Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy											Date: February 2016	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0204311N *I Integrated Surveillance System*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	385.086	72.315	49.587	58.542	-	58.542	29.903	28.065	43.368	53.546	Continuing	Continuing
0344: *SUB AUXILIARIES*	3.671	0.811	0.843	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.325
0766.: *IUSS Detect/Classif System*	381.415	71.504	48.744	58.542	-	58.542	29.903	28.065	43.368	53.546	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element (PE) comprises two projects - 0766 and 0344. Project 0766 provides for Integrated Undersea Surveillance Systems (IUSS) Research and Development Projects under the Maritime Surveillance Systems (MSS) Program Office (PEO SUB PMS 485). IUSS provides the Navy with its primary means of submarine detection both nuclear and diesel. A portion of project 0766 (FSS) is classified, with details available at a higher classification level. Project 0344 funds the Shallow Water Surveillance System (SWSS) project to develop and demonstrate the technology to enable autonomous installation of a passive acoustic array with processing and communications gear.

The IUSS Research and Development project (0766) funds SURTASS Passive and SURTASS Low Frequency Active (LFA) developments. SURTASS provides the mobile, tactical arm of the Integrated Undersea Surveillance System, providing long range detection and cueing for tactical weapons platforms against both diesel and nuclear powered submarines. SURTASS LFA provides an active adjunct capability for IUSS passive and tactical sensors to assist in countering the quieter diesel and nuclear threats of the 1990s and beyond. The LFA tasks are directed at detection of slow quiet threats in harsh littoral waters.

In order to continue with reductions in life cycle costs and continue with system-wide consolidation, a short-term goal is to develop a common IUSS processor based on NAVSEA's Acoustic Rapid COTS Insertion (ARCI) program, with a cyclical tech refresh of hardware and software in conjunction with the submarine Advanced Processor Build (APB) process. The IUSS Integrated Common Processor (ICP) has the capability to process and display data from all fixed and mobile underwater systems. The IUSS ICP will be used for all new system installations and replace the legacy systems as they reach end of life and require upgrading. Additionally, SURTASS has consolidated on the TB-29A Twin-line array, a variant of the Submarine TB-29A Long line array. This reduced the number of array variants employed by SURTASS from 3 to 1, and enabled development and logistics cost savings by leveraging off the submarine TB-29A program.

In FY 15, funds were provided through ATR 15-24 PA to support the Navy's Theater Anti-Submarine Warfare (TASW) Offset strategy. Funds will support the rapid development, fielding, and evaluation of a prototype distributed and netted undersea sensor system to satisfy an urgent requirement of the combatant commanders for additional maritime intelligence, surveillance, and reconnaissance capabilities. This is a Navy new start MIP project.

In FY 17, the IUSS Research and Development project (0766) funds the second major increment to support the CNO's Theater Anti-Submarine Warfare (TASW) Offset Strategy. These funds are required for rapid development, fielding and evaluation of a prototype distributed and netted undersea sensor system to meet an urgent USEUCOM/USNORTHCOM/USSTRATCOM requirement for additional maritime Intelligence, Surveillance and Reconnaissance (ISR) capabilities. The system,

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy	Date: February 2016
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0204311N *I Integrated Surveillance System*

comprised of elements developed by the Office of Naval Research (ONR), the Defense Advanced Research Projects Agency (DARPA) and the Naval Undersea Warfare Center (NUWC), will be integrated and demonstrated in an operationally relevant environment that addresses emergent real-world threats. This is a MIP project.

The Shallow Water Surveillance System (SWSS) project (0344) funds the development and demonstration of the Version 1 system with technology to enable autonomous classification and reporting of specific submarine targets of interest.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	34.471	54.218	26.160	-	26.160
Current President's Budget	72.315	49.587	58.542	-	58.542
Total Adjustments	37.844	-4.631	32.382	-	32.382
• Congressional General Reductions	-	-0.030			
• Congressional Directed Reductions	-	-4.601			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	37.844	0.000			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	33.498	-	33.498
• Rate/Misc Adjustments	0.000	0.000	-1.116	-	-1.116

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Program Adjustments:
Increase of $5.5M in FY15 is to support the Theater Anti-Submarine Warfare (TASW) initiative (BTR).
Increase of $32.3M in FY15 is to support the Theater Anti-Submarine Warfare (TASW) initiative (OMNIBUS ATR).
Increase of $29.6M in FY17 is to support the Theater Anti-Submarine Warfare (TASW) initiative.
Increase of $3.7M in FY17 is to support SURTASS wholeness.

