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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 12: Submarine Communications		P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	577.251	58.037	64.529	86.204	0.000	86.204	78.987	85.101	87.120	87.793	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	577.251	58.037	64.529	86.204	0.000	86.204	78.987	85.101	87.120	87.793	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	577.251	58.037	64.529	86.204	0.000	86.204	78.987	85.101	87.120	87.793	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	1.048	0.305	0.701	-	0.701	1.438	1.109	0.349	0.640	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PROGRAM COVERAGE: The Submarine Communications Program mission is to create a common, automated, open system architecture radio room for all submarine classes. The program provides for the procurement and installation of systems incorporating the technical advances of network centric warfare to allow the submarine force to communicate as part of the Battle Group. The program addresses the unique demands of submarine communications, stealth, obsolescence issues and higher data rate requirements.

[P40A / L0035 Antenna Modifications]: - Antenna modifications provide for the procurement and installation of field change kits of legacy antenna equipment (OE-315, AN/BRA-24, AN/BRA-6B, BRT-1/1A). These modifications address performance issues, improve reliability and maintainability, decrease vulnerability, and provide cost effective technology refresh. Modifications are applicable to all submarine classes (LOS ANGELES, SEAWOLF, OHIO SSBN/SSGN, and VIRGINIA) and are implemented on a Fleet priority basis. Procurement and Installation unit costs vary due to procuring and installing different components each fiscal year.

[P40A / L0099 Towed Buoy Antenna BRR-6/6B Reliability Improvements]: - The AN/BRR-6/6B Towed Buoy Antenna system is installed on the OHIO-class Ballistic Missile Submarines (SSBN). Each boat has two (2) towed communications buoys with the sole function of supporting Navy Nuclear Command, Control, and Communications (NC3) strategic requirements, connecting the President of the United States (POTUS) to Ballistic Missile Submarines (SSBN) communications reception for the strategic deterrent mission. The AN/BRR-6/6B Towed Buoy Antenna system receives transmission across the LF,VLF, HF frequency range. The buoy system provides significant operational flexibility by providing a means to passively receive communications while remaining at depth with minimal impact on boat's maneuverability or detectability.

The Towed Buoy Antenna BRR-6/6B reliability improvements provide for the procurement and installation of field change kits of the Towed Buoy Antenna BRR-6/6B to improve system performance (measured by operational availability Ao) and reliability (measured by mean time between failures MTBF); improvements are applicable to SSBN only. The Towed Buoy Antenna BRR-6/6B is a key component of the NC3 system and the primary means of receiving Emergency Action Messages (EAMs).

The Antenna BRR-6/6B Reliability Improvements program does not follow a traditional acquisition life cycle. Procurement and installation unit costs vary due to the phased approach as prescribed in the AN/BRR-6/6B Towed Buoy Antenna Lean Event Final Report of 30 September 2011 for procuring and installing different components each fiscal year in order to meet platform installation availabilities without degrading SSBN operational readiness.

