Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy											Date: March 2014	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0204571N *I Consolidated Trng Sys Dev*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	279.312	16.798	39.124	39.922	-	39.922	47.715	24.536	20.236	20.633	Continuing	Continuing
0604: *Training Range & Instr Dev*	135.294	3.132	3.460	2.729	-	2.729	3.530	3.601	3.630	3.700	Continuing	Continuing
1427: *Surface Tactical Team Trainer (STTT)*	60.072	9.936	11.000	16.768	-	16.768	13.445	12.002	10.569	10.776	Continuing	Continuing
2124: *Air Warfare Training*	27.789	1.474	1.595	1.262	-	1.262	1.624	1.666	1.683	1.716	Continuing	Continuing
3093: *TACTS/LATR Replacement*	56.157	2.256	13.532	12.349	-	12.349	21.393	4.780	4.354	4.441	Continuing	Continuing
3356: *High Fidelity Surface Trainers*	0.000	-	9.537	6.814	-	6.814	7.723	2.487	-	-	-	26.561
MDAP/MAIS Code: 223												

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

A. MISSION DESCRIPTION:

0604 - This project develops specialized instrumentations for fleet readiness training while minimizing life cycle costs. Tasks include development of the following: Large Area Training Range (LATR) improvements and Tactical Training Range(TTR) infrastructure improvements to include: the Joint Display Subsystem (JDS), Radar Acquistion Display Subsystem, Electronic Warfare (EW) server, Link 16 interface, TTR shipboard rotary platform technology improvements and the Radiant Mercury (RM) Cross Domain Solution (CDS).

1427 - Surface Tactical Team Trainer (STTT) develops modifications during sustainment of Battle Force Tactical Training (BFTT) system. This is required to maintain capabilities and interfaces to provide realistic combat system coordinated team, unit and Fleet Synthetic Training (FST) collective Group/Force level training events. In addition, BFTT supports the embedded trainer "family of systems" approach for the development of a Total Ship Training Capability (TSTC). Specific improvements include improved integration with the Navy Continuous Training Environment (NCTE) and development of a High Level Architecture (HLA) capable, integrated shipboard network to meet increasing Commander Naval Surface Forces (CNSF) and United States Fleet Forces Command (USFFC) FST requirements. The need for transforming training is documented within the DoD Training Transformation Plan, the Chief of Naval Operations Fleet Response Plan and Commander United States Fleet Forces Command Fleet Readiness Training Plan.

2124 - The Air Warfare Training Development (AWTD) program provides transition of operational systems technologies and risk mitigation for aviation training systems, including mission preview/rehearsal simulation technologies, Live-Virtual Constructive (LVC) and the Aviation Training Technology Integration Facility (ATTIF). The

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy	Date: March 2014
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204571N *I Consolidated Trng Sys Dev*

ATTIF provides for incremental development, prototype evaluation, technology readiness level assessment and final fleet Test and Evaluation prior to technology transition.

3093 - The Tactical Combat Training System (TCTS) will provide the Navy a replacement for the Tactical Aircrew Combat Training System and LATR systems. TCTS will also provide fleet deployable training for at-sea training and tactics development. By providing a rangeless capability, the system will greatly increase the area where live instrumented training can be conducted. Fielding of a pod system is complete at TACTS sites. The program incorporates an evolutionary development (incremental) towards an encrypted system capable of supporting a broad spectrum of naval platforms through weapons simulations, participant sensor stimulation, open architecture and an encrypted/long range secure data link.

3356- Funds FCA, high fidelity Aegis Integrated Air and Missile Defense (IAMD) individual and team trainers for all Advanced Capability Build (ACB) and below Aegis baselines. This line also provides funds for development of a CIWS 1B Baseline 2 Trainer upgrade.

JUSTIFICATON FOR BUDGET ACTIVITY:
This program is funded under Operational Systems Development because it includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	20.229	45.124	45.763	-	45.763
Current President's Budget	16.798	39.124	39.922	-	39.922
Total Adjustments	-3.431	-6.000	-5.841	-	-5.841
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-6.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.156	-			
• Program Adjustments	-	-	-1.330	-	-1.330
• Rate/Misc Adjustments	-	-	-4.511	-	-4.511
• Congressional General Reductions Adjustments	-1.590	-	-	-	-
• Congressional Directed Reductions Adjustments	-1.685	-	-	-	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy	Date: March 2014
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204571N *I Consolidated Trng Sys Dev*

Change Summary Explanation

0604: R-4/R-4A reflects the following program changes: LATR-OPSEC posture improvements Systems Development/Production Milestone ending 4th Qtr FY2014 vice 4th Qtr FY2013 due to added requirement of establishing a LATR baseline following a LATR technology refresh and required Acquisition documentation. LATR-Ship Rotary Platform Tracking set beginning 3rd Qtr FY2013 vice 1st Qtr FY2014 due to anticipated increase in time required for capability development. LATR EW interface development completed 4th Qtr FY2012 vice 1st Qtr FY2015 due to added resources in FY2012 to complete effort. TTR-Shipboard/Rotary Platform Tracking Set Systems Development/Production Milestone ending 4th Qtr FY2014 vice 1st Qtr FY2013 due to an extended review of requirements due to multiple end user inputs.

2124: R-4/R-4A reflects the following program changes: Human/Instructional Systems Integration-DMRT-Class Debrief APAARS Systems Development ending 4th Qtr FY2014 vice 2nd Qtr FY2012 due to an approved schedule change in the ONR Technology Transition Agreement (TTA) driven by changing fleet test dates. Human/Instructional Systems Integration-Hypoxia/Spatial Disorientation Technology (Fixed/Rotary) Systems Development/Production Milestone ending 4th Qtr FY2015 vice 4th Qtr FY2014 due to an added associated Spatial Disorientation syllabus review by the Navy.
Sensors and Environment-Comms/EW Systems Development/Production Milestone ending 4th Qtr FY2019 vice 4th Qtr FY2017 due to a planned new application of the technology to the Unmanned Combat Air Vehicle effort during FY18. Training Common Architecture began 4th Qtr FY2012 ending 4th Qtr 2015 to reduce trainer costs by developing a common interface solution.

3093: R-4/R-4A reflects the following program changes: As a result of delays in developing an encryption solution and corresponding budget reductions, the following program changes occurred: TACTS/LATR Replacement-Acquisition Milestone Encryption MS B from 3th Qtr FY2012 to 4th Qtr FY2014. TACTS/LATR Replacement-Acquisition Milestone Encryption MS C from 4th Qtr FY2015 to 3th Qtr FY2017. TACTS/LATR Replacement-Production Milestone Increment 2 Encrypted Datalink Capability from 4th Qtr FY2015 to 4th Qtr FY2017.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204571N / *Consolidated Trng Sys Dev*	Project (Number/Name) 0604 / *Training Range & Instr Dev*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
0604: *Training Range & Instr Dev*	135.294	3.132	3.460	2.729	-	2.729	3.530	3.601	3.630	3.700	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project develops specialized instrumentations for fleet readiness training while minimizing life cycle costs. Tasks include development of the following: Large Area Training Range (LATR) improvements and Tactical Training Range(TTR) infrastructure improvements to include: the Joint Display Subsystem (JDS), Radar Acquistion Display Subsystem, Electronic Warfare (EW) server, Link 16 interface, TTR shipboard rotary platform technology improvements and the Radiant Mercury (RM) Cross Domain Solution (CDS).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: LATR	1.816	2.051	1.876
Articles:	-	-	-

Description: Design, integrate and test modules to eliminate obsolete components in the LATR Pod. Design, integrate and test LATR software baseline upgrades. Design, integrate and test Participant Instrumentation Packages (PIP) modules to address obsolescence, high failure components and to improve operability and performance. Conduct and complete installation of the Ground System Rehosts. Conduct and complete security testing and assessment for LATR system certification and accreditation for Ground System Rehosts. Develop, test and integrate software and hardware modifications to system test sets. Develop, test and integrate LATR data translators. Conduct studies to identify sub-projects required through FY19. Complete ground system and PIP refresh sub-projects, in conjuction with, semi-annual system block upgrades. Conduct LATR Operational Security (OPSEC) Posture Improvements Sub-Project and Shipboard and Rotary Wing Technology Wing Upgrade (LSRTU).

FY 2013 Accomplishments:
Develop and test LATR ground software version 5.7.0. Continue LATR EW interface development. Continue LATR Operational Security Posture Improvements.

FY 2014 Plans:
Develop and test LATR ground software version 5.8.0. Continue to develop LATR Shipboard and Rotary Wing Technology Upgrade (LSRTU). Complete LATR OPSEC posture improvements.