Proj. 0344:
Removed all existing SWSS development funding beginning in FY17 to fund higher priority investments during budget integration

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204311N / *Integrated Surveillance System*	Project (Number/Name) 0344 / *SUB AUXILIARIES*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0344: *SUB AUXILIARIES*	3.671	0.811	0.843	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.325
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Shallow Water Surveillance System (SWSS) project (0344) funds the development and demonstration of the Version 1 system with technology to enable autonomous classification and reporting of specific submarine targets of interest.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SWSS	0.811	0.843	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2015 Accomplishments: FY15 SWSS completed system integration test and conducted initial fully integrated system demonstration. Following system demonstration, system ruggedization testing and transition to manufacturing efforts were conducted.					
FY 2016 Plans: FY16 funding will be used to implement features for system ruggedization and reliability testing.					
FY 2017 Base Plans: Removed all existing SWSS development funding beginning in FY17 to fund higher priority investments during budget integration					
FY 2017 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.811	0.843	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Under Development

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0344 / *SUB AUXILIARIES*

E. Performance Metrics

SWSS Requirements Document has been developed. Details are available at a higher level of classification.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0344 / *SUB AUXILIARIES*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering Trade Studies	WR	SSC PAC : San Diego CA	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
Component Technology Risk Reduction Testing	WR	SSC PAC : San Diego CA	2.476	0.621	Nov 2014	0.000		0.000		-		0.000	0.000	3.097	-
Makai Development	SS/CPFF	Makai : Honolulu HI	0.195	0.190	Jan 2015	0.000		0.000		-		0.000	0.000	0.385	-
System Ruggedization and Reliability Testing	WR	SSC PAC : San Diego CA	0.000	0.000		0.543	Dec 2015	0.000		-		0.000	0.000	0.543	-
User Operational Evaluation	WR	SSC PAC : San Diego CA	0.000	0.000		0.300	Dec 2015	0.000		-		0.000	0.000	0.300	-
		Subtotal	3.671	0.811		0.843		0.000		-		0.000	0.000	5.325	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.671	0.811		0.843		0.000		-		0.000	0.000	5.325	-

Remarks

Removed all existing SWSS development funding beginning in FY17 to fund higher priority investments during budget integration