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Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 12: Submarine Communications		P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>[P40A / L0097 Submarine Local Area Network (SubLAN)]: Provides a robust shipboard backbone Information Technology (IT) network with multiple classification enclaves that, along with the Common Submarine Radio Room (CSRR) and Automated Digital Network System (ADNS), provides end-to-end wideband connectivity to the global Defense Information System Networks (DISN) (Secret Internet Protocol Router Network and Nonclassified Internet Protocol Router Network). SubLAN is designed in accordance with the IT for the 21st Century fleet initiative, and thus SubLAN will support greatly improved connectivity to, and interoperability with, the carrier strike group (CSG) and expeditionary strike group (ESG) commander, thereby achieving network-centric warfare, and with shore commands. The SubLAN network is enhanced for mission-critical tactical applications, and as such SubLAN forms the medium that will interconnect Sonar, Combat, Electronic Surveillance Measures, Radio, etc., and permits the seamless exchange of warfighting tactical data between these systems and with the CSG/ESG commander. The SubLAN tactical backbone replicates the functionality of the United States Ship (USS) VIRGINIA class network architecture, allowing back fit of VIRGINIA class tactical subsystem modernization into existing submarines. The SubLAN shipboard IT infrastructure is being designed as an all-Commercial Off-The-Shelf (COTS), open-system architecture such that it will permit other electronic subsystem programs to rely on SubLAN for subsystem interconnectivity (rather than having each subsystem install its own IT network); the revolutionary approach of treating the shipboard network as a basic utility (like water, power and lighting) will support the efficient and economic modernization of the various electronic subsystems.</p> <p>[P40AMOD / L0087 Submarine High Data Rate Antenna]: SUBMARINE HIGH DATA RATE (SubHDR) SATELLITE COMMUNICATIONS SYSTEM - The Submarine HDR system provides submarines with antennas that have the bandwidth, gain, and flexibility to meet the stated Commander, Submarine Force, United States Atlantic Fleet/Commander, Submarine Force, US Pacific Fleet (COMSUBLANT/ COMSUBPAC) requirements for HDR communications in the Super High Frequency (SHF) and Extremely High Frequency (EHF) frequency spectrums. The Radome provides a watertight enclosure for the antenna and associated electronics, as well as being a transparent window for Radio Frequency, (RF) communication signals to pass through. This radome needs to be replaced with a newly designed radome because the existing radome is experiencing severe cracking after only 3 to 4 years of service, at which time it is required to be pulled from service in order to prevent an implosion. This new design will prevent those cracks from occurring.</p> <p>[P3A / L0080 OE-538/BRC Inc 2]: OUTBOARD ELECTRONICS (OE)-538 & OE-592 ANTENNA GROUP - The OE-538 System is currently installed on all submarine classes except SSBN. The OE-592 system is currently installed on SSBNs. The OE-538 Inc 2 consists of two configurations: OE-538A and OE-538B. The OE-538A effort upgrades the OE-538 system from FY15-FY20 to support Mobile User Objective System (MUOS), Link-16 Tactical Data Link and Iridium capabilities. The OE-538B efforts upgrades the OE-538A from FY20-FY27 to support Global Positioning System (GPS) Anti-Jam and GPS Military Coded capabilities.</p> <p>[P3A - 3 / L0084 CSRR-SSBN (OHIO)]: COMMON SUBMARINE RADIO ROOM (CSRR) (L0084) - The CSRR is an interoperable submarine communications system operating within the Information Dominance architecture, which provides consistent and reliable two-way, modern, Internet Protocol (IP) connectivity to joint and combined forces. This evolutionary system achieves unmatched capability, cost reduction, and future technology integration via a multimedia, circuit sharing, and Commercial Off-The-Shelf (COTS) based open architecture that serves as the shipboard automated communications control system. Procurement in this line is for the radio room workstations, chassis, Radio Frequency Distribution and Control System (RFDACS), common power supplies, power distribution units, cabling, mounting kits and ancillary components required to integrate communications equipment for submarines. The RFDACS technology update for LOS ANGELES class submarines brings COTS functionality and supportability to the submarine external communications system. The CSRR Program supports LOS ANGELES, SEAWOLF, VIRGINIA and OHIO (SSBN and SSGN) class submarines.</p> <p>CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3-6 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. CSRR Increment 1 Version 5 will be another more complex modernization to the CSRR suite.</p> <p>The Undersea Platforms Special Communications program provides a fully integrated and tested Low Probability of Intercept / Low Probability of Detection (LPI/LPD) communications systems enabling command and control (C2) in an environment where traditional communications are not available, thereby reducing platform susceptibility of detection and attack by the adversary.</p> <p>The Link 16 program provides an enhanced submarine communication system by providing a two-way Tactical Data Link (TDL) processing capability on all Submarine (Nuclear) (SSN), Guided Missile Submarine (Nuclear) (SSGN) and Ballistic Missile Submarine (Nuclear) (SSBN) platforms. The Link 16 program provides submarine Command & Control systems with Link 16 tactical network communications capabilities for situational awareness in a contested environment and is a key element in naval tactical networking. The new technology ensures the submarine's continued ability to participate in network-centric warfare and exploit its inherent stealth capabilities in support of the Navy, Nuclear Command, Control, and Communications (NC3), Joint, and allied/coalition fight to achieve total battlespace information dominance.</p>		

