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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy	Date: February 2018
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>
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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	2,432.992	127.883	120.087	148.233	-	148.233	118.539	194.800	232.977	277.239	Continuing	Continuing
1947: <i>New Design SSN HM&E</i>	1,476.511	83.732	82.506	104.968	-	104.968	78.062	155.449	192.807	236.241	Continuing	Continuing
1950: <i>New Design SSN Combat Sys Dev</i>	890.090	25.285	34.913	40.604	-	40.604	37.757	36.568	37.327	38.097	Continuing	Continuing
3062: <i>Submarine Multi-Mission Team Trainer</i>	39.817	2.425	2.668	2.661	-	2.661	2.720	2.783	2.843	2.901	Continuing	Continuing
9999: <i>Congressional Adds</i>	26.574	16.441	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	43.015

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 516

A. Mission Description and Budget Item Justification

The U.S. Navy must maintain a submarine fleet that is of sufficient capability and numbers to defend American interests. The VIRGINIA Class Submarine, formerly the New Attack Submarine (New SSN), is being designed to fulfill this need. It will counter the potential threats of the next century in a multi- mission capable submarine that has the ability to provide covert, sustained combat presence in denied waters. The primary goal of the program is to develop an affordable yet capable submarine by evaluating a broad range of system and technology alternatives, and pursuing cost reduction, producibility improvement, and technical risk management. This Program Element (PE) provides the technology, prototype components, and systems engineering needed to design and construct the VIRGINIA Class Submarine and build its Command, Control, Communications, and Intelligence (C3I) System. This PE directly supports the following VIRGINIA Class Submarine missions: (1) covert strike warfare (STRIKE); (2) anti-submarine warfare (ASW); (3) covert intelligence collection/surveillance (ISR), indication and warning (I&W), and electronic warfare (EW); (4) anti-surface ship warfare (ASUW); (5) special warfare; (6) covert mine warfare; and (7) battle group support.

B. Program Change Summary (\$ in Millions)	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>
Previous President's Budget	113.013	120.087	100.116	-	100.116
Current President's Budget	127.883	120.087	148.233	-	148.233
Total Adjustments	14.870	0.000	48.117	-	48.117
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.921	0.000			
• SBIR/STTR Transfer	-4.049	0.000			
• Program Adjustments	0.000	0.000	49.242	-	49.242

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Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)			R-1 Program Element (Number/Name) PE 0604558N / New Design SSN				
• Rate/Misc Adjustments			0.000	0.000	-1.125	-	-1.125
• Congressional General Reductions			-0.002	-	-	-	-
Adjustments							
• Congressional Add Adjustments			17.000	-	-	-	-
Congressional Add Details (\$ in Millions, and Includes General Reductions)							
Project: 9999: Congressional Adds							
Congressional Add: Program Increase							
Congressional Add: Small Business Technology Insertion							
Congressional Add Subtotals for Project: 9999							
Congressional Add Totals for all Projects							
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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>				Project (Number/Name) 1947 / <i>New Design SSN HM&E</i>			
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
1947: <i>New Design SSN HM&E</i>	1,476.511	83.732	82.506	104.968	-	104.968	78.062	155.449	192.807	236.241	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 516												
A. Mission Description and Budget Item Justification												
<p>This project encompasses all the ship system development efforts for the VIRGINIA Class Submarine and the Technology Insertion Program for reducing costs and upgrading performance of future hulls by virtue of improvements in ship systems. Technology development implementation and logistics for developmental items, and VIRGINIA Class test & evaluation are included. The thrust of these efforts will be to develop and apply multiple advanced system technologies which are integrated into the design of the VIRGINIA Class Submarine. Technologies developed in this program will be considered for applicability to the COLUMBIA Program (CLB) for commonality opportunities. New technologies are being transitioned from industry and government research and development programs where doing so offers substantial performance improvement and/or affordability payoffs. Transition opportunities include those from the Defense Advanced Research Projects Agency (DARPA) Sensors & Payloads program and Office of Naval Research (ONR) Future Naval Capabilities Program.</p>												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<i>Title:</i> New Design SSN HM&E								76.911	78.435	100.897	0.000	100.897
								-	-	-	-	-
<i>FY 2018 Plans:</i> Complete procurement of subsystem components in support of SDIP installation. Complete detailed availability planning for the Post Shakedown Availability (PSA) installation of SDIP changes. Complete planning and design necessary for SDIP technologies insertion into the VIRGINIA Class baseline for new construction hulls. Continue development of HM&E systems concepts, technologies and obsolescence redesign for integration into VIRGINIA Class Block V Technical Baseline. Complete initial efforts and initiate new engineering efforts for advanced payloads. Continue transition of products from the Office of Naval Research Manufacturing Technology Program (MANTECH). Continue the transition of products from ONR FNC Program.								<i>Articles:</i>				
<i>FY 2019 Base Plans:</i>												