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0344 / *SUB AUXILIARIES*

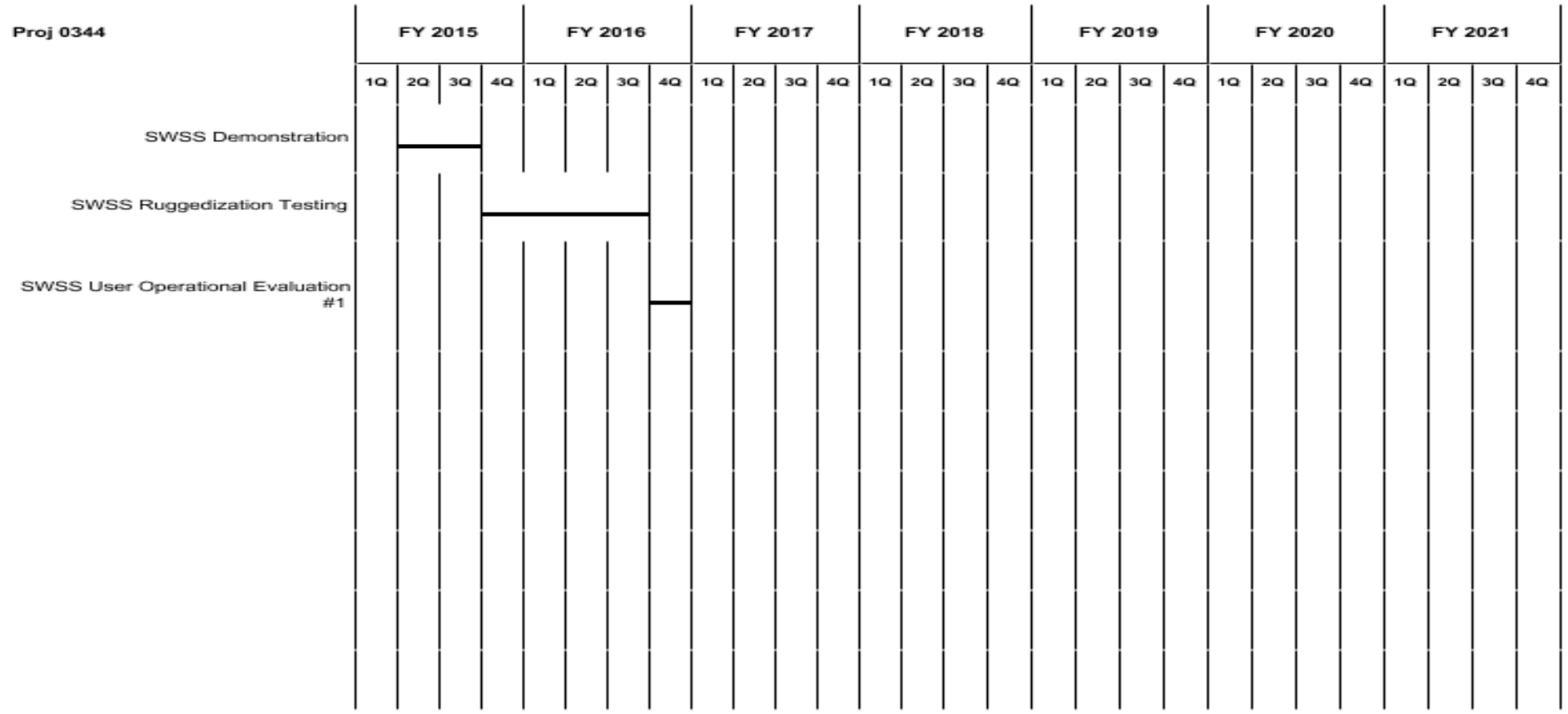

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0344 / *SUB AUXILIARIES*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0344				
SWSS Demonstration: System Demonstration	2	2015	3	2015
SWSS Ruggedization Testing: Ruggedization Testing	4	2015	3	2016
SWSS User Operational Evaluation #1: SWSS User Operational Evaluation #1	4	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204311N / *Integrated Surveillance System*	Project (Number/Name) 0766. / *IUSS Detect/Classif System*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0766.: *IUSS Detect/Classif System*	381.415	71.504	48.744	58.542	-	58.542	29.903	28.065	43.368	53.546	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The increase in funding from FY16 to FY17 is due to completing and deploying TASW systems to meet urgent need.

A. This project includes efforts for SURTASS. The SURTASS project comprises the mobile, tactical arm of the Integrated Undersea Surveillance System, providing long range detection and cueing for tactical weapons platforms against both diesel and nuclear powered submarines. SURTASS also provides the undersea surveillance necessary to support regional conflicts and sea-lane protection. SURTASS has experienced recent passive and active success against diesel submarines operating in shallow water. SURTASS is leveraging existing developments and reducing costs by using Non-Developmental Items and commercial hardware, supporting common Navy Undersea Warfare processing and towed array developments, and increasing operator efficiency through computer-aided detection and classification processing. SURTASS development efforts include LFA improvements, common IUSS processing, twin-line array development and processing, improved detection and classification/passive automation to counter quieter threats, additional signal processing, integrated active and passive operations, improved Battle Group support, and improved information processing.

LFA provides an active adjunct capability for IUSS passive and tactical sensors to counter the quieter diesel and nuclear threats of the 1990s and beyond. The LFA tasks are directed at detection of slow, quiet threats in harsh littoral waters. Improvements include TL-29A/LFA integration enhancements, advanced waveforms for littoral/shallow water operations including Doppler sensitive waveforms, and processing algorithms to reduce clutter and reverberation false alarms in shallow water. The LFA task includes development and testing of a compact LFA transmit source array for SWATH-P ships, and upgrade of LFA processing capability in the IUSS Integrated Common Processing (ICP) architecture. The ICP is a derivative of the NAVSEA Submarine Acoustic Rapid COTS Insertion (ARCI) program, and is being augmented for IUSS requirements. Together, the LFA improvements, TL-29A, and the ICP support the SURTASS Active Improvement Program.