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Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 12: Submarine Communications	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Submarine Communication Equipment				- / 209.054	- / 3.824	- / 4.225	- / 11.181	- / -	- / 11.181
P-40a	L0087 Submarine High Data Rate Antenna				- / 32.074	- / 6.071	- / 6.438	- / 0.144	- / 0.000	- / 0.144
P-40a	L0084 CSRR-SSGN (OHIO) Mod Upgrades				- / 31.948	- / 0.000	- / 1.052	- / 4.739	- / 0.000	- / 4.739
P-40a	L0084 CSRR-SSN (SEAWOLF)				- / 51.044	- / 0.000	- / 3.266	- / 3.240	- / 0.000	- / 3.240
P-3a	1 / L0080 OE-538/BRC Inc 2 (Individual Modification Program)				- / 6.869	- / 6.141	- / 12.426	- / 21.929	- / 0.000	- / 21.929
P-3a	3 / L0084 CSRR-SSBN (OHIO) (TBD)				- / 56.066	- / 9.729	- / 12.896	- / 14.432	- / 0.000	- / 14.432
P-3a	6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades (TBD)				- / 44.801	- / 8.608	- / 9.704	- / 15.093	- / 0.000	- / 15.093
P-3a	7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades (TBD)				- / 145.395	- / 23.664	- / 14.522	- / 15.446	- / 0.000	- / 15.446
P-40	Total Gross/Weapon System Cost				- / 577.251	- / 58.037	- / 64.529	- / 86.204	- / 0.000	- / 86.204

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

- FY18 Antenna Modifications: Procure and install multiple field change kits for legacy antenna equipment, applicable to all submarine classes, to address performance issues, improve reliability and maintainability, decrease vulnerability, and provide cost effective technology refresh.
- FY18 Towed Buoy Antenna BRR-6/6B: Procure and install multiple field change kits to improve system performance (measured by operational availability) and reliability (measured by mean time between failures).
- FY18 CSRR: Implements CSRR on LOS ANGELES class submarines and modernizes CSRR on OHIO (SSBN and SSGN), SEAWOLF and VIRGINIA platforms. Funding will support procurement and installation on Increment 1 Version 3, Increment 1 Version 4 and Low Probability of Intercept / Low Probability of Detection (LPI/LPD).
- FY18 SubHDR: Radome procurement inventory requirement met in FY17
- FY18 OE-538: Procure OE-538A upgrade kits to support submarine communications requirements: Mobile User Objective System (MUOS), Link-16 Tactical Data Link, and Iridium.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12 **P-1 Line Item Number / Title:** 3130 / Submarine Communication Equipment **Aggregated Items Title:** Submarine Communication Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
1) L0035 Antenna Modifications																				
1.1) Antenna Modifications (1)	A		148.447	150	22.267	-	-	-	-	-	-	29.608	120	3.553	-	-	-	29.608	120	3.553
Subtotal: 1) L0035 Antenna Modifications			-	-	22.267	-	-	-	-	-	-	-	-	3.553	-	-	-	-	-	3.553
2) CSRR - Support Systems Mod Kits (Increment 1 Ver 3, 4 & 5) (2)																				
2.1) Kit Quantity (Prior Years)	A		4,337.750	8	34.702	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2) Equipment - Mod Kits Inc 1 Ver 3	A		1,904.500	4	7.618	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3) Equipment - Mod Kits Inc 1 Ver 4 (3)	A		-	-	-	193.500	2	0.387	-	-	-	205.000	1	0.205	-	-	-	205.000	1	0.205
2.6) Equipment - MRTS	A		281.000	8	2.248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.8) Equipment - LPI/ LPD Solution 1	A		-	-	-	-	-	-	-	-	-	200.143	7	1.401	-	-	-	200.143	7	1.401
2.10) Production Support	A		-	-	0.503	-	-	0.023	-	-	-	-	-	0.096	-	-	-	-	-	0.096
Subtotal: 2) CSRR - Support Systems Mod Kits (Increment 1 Ver 3, 4 & 5)			-	-	45.071	-	-	0.410	-	-	-	-	-	1.702	-	-	-	-	-	1.702
3) L0099 Towed Buoy Antenna BRR-6/6B Reliability Improvements (4)																				
3.1) Reliability Improvements (5)	A		41.826	69	2.886	55.780	41	2.287	31.530	134	4.225	31.521	188	5.926	-	-	-	31.521	188	5.926
Subtotal: 3) L0099 Towed Buoy Antenna BRR-6/6B Reliability Improvements			-	-	2.886	-	-	2.287	-	-	4.225	-	-	5.926	-	-	-	-	-	5.926
4) L0097 Submarine Local Area Network (SUBLAN) (6)																				
4.1) Hardware	A		280.661	274	76.901	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2) Installation of Hardware	A		-	-	52.413	-	-	1.074	-	-	-	-	-	-	-	-	-	-	-	-
4.3) Production Support	A		-	-	8.704	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4) DSA	A		-	-	0.812	-	-	0.053	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) L0097 Submarine Local Area Network (SUBLAN)			-	-	138.830	-	-	1.127	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	209.054	-	-	3.824	-	-	4.225	-	-	11.181	-	-	-	-	-	11.181