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Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>		Project (Number/Name) 1947 / <i>New Design SSN HM&E</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Commence PSA and begin installation of SDIP components and modifications. Further develop design details for SDIP Technologies' insertion into the VIRGINIA Class baseline for Block V. Continue development of HM&E systems concepts, technologies including obsolescence redesign for integration into VIRGINIA Class Block V Technical Baseline. Continue initial efforts and initiate new engineering efforts based on OPNAV direction for integrating advanced payload systems into VIRGINIA Class platforms. Expand the scope of these efforts to include various options for leveraging increased vertical payload volume commensurate with insertion of VPM into Block V and other concepts beyond Block V for host ship interaction with large volume UUVs. Initiate development of possible design options to support the Tactical Submarine Evolution Plan (TSEP). Continue transition of products from the Office of Naval Research Manufacturing Technology Program (MANTECH). Continue the transition of products from the ONR FNC Program. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Increase due to the addition of Tactical Submarine Evolution Plan (TSEP) details are classified and available upon request.						
Title: TEST AND EVALUATION Articles:		6.821 -	4.071 -	4.071 -	0.000 -	4.071 -
FY 2018 Plans: Continue work associated with previous test events (IOT&E, Arctic, Low Frequency Active, Dry-Deck Shelter) and commence work on Block III FOT&E results when available. This consists mainly of documenting and testing fixes to deficiencies identified by COTF as well as addressing recommendations noted by the Oversight Community from OSD. Conduct the Maximum Missile Spin-Up to close out Block III FOT&E. Complete all post-test evaluation and publish required reports, prior to the first Block III submarine commencing deployed operations. Complete development of the Block V TEMP (TEMP 1425 Rev H) and submit for signature. Continue development of the test plan to support the Acoustic Superiority initiative developed by the OPNAV Sponsor. Commence initial efforts to develop FOT&E plan, to include the Cybersecurity test strategy, for Block V. Develop of the Susceptibility Assessment Plan, along with an update to the program's Vulnerability Assessment Report, to meet the LFT&E legislation set out in Title 10 USC 2366. FY 2019 Base Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)																															
<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <p>Continue work associated with previous test events (IOT&E, Arctic, Low Frequency Active, Dry-Deck Shelter, Block III FOT&E). This consists mainly of documenting and testing fixes to deficiencies identified by COTF as well as addressing recommendations noted by the Oversight Community from OSD. Continue efforts to develop FOT&E plan, to include the Cybersecurity test strategy, for Block V. The Cybersecurity test strategy will be planned and executed in coordination with the USS COLUMBIA Class IOT&E Cybersecurity test strategy. Complete development, and commence execution, of the test plan to support the Acoustic Superiority initiative developed by the OPNAV Sponsor. Continue the development of the Susceptibility Assessment Plan and Vulnerability Assessment Report to meet the LFT&E legislation set out in Title 10 USC 2366.</p> <p>FY 2019 OCO Plans: N/A</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: No significant change from FY18 to FY19.</p> </div> <div style="width: 30%; text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">FY 2017</th> <th style="width: 15%;">FY 2018</th> <th style="width: 15%;">FY 2019 Base</th> <th style="width: 15%;">FY 2019 OCO</th> <th style="width: 15%;">FY 2019 Total</th> </tr> <tr> <td style="height: 150px;"></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="5">Accomplishments/Planned Programs Subtotals</td> </tr> <tr> <td style="text-align: center;">83.732</td> <td style="text-align: center;">82.506</td> <td style="text-align: center;">104.968</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">104.968</td> </tr> </table> </div> </div>												FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total						Accomplishments/Planned Programs Subtotals					83.732	82.506	104.968	0.000	104.968
FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total																											
Accomplishments/Planned Programs Subtotals																															
83.732	82.506	104.968	0.000	104.968																											
C. Other Program Funding Summary (\$ in Millions)																															
Line Item	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																				
• SCN/2013: <i>Virginia Class Submarine</i>	5,040.219	5,225.911	7,169.783	-	7,169.783	7,150.388	6,475.968	6,004.291	6,126.497	40,799.161	150,316.746																				
• OMN/0204283N: <i>Sub Ops & Safety</i>	22.984	25.247	26.606	-	26.606	27.164	27.900	28.459	0.000	Continuing	Continuing																				
• OPN/0942: <i>Virginia Class Support Equipment</i>	63.908	46.610	66.328	-	66.328	28.465	23.263	22.910	23.326	Continuing	Continuing																				
• RDTEN/0604580N: <i>(U)Virginia Payload Module (VPM)</i>	94.846	72.861	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	493.380																				
Remarks																															
D. Acquisition Strategy The VIRGINIA Class Submarine Program has implemented Integrated Product and Process Development (IPPD). The traditional distinct phasing of the design process has been replaced with the continuous concurrent engineering IPPD process. The IPPD approach has facilitated a smoother transition from design to manufacturing and has reduced the number of changes typically encountered during construction of the lead and early follow-on ships. In September 1997, Congress passed a law allowing General Dynamics Electric Boat (GDEB) and Northrop Grumman Newport News (NGNN), now Huntington Ingalls Industries - Newport News Shipbuilding (HII-NNS), to																															