Functional improvements are delivered to the Fleet in software "builds" while hardware improvements are delivered through the Tech Insertion (TI) process. Software improvements delivered via the Advanced Surveillance Build (ASB) process are based on the Advanced Processor Build (APB) process begun by the NAVSEA Submarine USW program. Each ASB will introduce new capabilities into SURTASS systems including improved automation, normalizer techniques, adaptive beam forming, and display enhancements. SURTASS participates in the process by contributing algorithms for consideration, supplying peer group members for review of candidate algorithms, participating in test evolutions, and incorporating improved algorithms into operational systems. The TI process, modeled after the NAVSEA Submarine USW hardware improvement program, delivers processing technology improvements to platforms on roughly a 4-year cycle. Hardware upgrades for active and passive arrays and communications systems will also be provided during TI upgrades, but not on a regular planned development cycle as for the processing upgrades.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

B. PEO SUB is involved with the development and maintenance of various IUSS systems. These systems include FDS, FDS-C, and SURTASS. The near-term goal is development of ICP, which will result in a single IUSS processor baseline, with minor maintenance efforts continuing on fielded systems. The existing system architecture, signal processing, contact management, and reporting requirements will be evaluated as well as the requirements for future systems. The development of the ICP will take advantage of automation advancement, array technology improvements, along with IUSS, submarine, and surface USW system commonality. The FSS portion of 0766 is classified with details available at a higher classification level.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Integrated Common Processor (ICP)	9.633	9.807	13.866	0.000	13.866
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Developed operator automation to allow operator to more quickly detect targets of interest. Specific focus on compensating for array shape in a ship maneuver as well as system improvements to alert the operator of potential targets of interest in both the active and passive realms. Developed software to implement technology refresh for SURTASS ships as well as in support of the Integrated Undersea Surveillance Systems' (IUSS) Advanced Surveillance Build (ASB) in coordination with the Submarine Acoustic Rapid Commercial Off The Shelf (COTS) Insertion (ARCI) program Advanced Processor Build (APB). Addressed processing improvement recommendations and deficiencies associated with CLFA DT/OT and LFA FOT&E.					
FY 2016 Plans: Continue development of operator automation to allow operator to more quickly detect targets of interest. Specific focus on compensating for array shape in a ship maneuver as well as system improvements to alert the operator of potential targets of interest in both the active and passive realms. Continue to develop software to implement technology refresh for SURTASS ships as well as in support of the Integrated Undersea Surveillance Systems' (IUSS) Advanced Surveillance Build (ASB) in coordination with the Submarine Acoustic Rapid Commercial Off The Shelf (COTS) Insertion (ARCI) program Advanced Processor Build (APB). Continue to address processing improvement recommendations and deficiencies associated with CLFA DT/OT and LFA FOT&E. Update processing to provide seamless integration of active/passive processing to support geo-centric contact-based search. Investigate methods to reduce surface ship clutter in order to enhance detection performance. Support technical insertion hardware replacement to enhance ICP surveillance capability.					
FY 2017 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Develop advanced Undersea Warfare (USW) sensor technology and associated processor and Advanced Surveillance Build (ASB) processing. These enhanced capabilities are necessary to meet Key Performance Parameters against adversary's advanced submarines. Both processing and sensors are required to detect increasingly quiet threats in a cluttered environment with the emerging situation of insufficient numbers of qualified Fleet operators available to staff these CNO high priority systems that result in the requirement for increased focus on operator workload reduction and processing capability enhancement/ development as well as increased sensitivity of sensors. Continue to investigate methods to reduce surface ship clutter in order to enhance detection performance. Continue to support technical insertion hardware replacement to enhance ICP surveillance capability. ***FY 2017 OCO Plans:*** N/A					
Title: Compact Low Frequency Active ***Articles:*** ***FY 2015 Accomplishments:*** Developed product improvements and corrections associated with CLFA DT/OT and LFA FOT&E. Conducted at-sea testing of product improvements. ***FY 2016 Plans:*** Continue product improvement and upgrade efforts associated with CLFA DT/OT and LFA FOT&E. Conduct pierside and at-sea test and evaluation efforts to research alternative LFA/CLFA system performance enhancements. ***FY 2017 Base Plans:*** Continue product improvement and upgrade efforts associated with CLFA DT/OT and LFA FOT&E. Conduct pierside and at-sea test and evaluation efforts to research alternative LFA/CLFA system performance enhancements. ***FY 2017 OCO Plans:*** N/A	1.500 -	1.750 -	2.000 -	0.000 -	2.000 -
Title: TB-29A/Twin-Line ***Articles:*** ***FY 2015 Accomplishments:***	1.500 -	1.750 -	2.000 -	0.000 -	2.000 -

