Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy											Date: February 2018	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0603597N *I (U)Automated Test and Analysis*							
COST ($ in Millions)	**Prior Years**	**FY 2017**	**FY 2018**	**FY 2019 Base**	**FY 2019 OCO**	**FY 2019 Total**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**Cost To Complete**	**Total Cost**
Total Program Element	22.839	14.507	8.052	7.931	-	7.931	7.926	8.083	8.248	8.416	Continuing	Continuing
9B88: *Automated Test and Analysis*	22.839	14.507	8.052	7.931	-	7.931	7.926	8.083	8.248	8.416	Continuing	Continuing

A. Mission Description and Budget Item Justification

The FY 2019 funding request was reduced by $.012 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

In FY 2016, OPNAV N94 took on the challenge to implement a Naval enterprise approach to Automated Test and Analysis (ATA). ATA expands the automated test methods currently in use such as Automated Test and Re-Test (ATRT), adds new methods of testing and use of automated test technologies, and standardizes automated test practices, methods and tools. Examples from FY16 include but are not limited to improvements to Link-16 Non-C2 data collection, essential Mission Planning, Service Oriented Architecture Framework, AEGIS Enterprise Solution Enhancements, Strike Force Interoperability testing and Control System Restoration and Validation. In addition, funding supports the development of enterprise level strategies to apply ATA technology to the software-intensive acquisition programs. The FY 2015 ATRT project was funded on Program Element 0603597N under Project Unit 9B88: "Automated Test and Re-Test". Starting in FY16 and through the out-years, the project is renamed "Automated Test and Analysis" on Program Element 0603597N under Project Unit 9B88.

B. Program Change Summary ($ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	8.052	8.037	-	8.037
Current President's Budget	14.507	8.052	7.931	-	7.931
Total Adjustments	14.507	0.000	-0.106	-	-0.106
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.493	0.000			
• Program Adjustments	0.000	0.000	-0.012	-	-0.012
• Rate/Misc Adjustments	0.000	0.000	-0.094	-	-0.094
• Congressional Add Adjustments	15.000	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603597N / *(U)Automated Test and Analysis*	Project (Number/Name) 9B88 / *Automated Test and Analysis*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
9B88: *Automated Test and Analysis*	22.839	14.507	8.052	7.931	-	7.931	7.926	8.083	8.248	8.416	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In FY 2016, OPNAV N94 took on the challenge to implement a Naval enterprise approach to Automated Test and Analysis (ATA). ATA expands the automated test methods currently in use such as Automated Test and Re-Test (ATRT), adds new methods of testing and use of automated test technologies, and standardizes automated test practices, methods and tools. Examples from FY16 include but are not limited to improvements to Link-16 Non-C2 data collection, essential Mission Planning, Service Oriented Architecture Framework, AEGIS Enterprise Solution Enhancements, Strike Force Interoperability testing and Control System Restoration and Validation. In addition, funding supports the development of enterprise level strategies to apply ATA technology to the software-intensive acquisition programs. The FY 2015 ATRT project was funded on Program Element 0603597N under Project Unit 9B88: "Automated Test and Re-Test". Starting in FY16 and through the out-years, the project is renamed "Automated Test and Analysis" on Program Element 0603597N under Project Unit 9B88.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Automated Test and Analysis	14.507	8.052	7.931	0.000	7.931
Articles:	-	-	-	-	-

FY 2018 Plans:

As of June 2017 twenty three proposals were selected based on their ability to best describe technical merit for nine criteria to include productivity, reusability, enhanced coverage, improved fidelity and reduction in Total Ownership Cost by the Executive Steering Group, which includes Senior Executive level representatives from Naval Sea, Naval Air, Space and Naval Warfare, and US Marine Corps Systems Commands.