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<p>team for production of the first four VIRGINIA Class Submarines. Under the teaming agreement, GDEB remained the design yard for the VIRGINIA Class Submarine and HII-NNS became a part of the IPPD process. The Program Office is managing two Multi-Year Procurement (MYP) contracts. The first is for the Block III (FY09-13) ships. The second is for the Block IV (FY14-18) ships awarded April 2014. All Block I & II ships (SSNs 774-783) have been delivered. The first four Block III ships, SSN 784 SSN 785, SSN 786 and SSN 787, delivered in August 2014, June 2015, August 2016 and May 2017 respectively, with the remaining four ships awarded and under construction. The first eight Block IV ships are awarded and under construction, with the remaining two to be authorized and appropriated in FY 2018. The program is currently planning for the fourth MYP (Block V) contract that will reflect 10 SSNs (FY19-23) and is anticipated to award in Early FY 2019.</p> <p>E. Performance Metrics</p> <p>Successful completion of Final Operational Test and Evaluation (FOT&E) for Block III modifications. SDIP design completion.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>				Project (Number/Name) 1947 / <i>New Design SSN HM&E</i>					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Development	WR	NSWC : Carderock, MD	252.629	6.000	Nov 2016	5.960	Nov 2017	8.318	Nov 2018	-		8.318	Continuing	Continuing	Continuing
Component Development	WR	NUWC : Newport, RI	115.025	2.840	Nov 2016	1.599	Nov 2017	2.237	Nov 2018	-		2.237	Continuing	Continuing	Continuing
Component Development	WR	NRL : Washington, DC	8.300	0.230	Nov 2016	0.370	Nov 2017	0.516	Nov 2018	-		0.516	Continuing	Continuing	Continuing
Component Development	C/CPFF	Electric Boat : Groton, CT	784.156	67.841	Nov 2016	68.201	Nov 2017	87.117	Nov 2018	-		87.117	Continuing	Continuing	Continuing
Component Development	SS/CPFF	Applied Research Laboratory : Penn State University	24.188	0.000		1.085	Dec 2017	1.520	Dec 2018	-		1.520	Continuing	Continuing	Continuing
Component Development	SS/FP	National Shipbuilding Research Program : Not Specified	4.739	0.000		0.500	Mar 2018	0.500	Mar 2019	-		0.500	Continuing	Continuing	Continuing
Component Development	Various	Miscellaneous : Not Specified	23.951	0.000		0.720	Dec 2017	0.689	Dec 2018	-		0.689	Continuing	Continuing	Continuing
Subtotal			1,212.988	76.911		78.435		100.897		-		100.897	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation - DT&E	WR	NSWC : Carderock, MD	93.018	0.190	Nov 2016	0.153	Nov 2017	0.248	Nov 2018	-		0.248	Continuing	Continuing	Continuing
Test and Evaluation - LFT&E	WR	NSWC : Carderock, MD	3.897	0.850	Nov 2016	0.530	Nov 2017	0.530	Nov 2018	-		0.530	1.700	7.507	-
Test and Evaluation - DT&E	WR	NUWC : Newport, RI	137.355	0.300	Nov 2016	0.502	Nov 2017	0.501	Dec 2018	-		0.501	Continuing	Continuing	Continuing
Test and Evaluation - OT&E	PO	COMOPTEVFOR : Norfolk, VA	17.483	0.690	Nov 2016	0.711	Nov 2017	0.313	Nov 2018	-		0.313	Continuing	Continuing	Continuing
Test and Evaluation - LFT&E	C/CPFF	Electric Boat : Groton, CT	1.870	0.250	Dec 2016	0.250	Dec 2017	0.250	Jan 2019	-		0.250	Continuing	Continuing	Continuing
Test and Evaluation - LFT&E	WR	NUWC : Newport,RI	0.000	0.000		0.125	Nov 2017	0.125	Nov 2018	-		0.125	0.000	0.250	-