FY 2015 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 0604 / *Training Range & Instr Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Develop and test LATR ground software version 5.9.0. Continue to develop LATR Shipboard and Rotary Wing Technology Upgrade (LSRTU).			
Title: TENA	0.800	0.800	-
Articles:	-	-	-
Description: Develop and test Tactical Training Ranges (TTR) Object Model (OM) for use with the Office of the Secretary of Defense (OSD) Test & Training Enabling Architecture (TENA) Software Development Agency (SDA) TENA Middleware versions 5.0-11.0. Develop TTR TENA Gateway for use with the TTR Electronic Warfare (EW) server and Joint Display System (JDS) and Tactical Combat Training System instrumentation set. Develop TTR TENA Monitoring Tool for diagnostic use by TTR personnel and TTR System Support Activities. Develop and test TTR TENA product upgrades to be compatible with TENA SDA Middleware. Host TENA on the TTR EW server and JDS.			
FY 2013 Accomplishments: Develop Graphic User Interface (GUI) for TTR TENA Monitoring Tool as requested by Fleet users. Develop and test TTR TENA 8.0 product upgrades to be compatible with evolving TENA SDA Middleware. Develop interfaces with evolving Joint TENA training events.			
FY 2014 Plans: Develop GUI for TTR TENA Monitoring Tool as requested by Fleet users. Develop and test TTR TENA 9.0 product upgrades to be compatible with evolving TENA SDA Middleware. Develop interfaces with evolving Joint TENA training events.			
FY 2015 Plans: N/A			
Title: TTR	0.516	0.609	0.853
Articles:	-	-	-
Description: Develop and test upgrades to the JDS, Radar Acquisition Display Subsystem (RADS), and EW server. Develop and test upgrades to the Link-16 Interface, JDS, RADS, and EW server. Develop and test TTR shipboard and rotary platform tracking solution set.			
FY 2013 Accomplishments: Develop and test 2013.1 & 2013.2 upgrades to the JDS, RADS, and EW server. Continue TTR rotary platform tracking set development.			
FY 2014 Plans: Develop and test 2014.1 & 2014.2 upgrades to the JDS, RADS, and EW server.			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 0604 / *Training Range & Instr Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Complete TTR rotary platform tracking set. ***FY 2015 Plans:*** Develop and test 2015.1 & 2015.2 upgrades to the JDS, RADS & EW Server.			
Accomplishments/Planned Programs Subtotals	3.132	3.460	2.729

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Training Range and Instrumentation Development (TRID) program is a non-ACAT program. The integrated program teams that develop new TRID capabilities include government and contractor engineering personnel.

E. Performance Metrics

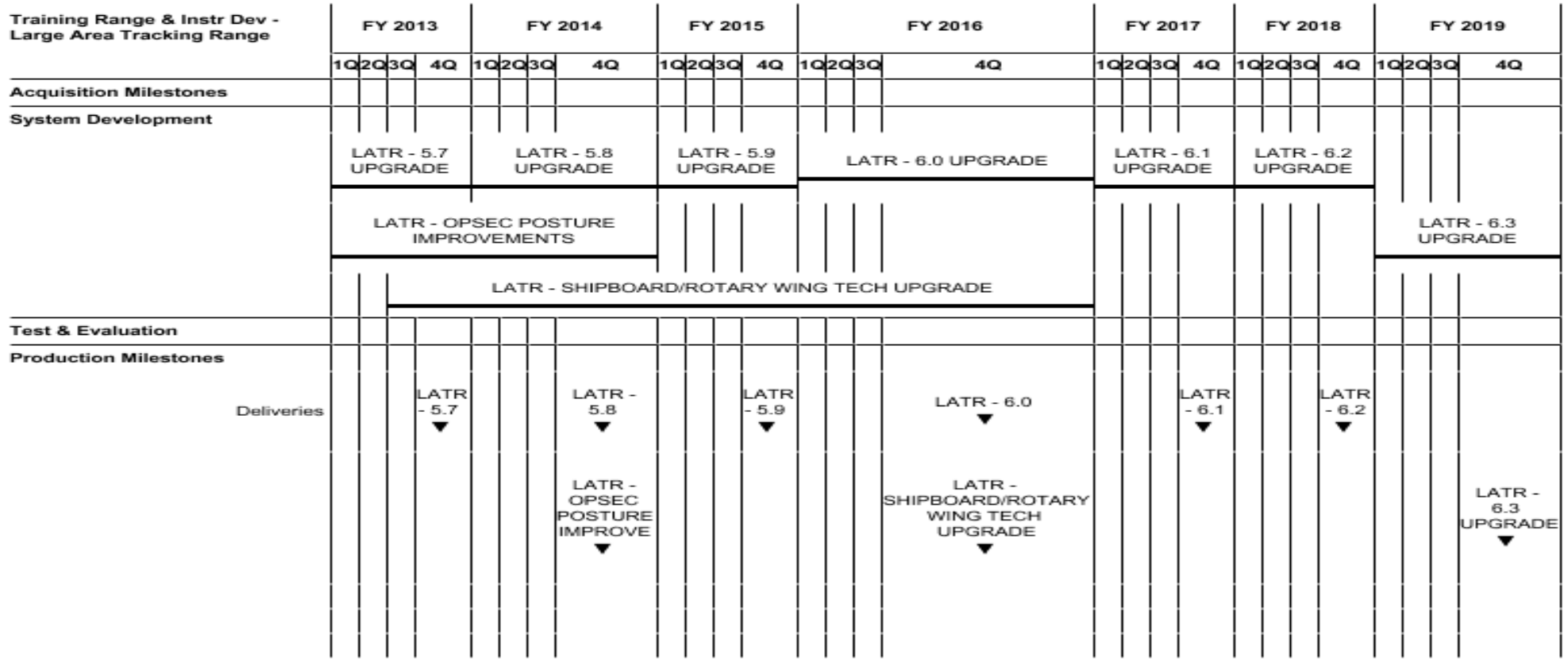
Metric/Description:
NAWC-AD: # of Large Area Tracking Range (LATR) software product improvements and new capabilities. Successful application of system engineering processes. Design and development of improvements. Site acceptance of product improvements with no Priority 1 or 2 problem reports. Completion of 1 upgrade per year.

Tybrin Corp: # of Training Enabling Architecture software product improvements and new capabilities. Successful design, development and testing of product improvements and new capabilities. Site acceptance of product improvements with no Priority 1 or 2 problem reports.

NAWC-WD: # of Tactical Training range (TTR) upgrades per year. Successful application of system engineering processes. Design and development of improvements. Site acceptance of product improvements with no Priority 1 or 2 problem reports. Completion of 2 upgrade per year.

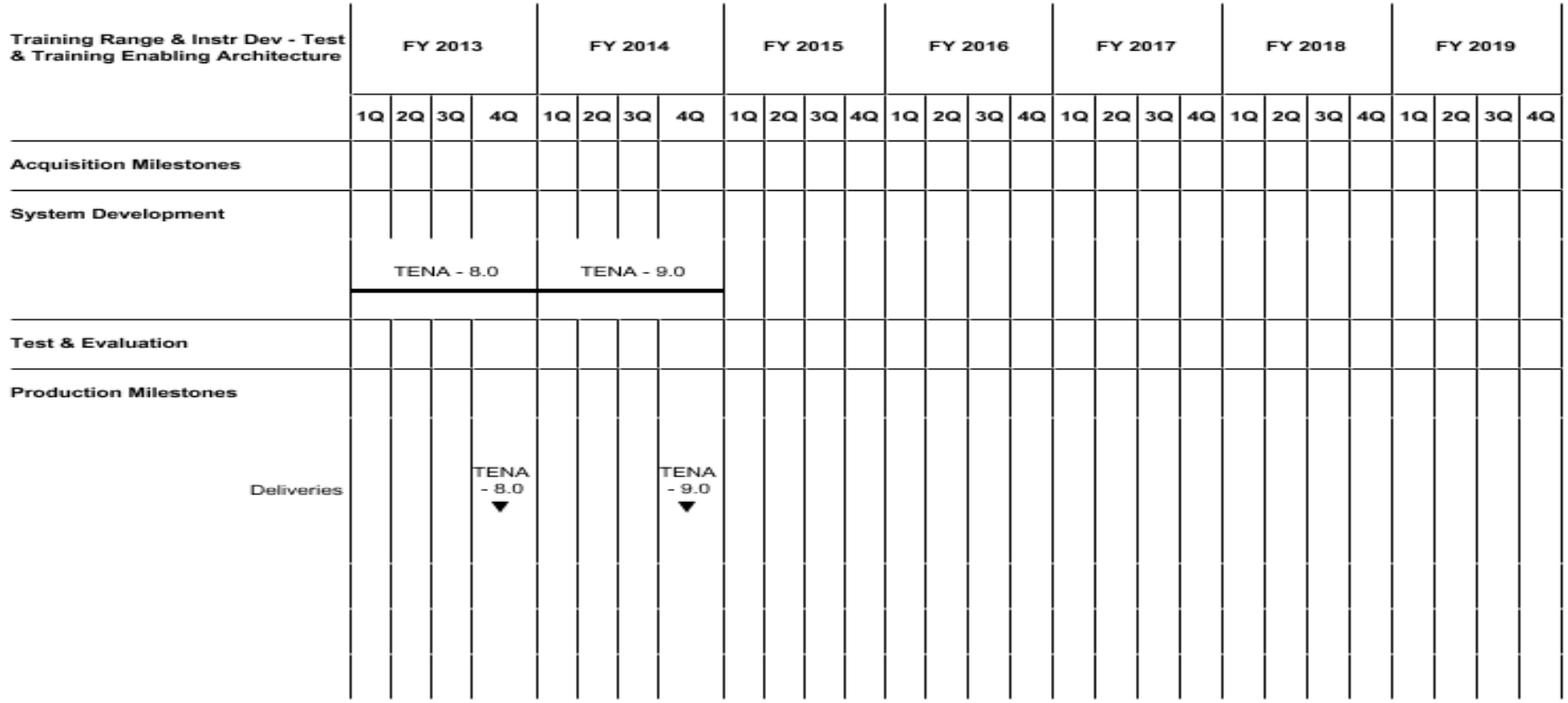
Tybrin Corp: # of TTR software product improvements and new capabilities. Successful design, development, and testing of product improvements and new capabilities. Site acceptance of product improvements with no Priority 1 or 2 problem reports.