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continued development of connectionless array technologies and true fiber-optic arrays. Continued efforts to explore Twin-line variants of new submarine Long-line arrays for future application to SURTASS. Continued development of fishing net mitigation approaches. ***FY 2016 Plans:*** Continue development of connectionless array technologies and true fiber-optic arrays. Continue efforts to explore Twin-line variants of new submarine Long-line arrays for future application to SURTASS. Continue development of fishing net mitigation approaches and associated test and evaluation efforts. Develop upgraded components to enhance system performance. ***FY 2017 Base Plans:*** Continue development of connectionless array technologies and true fiber-optic arrays. Continue efforts to explore Twin-line variants of new submarine Long-line arrays for future application to SURTASS. Continue development of fishing net mitigation approaches and associated test and evaluation efforts. Develop upgraded components to enhance system performance. ***FY 2017 OCO Plans:*** N/A					
Title: Theater Anti-Submarine Warfare (TASW)	32.344	0.000	29.080	0.000	29.080
Articles:	-	-	-	-	-
FY 2015 Accomplishments: FY15 RDT&E funds were distributed to the performers to support system production and at sea testing in support of the CNO's new area of interest, Theater Anti-Submarine Warfare (TASW) Offset strategy. Conducted representative Transformational Reliable Acoustic Path (TRAPS) system development, integration, and testing in the new area of interest. ***FY 2016 Plans:*** N/A ***FY 2017 Base Plans:*** FY17 funds will be used to complete prototype units and deploy systems to meet urgent need. Additional approved units will be fielded to complete the baseline surveillance capability. Evaluation and assessment					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
of initial deployed units system performance and continued operational need will be conducted to determine potential transition to Programs of Record. ***FY 2017 OCO Plans:*** N/A					
Title: Classified Effort ***Articles:*** ***Description:*** The FSS portion of 0766 is classified with details available at a higher classification level. ***FY 2015 Accomplishments:*** The FSS portion of 0766 is classified with details available at a higher classification level. ***FY 2016 Plans:*** The FSS portion of 0766 is classified with details available at a higher classification level. ***FY 2017 Base Plans:*** The FSS portion of 0766 is classified with details available at a higher classification level. ***FY 2017 OCO Plans:*** N/A	26.527 -	35.437 -	11.596 -	0.000 -	11.596 -
Accomplishments/Planned Programs Subtotals	71.504	48.744	58.542	0.000	58.542

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPN/2237: *Surveillance Towed Array Sensor System*	23.819	12.953	36.136	-	36.136	19.472	18.715	19.543	24.831	Continuing	Continuing

Remarks

D. Acquisition Strategy

FY 2010: T&E Milestones: CLFA/TL-29A/ICP DT.
FY 2011: Engineering Milestones: ICP Tech Refresh.
FY 2011: T&E Milestones: CLFA/TL-29A/ICP DT. LFA/TL-29A/ICP FOT&E.
FY 2012: T&E Milestones: CLFA/TL-29A/ICP DT/OT. LFA/TL-29A/ICP FOT&E.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy		Date: February 2016
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FY 2013: LFA/TL-29A/ICP FOT&E.
FY 2014: ICP Tech Refresh. CLFA OT/CLFA/TL-29A/ICP FOT&E
FY 2015: ICP Tech Refresh. LFA/CLFA/TL-29A/ICP FOT&E
FY 2016: ICP Tech Refresh. ASB Step 4 Testing.
FY 2017: ICP Tech Refresh. CLFA/TL-29A/ICP FOT&E
The FSS portion of 0766 is classified with details available at a higher classification level.