With a budget of $8M, ATA will be able to provide support to five projects:

o Automated System-of-Systems Operability Testing
o Dev. and Integration of the Enterprise Air Surveillance Radar (EASR)
o Test Automation Framework for the Distributed Common Ground System-Navy (DCGS-N)
o Continuous Automated Services Testing for Joint Mission Planning System
o Joint Tactical Common Operational Picture (COP) Workstation

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
The ATA Enterprise Program Office will continue with another Naval enterprise-wide data call soliciting automated test tool proposals that will spring-board from some of these efforts and can significantly reduce the time to complete critical testing, increase productivity or system robustness, improve and speed test analysis, and identify commonalities for reuse in Navy acquisition programs for further study in FY 2019. These automated testing projects will reduce errors, increase capabilities and enhance reporting timelines while decreasing Total Ownership Costs for testing critical Navy program initiatives. ***FY 2019 Base Plans:*** Continue to improve on the automated testing and analysis investments to date. Reevaluate selected ATA FY 2018 proposals for improving technologies in FY 2019 and potential collaboration in development. FY 2019 plans will also build upon the results and lessons learned from the FY 2017 and FY 2018 selection process for improved ATA program planning, selection, execution and analysis with the ATA ESG. The Navy intends to continue improvements in the quality of end products, reducing the time to plan, evaluate, analyze and/or report testing requirements, identify cost avoidance and determine the reduction in total ownership costs for each ATA project. The Navy will also determine enterprise solutions that significantly reduce test and evaluation man-hours, positively impact fleet training, and improve test plans and procedures. The Navy will continue: o Assessing undersea warfare capabilities or fleet modernization and future Navy testing competencies o Evaluating best practices and research capabilities for platform network resiliency and system function validation o Determining common elements through ATA analysis and reporting across multiple SYSCOMs and identifying synergies in development, implementation and training o Augmenting both surface and air Mission Planning for requirements traceability. Specific topics include but are not limited to: o Automating Test Framework for Operations Centers or Service Oriented Architectures o Continuing advanced Combat System development/enhancements (SSDS and AEGIS) o Testing of shipboard navigation or mechanical systems and tactical data links analysis (Link-16) o Integrating test and analyses among various Strike Force Interoperability platforms o Implementing test planning/manager improvements					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
The Navy will conduct another Naval enterprise-wide data call soliciting automated test tool proposals that can significantly reduce the time to complete critical testing, improve and speed test analysis, and identify and correct critical design flaws in testing of Naval acquisition programs for further study in FY 2020. ***FY 2019 OCO Plans:*** N/A ***FY 2018 to FY 2019 Increase/Decrease Statement:*** Reduction due to Process Improvement to Increase Efficiency in Military Spending and Economic Assumptions/ Purchase Inflation Rate Change for PB.					
Accomplishments/Planned Programs Subtotals	14.507	8.052	7.931	0.000	7.931

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The ATA program solicits automated test tool proposals from all qualified sources that show the potential to significantly reduce the time to complete critical testing, increase productivity or system robustness, improve and speed test analysis, and identify commonalities for reuse in testing of Naval acquisition programs. All valid submitted proposals will be evaluated by an Executive Steering Group (ESG) composed of Senior Executive level representatives from NAVSEA, NAVAIR, SPAWAR and US Marine Corps Systems Commands. Proposals selected by the ESG will be funded for one year, in which time they must demonstrate their ability to significantly reduce the time to complete critical testing, improve and speed test analysis, or find and correct critical design flaws in testing of Naval acquisition programs. Successful funded proposals and artifacts will be advertised and made available across the Naval enterprise for acquisition program consideration, funding, and use.

E. Performance Metrics

FY 2017 Program Management was directed to assess ATA projects for:
- Technical improvements/quality of the end-product,
- Use of automation to optimize resource allocation to:
o Increase productivity/robustness
o Plan a test
o Execute a test
o Analyze a test
o Report a test,
- Cost avoidance for the program/project,

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
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- Length of time to see the return on investment.