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 0604 / *Training Range & Instr Dev*



2015PB - 0204571N - 0604

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 0604 / *Training Range & Instr Dev*



2015PB - 0204571N - 0604

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 0604 / *Training Range & Instr Dev*

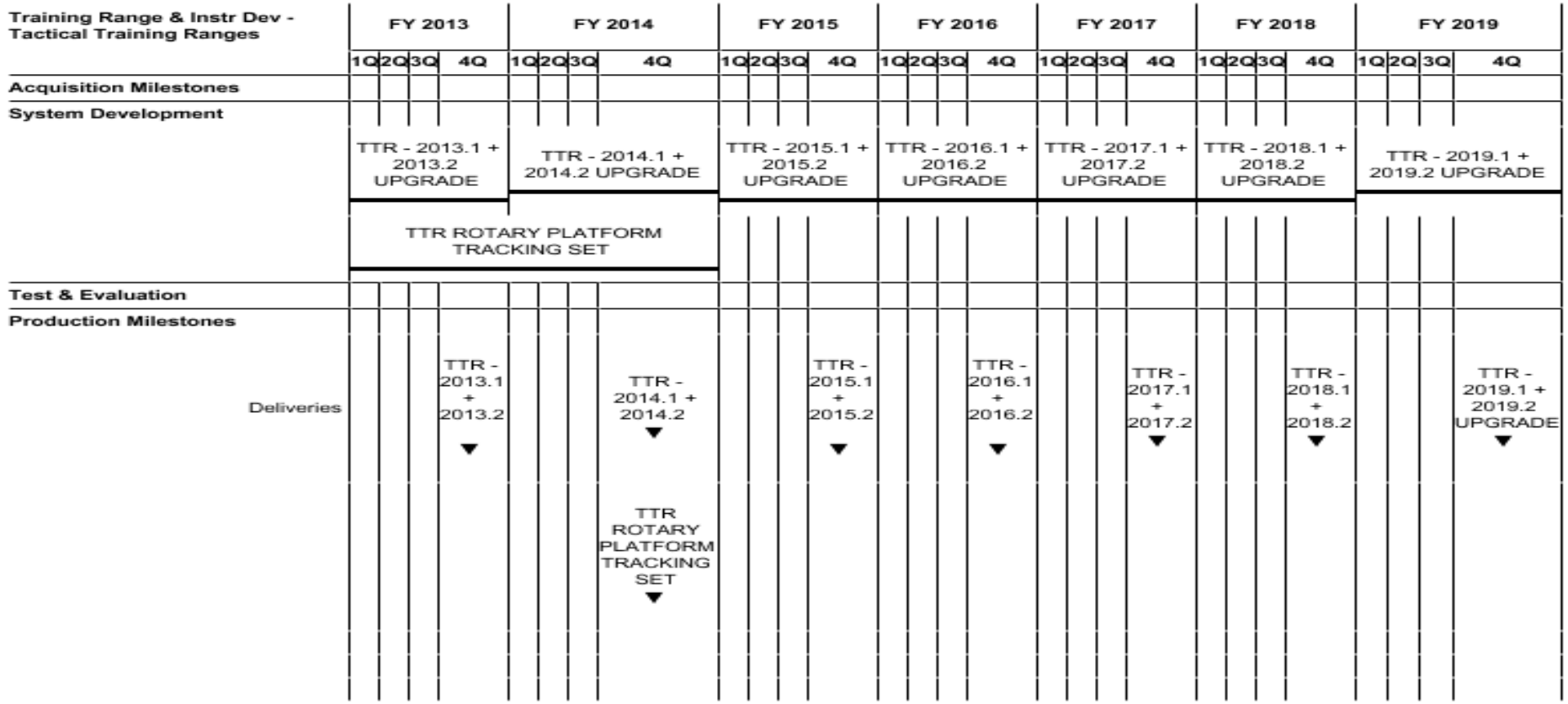


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Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy											Date: March 2014	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0204571N / *Consolidated Trng Sys Dev*				Project (Number/Name) 1427 / *Surface Tactical Team Trainer (STTT)*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
1427: *Surface Tactical Team Trainer (STTT)*	60.072	9.936	11.000	16.768	-	16.768	13.445	12.002	10.569	10.776	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

BFTT Program provides realistic joint warfare training across the spectrum of armed conflict, realistic unit level team training in all warfare areas (e.g. NIFC-CA and BMD missions to support IAMD capabilities). BFTT will link ships together via USFFC NCTE. BFTT is evolving to an open distributed architecture with maximum commonality across ship classes, integrating existing training systems and evolving to High Level Architecture (HLA) protocols. BFTT provides ships' Commanding Officers and Battle Group/Battle Force Commanders with the ability to conduct coordinated realistic, high stress, combat system level team training as an integral part of the Afloat Training Organization, the Tactical Training Groups and C2F/C3F FSTs. BFTT provides a baseline capability/system that meets the Operational Requirements Document (ORD). Without an operating BFTT system, the ship will be unable to complete system level testing impacting overall combat system operational testing.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Surface Tactical Team Trainer (STTT)	9.936	11.000	16.768
Articles:	-	-	-

FY 2013 Accomplishments:

Certify and field BFTT 3.5.1. Continue development of Build 5.0. Start requirements definition of BFTT Build 6.0/ACB 16 including de-integrating Scenario Generation & Control, Data Collection, Fusion & Debrief to create a common Combat System capability that supports the Combat System Product Line Architecture.

FY 2014 Plans:

Continue developing Build 5.0. Develop interface and userdocumentation updates to support transfer and control of simulated CU reports from CEC. Develop modifications to control simulated engagements, process simulated gun rounds within integrated training simulation environment. Develop training system Human Machine Interface (HMI) changes to allow launch commands to AEGIS embedded threat models and commands to control Kill Assessment outcomes. Modify external shipboard interface to extend simulated launch and kill assessment controls to remote training users. Includes documentation, testing, safety, information assurance compliance and Combat System Certification.

Start development of Build 6.0. Begin AEGIS Intergrated Training: Develop SAU 7000 Simulation/Stimulation unit. Develop interface updates between BFTT, SQQ-89 and NCTE to allow simulated Vertical Launch Anti-Submarine Rocket (VLASROC) fly-outs for use by other assets in integrated training events. Develop Air Asset training simulation/stimulation interfaces to the common data link and provide simulated EW, ASW and Radar contacts, as seen from a simulated ASW Air

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 1427 / *Surface Tactical Team Trainer (STTT)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Asset. Includes documentation, HMI changes, testing, safety and Information Assurance compliance and Combat System Certification. ***FY 2015 Plans:*** Continue Build 5.0 development required for CVN78 and AEGIS baseline 9 & 7.2 backfit. Integrate CVN78 Dual Band Radar and Cooperative Engagement Capability (CEC) Enhanced Trainer (CET). Complete Build 5.0 Test Readiness Review and commence Build 5.0 Test and Evaluation. Support CVN78 SSDS MK2 Mod 6C engineering tests at Wallops Island for BFTT Build 5.0 Integration and Combat System light off. Conduct BFTT Build 6.0 Preliminary Design Review (PDR) and associated systems engineering and development analysis. Support AEGIS ACB16 PDR and SSDS development effort. Initiate Critical Design Review (CDR) development and systems engineering efforts to support FY16 CDR. Initiate Interface Control Documents (ICD) development for hardware and software integration.			
Accomplishments/Planned Programs Subtotals	9.936	11.000	16.768