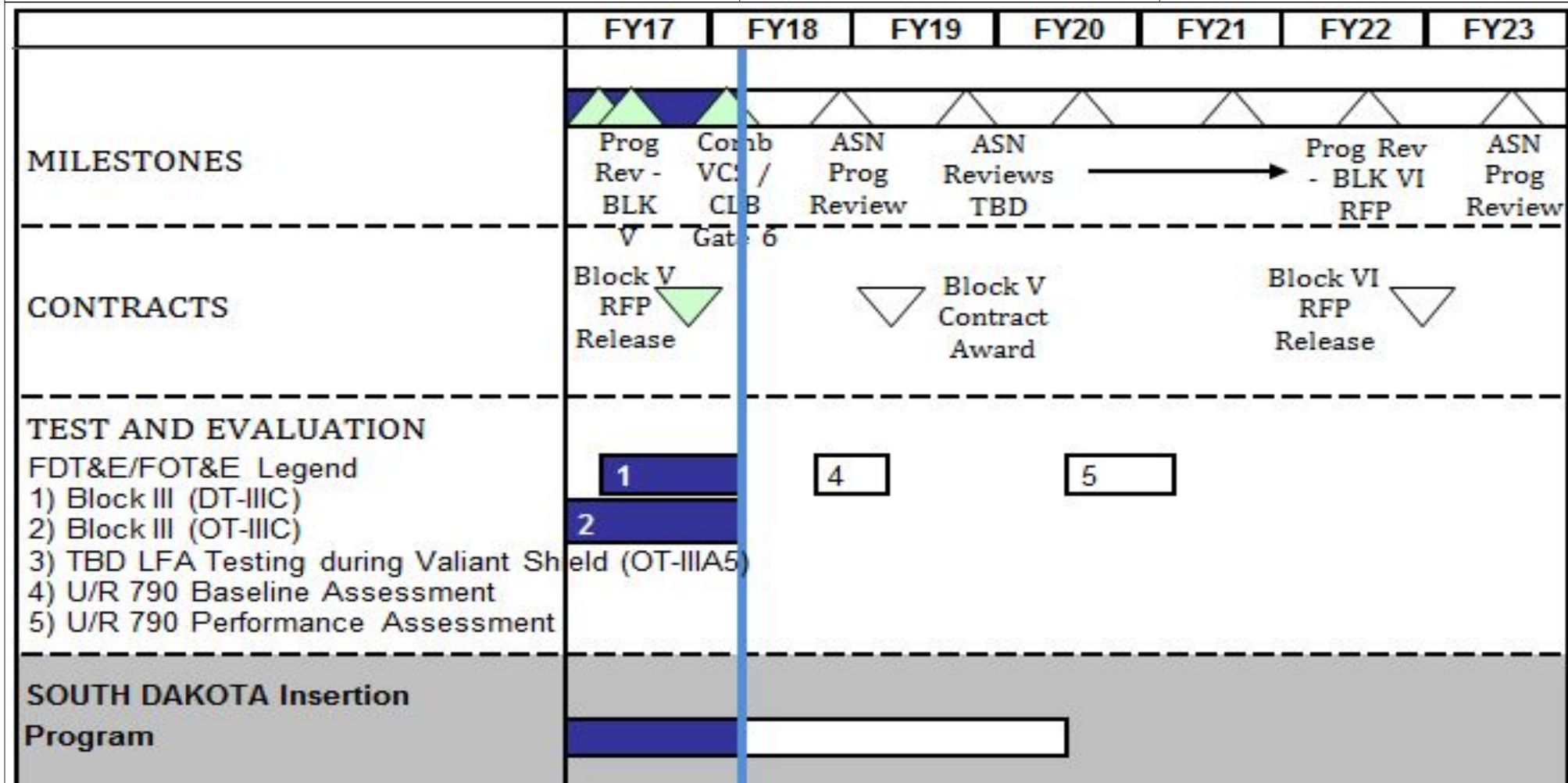
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604558N / New Design SSN				Project (Number/Name) 1947 / New Design SSN HM&E					
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation - RIMPAC OT&E	WR	NUWC : Newport, RI	0.000	2.921	Aug 2017	0.000		0.000		-		0.000	0.000	2.921	-
Test and Evaluation - DT&E	WR	PMA 280 : Pax River, MD	5.738	0.000		0.000		0.000		-		0.000	0.000	5.738	-
Test and Evaluation - DT&E	C/CPFF	NUWC : Newport, RI - CORE Team	4.162	1.620	Dec 2016	1.800	Jan 2018	2.104	Jan 2019	-		2.104	0.000	9.686	-
Subtotal			263.523	6.821		4.071		4.071		-		4.071	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			1,476.511	83.732		82.506		104.968		-		104.968	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy	Date: February 2018
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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / New Design SSN	Project (Number/Name) 1947 / New Design SSN HM&E
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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>	Project (Number/Name) 1947 / <i>New Design SSN HM&E</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 1947</i>				
MILESTONE: Prog Review	1	2017	1	2017
MILESTONE: Acquisition Review - BLK V RFP	2	2017	2	2017
MILESTONE: ASN Reviews (annual) (TBD)	4	2019	4	2023
MILESTONE: Prog Rev BLK VI RFP	3	2022	3	2022
CONTRACTS: Block V RFP Release	4	2017	4	2017
CONTRACTS: Block V Contract Award	1	2019	1	2019
CONTRACTS: Block VI RFP Release	4	2022	4	2022
TEST & EVALUATION: Block III (DT-IIIC)	2	2017	1	2018
TEST & EVALUATION: Block III (OT-IIIC)	1	2017	1	2018
TEST & EVALUATION: U/R 790 Baseline Assessment	2	2018	4	2018
TEST & EVALUATION: U/R 790 Performance Assessment	2	2020	1	2021
SOUTH DAKOTA Improvement Program	1	2017	2	2020

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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
1950: New Design SSN Combat Sys Dev	890.090	25.285	34.913	40.604	-	40.604	37.757	36.568	37.327	38.097	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 516												

A. Mission Description and Budget Item Justification

This project provides the engineering development required to outfit each ship of the VIRGINIA Class Submarine with a combat system which satisfies ORD requirements in all 7 mission areas, namely; ASW, STRIKE, ISR, Covert Mine Warfare, Battle Group Support, ASUW, and Special Warfare. The fully integrated combat system, otherwise referred to as the Non-Propulsion Electronics System (NPES), is composed of a collection of functional sub-systems, such as sonar, navigation, exterior communications, weapons launch, Large Vertical Array, Submarine Warfare Federated Tactical System (SWFTS) virtualization, Electronic Warfare Next Generation Architecture, etc., which evolve over the life of the program due to either competitive selection of new suppliers, component obsolescence replacement, increased technical performance, or improvements in reliability. Non-recurring engineering activity is needed to perform platform integration of the components, software modification to accommodate electronic data exchange, unique submarine environment qualification and update of all logistics products.

JUSTIFICATION: The FY2019 budget request is higher than standard inflation rates due to new design and development activities associated with the Block V technical baseline. These increases reflect the scope of work required to support combat systems changes specifically related to as well as other continuing development efforts:

- Large Vertical Array (LVA) integration on TI-14 SSN790 during PSA to identify design deltas needed for the TI-20 Blk V configured NPES (SSN802 AFS).
- NPES/SWFTS architectural design changes tied to Blk V virtualization of the TI-20 configuration and commonality with Columbia Class lead ship NPES.
- Development of the Ring Laser Gyroscope Navigation (RLGN) system replacement, critical to safety of flight operation and all combat mission areas.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: C3I Systems Engineering	11.343	14.587	16.501	0.000	16.501
Articles:	-	-	-	-	-
FY 2018 Plans: Conduct full-ship integration testing of the SSN792 BPS-17 Radar system dockside. Complete initial SDIP design; specific activities include hardware/software integration, Environmental Qualification Test and System Design Certification Test, Test fixture development, and ILS product development for this equipment. Incorporate Next Generation Architecture-Electronic Warfare System (NGA-EW) functionality into the VA Class obsolete AN/BLQ-10A system. Funds development of the ISR mission dependent efforts required until EW NGA capability re-programmed for BLK V is fielded.					
FY 2019 Base Plans:					