Progress towards meeting these objectives of ATA efforts is being monitored via the following:

- Monthly Project Manager technical reports, expenditures and risk assessments

o Quarterly Program Reviews

- Bi-Annual ATA Executive Steering Group Meetings

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy		Date: February 2018
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Automated Test & Analysis	C/CPFF	Innovative Defense Technologies (IDT) : Ballston, VA	16.052	11.051	Aug 2017	4.751	Dec 2017	4.770	Dec 2018	-		4.770	0.000	36.624	-
Automated Test & Analysis	WR	SPAWAR Pacific : San Diego, CA	2.611	1.710	Jul 2017	2.076	Nov 2017	2.019	Oct 2018	-		2.019	0.000	8.416	-
Automated Test & Analysis	WR	Marine Corp : Not Specified	0.833	0.000		0.000		0.000	Nov 2018	-		0.000	0.000	0.833	-
Automated Test & Analysis	C/CPFF	NAVAIR : Lakehurst NJ	1.569	0.266	Jul 2017	0.465	Dec 2017	0.463	Nov 2018	-		0.463	0.000	2.763	-
Automated Test & Analysis	WR	Various NSWCs : NSWC DD	0.410	0.340	Aug 2017	0.100	Feb 2018	0.000		-		0.000	0.000	0.850	-
Automated Test & Analysis	C/CPFF	AFIT : Wright-Patterson AFB, OH	0.000	0.500	Aug 2017	0.000		0.000		-		0.000	0.000	0.500	-
		Subtotal	21.475	13.867		7.392		7.252		-		7.252	0.000	49.986	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Automated Test & Analysis	C/CPFF	Gryphon Technologies : Washington, DC	0.929	0.414	Sep 2017	0.427	Jan 2018	0.439	Jan 2019	-		0.439	Continuing	Continuing	Continuing
Automated Test & Analysis	C/CPFF	Alion Sciences : McLean, VA	0.435	0.226	Sep 2017	0.233	Jan 2018	0.240	Jan 2019	-		0.240	0.000	1.134	-
		Subtotal	1.364	0.640		0.660		0.679		-		0.679	Continuing	Continuing	N/A

	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	22.839	14.507		8.052		7.931		-		7.931	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