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Footnotes:

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Aggregated Items Title: Submarine Communication Equipment

- (1) Antenna Modifications provide for the procurement and installation of field change kits of legacy antenna equipment (OE-315, AN/BRA-24, AN/BRA-6B, BRT-1/1A). These modifications address performance issues, improve reliability and maintainability, decrease vulnerability, and provide cost effective technology refresh. FY18 will procure; qty. 20 Advanced Buoyant Cable Antennas (ABCA), qty. 50 Vertical Buoyant Cable Antennas (VBCA), and qty. 50 JHU/APL Amplifiers. Procurement and Installation unit costs vary due to procuring and installing different components each fiscal year.
- (2) CSRR Support Systems Modernization Kits provide for the procurement and installation of CSRR baseline modernization reconfigurable lab assets to improve system performance and reliability and vary by Increment, Version, and Platform. CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3-6 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. CSRR Increment 1 Version 5 will be another more complex modernization to the CSRR suite. FY18 includes procurement of one CSRR Increment 1 Version 4 modernization reconfigurable lab asset.
- (3) The unit cost for the lab asset in FY18 increased above inflation due to the reduction in procurement quantity (procurement of two (2) labs in FY16 versus one (1) lab in FY18) and the requirement for a new contract to be awarded.
- (4) The Towed Buoy Antenna BRR-6/6B Reliability Improvements provide for the procurement and installation of field change kits of the Towed Buoy Antenna BRR-6/6B to improve system performance and reliability. Procurement and Installation unit costs vary due to procuring and installing different components each fiscal year. FY17 procured; qty 44 Antenna/Amplifiers, qty 45 Tow Cables, and qty 45 Tow Cable Boxes. FY18 will procure qty 56 Antenna/Amplifiers, qty 66 Tow Cables, and qty 66 Tow Cable Boxes. Production lead time varies from component to component. The antenna procurements vary due to different components required for modernization.
- (5) The BRR-6 program does not follow a traditional acquisition life cycle. Procurement and installation unit costs vary due to the phased approach as prescribed in the AN/BRR-6/6B Towed Buoy Antenna Lean Event Final Report of 30 September 2011 for procuring and installing different components each fiscal year in order to meet platform installation availabilities without degrading SSBN operational readiness. FY16 procured 41 reliability improvements (34 Full Production Seated Switches, 2 Antenna/Amplifiers, and 5 Multi-Reconfigurable Training Systems (MRTS) modules) and the antenna/amplifiers unit cost was \$153K which elevated the average unit cost. FY18 will procure 134 reliability improvements (56 Antenna/Amplifiers, 66 Tow Cable Boxes, and 66 Tow Cables) and 122 tow cables has an average unit cost of \$40K, causing a unit cost decrease of \$24.26 from FY 16. The unit cost fluctuation is based on procurement of completely different items and associated costs each fiscal year and is not related to inflation or prior year unit cost. Installation costs included in procurement (turnkey).
- (6) Installation of SubLAN Personal Computers (PC's) and Engine Room Drop Augment (ERDA).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy															Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12							P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment								Aggregated Items Title: L0087 Submarine High Data Rate Antenna				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
B Kits/Recurring																				
Replacement Radomes Installed -- Procurement ⁽⁷⁾	A		242.520	75	18.189	297.278	18	5.351	326.667	9	2.940	-	-	-	-	-	-	-	-	-
Replacement Radomes Installed -- Installation	A		-	-	0.839	-	-	0.256	-	-	0.288	-	-	0.144	-	-	-	-	-	0.144
Replacement Radomes Not Installed ⁽⁸⁾	A		-	-	-	-	-	-	285.000	10	2.850	-	-	-	-	-	-	-	-	-
Subtotal: B Kits/Recurring			-	-	19.028	-	-	5.607	-	-	6.078	-	-	0.144	-	-	-	-	-	0.144
Support Cost																				
Production Support	A		-	-	6.807	-	-	0.284	-	-	0.190	-	-	-	-	-	-	-	-	-
Other (DSA)	A		-	-	6.239	-	-	0.180	-	-	0.170	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost			-	-	13.046	-	-	0.464	-	-	0.360	-	-	-	-	-	-	-	-	-
Total			-	-	32.074	-	-	6.071	-	-	6.438	-	-	0.144	-	-	0.000	-	-	0.144

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Type Modification: Individual Modification Program

Procurement and Installation of Submarine High Data Rate Antenna (SubHDR)

Footnotes:

⁽⁷⁾ Only 102 of 112 Radome kits require installation. The remaining 10 are used for the Ready For issue (RFI) rotatable pool.

