SV-4. JCHE-5: Develop a prototype SPY adaptation layer to support JCHE-5 that interfaces with the SPY OA Radar control program and the IABM. Deliver associated SPY SAL B-5 level requirements. Coordinate with NSWC/DD for upgrades to the ASATS simulation to model the SPY OA radar variant planned for AMOD in preparation for JCHE-5. Complete integration of the SPY, SPQ 9B, and UPX-29 adaptation layers with the IABM CD-1 in preparation for JCHE-5.

FY10: Continue translating the IABM Platform Independent Model (PIM) at the component level and develop Platform Specific Model (PSM) and Platform Specific Implementation (PSI) in conjunction with Aegis Modernization (AMOD) Advanced Capability Build 12 development and testing to support fielding. Continue with the required partitioning of the AMOD computer program and application modification for IABM integration. Aegis is required to integrate all of the applicable functionality provided by the IABM CD-1 FO and required partitioning of existing AMOD software and modify existing applications required for successful integration. Prepare for any architecture related changes required to accommodate future IABM spiral improvements.

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE May 2009			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**		PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**				PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)			FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date		Total Cost ($000)	Target Value of Contract
	VAR	NAVSEA, Washington DC	1.903			0.000		0.000			CONT	0.000
	VAR	PEOIWS, Washington DC	5.517			1.113	NOV-08	1.050	NOV-09		CONT	0.000
	VAR/WR	PEO(T), Pax River, MD	3.174			0.412	NOV-08	0.350	NOV-09		CONT	0.000
	VAR	PEO(C4I), San Diego, CA	2.213			0.343	NOV-08	0.300	NOV-09		CONT	0.000
Subtotal Engineering Requirements			**12.807**			**1.868**		**1.700**			**CONT**	**0.000**
Remarks:												
	VAR	NAVSEA, Washington DC	6.243			0.000		0.000			6.243	0.000
	VAR	PEO IWS	33.690			9.749	NOV-08	8.085	NOV-09		CONT	0.000
	VAR/WR	PEO(T), Pax River, MD	7.208			2.340	NOV-08	2.000	NOV-09		CONT	0.000
	VAR	PEO(C4I), San Diego, CA	2.234			0.585	NOV-08	0.500	NOV-09		CONT	0.000
Subtotal System Development			**49.375**			**12.674**		**10.585**			**CONT**	**0.000**
Remarks:												
	VAR	NAVSEA, Washington DC	2.070			0.000		0.000			2.070	0.000
	VAR	PEO IWS, Washington DC	9.588			3.672	NOV-08	4.491	NOV-09		CONT	0.000
	VAR/WR	PEO(T), Pax River, MD	6.243			1.668	NOV-08	1.500	NOV-09		CONT	0.000
	WR	PEO(C4I), San Diego, CA	2.639			0.889	NOV-08	0.800	NOV-09		CONT	0.000
Subtotal Test & Execution			**20.540**			**6.229**		**6.791**			**CONT**	**0.000**
Remarks:												
	VAR	NAVSEA, Washington, DC	1.095			0.000		0.000			1.095	0.000
	VAR	PEO IWS, Washington, DC	2.148			0.914	NOV-08	0.800	NOV-09		CONT	0.000
	VAR/WR	PEO(T), Pax River, MD	1.627			0.413	NOV-08	0.350	NOV-09		CONT	0.000
	WR	PEO(C4I), San Diego CA	1.448			0.419	NOV-08	0.350	NOV-09		CONT	0.000
Subtotal Integration Planning			**6.418**			**1.746**		**1.500**			**CONT**	**0.000**
Remarks:												
	VAR	Lockheed Martin	29.179			19.051	NOV-08	32.140	NOV-09		CONT	0.000