E. Performance Metrics

Successfully complete CLFA Operational Test Readiness Review. Successfully complete CLFA Developmental Test / Operational Test. Successful demonstration of required LFA/CLFA improvements capability. Successful transition of Submarine Advanced Processing Build (APB) functionality into IUSS products. Successful transition of net mitigation technologies into Towed Array baseline.
The FSS portion of 0766 is classified with details available at a higher classification level.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IUSS COMMON ARCHITECTURE	C/CPFF	LOCKHEED MARTIN : VA	24.818	4.792	Nov 2014	4.034	Dec 2015	5.563	Dec 2016	-		5.563	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	SS/CPFF	APL/JHU : MD	2.208	0.513	Nov 2014	0.640	Feb 2016	0.767	Feb 2017	-		0.767	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	Various	VARIOUS : Not Specified	65.937	0.659	Nov 2014	1.093	Dec 2015	2.004	Dec 2016	-		2.004	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	C/CPFF	ADAPTIVE Methods : VA	1.600	0.550	Nov 2014	0.500	Dec 2015	0.687	Dec 2016	-		0.687	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	WR	NFESC : CA	1.382	0.425	Nov 2014	0.425	Dec 2015	0.500	Dec 2016	-		0.500	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	WR	SSC PAC : CA	1.117	0.225	Nov 2014	0.240	Dec 2015	0.240	Dec 2016	-		0.240	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	SS/CPFF	APL/JHU : MD	1.919	0.374	Nov 2014	0.610	Feb 2016	0.620	Feb 2017	-		0.620	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	Various	VARIOUS : Not Specified	116.991	0.081	Nov 2014	0.000		0.000		-		0.000	0.000	117.072	-
ARRAY IMPROVEMENTS	SS/CPFF	APL/JHU : VA	2.048	0.575	Nov 2014	0.735	Feb 2016	0.810	Feb 2017	-		0.810	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	WR	ADAPTIVE METHODS : VA	0.789	0.200	Nov 2014	0.225	Jan 2016	0.275	Jan 2017	-		0.275	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	Various	VARIOUS : Not Specified	9.109	0.296	Nov 2014	0.310	Dec 2015	0.380	Dec 2016	-		0.380	Continuing	Continuing	Continuing
TASW FIELDING	Various	SSC PAC : CA	0.000	0.731	Nov 2015	0.000		20.739	Jan 2017	-		20.739	0.000	21.470	-
TASW FIELDING	Various	NUWC NEWPORT : RI	0.000	0.300	Nov 2015	0.000		1.920	Jan 2017	-		1.920	0.000	2.220	-
TASW FIELDING	Various	APL/UW : WA	0.000	6.740	Nov 2015	0.000		0.300	Jan 2017	-		0.300	0.000	7.040	-
TASW FIELDING	Various	APL/UT : TX	0.000	0.000		0.000		1.000	Jan 2017	-		1.000	0.000	1.000	-
TASW FIELDING	Various	VARIOUS : CA	0.000	0.461	Nov 2015	0.000		5.125	Jan 2017	-		5.125	0.000	5.586	-
TASW FIELDING	C/CPFF	LEIDOS : CA	0.000	23.652	Dec 2015	0.000		0.000		-		0.000	0.000	23.652	-
TASW FIELDING	Various	NSWC CARDEROCK : MD	0.000	0.075	Nov 2015	0.000		0.000		-		0.000	0.000	0.075	-
TASW FIELDING	C/CPFF	BAH : VA	0.000	0.385	Nov 2015	0.000		0.000		-		0.000	0.000	0.385	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSS - Classified	Various	TBD : Not Specified	76.120	26.527	Nov 2014	35.437	Nov 2015	11.596	Nov 2016	-		11.596	Continuing	Continuing	Continuing
		Subtotal	304.038	67.561		44.249		52.526		-		52.526	-	-	-