⁽⁸⁾ Funding made available by OE-538 program cost savings was used to complete the Radome Kit procurement in FY17.

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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12						P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment						Aggregated Items Title: L0084 CSRR-SSGN (OHIO) Mod Upgrades							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
B Kits/Recurring																				
Equipment - Mod Kits (Prior Years) -- Procurement	A		1,144.333	12	13.732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment - Mod Kits (Prior Years) -- Installation	A		-	-	7.384	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment - LPI/ LPD Solution 1 -- Procurement	A		-	-	-	-	-	-	-	-	192.000	2	0.384	-	-	-	192.000	2	0.384	-
Equipment - LPI/ LPD Solution 1 -- Installation	A		-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: B Kits/Recurring			-	-	21.116	-	-	-	-	-	-	-	0.384	-	-	-	-	-	-	0.384
Support Cost																				
Enterprise Change Request/Nonrecurring (9)	A		-	-	2.793	-	-	-	-	-	-	-	1.117	-	-	-	-	-	-	1.117
ShipALT/DSA Nonrecurring (10)	A		-	-	1.621	-	-	-	-	-	0.522	-	2.626	-	-	-	-	-	-	2.626
Data/Logistics (11)	A		-	-	3.617	-	-	-	-	-	0.530	-	0.589	-	-	-	-	-	-	0.589
Production Support	A		-	-	1.242	-	-	-	-	-	-	-	0.023	-	-	-	-	-	-	0.023
Other (DSA Recurring)	A		-	-	1.559	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost			-	-	10.832	-	-	-	-	-	1.052	-	4.355	-	-	-	-	-	-	4.355
Total			-	-	31.948	-	-	0.000	-	-	1.052	-	4.739	-	-	0.000	-	-	-	4.739

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Procurement and Installation of CSRR and upgrades on SSGN (OHIO) Class Submarines

Footnotes:
 (9) The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.
 (10) Funding supports development and planning of ShipALT design package, work element descriptions and design/GFI changes. The ShipALT design package is required the year prior to procurement because it is due to the planning yard 12 months prior to install. It is also required the year that the first modernization kit or LPI/LPD solution is procured for each CSRR version on each Class to meet ship construction deadlines.
 (11) Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit or LPI/LPD solution is procured for each CSRR version on each submarine class.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12 **P-1 Line Item Number / Title:** 3130 / Submarine Communication Equipment **Aggregated Items Title:** L0084 CSRR-SSN (SEAWOLF)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
B Kits/Recurring																				
Equipment (Prior Years) -- Procurement	A		3,215.000	10	32.150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment (Prior Years) -- Installation	A		-	-	9.158	-	-	-	-	-	2.062	-	-	-	-	-	-	-	-	-
Equipment - LPI/ LPD Solution 1 -- Procurement	A		-	-	-	-	-	-	-	-	-	96.000	1	0.096	-	-	-	96.000	1	0.096
Equipment - LPI/ LPD Solution 1 -- Installation	A		-	-	-	-	-	-	-	-	-	-	-	0.115	-	-	-	-	-	0.115
Subtotal: B Kits/Recurring			-	-	41.308	-	-	-	-	-	2.062	-	-	0.211	-	-	-	-	-	0.211
Support Cost																				
ShipALT/DSA Nonrecurring ⁽¹²⁾	A		-	-	1.563	-	-	-	-	-	0.425	-	-	1.238	-	-	-	-	-	1.238
Enterprise Change Request / Nonrecurring ⁽¹³⁾	A		-	-	2.117	-	-	-	-	-	-	-	-	1.188	-	-	-	-	-	1.188
Data/Logistics ⁽¹⁴⁾	A		-	-	1.825	-	-	-	-	-	0.514	-	-	0.576	-	-	-	-	-	0.576
Production Support	A		-	-	1.704	-	-	-	-	-	-	-	-	0.006	-	-	-	-	-	0.006
Other (DSA Recurring)	A		-	-	2.527	-	-	-	-	-	0.265	-	-	0.021	-	-	-	-	-	0.021
Subtotal: Support Cost			-	-	9.736	-	-	-	-	-	1.204	-	-	3.029	-	-	-	-	-	3.029
Total			-	-	51.044	-	-	0.000	-	-	3.266	-	-	3.240	-	-	0.000	-	-	3.240

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:
Procurement and Installation of CSRR and upgrades on SSN (SEAWOLF) Class Submarines.