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPN 276200: *(Surface BFTT/TSTC portion only)*	31.493	27.213	41.128	-	41.128	37.096	38.951	38.105	38.880	-	321.291

Remarks

D. Acquisition Strategy

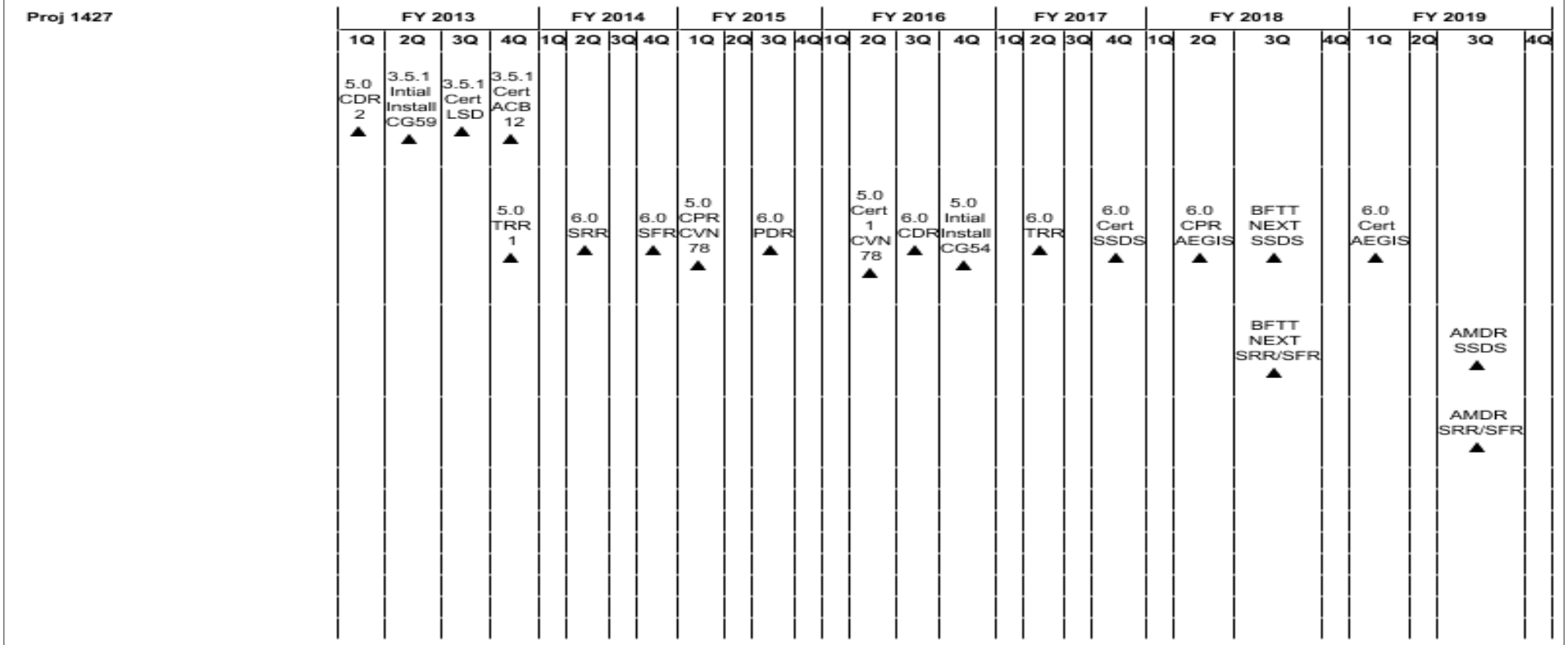
The BFTT acquisition strategy for system development utilizes the Advanced Capability Build (ACB) development model, as mandated by OPNAV. Incremental acquisition and fielding, utilizing commercial off-the-shelf technology to the extent possible, is in accordance with OPNAV LTR Ser N86/9U179029 dtd 31 Jul 09.

E. Performance Metrics

NSWC Dam Neck: Number of BFTT modification product improvements and new capabilities. Successful design, development, testing and fielding of product improvements, and new capabilities. Site acceptance of product improvements with no Priority 1 or 2 problem reports. Completion of one upgrade per ACB.

NSWC Dahlgren: Number of Test events completed. Training system interface problem resolutions documented. Safety Reviews in direct support of Element Certification.

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 1427 / *Surface Tactical Team Trainer (STTT)*



2015DON - 0204571N - 1427

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy											Date: March 2014	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0204571N / *Consolidated Trng Sys Dev*				Project (Number/Name) 2124 / *Air Warfare Training*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
2124: *Air Warfare Training*	27.789	1.474	1.595	1.262	-	1.262	1.624	1.666	1.683	1.716	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project transitions new training system technologies for use in Naval Aviation training. Products from this effort are directly tied to the Navy Aviation Simulation Master Plan (NASMP), NASMP technology upgrades, MH-60R/S master plan, Unmanned Aerial Systems (UAS) master plan, UAS Common Control Station (CCS), Live Virtual Constructive (LVC), component technologies, F/A-18C-F Requirements Procurement Plan (RPP), open architecture implementation, multiple platform technology refresh efforts and the Multi-Mission Maritime Aircraft (MMA/P-8) programs. These efforts will support the development and design of future naval aviation training/preview/mission rehearsal systems (fixed, deployed, and unmanned). Tasks include: Advanced training systems specification development to provide for common, modular, High Level Architecture (HLA) compliant, high fidelity Distributed Mission Training (DMT) and mission rehearsal capabilites ashore and afloat. Technologies to be developed and integrated include: intelligent semi-automated forces (SAF) technologies, automated performance measurement technology, advanced net-ready weapons simulation, Air to Air/Air to Ground (AA/AG), visual/sensor enhancement, sensor/weather server, common Mission Training Station (MTS) technologies, tablet mission preview technology, advanced visual-sensor technology, high resolution helmet mounted, and/or flat panel displays, 20-20 visual acuity image generation, NAVAIR Portable Source Initiative (NSPI) improvements, common correlated data set technologies, common link, common software/database reuse technologies, advanced environmental effects modeling, fused radar/infra-red/electro-optic and acoustic sensor simulations, aerodynamic modeling, physics-based infra-red simulations, comms degradation modeling and final T&E within the Aviation Training Technology Integration Facility (ATTIF), NAWCAD, which is a man-in-the loop test bed for the integration of software, hardware and operational equipment. This Manned-Flight Simulator (MFS) capability provides a window to fleet aviators for critical comment, evaluation and fine tuning of new, interoperable, and innovative technologies such as Training System Common Environment (TRACE) components, before final transition to the fleet. MTS, debrief/After Action Review (AAR) and intelligent training tools for the virtual environment are focused on human performance enhancements for fleet readiness and distributed mission training at all levels.