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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
Conduct TI-16 integration testing of the BPS-17 Radar on SSN796 at COATS. Conduct platform level integration of the Low Profile Photonics Mast dockside on SSN794. Develop and integrate an inertial navigation system replacement to the WSN-7 Ring Laser Gyro-navigator(RLGN). Initiate forward compartment SECRET level wireless Local Area Network (LAN) design. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement: Increase due to the development and integration of the RLGN replacement.						
Title: Sonar, Combat Control, and Architecture (S/CC/A) Subsystems Articles: Description: Continue development of S/CC/A System Improvements necessary to maintain VIRGINIA Class ORD compliance, counter CYBER threats, and maintain commonality with in-service submarine designs. FY 2018 Plans: Initiate development and C3I system level integration of the TI16/APB15 configuration slated for hulls 3-6 of the Block IV contract (SSN794-SSN797). Continue development of the first NPES/SWFTS architectural design change since 1996 open systems standardization and program inception. Complete the multi-year migration of the interface software from CORBA to AMQP to mitigate obsolescence. Continue environmental qualification testing of the TI16 pedigree hardware. Continue the development of the tactical architecture which enables virtualization of as many combat system functional components as practical and operationally effective, spanning the TI-18 to TI-24 implementation timeframe. FY 2019 Base Plans: Initiate TI-20 S/CC/A design, programmed to be the configuration for VCS Blk V and leveraged by the Columbia Class for lead ship. Continue to design virtualization enabling system architectures and bench test technologies which support CYBER defense, increased suitability, rapid modernization, and affordable procurement. Conduct platform level integration testing of SDIP sensor components during PSA. FY 2019 OCO Plans: N/A FY 2018 to FY 2019 Increase/Decrease Statement:		13.942 -	20.326 -	24.103 -	0.000 -	24.103 -

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Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>				Project (Number/Name) 1950 / <i>New Design SSN Combat Sys Dev</i>						
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Increase due to the Large Vertical Array integration into TI-14 for SSN790 during Post-Shakedown Availability and Non-Propulsion Electronic System (NPES) SWFTS architectural design changes. This effort supports operational testing of the BLK V TI-20 configuration and commonality with Columbia Class lead ship NPES.														
Accomplishments/Planned Programs Subtotals										25.285	34.913	40.604	0.000	40.604
C. Other Program Funding Summary (\$ in Millions)														
Line Item	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			
• SCN/2013: VA CL	5,040.219	5,225.911	7,169.783	-	7,169.783	7,150.388	6,475.968	6,004.291	6,126.497	40,799.161	150,316.746			
• O&M,N/0204283N: <i>Sub Ops & Safety</i>	23.828	25.738	27.175	-	27.175	27.731	29.305	0.000	0.000	Continuing	Continuing			
• OPN/0942: VA CL <i>Support Equipment</i>	63.908	46.610	66.328	-	66.328	28.465	23.263	22.910	23.326	Continuing	Continuing			
• RDT&E/0604580N: <i>Virginia Payload Module</i>	94.846	72.861	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	493.380			
Remarks														
D. Acquisition Strategy														
<p>The VIRGINIA Class Submarine Program has implemented Integrated Product and Process Development (IPPD). The traditional distinct phasing of the design process has been replaced with the continuous concurrent engineering IPPD process. The IPPD approach has facilitated a smoother transition from design to manufacturing and has reduced the number of changes typically encountered during construction of the lead and early follow-on ships. In September 1997, Congress passed a law allowing General Dynamics Electric Boat (GDEB) and Northrop Grumman Newport News (NGNN), now Huntington Ingalls Industries - Newport News Shipbuilding (HII-NNS), to team for production of the first four VIRGINIA Class Submarines. Under the teaming agreement, GDEB remained the design yard for the VIRGINIA Class Submarine and HII-NNS became a part of the IPPD process. The Program Office is managing two Multi-Year Procurement (MYP) contracts. The first is for the Block III (FY09-13) ships. The second is for the Block IV (FY14-18) ships awarded April 2014. All Block I & II ships (SSNs 774-783) have been delivered. The first four Block III ships, SSN 784, SSN785, SSN 786 and SSN 787, delivered in August 2014, June 2015, August 2016 and May 2017 respectively, with the remaining four ships awarded and under construction. The first eight Block IV ships are awarded and under construction, with the remaining two to be authorized and appropriated in FY 2018. The program is currently planning for the fourth MYP (Block V) contract that will reflect 10 SSNs (FY19-23) and is anticipated to award in Early FY 2019.</p>														
E. Performance Metrics														
Successful completion of Final Operational Test and Evaluation (FOT&E) for Block III modifications. SDIP design completion.														