Footnotes:
⁽¹²⁾ Funding supports development and planning of ShipALT design package, work element descriptions and design/GFI changes. The ShipALT design package is required the year prior to procurement because it is due to the planning yard 12 months prior to install. It is also required the year that the first modernization kit or LPD/LPD solution is procured for each CSRR version on each Class to meet ship construction deadlines.
⁽¹³⁾ The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.
⁽¹⁴⁾ Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit or LPI/LPD solution is procured for each CSRR version on each submarine class.

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 1 / L0080 OE-538/BRC Inc 2

ID Code (A=Service Ready, B=Not Service Ready) :			MDAP/MAIS Code:			
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6.869	6.141	12.426	21.929	0.000	21.929
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6.869	6.141	12.426	21.929	0.000	21.929
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6.869	6.141	12.426	21.929	0.000	21.929
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Description:

Procurement and Installation of OUTBOARD ELECTRONICS (OE)-538 & OE-592 ANTENNA GROUP (OE-538)

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Exhibit P-3a, Individual Modification: FY 2018 Navy					Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12			P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment			Modification Number / Title: 1 / L0080 OE-538/BRC Inc 2	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Models of Systems Affected: [No Model Specified]		Modification Type: Individual Modification Program			Related RDT&E PEs: 0604503N		
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement							
<i>Modification Item 1 of 1: L0080 OE-538/BRC Inc 2</i>							
B Kits							
Recurring							
1.1.1) Equipment - OE-538A Antenna Upgrade Kits Installed - NonOrganic ⁽¹⁵⁾	2 / 1.905	2 / 2.110	7 / 9.068	22 / 14.211	- / -	22 / 14.211	
1.1.2) Equipment - OE-538A Antenna Upgrade Kits Not Installed - Organic	4 / 3.810	3 / 3.164	- / -	- / -	- / -	- / -	
1.1.3) Equipment - OE-538A RFDACS Upgrade Kits Installed - NonOrganic	- / -	- / -	2 / 0.977	8 / 4.014	- / -	8 / 4.014	
1.1.4) Equipment - OE-538A RFDACS Upgrade Kits Not Installed - Organic ⁽¹⁶⁾	- / -	- / -	1 / 0.489	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 5.715	- / 5.274	- / 10.534	- / 18.225	- / -	- / 18.225	
<i>Subtotal: L0080 OE-538/BRC Inc 2</i>	6 / 5.715	5 / 5.274	10 / 10.534	30 / 18.225	- / -	30 / 18.225	
<i>Subtotal: Procurement, All Modification Items</i>	- / 5.715	- / 5.274	- / 10.534	- / 18.225	- / -	- / 18.225	
Support (All Modification Items)							
2.1) Production Support	- / 0.454	- / 0.360	- / 0.632	- / 1.093	- / -	- / 1.093	
2.2) Other (DSA) ⁽¹⁷⁾	- / -	- / 0.080	- / 0.123	- / 0.292	- / -	- / 0.292	
2.3) Support Prior Years	- / 0.700	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Support</i>	- / 1.154	- / 0.440	- / 0.755	- / 1.385	- / -	- / 1.385	
Installation							
<i>Modification Item 1 of 1: L0080 OE-538/BRC Inc 2</i>	- / 0.000	- / 0.427	- / 1.137	- / 2.319	- / 0.000	- / 2.319	
<i>Subtotal: Installation</i>	- / 0.000	- / 0.427	- / 1.137	- / 2.319	- / -	- / 2.319	
Total							
Total Cost (Procurement + Support + Installation)	6.869	6.141	12.426	21.929	0.000	21.929	

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Exhibit P-3a, Individual Modification: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 1 / L0080 OE-538/BRC Inc 2
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 1: L0080 OE-538/BRC Inc 2