Metrics: These technology transitions seek to lower Total Ownership Costs (TOC) of the training systems and life cycle costs, including: increasing software re-use, reduced instructor manning profiles, software-based fidelity enhancements and increased fleet readiness by enhancing overall system fidelity to the projected operating environments. NASMP readiness improvements are conservatively forecasted at 12-35% Training and Readiness (T+R) improvement via synthetic environment upgrades and associated technology upgrades to stand-alone and networked simulators. Individual technology transition investments have routinely exceeded 300+% financial Return On Investment (ROI). Technology Readiness Levels (TRL), Training and Readiness, fleet readiness, and financial metrics are used.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2013**	**FY 2014**	**FY 2015**
Title: HUMAN/INSTRUCTIONAL SYSTEMS INTEGRATION	0.993	0.516	0.473
Articles:	-	-	-
Description: Develop common and platform-unique MTS, Intelligent Tactical Semi-Automated-Forces (SAF) and high fidelity simulator component technologies. MTS and Intelligent SAF designs lower NASMP upgrade and simulator life-cycle costs. Integrate Voice-Capable SAF component technologies, improve open common instructor interface effectiveness and			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
provide for multi-SAF exercise utilization. Analyze, develop, and integrate common architecture components for F/A-18C-F, EA-18G, MH-60R/S, Unmanned Aerial Systems (UAS) platforms, E-2C/D & USMC mission areas, intelligent instructor operator components, automated performance measurement technologies, Tactical Aircraft (TACAIR)/ Multi-Mission Maritime Aircraft (MMA) / Reduced Oxygen Breathing Device-Spatial Disorientation (ROBD-SD) devices common graphic user interface initiatives, common threat system formats and new Next Generation Threat System (NGTS) technology transitions, Joint SAF compatability, cross platform post mission performance measurement, and after action review/ debrief innovations, thereby maximizing return on investment for mission training station-related technology investments. ***FY 2013 Accomplishments:*** Provide for ongoing modular MTS designs to lower Navy Aviation Simulation Master Plan (NASMP) upgrade and simulator upgrade life-cycle II costs, integrating Voice-Capable Semi-Automated-Forces (SAF) component technologies, improving P-8A and Unmanned Aerial System (UAS) common instructor interface effectiveness, complete Post Mission Assessment Tactical Training (PMATT) phase I and provide for LVC and multi-SAF exercise utilization. Continue to analyze, develop, and integrate open architecture components for Common Control Station (CCS), UAS/Broad Area Maritime Surveillance (BAMS), FIRESCOUT, F/A-18C-F, MH-60R/S, E-2C/D & USMC mission preview areas, intelligent instructor operator components, systematic open architecture component development, TACAIR/MMA/ROBD-SD common graphic user interface initiatives, common threat system formats and NGTS, Joint SAF compatability, performance measurement, and after-action review/ debrief, thereby maximizing fleet efficiencies and ROI for mission training technology investments. ***FY 2014 Plans:*** Provide continued development and support for MTS based brief preview, debrief and tactical training assessment technologies for all Naval Aviation Platforms, to include data and trend-analysis. Provide technology in support of common simulation product lines, UAS common control stattion, debrief visualization, and Live Virtual Constructive (LVC) technology transition. ***FY 2015 Plans:*** Provide continued development and support for MTS-based brief/preview, debrief, and tactical assessment technologies for all Naval Aviation platforms, to include data and trend analysis. Provide technology in support of common, and open-architecture simulation product lines, UAS training, UAS common control station, debrief visualizations, and Live-Virtual-Constructive (LVC) technology transitions.			
Title: SENSORS AND ENVIRONMENT	0.330	0.400	0.200
Articles:	-	-	-
Description: Develop common and platform unique sensor visual, and environmental simulation (atmospherics or acoustics) into fidelity upgrades with Commercial Off The Shelf (COTS) and/or Government Off the Shelf Software (GOTS). Perform risk reduction, advanced displays innovation, test and evaluation, integration, and production of Inter-service Common Sensor Model (ICSM), High Fidelity Active-Acoustics Sensor Operator Training (HIFAST) and Integrated Distributed Sensor Scene Simulation			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
System (DS-4) for Navy Distributed Mission Training (DMT), 3D weather, and new ROBD-SD and legacy device technologies. Demonstrate GOTS capability for cost-effective database materialization, Material Properties Reference Dataset (MPRD) library, associated NAVAIR Portable Source Iniative (NPSI) specifications and processes for implementation on Distributed Mission Training (DMT), deployed trainers, legacy, and new visual system upgrade programs. In support of Navy Aviation Simulation Master Plan (NASMP) upgrade efforts, develop texture storage, sensor-environmental effects, Synthetic Environmental Radiometry Engine (SERE) NAVAIR Portable Source Initiative (NPSI) material reference processes/standards, automated technology applications for real time publishing, shadows, cultural lighting, combat, and weather effects and very high-resolution visualization technologies, to include tablet-based mission preview for tactical aircrew. ***FY 2013 Accomplishments:*** Continue to integrate common and platform unique real-time sensor simulation with Government Off the Shelf (GOTS) implementations. Demonstrated SERE GOTS capability for cost-effective environmental effects database materialization, developed the NAVAIR Portable Source Initiative (NPSI) Material Properties Reference Dataset (MPRD) and developed associated NPSI specifications and processes for implementation on DMT, deployed mission readiness trainers, legacy, and new visual system upgrade programs in accordance with NASMP priorities. Developed texture storage, weather and sensor-environmental effects, SERE Environment NPSI material reference processes/standards, and automated technology applications for real time publishing, shadows, cultural lighting, combat, and weather effects, communication and radio frequency models and very high-resolution sensor visualization for multiple platform upgrade initiatives. ***FY 2014 Plans:*** Test, evaluate and demonstrate new platform and composite squadron mission preview sensor-prediction, Carrier Qualification (CQ) and after-action review (AAR) technologies that improve individual, squadron unit and wing readiness. Provide GOTS/ Commercial Off The Shelf (COTS) applications for common and platform unique visual/sensor technologies in all phases of training on mission preview/preparation. Perform new sensor-fusion technologiy development for Common Control Station (CCS), and other platform UAS specific applications. ***FY 2015 Plans:*** Continue to develop, test, and demonstrate new platform and composite/MEU squadron mission preview, sensor prediction, Carrier Qualification (CQ) part-task training, and after action review (AAR) technologies that improve individual, squadron, and wing readiness metrics. Provide GOTS/or COTS applications for platform unique, or common visual-sensor technology challenges for all phases of training or mission preview. Perform new sensor-fusion and synthetic vision technology development to meet fleet requirements, and emerging UAS CCS, or UAS-platform unique requirements.			
Title: SYSTEM ENGINEERING & INTEGRATION	-	0.250	-
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: Integrate and test new and legacy General Training/Hypoxia system components for Navy survivability and platform unique deployable readiness training devices. Provide GOTS component Technology Readiness Level (TRL) assessment for general training components, Tactical Air (TACAIR), and Maritime/Anti-Submarine Warfare (ASW) components, tactical Graphical User Interface (GUI) and performance measurement and tactical scenario-control technologies. Test and demonstrate E-2C Distributed Mission Readiness Trainer (DMRT) enhancements and General Training technologies, while maintaining or increasing fidelity. Analyze Live Virtual Contructive (LVC) Government Off The Shelf (GOTS)/ Commercial Off The Shelf (COTS) technologies, and alternatives for network centric warfare compliance connnectivity in the simulated battlespace, Navy Continuous Training Environment (NCTE) interoperability, and human mission performance measurements while reducing training system life cycle cost. Ensure proper Technology Readiness Level (TRL) levels for integrating new software components, achieve training readiness and document a financial ROI. ***FY 2013 Accomplishments:*** N/A ***FY 2014 Plans:*** Continue to provide training system component-level technology assessments for: (1) TRL maturation, TRL assessment, (2) platform applicability (Tactical Air (TACAIR), Anti-Submarine Warfare (ASW), and UAS), and (3) Information Assurance (IA)-certified Distributed Mission Training (DMT) interoperability. Perform support for fidelity improvement analysis, and fleet/T&R assessment. ***FY 2015 Plans:*** N/A			
Title: LIVE VIRTUAL CONSTRUCTIVE (LVC) AND VISUALS	0.151	0.429	0.589
Articles:	-	-	-
Description: Air Warfare Training Development (AWTD) provides for risk mitigation and next generation platform, UAS, LVC and associated visualization component development for distributed mission training for stand-alone and small footprint deployable devices. Support the Navy Aviation Simulation Master Plan (NASMP) upgrade efforts and Type/Model/Series (T/M/S) programs with advanced visual system display configurations requirements. Assess trainee cognitive requirements and the development and incorporation of next generation LVC, UAS constructive and associated visualization technologies. Additionally, AWTD provides for advanced virtual component fidelity improvements for LVC capability (such as "Mobility" Part-Task Trainers (PTT) and Distributed Mission Readiness Trainer (DMRT) class devices). LVC technologies will facilitate advanced, cost effective weapons and tactics training and emerging capability requirements in the Air-Sea battlespace and Naval Fire-Control Counter Air (NFCA) training concepts. ***FY 2013 Accomplishments:***			

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Continue to support NASMP upgrades and T/M/S visual research programs (TACAIR, Maritime and UAS) to include the development of high fidelity advanced visual system display configurations that are LVC capable using next generation technology for both stand-alone and small footprint deployable devices. Apply advanced visualization to after action review systems, and mission preview applications that give "visualizations" of the battlespace in different lighting conditions, sensor views and atmospheric conditions. Provided detailed pilot cue analysis for the LVC mobility/carrier qualification analysis. ***FY 2014 Plans:*** Provide continued support to incremental Live Virtual Constructive (LVC) technology development, enhanced visual, sensor, environmental, motion, aero and ocean state fidelity for new virtual training and readiness capabilities. Provide man-in-the-loop Technology Readiness Level (TRL) assessment at Manned Flight Simulator (MFS) and assess Distributed Mission Readiness Trainer (DMRT) and other mobility training application areas for improved fleet training and life-cycle cost reductions. ***FY 2015 Plans:*** Provide continued support to incremental LVC component technology development, to enhance visual, sensor, environmental, motion, aerodynamics, and ocean fidelity for required training and readiness improvements. Provide man-in-the-loop Technology Readiness Level (TRL) assessment at Manned Flight Simulator (MFS), and assess Distributed Mission Readiness Trainer-class systems, and other mobility focused training devices for improved fleet training, T&D metrics, and life-cycle cost reductions.			
Accomplishments/Planned Programs Subtotals	1.474	1.595	1.262

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• APN/0705: *COMMON GROUND EQUIPMENT - TRAINING*	142.281	146.654	200.862	-	200.862	177.424	193.316	194.627	195.469	Continuing	Continuing

Remarks

D. Acquisition Strategy

Air Warfare Training Development (AWTD) is a 6.7 RDT&E joint technology transition program tied to Navy Aviation Simulation Master Plan (NASMP), USMC upgrades and the various platform simulation master plans with the purpose of transitioning advanced training and mission preview/rehearsal technologies. AWTD provides risk mitigation, test and evaluation, and prototype development for stand-alone, un-manned, distributed, open systems and deployed training systems for the warfighter utilizing an Integrated Product Team approach and a combination of reimbursable and direct cite/cost-plus time and material (T&M) contracts.