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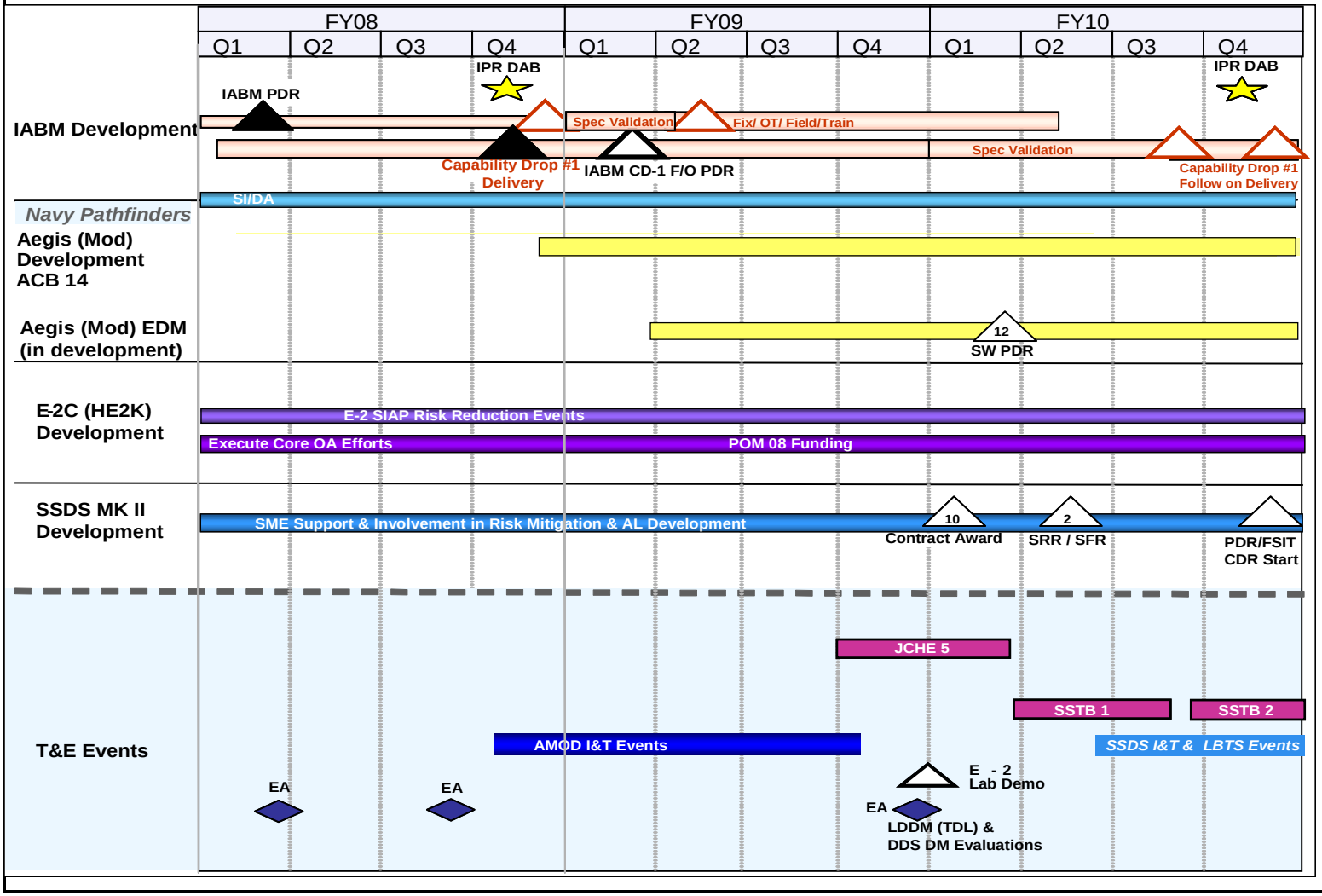
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS										DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**		PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**					PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)			FY 2009 Cost ($000)	FY 2009 Award Date	FY 2010 Cost ($000)	FY 2010 Award Date		Total Cost ($000)	Target Value of Contract
Subtotal DDG MOD PSM			**29.179**			**19.051**		**32.140**			**CONT**	**0.000**
Remarks:												
	VAR	Various industry, SBIR Phase III	0.000			0.000	NOV-08	0.000	NOV-09		0.000	0.000
Subtotal Open Architecture Automated Test & Retest			**0.000**			**0.000**		**0.000**			**0.000**	**0.000**
Remarks:												
Total Cost			**118.319**			**41.568**		**52.716**			**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE May 2009
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**	PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE May 2009		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 4**	PROGRAM ELEMENT NUMBER AND NAME **0603879N/SINGLE INT. AIR PICTURE (SIAP) SYS ENG**			PROJECT NUMBER AND NAME **3031/Single Integrated Air Picture Sys Eng**			
Schedule Profile	FY 2008	FY 2009	FY 2010				
IPR DAB	Q4		Q4				
IABM PDR	Q1						
Capability Drop 1 Delivered	Q4						
Capability Drop 1 Follow-on Delivered			Q4				
AMOD EDM SW PDR			Q1				
SSDS CDR			Q4				
JCHE-5 Test		Q4	Q1				
E-2 Flight Demo			Q1				