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>				Project (Number/Name) 1950 / <i>New Design SSN Combat Sys Dev</i>					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PTR Corrections	Various	Various : Various	30.088	0.000		0.000		0.000		-		0.000	0.000	30.088	-
Unique Virginia Class Improvements	Various	Various : Various	77.824	8.752	Feb 2017	4.345	Feb 2018	3.750	Feb 2019	-		3.750	Continuing	Continuing	Continuing
Advanced Display Sys (AN/UYQ-70)	SS/CPIF	Lockheed Martin : Keyport, WA	37.789	0.000	Feb 2017	0.000		0.000		-		0.000	0.000	37.789	-
Tech Insertion/Advanced Processing Build (TI/APB) Integration	Various	Various : TBD	0.000	0.000		3.949	Nov 2017	7.195	Nov 2018	-		7.195	Continuing	Continuing	Continuing
Photonics	C/CPIF	Kollmorgen : Northampton, MA	61.051	0.650	Jan 2017	0.000		0.635	Jan 2019	-		0.635	0.000	62.336	-
Large Vertical Array South Dakota Improvement Program	Various	Various : TBD	0.000	0.000		4.518	Nov 2017	6.925	Nov 2018	-		6.925	Continuing	Continuing	Continuing
Platform Integration	SS/CPFF	Electric Boat : Groton, CT	52.560	2.450	Nov 2016	2.621	Nov 2017	6.370	Nov 2018	-		6.370	Continuing	Continuing	Continuing
Photonics	C/CPIF	Lockheed Martin : Manassas, VA	0.000	0.000		0.500	Nov 2017	0.000		-		0.000	Continuing	Continuing	Continuing
Electronic Support Measures	C/FFP	Lockheed Martin : Syracuse, NY	38.067	0.000		0.000		0.000		-		0.000	0.000	38.067	-
Virtualization Enabling Architecture Development	Various	Various : TBD	0.000	0.000		4.318	Nov 2017	5.850	Nov 2018	-		5.850	Continuing	Continuing	Continuing
Technology Refreshment	Various	Various : Various	20.355	0.000		0.000		0.000		-		0.000	0.000	20.355	-
Technical Direction Agent	WR	NUWC : Newport, RI	311.140	7.038	Nov 2016	6.222	Nov 2017	5.174	Nov 2018	-		5.174	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC : Carderock, MD	13.759	0.690	Nov 2016	0.220	Nov 2017	0.220	Nov 2018	-		0.220	Continuing	Continuing	Continuing
Technology Refreshment/ Info. Assurance	C/CPFF	Progeny Systems : Manassas, VA	40.435	0.810	Jan 2017	0.000		0.000		-		0.000	0.000	41.245	-
Acoustic Intercept & Sonar	C/CPFF	Progeny Applied : Manassas, VA	0.000	0.000		0.500	Nov 2017	0.635	Nov 2018	-		0.635	Continuing	Continuing	Continuing
High Frequency & Sonar Sensors	C/CPFF	Applied Research Lab : University of Texas	0.000	0.000		0.300	Nov 2017	0.400	Nov 2018	-		0.400	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>				Project (Number/Name) 1950 / <i>New Design SSN Combat Sys Dev</i>					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Next Generation Architecture - Electronic Warfare System	WR	NSMA : Various	0.000	0.000		4.145	Nov 2017	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	WR	SSC : Charleston, SC	8.727	0.550	Nov 2016	0.800	Nov 2017	1.300	Nov 2018	-		1.300	Continuing	Continuing	Continuing
Systems Engineering	WR	NUWC : Keyport, WA	11.890	0.895	Nov 2016	0.800	Nov 2017	0.650	Nov 2018	-		0.650	Continuing	Continuing	Continuing
Miscellaneous	Various	Various : Various	144.342	1.350	Feb 2017	0.675	Feb 2018	0.700	Nov 2018	-		0.700	Continuing	Continuing	Continuing
Subtotal			848.027	23.185		33.913		39.804		-		39.804	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	Various	Various : TBD	6.212	0.000		0.000		0.000		-		0.000	0.000	6.212	-
Subtotal			6.212	0.000		0.000		0.000		-		0.000	0.000	6.212	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support Services/ETS	C/CPAF	SEAPORT : Rockville, MD	35.656	2.100	Dec 2016	1.000	Dec 2017	0.800	Dec 2018	-		0.800	Continuing	Continuing	Continuing
DAWDF	Various	Various : Various	0.195	0.000		0.000		0.000		-		0.000	0.000	0.195	-
Subtotal			35.851	2.100		1.000		0.800		-		0.800	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			890.090	25.285		34.913		40.604		-		40.604	Continuing	Continuing	N/A
Remarks															