E. Performance Metrics

NAWC-TSD: # of transitions to Fleet Platforms. For each transition, successful TRL testing and device Ready for Training (RFT) to Fleet platforms. Seminal transition events are either RFT or tech-refresh Authority to Operate.

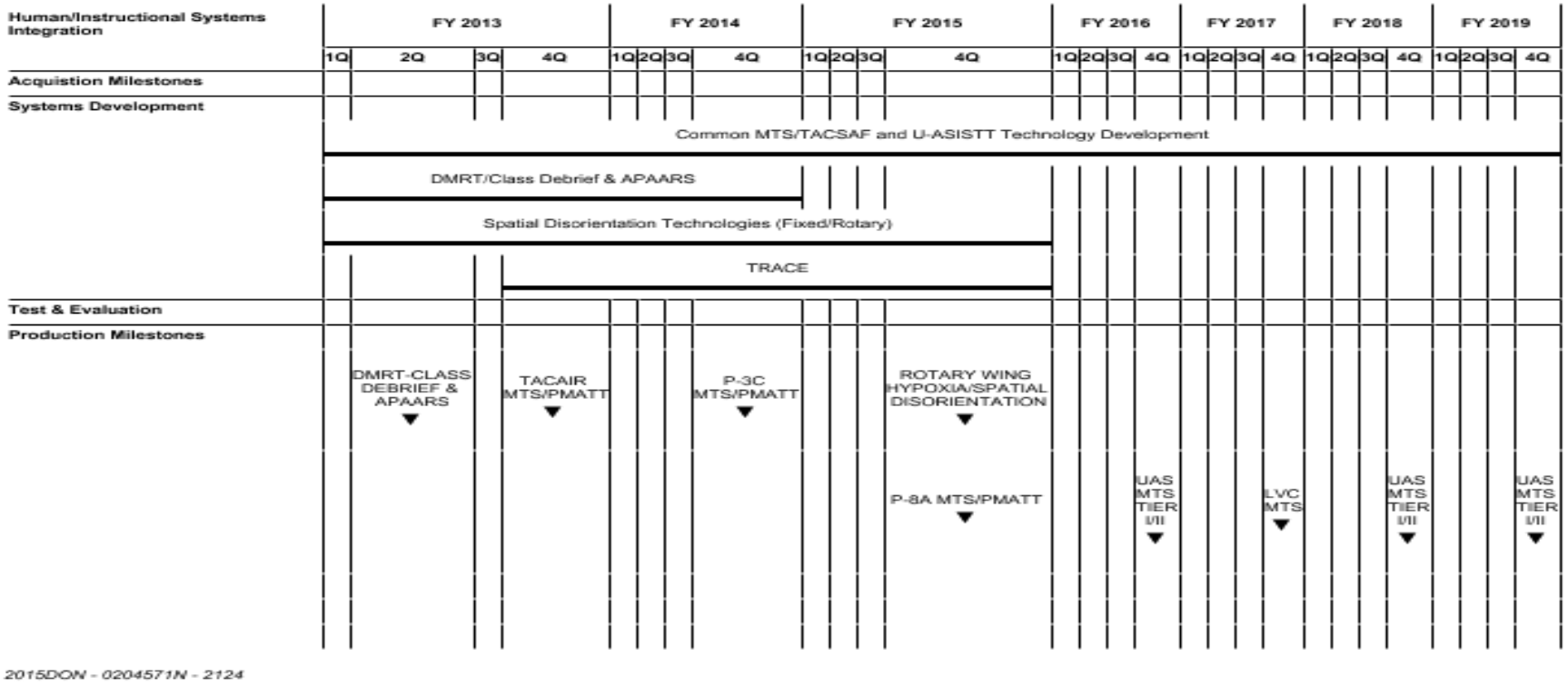
Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*

NAWC-AD: Complete Technology Readiness Level (TRL) & compliance testing for NASMP and Information Assurance directives.

RSC Inc: Successful Small Business Innovation Research evaluation of device testing.

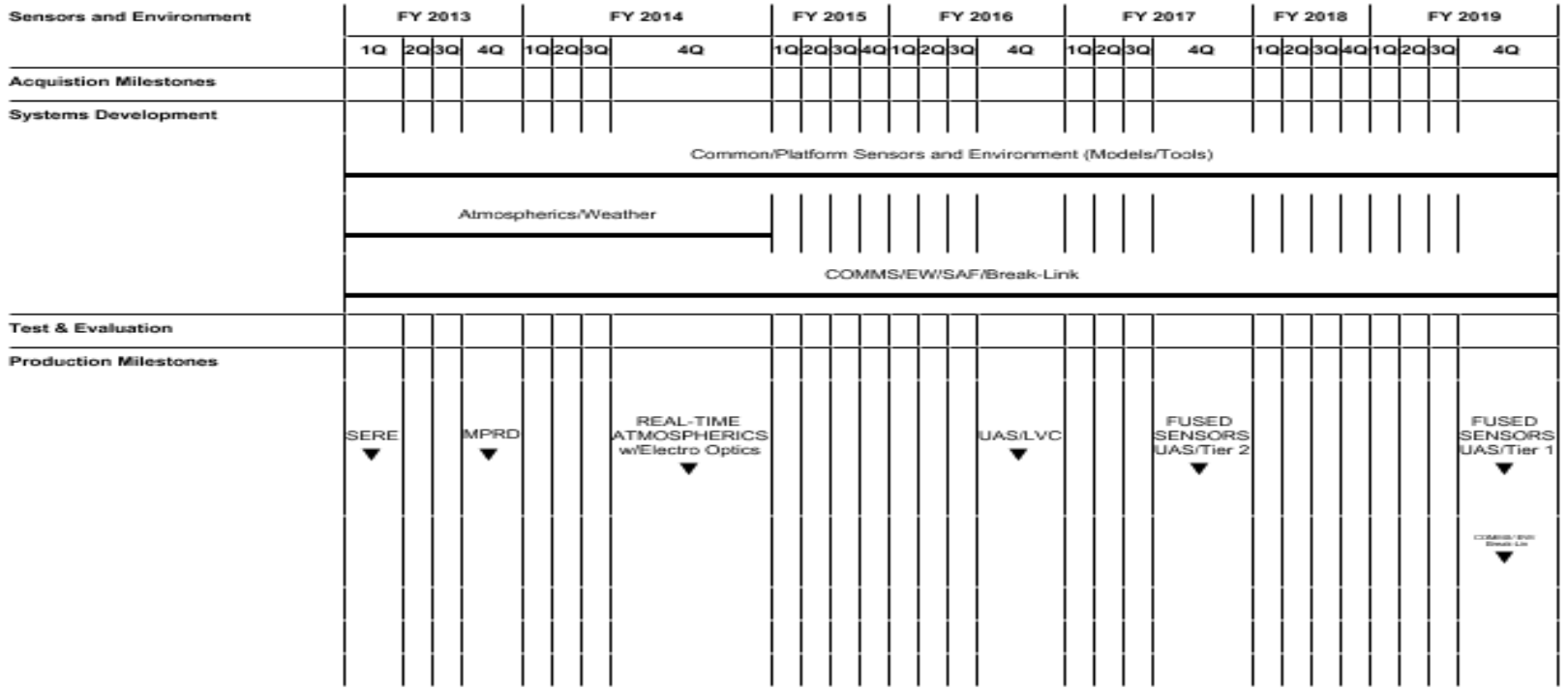
Aptima Inc: Successful Small Business Innovation Research evaluation of device testing.