Remarks

The FSS portion of 0766 is classified with details available at a higher classification level.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IUSS COMMON ARCHITECTURE	WR	SSC PAC : CA	3.718	0.274	Nov 2014	0.250	Dec 2015	0.381	Dec 2016	-		0.381	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	C/CPFF	APL/JHU : MD	0.977	0.434	Nov 2014	0.700	Feb 2016	1.031	Dec 2016	-		1.031	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	C/CPFF	Lockheed Martin : VA	1.852	0.700	Nov 2014	0.700	Dec 2015	0.906	Dec 2016	-		0.906	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	Various	VARIOUS : Not Specified	4.349	0.277	Nov 2014	0.280	Dec 2015	0.397	Dec 2016	-		0.397	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	WR	SSC PAC : CA	0.663	0.115	Nov 2014	0.150	Dec 2015	0.195	Dec 2016	-		0.195	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	Various	VARIOUS : Not Specified	7.487	0.068	Nov 2014	0.075	Jan 2016	0.141	Jan 2017	-		0.141	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	Various	VARIOUS : Not Specified	1.147	0.205	Nov 2014	0.200	Jan 2016	0.200	Jan 2017	-		0.200	Continuing	Continuing	Continuing
		Subtotal	20.193	2.073		2.355		3.251		-		3.251	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IUSS COMMON ARCHITECTURE	C/CPFF	LOCKHEED MARTIN : VA	3.059	0.582	Nov 2014	0.700	Dec 2015	0.846	Dec 2016	-		0.846	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	Various	VARIOUS : Not Specified	7.497	0.334	Nov 2014	0.375	Dec 2015	0.550	Dec 2016	-		0.550	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	WR	OPTEVFOR : Not Specified	0.374	0.088	Nov 2014	0.090	Mar 2016	0.095	Mar 2017	-		0.095	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	Various	VARIOUS : Not Specified	20.793	0.056	Nov 2014	0.070	Dec 2015	0.084	Dec 2016	-		0.084	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	SS/CPFF	APL/JHU : MD	0.570	0.135	Nov 2014	0.185	Feb 2016	0.235	Feb 2017	-		0.235	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	Various	VARIOUS : Not Specified	2.768	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	35.061	1.195		1.420		1.810		-		1.810	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IUSS COMMON ARCHITECTURE	Various	VARIOUS : Not Specified	6.057	0.518	Nov 2014	0.535	Mar 2016	0.730	Mar 2017	-		0.730	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/ CLFA/LFA	Various	VARIOUS : Not Specified	15.692	0.068	Nov 2014	0.090	Mar 2016	0.125	Mar 2017	-		0.125	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	Various	VARIOUS : Not Specified	0.374	0.089	Nov 2014	0.095	Mar 2016	0.100	Mar 2017	-		0.100	Continuing	Continuing	Continuing
		Subtotal	22.123	0.675		0.720		0.955		-		0.955	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	381.415	71.504		48.744		58.542		-		58.542	-	-	-

Remarks

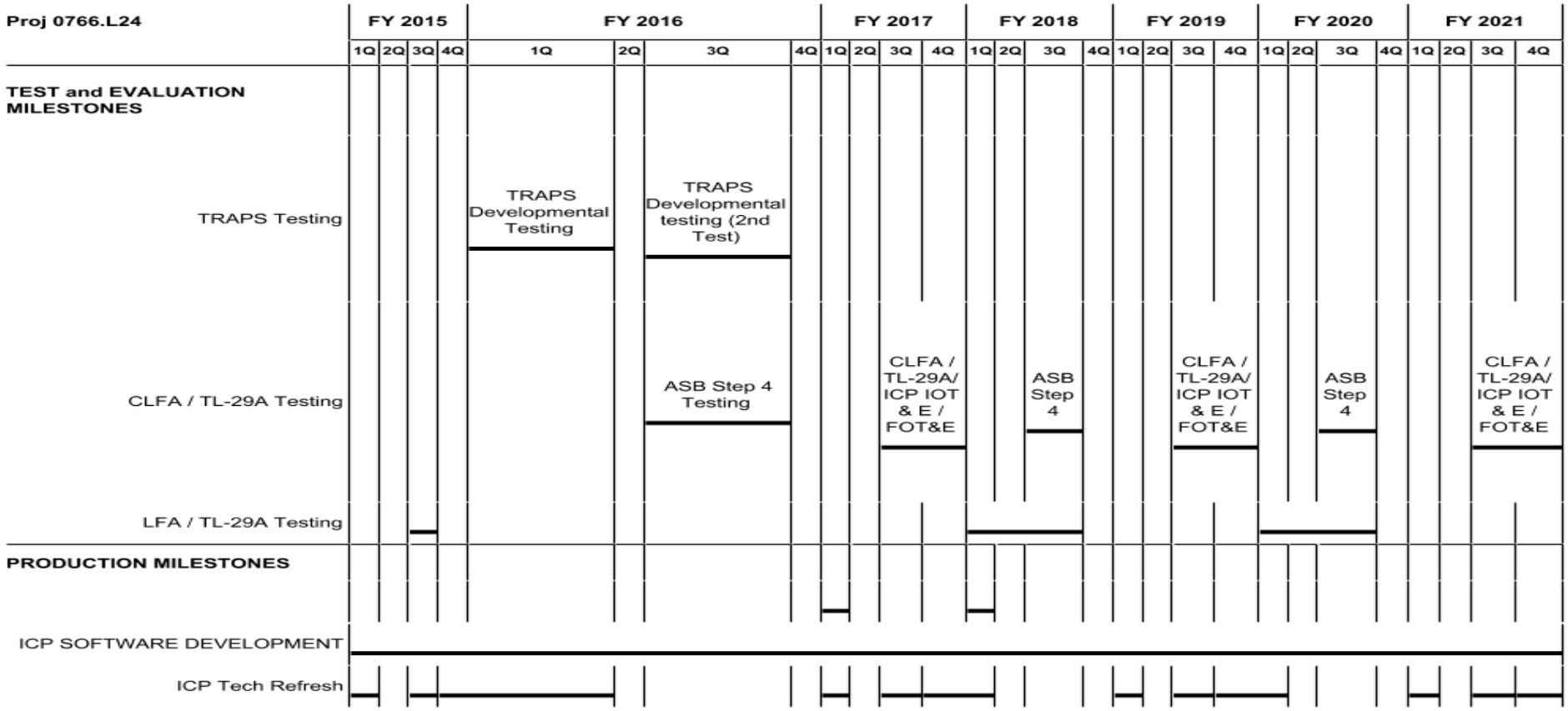
The R3 and the R4 / R4A reflect the UNCLASSIFIED portion of the PE.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204311N / *Integrated Surveillance System*	Project (Number/Name) 0766. / *IUSS Detect/Classif System*	