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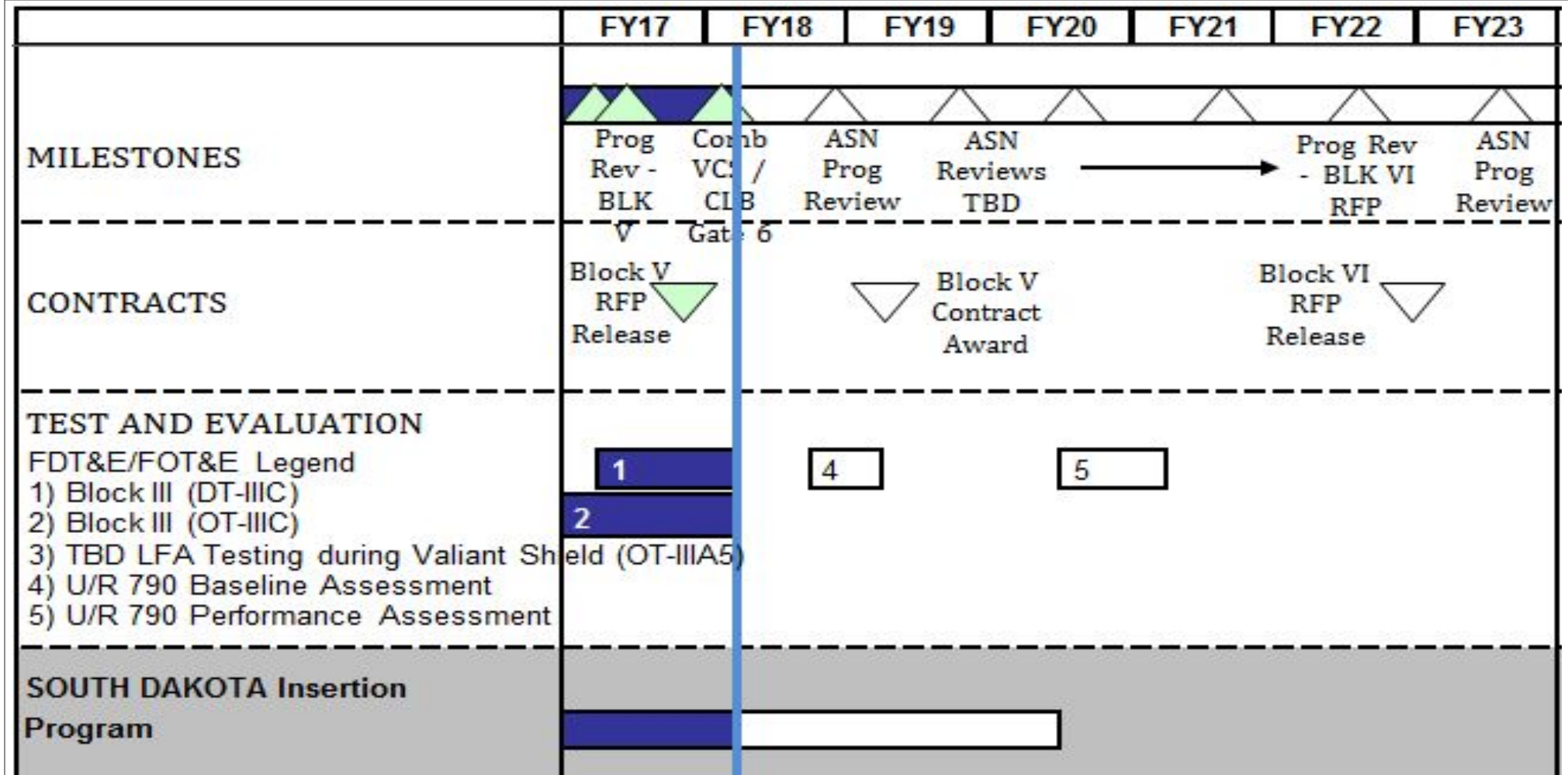
Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604558N / New Design SSN

Project (Number/Name)
1950 / New Design SSN Combat Sys Dev



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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>	Project (Number/Name) 1950 / <i>New Design SSN Combat Sys Dev</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 1950</i>				
MILESTONE: Prog Review	1	2017	1	2017
MILESTONE: Acquisition Review - BLK V RFP	2	2017	2	2017
MILESTONE: ASN Reviews (annual) (TBD)	4	2019	4	2023
MILESTONE: Prog Rev BLK VI RFP	3	2022	3	2022
CONTRACTS: Block V RFP Release	4	2017	4	2017
CONTRACTS: Block V Contract Award	1	2019	1	2019
CONTRACTS: Block VI RFP Release	4	2022	4	2022
TEST & EVALUATION: Block III (DT-IIIC)	2	2017	1	2018
TEST & EVALUATION: Block III (OT-IIIC)	1	2017	1	2018
TEST & EVALUATION: U/R 790 Baseline Assessment	2	2018	4	2018
TEST & EVALUATION: U/R 790 Performance Assessment	2	2020	1	2021
SOUTH DAKOTA Improvement Program	1	2017	2	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604558N / New Design SSN				Project (Number/Name) 3062 / Submarine Multi-Mission Team Trainer			
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
3062: Submarine Multi-Mission Team Trainer	39.817	2.425	2.668	2.661	-	2.661	2.720	2.783	2.843	2.901	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shore based Combat System Team Trainers capable of training personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment. The Combat Control System (CCS) MK1, CCS MK2, and AN/BYG-1, along with sonar systems AN/BSY-1, AN/BQQ-5, and AN/BQQ-10 are installed on SSN and SSGN class submarines. These tactical systems are planned for future upgrades with the next hardware and software revisions which will provide enhanced War Fighter capabilities. The Tactical Acoustic Rapid COTS (commercial-off-the-shelf) Insertion (ARCI) phased upgrades are also being installed with future revisions. The Advanced Processing Builds (APB) and Technical Insertion (TI) sensors, which feed technology insertion into the CCS/Acoustic development, directly impact the trainers.

The Submarine Multi-Mission Team Trainer (SMMTT) supports operator, employment, strike, and Battle Group training for enlisted and officer pipelines. The SMMTT provides operators and combat teams the opportunity to train ashore, prior to, and between deployments. The shore based training provides a means of maintaining team proficiency in stand alone or in combined team mode prior to ship deployment.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Submarine Multi-Mission Team Trainer	2.425	2.668	2.661	0.000	2.661
Articles:	-	-	-	-	-
Description: To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shore based Combat System Team Trainers capable of training personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment.					
FY 2018 Plans: Develop implementation of latest Advanced Processor Build (APB), Technical Insertion (TI) and associated training displays. These efforts include new sensor developments and simulations to match advancements in tactical systems supported by SMMTT. These efforts will also integrate the APB into the SMMTT baseline along with completing and integrating the LCCA sensor.					
FY 2019 Base Plans: Develop implementation of latest Advanced Processor Build (APB), Technical Insertion (TI) and associated training displays. These efforts include new sensor developments and simulations to match advancements in					

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: February 2018	
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>		Project (Number/Name) 3062 / <i>Submarine Multi-Mission Team Trainer</i>	

<u>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</u> tactical systems supported by SMMTT. These efforts will also integrate the APB into the SMMTT baseline along with completing and integrating the LCCA sensor. This also includes the development and integration of APB software into the SSGN 726 build. <i>FY 2019 OCO Plans:</i> N/A <i>FY 2018 to FY 2019 Increase/Decrease Statement:</i> No significant change from FY18 to FY19.	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Accomplishments/Planned Programs Subtotals	2.425	2.668	2.661	0.000	2.661

<u>C. Other Program Funding Summary (\$ in Millions)</u>											
	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPN/5661: <i>Submarine Training Device Mods</i>	48.020	74.550	66.708	-	66.708	76.169	70.674	81.220	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy
 The SMMTT program software development is accounted for in this RD TEN line. All production kits are procured in OPN PE 0804731N BLI 566100.