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*



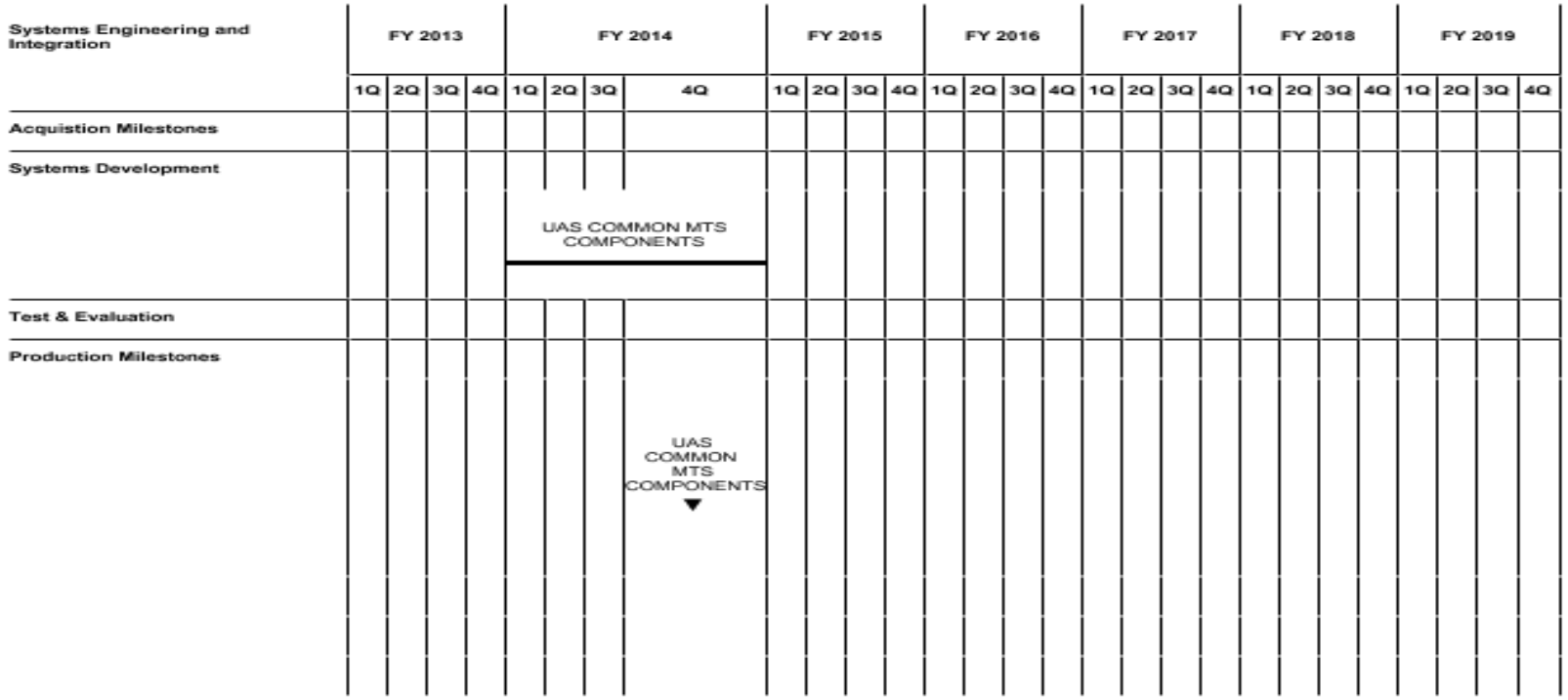
2015DON - 0204571N - 2124

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*



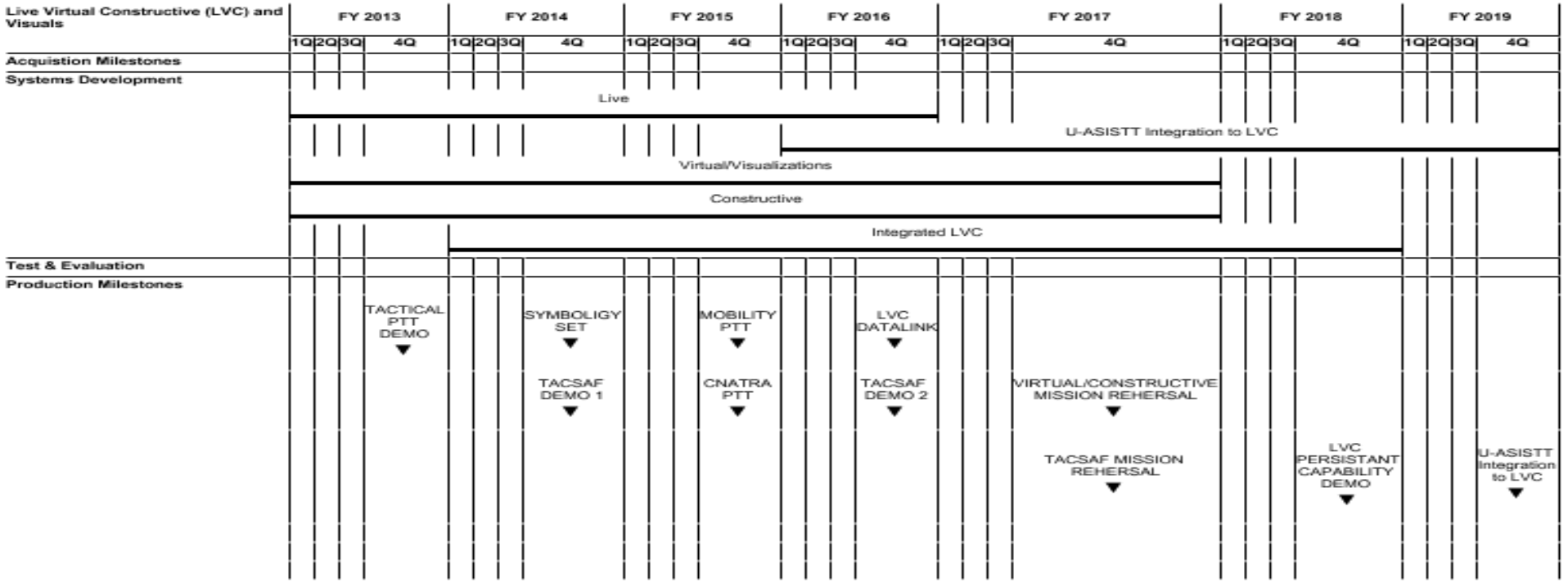
2015DON - 0204571N - 2124

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*



2015DON - 0204571N - 2124

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 2124 / *Air Warfare Training*



2015DON - 0204571N - 2124

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy												Date: March 2014
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0204571N / *Consolidated Trng Sys Dev*				Project (Number/Name) 3093 / *TACTS/LATR Replacement*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
3093: *TACTS/LATR Replacement*	56.157	2.256	13.532	12.349	-	12.349	21.393	4.780	4.354	4.441	Continuing	Continuing
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Tactical Combat Training System (TCTS) will provide the Navy a replacement for major portions of the Tactical Aircrew Combat Training System (TACTS) and Large Area Tracking Range (LATR) systems. TCTS will also provide fleet deployable training for at-sea training and tactics development. By providing a rangeless capability, the system will greatly increase the area where live instrumented training can be conducted. Fielding of a pod system is complete at TACTS sites. The program incorporates an evolutionary development (incremental) towards an encrypted system capable of supporting a broad spectrum of naval platforms through weapons simulations, participant sensor stimulation, open architecture and an encrypted/long range secure data link.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: TACTS/LATR REPLACEMENT	2.256	13.532	12.349
Articles:	-	-	-
Description: Tactical Combat Training System (TCTS): Qualify and complete the Rangeless Pod system fielding for CVW-5 CVN installation, including the complete Integrated Logistics products and training. Define Test & Training Enabling Achitecture (TENA) compliant interface between TCTS and an Advance Display System (ADS). Develop a Rack-Mounted subsystem for use on rotary wing and transport aircraft. Continue development of the encrypted data link. Develop related training range integration. ***FY 2013 Accomplishments:*** Prepare Request for Proposal, Milestone B preparation and conduct Pre-Engineering Manufacturing Development Review activities. ***FY 2014 Plans:*** Milestone B approval. Begin encryption integration activities into TCTS and conduct integration Systems Requirements Review (SRR). ***FY 2015 Plans:*** Conduct Integrated Baseline Review (IBR) to establish a Performance Measurement Baseline with the contractor. Conduct a System Functional Review (SFR) to set the functional baseline followed by the Preliminary Design Review (PDR) to establish the allocated baseline. A Post PDR Assessment will be conducted with the Milestone Decision Authority (MDA) at the completion of the PDR with the contractor.			
Accomplishments/Planned Programs Subtotals	2.256	13.532	12.349

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 3093 / *TACTS/LATR Replacement*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPN/4204: *Weapons Range Support Equipment (WRSE)/TCTS*	3.855	3.269	3.817	-	3.817	3.917	3.884	3.863	3.942	Continuing	Continuing
• APN/0725: *Other Production Charges/Tactical Combat Training System (TCTS)*	3.492	5.268	5.630	-	5.630	3.476	11.277	20.988	21.400	Continuing	Continuing