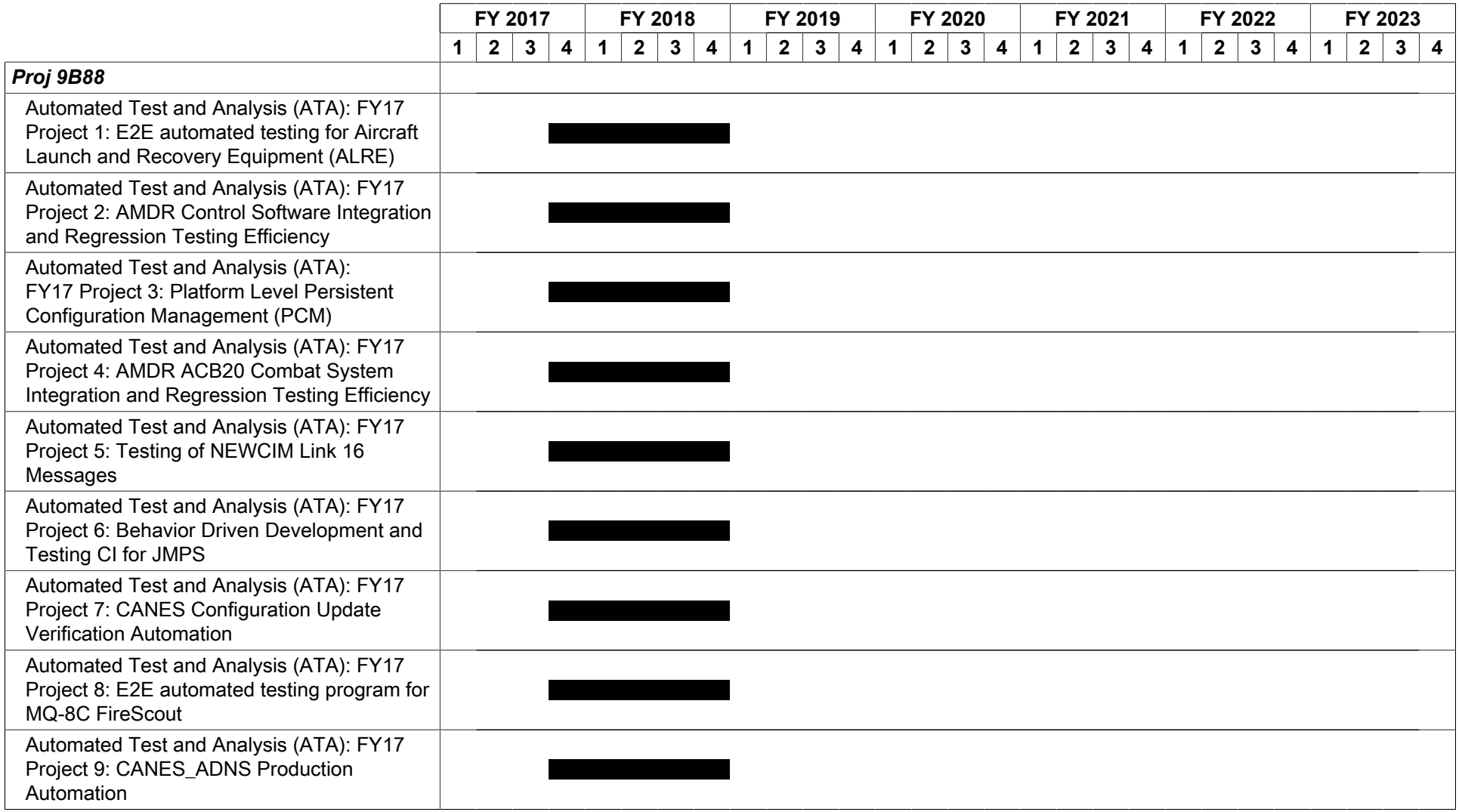

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

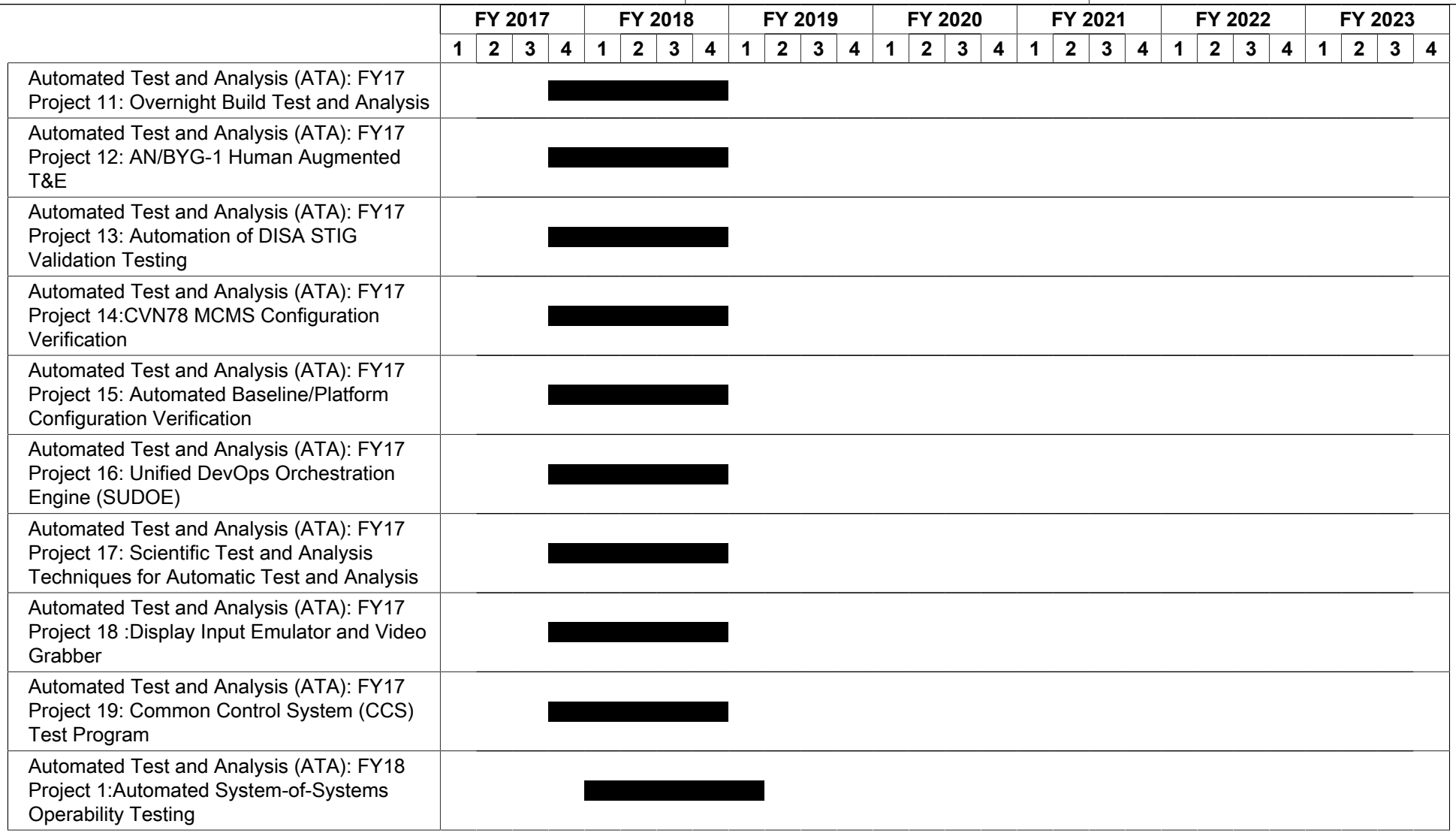

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

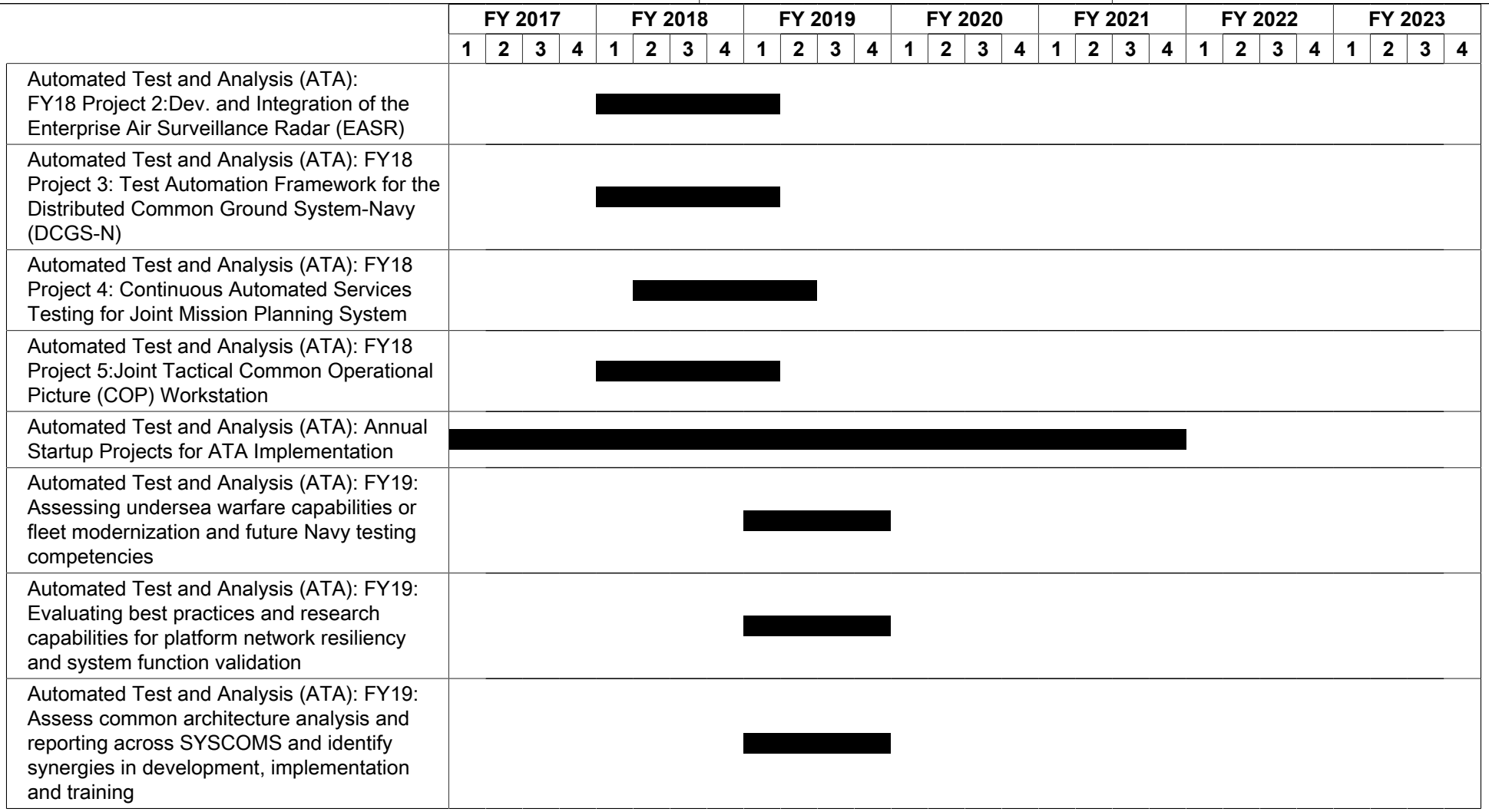

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Automated Test and Analysis (ATA): FY19: Augment both surface and air Mission Planning for requirements traceability									[redacted]																			

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9B88				
Automated Test and Analysis (ATA): FY17 Project 1: E2E automated testing for Aircraft Launch and Recovery Equipment (ALRE)	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 2: AMDR Control Software Integration and Regression Testing Efficiency	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 3: Platform Level Persistent Configuration Management (PCM)	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 4: AMDR ACB20 Combat System Integration and Regression Testing Efficiency	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 5: Testing of NEWCIM Link 16 Messages	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 6: Behavior Driven Development and Testing CI for JMPS	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 7: CANES Configuration Update Verification Automation	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 8: E2E