Manufacturer Information

Manufacturer Name: Submarine Antenna Joint Venture	Manufacturer Location: Marion, MA & Manchester, NH
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Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12
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Dates	FY 2016	FY 2017	FY 2018
Contract Dates	Jul 2016	May 2017	Mar 2018
Delivery Dates	Jul 2017	May 2018	Mar 2019

Installation Information

Method of Implementation: Method:: Installation Name: OE-538

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	2 / 0.427	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	2 / 1.137	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	9 / 2.319	0 / 0.000	9 / 2.319
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 0.427	2 / 1.137	9 / 2.319	0 / 0.000	9 / 2.319

Installation Schedule

PYS	FY 2016				FY 2017				FY 2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	-	-	-	-	2	-	-	2	-	-	3	4
Out	-	-	-	-	2	-	-	2	-	-	3	4

Footnotes:

(15) OE-538A, OE-538B, and RFDACS unit cost varies by submarine class and economic quantity order. The changes in quantities are due to changes in ship availabilities based on the updated fielding plans. PB17 budget combined OE-538 antennas and the Radio Frequency Distribution and Control System (RFDACS) kits. The PB18 budget breaks out the OE-538A, OE-538B and the RFDACS kits. Additionally, items installed and not installed are broken out to provide clarity.

(16) One (1) RFDACS does not require installation funding as it will be used as a swing set for SSBN installations.

(17) DSA costs are directly related to number of installations. The DSA in FY17 increased in FY18 because the number of installs in FY17 (4) increased in FY18 (7).

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Exhibit P-3a, Individual Modification: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	56.066	9.729	12.896	14.432	0.000	14.432
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	56.066	9.729	12.896	14.432	0.000	14.432
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	56.066	9.729	12.896	14.432	0.000	14.432

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR upgrades on SSBN (OHIO) Class submarines.

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Exhibit P-3a, Individual Modification: FY 2018 Navy					Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12			P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment			Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD			Related RDT&E PEs: 0604503N	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement							
<i>Modification Item 1 of 1: L0084 CSRR-SSBN (OHIO)</i>							
B Kits							
Recurring							
1.1.1) Equipment - Mod Kits Increment 1 Ver 3 - NonOrganic ⁽¹⁸⁾	8 / 15.708	2 / 4.257	4 / 8.770	- / -	- / -	- / -	
1.1.2) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽¹⁹⁾	- / -	- / -	- / -	3 / 0.795	- / -	3 / 0.795	
1.1.4) Equipment - LPI/LPD Solution 1 - NonOrganic	- / -	- / -	- / -	12 / 1.152	- / -	12 / 1.152	
<i>Subtotal: Recurring</i>	- / 15.708	- / 4.257	- / 8.770	- / 1.947	- / -	- / 1.947	
<i>Subtotal: L0084 CSRR-SSBN (OHIO)</i>	8 / 15.708	2 / 4.257	4 / 8.770	15 / 1.947	- / -	15 / 1.947	
<i>Subtotal: Procurement, All Modification Items</i>	- / 15.708	- / 4.257	- / 8.770	- / 1.947	- / -	- / 1.947	
Support (All Modification Items)							
2.1) ShipALT/DSA Nonrecurring ⁽²⁰⁾	- / 4.562	- / 0.450	- / 0.450	- / 1.325	- / -	- / 1.325	
2.2) Enterprise Change Request ⁽²¹⁾	- / 5.385	- / 0.625	- / 0.531	- / 1.137	- / -	- / 1.137	
2.3) Data/Logistics ⁽²²⁾	- / 4.951	- / 0.624	- / 0.624	- / 0.507	- / -	- / 0.507	
2.4) Production Support	- / 10.876	- / 0.249	- / 0.511	- / 0.117	- / -	- / 0.117	
2.5) Other (DSA Recurring)	- / 7.142	- / 0.484	- / 0.445	- / 0.762	- / -	- / 0.762	
<i>Subtotal: Support</i>	- / 32.916	- / 2.432	- / 2.561	- / 3.848	- / -	- / 3.848	
Installation							
<i>Modification Item 1 of 1: L0084 CSRR-SSBN (OHIO)</i>	- / 7.442	- / 3.040	- / 1.565	- / 8.637	- / 0.000	- / 8.637	
<i>Subtotal: Installation</i>	- / 7.442	- / 3.040	- / 1.565	- / 8.637	- / -	- / 8.637	
Total							
Total Cost (Procurement + Support + Installation)	56.066	9.729	12.896	14.432	0.000	14.432	