Remarks

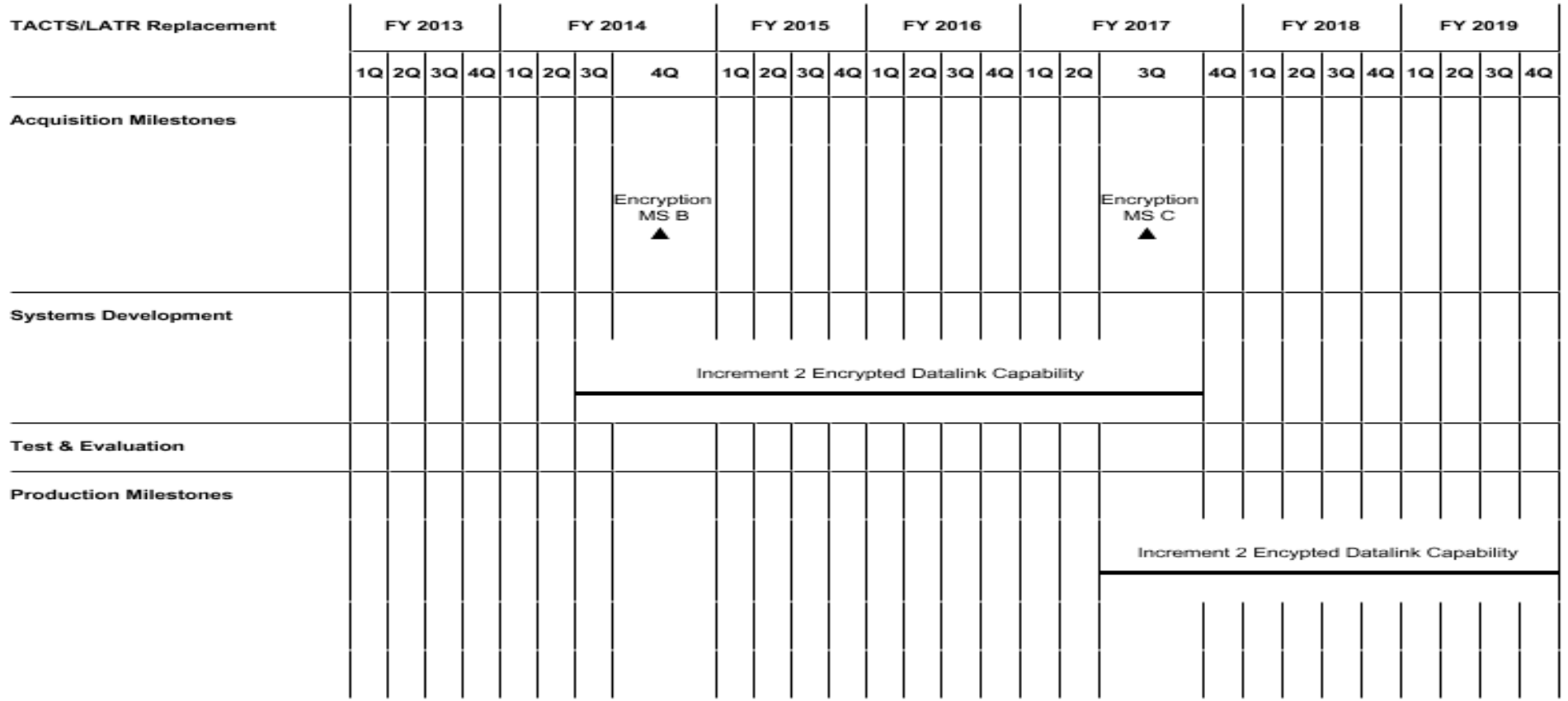
D. Acquisition Strategy

Tactical Combat Training System (TCTS)will employ an evolutionary incremental acquisition strategy. This strategy will provide for the development of a system that meets the Operational Requirements Document (ORD).

E. Performance Metrics

Contractor (TBD): National Security Agency (NSA) approved encrypted Data Link Transceiver (DLT). Successful Engineering Development Model testing of encrypted DLT requirements with NSA.

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 3093 / *TACTS/LATR Replacement*



2015PB - 0204571N - 3093

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204571N / *Consolidated Trng Sys Dev*	Project (Number/Name) 3356 / *High Fidelity Surface Trainers*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
3356: *High Fidelity Surface Trainers*	-	-	9.537	6.814	-	6.814	7.723	2.487	-	-	-	26.561
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This line provides SEA 21 (PMS 339) funds for development of a High Fidelity Aegis Combined Integrated Air and Missile Defense (IAMD) and Anti-Submarine Warfare (ASW) Trainer (CIAT) to enable advanced warfare training (AWT) Phase II objectives to be accomplished ashore and to support Active and Passive Sonar Operations, Target Motion Analysis, Sonobuoy Localization, Command and Control, and execution of ASW Kill chain. Funds are provided for advanced component technology development, prototype evaluation, and technology readiness level assessment. Development of these trainers is in response to CNO Wholeness Review and COMNAVSURFOR requirements. This line also funds the research and development of advanced technologies to allow Close-In Weapon System (CIWS) 1B Baseline 2 integration at CSCS Damneck and Detachment West.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Combined IAMD ASW Trainer (CIAT)	-	9.537	6.720
Articles:	-	-	-

FY 2013 Accomplishments:

N/A

FY 2014 Plans:

Develop a high fidelity Combined IAMD and ASW Shore Based Trainer (SBT), research and develop advanced technologies necessary to introduce a SBT that will support scenario driven watch team practice of Standard Operating Procedures (SOPs), Tactics Techniques and Procedures (TTPs) and Pre-Planned Response (PPRs) against advanced threats in a realistic environment. Research and develop technologies and interfaces which will enable Surface Anti-Submarine Warfare Synthetic Trainer (SAST) to be integrated with the shore based trainer. Research and define hardware that maximizes the benefits of COTS equipment and reuse of tactical software components. Research and develop integration of models to allow for Navy Integrated Fire Control - Counter Air (NIFC-CA) trainer.

FY 2015 Plans:

Develop a high fidelity Combined IAMD and ASW Shore Based Trainer (SBT), research and develop advanced technologies necessary to introduce a SBT that will support scenario driven watch team practice of Standard Operating Procedures (SOPs), Tactics Techniques and Procedures (TTPs) and Pre-Planned Response (PPRs) against advanced threats in a realistic environment. Research and develop technologies and interfaces which will enable Surface Anti-Submarine Warfare Synthetic Trainer (SAST) to be integrated with the shore based trainer. Research and define hardware that maximizes the benefits of COTS

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 3356 / *High Fidelity Surface Trainers*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
equipment and reuse of tactical software components. Research and develop integration of models to allow for Navy Integrated Fire Control - Counter Air (NIFC-CA) trainer.			
Title: CIWS 1B Baseline 2 Schoolhouse Integration	-	-	0.094
Articles:	-	-	-
FY 2013 Accomplishments: N/A			
FY 2014 Plans: N/A			
FY 2015 Plans: Research and Develop advanced technologies to allow CIWS 1B Baseline 2 integration at CSCS Dam Neck and Det West to enable accurate training. This project will introduce an upgrade to a training system which is insufficient for accurate training on the fleet configuration. Funds are provided for development of the technologies and test and evaluation of the integrated components.			
Accomplishments/Planned Programs Subtotals	-	9.537	6.814

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The software development for High Fidelity Surface Trainers is accounted for in this RDT&E line. All production kits are procured in OPN PE 0804731N BLI 5660 cost codes 1.6. The software development and introduction for the CIWS 1B Baseline 2 Schoolhouse Integration is accounted for in this RDT&E line. This upgrade will provide an enabling technology to an existing training system.

E. Performance Metrics

NSWC Dahlgren: Approved Combined IAMD and ASW Trainer (CIAT). Successful engineering development model (EDM) introducing advanced technologies necessary to simulate/stimulate the AEGIS Combat System elements required for operators stated in AEGIS Ashore Baseline 9 Weapons Specification (WS) 21200 series. Successful EDM introducing advanced technologies necessary to simulate/stimulate the Aegis Combat System elements required for operators of Aegis BL 7 system.

NSWC Dahlgren: Approved CIWS 1B Baseline 2 Schoolhouse Integration. 1) Accurate replication of CIWS 1B Baseline 2 configuration and functionality. 2) Successful introduction and test and evaluation to integrate and simulate the performance of Close In Weapons System (CIWS) 1B Baseline 2.

Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy		Date: March 2014
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204571N / *Consolidated Trng Sys Dev*	**Project (Number/Name)** 3356 / *High Fidelity Surface Trainers*

NSWC Carderock: Approved Combined IAMD & ASW Trainer (CIAT). Successful engineering development model introducing advanced technologies necessary to 1) simulate performance of AN/SQQ-89A(V)15 sonar system in alignment with fielding plan for initial Sonar software versions with capability to receive AN/SQQ-89A(V)15 coordinated routine modernizations and 2) replicate Combat Information Center (CIC) configuration and functionalities representative of AEGIS Baseline 9.