E. Performance Metrics
 Within 90 days of introduction to the Fleet, this RD TEN project shall develop required changes to the Control and Display Documentation and Interface Description Language (IDL) Interfaces for the initial development for new sensors that are required to simulate/stimulate the TI/APB for the AN/BQQ-5 and AN/BYG-1 in the SMMTT Trainer.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604558N / New Design SSN				Project (Number/Name) 3062 / Submarine Multi-Mission Team Trainer					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Development	Reqn	NSWC/CD : Bethesda, MD	29.750	1.200	Dec 2016	1.223	Jan 2018	1.300	Jan 2019	-		1.300	Continuing	Continuing	Continuing
Component Development	C/CPFF	ARL : UT Austin	2.745	0.250	Dec 2016	0.298	Feb 2018	0.300	Feb 2019	-		0.300	Continuing	Continuing	Continuing
Component Development	Reqn	NUWC/NPT : Newport, RI	7.322	0.975	Dec 2016	1.147	Jan 2018	1.061	Jan 2019	-		1.061	0.000	10.505	-
Subtotal			39.817	2.425		2.668		2.661		-		2.661	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			39.817	2.425		2.668		2.661		-		2.661	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy																Date: February 2018									
Appropriation/Budget Activity										R-1 Program Element (Number/Name)								Project (Number/Name)							
1319 / 5										PE 0604558N / New Design SSN								3062 / Submarine Multi-Mission Team Trainer							
Fiscal Year	2018				2019				2020				2021				2022				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	
Interface Design Updates			△				△				△				△				△				△		
Software Development Updates (SIM/STIM)				△				△				△				△				△				△	
Software Builds				△				△				△				△				△				△	
APB Upgrades	△					△				△				△				△				△			
H/W Tech Insertion Additions/Updates					△					△								△						△	
Beam Simulation for Sonar Trainers Development (use current) Program Funds																									
Beam Simulation for Sonar Trainers (BSST) EDM updates (use current) Program Funds																									
SSGN 726 Development					△					△															
SSGN 726 Build								△				△													
SSBN Software Development																									
SSBN Software Testing																									
SSBN EDM Delivery																									

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>	Project (Number/Name) 3062 / <i>Submarine Multi-Mission Team Trainer</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 3062</i>				
Interface design updates: Interface Design Updates	3	2017	4	2023
Software Development Updates: Software Development Updates (SIM/STIM)	4	2017	4	2023
Software Builds: Software Builds	4	2017	4	2023
Advanced Processing Build(APB) Upgrades: Advanced Processing Build (APB) Upgrades	1	2017	4	2023
Hard Ware Tech Insertion Updates: Hard Ware Tech Insertion Updates	1	2017	4	2023
Beam Simulation for Sonar Trainers: Beam Simulation for Sonar Trainers	1	2017	4	2023
SSGN 726 Development: SSSGN Development	1	2019	1	2020
SSGN 726 Build: SSGN 726 Build	4	2019	3	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>				Project (Number/Name) 9999 / <i>Congressional Adds</i>			
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
9999: <i>Congressional Adds</i>	26.574	16.441	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	43.015
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The FY17 RDT&E Congressional add for small business technology insertion will be applied to existing small business contracts to continue VA Class combat systems development in the areas of sonar, electronic warfare, weapons systems launch, information assurance and advanced submarine control systems.

The FY17 RDT&E Congressional add for Program Increase is for electronic warfare enhancements .

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2017	FY 2018
Congressional Add: Program Increase	6.770	0.000
FY 2017 Accomplishments: N/A		
FY 2018 Plans: N/A		
Congressional Add: Small Business Technology Insertion	9.671	0.000
FY 2017 Accomplishments: N/A		
FY 2018 Plans: N/A		
Congressional Adds Subtotals	16.441	0.000

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Successful completion of Milestone III Review. Successful completion of Final Operational Test and Evaluation (FOT&E) for Technology Insertion (TI)-08 and Block III.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy													Date: February 2018		
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>				Project (Number/Name) 9999 / <i>Congressional Adds</i>					
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Electronic Warfare Enhancements	C/CPFF	Progeny Systems : Manassas, VA	26.574	16.441	Aug 2017	0.000		0.000		-		0.000	0.000	43.015	-
Subtotal			26.574	16.441		0.000		0.000		-		0.000	0.000	43.015	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			26.574	16.441		0.000		0.000		-		0.000	0.000	43.015	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy																Date: February 2018			
Appropriation/Budget Activity								R-1 Program Element (Number/Name)								Project (Number/Name)			
1319 / 5								PE 0604558N / New Design SSN								9999 / Congressional Adds			

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / <i>New Design SSN</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 9999</i>				
VA Class Small Business Technology Insertion: VA Class Small Business Technology Insertion	1	2017	4	2018