automated testing program for MQ-8C FireScout	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 9: CANES_ADNS Production Automation	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 11: Overnight Build Test and Analysis	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 12: AN/BYG-1 Human Augmented T&E	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 13: Automation of DISA STIG Validation Testing	4	2017	4	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Automated Test and Analysis (ATA): FY17 Project 14:CVN78 MCMS Configuration Verification	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 15: Automated Baseline/Platform Configuration Verification	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 16: Unified DevOps Orchestration Engine (SUDOE)	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 17: Scientific Test and Analysis Techniques for Automatic Test and Analysis	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 18 :Display Input Emulator and Video Grabber	4	2017	4	2018
Automated Test and Analysis (ATA): FY17 Project 19: Common Control System (CCS) Test Program	4	2017	4	2018
Automated Test and Analysis (ATA): FY18 Project 1:Automated System-of-Systems Operability Testing	1	2018	1	2019
Automated Test and Analysis (ATA): FY18 Project 2:Dev. and Integration of the Enterprise Air Surveillance Radar (EASR)	1	2018	1	2019
Automated Test and Analysis (ATA): FY18 Project 3: Test Automation Framework for the Distributed Common Ground System-Navy (DCGS-N)	1	2018	1	2019
Automated Test and Analysis (ATA): FY18 Project 4: Continuous Automated Services Testing for Joint Mission Planning System	2	2018	2	2019
Automated Test and Analysis (ATA): FY18 Project 5:Joint Tactical Common Operational Picture (COP) Workstation	1	2018	1	2019
Automated Test and Analysis (ATA): Annual Startup Projects for ATA Implementation	1	2017	4	2021
Automated Test and Analysis (ATA): FY19: Assessing undersea warfare capabilities or fleet modernization and future Navy testing competencies	1	2019	4	2019
Automated Test and Analysis (ATA): FY19: Evaluating best practices and research capabilities for platform network resiliency and system function validation	1	2019	4	2019

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603597N / *(U)Automated Test and Analysis*	**Project (Number/Name)** 9B88 / *Automated Test and Analysis*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Automated Test and Analysis (ATA): FY19: Assess common architecture analysis and reporting across SYSCOMS and identify synergies in development, implementation and training	1	2019	4	2019
Automated Test and Analysis (ATA): FY19: Augment both surface and air Mission Planning for requirements traceability	1	2019	4	2019