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract

The FSS portion of 0766 is classified with details available at a higher classification level.

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*



2017PB - 0204311N - 0766.L24

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0766.L24				
TEST and EVALUATION MILESTONES: TRAPS Testing: TRAPS Developmental testing	1	2016	1	2016
TEST and EVALUATION MILESTONES: TRAPS Testing: TRAPS Developmental testing (2nd test)	3	2016	3	2016
TEST and EVALUATION MILESTONES: CLFA / TL-29A Testing: ASB Step 4 Testing	3	2016	3	2016
TEST and EVALUATION MILESTONES: CLFA / TL-29A Testing: CLFA / TL-29A/ ICP IOT & E / FOT&E (COMPL 2017)	3	2017	4	2017
TEST and EVALUATION MILESTONES: CLFA / TL-29A Testing: ASB Step 4	3	2018	3	2018
TEST and EVALUATION MILESTONES: CLFA / TL-29A Testing: CLFA / TL-29A/ ICP IOT & E / FOT&E (COMPL 2019)	3	2019	4	2019
TEST and EVALUATION MILESTONES: CLFA / TL-29A Testing: ASB Step 4	3	2020	3	2020
TEST and EVALUATION MILESTONES: CLFA / TL-29A Testing: CLFA / TL-29A/ ICP IOT & E / FOT&E (COMPL 2021)	3	2021	4	2021
TEST and EVALUATION MILESTONES: LFA / TL-29A Testing: LFA / TL-29A/ ICP FOT & E (COMPLETE 2015)	3	2015	3	2015
TEST and EVALUATION MILESTONES: LFA / TL-29A Testing: LFA / TL-29A/ ICP FOT & E (COMPLETE 2018)	1	2018	3	2018
TEST and EVALUATION MILESTONES: LFA / TL-29A Testing: LFA / TL-29A/ ICP FOT & E (COMPLETE 2020)	1	2020	3	2020
PRODUCTION MILESTONES: Field First Segment TRAPS/Carina	1	2017	1	2017
PRODUCTION MILESTONES: Field Second Segment TRAPS/Carina	1	2018	1	2018
PRODUCTION MILESTONES: ICP SOFTWARE DEVELOPMENT: ICP Software Development	1	2015	4	2021

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204311N / *Integrated Surveillance System*	**Project (Number/Name)** 0766. / *IUSS Detect/Classif System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 1st QTR FY15	1	2015	1	2015
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 3rd QTR FY15	3	2015	3	2015
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 4th QTR FY15	4	2015	1	2016
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 1st QTR FY17	1	2017	1	2017
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 3rd QTR FY17	3	2017	3	2017
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 4th QTR FY17	4	2017	1	2018
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 1st QTR FY19	1	2019	1	2019
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 3rd QTR FY19	3	2019	3	2019
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 4th QTR FY19	4	2019	1	2020
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 1st QTR FY21	1	2021	1	2021
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 3rd QTR FY21	3	2021	3	2021
PRODUCTION MILESTONES: ICP Tech Refresh: ICP Tech Refresh 4th QTR FY21	4	2021	4	2021