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 1: L0084 CSRR-SSBN (OHIO)

Manufacturer Information

Manufacturer Name: SAIC ⁽²³⁾	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 9

Dates	FY 2016	FY 2017	FY 2018
Contract Dates	Feb 2016	Apr 2017	Jan 2018
Delivery Dates	Feb 2017	Apr 2018	Oct 2018

Installation Information

Method of Implementation: [none specified]:: Installation Name: SSBN Ohio

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	5 / 7.442	2 / 3.040	1 / 1.565	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	2 / 3.224	0 / 0.000	2 / 3.224
FY 2017	- / -	- / -	- / -	3 / 4.838	0 / 0.000	3 / 4.838
FY 2018	- / -	- / -	- / -	5 / 0.575	0 / 0.000	5 / 0.575
Total	5 / 7.442	2 / 3.040	1 / 1.565	10 / 8.637	0 / 0.000	10 / 8.637

Installation Schedule

PYS	FY 2016				FY 2017				FY 2018				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	2	-	2	1	-	1	1	-	1	-	2	-	3
Out	2	-	2	-	1	1	1	-	1	-	2	-	3

Footnotes:

⁽¹⁸⁾ Quantities reflect alignment with fleet installation availabilities. Submarine availability windows fluctuate to optimize SSBN Operational Availability (Ao). The number and class of submarines available in any given year are very limited and, consequently, the ability to shift installations from one submarine to another is often not possible. Installation funds are required by the installing activity 3 months prior to the start of the installation. The following installations were impacted by Fleet rescheduling of availabilities: Three CSRR Inc1V3 modernization kits procured in FY14 will not install until FY16. Three CSRR Inc1V3 modernization kits procured in FY15 will not install until FY17. Three CSRR Inc1V3 procurements in FY17 will not install until Q4 FY18 and one in Q2 FY19.

⁽¹⁹⁾ CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3-5 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned as a minor upgrade to address equipment obsolescence and EOL issues. CSRR Increment 1 Version 5 will be another more complex modernization to the CSRR suite. FY18 includes procurement of three CSRR Increment 1 Version 4 modernization kits.

⁽²⁰⁾ Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	
<p>⁽²¹⁾ The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.</p> <p>⁽²²⁾ Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.</p> <p>⁽²³⁾ Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.</p>		

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades

ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:				
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	44.801	8.608	9.704	15.093	0.000	15.093
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	44.801	8.608	9.704	15.093	0.000	15.093
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	44.801	8.608	9.704	15.093	0.000	15.093
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR upgrades on VIRGINIA Class submarines

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Exhibit P-3a, Individual Modification: FY 2018 Navy					Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12			P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment			Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades		
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD			Related RDT&E PEs: 0604503N		
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement								
<i>Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades</i>								
B Kits								
Recurring								
1.1.1) Equipment - Mod Kits (Prior Years) - NonOrganic	4 / 4.872	- / -	- / -	- / -	- / -	- / -	- / -	
1.1.2) Equipment - Baseline upgrade Increment 1 Ver 3 - NonOrganic	6 / 14.002	1 / 2.595	2 / 5.346	1 / 2.753	- / -	- / -	1 / 2.753	
1.1.3) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽²⁴⁾	- / -	- / -	1 / 0.258	- / -	- / -	- / -	- / -	
1.1.5) Equipment - LPI/LPD Solution 1 - NonOrganic	- / -	- / -	- / -	13 / 1.248	- / -	- / -	13 / 1.248	
<i>Subtotal: Recurring</i>	- / 18.874	- / 2.595	- / 5.604	- / 4.001	- / -	- / -	- / 4.001	
<i>Subtotal: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades</i>	10 / 18.874	1 / 2.595	3 / 5.604	14 / 4.001	- / -	- / -	14 / 4.001	
<i>Subtotal: Procurement, All Modification Items</i>	- / 18.874	- / 2.595	- / 5.604	- / 4.001	- / -	- / -	- / 4.001	
Support (All Modification Items)								
2.1) Support Cost (Prior Years)	- / 0.625	- / -	- / -	- / -	- / -	- / -	- / -	
2.2) Data/Logistics ⁽²⁵⁾	- / 1.984	- / 0.450	- / 0.440	- / 1.032	- / -	- / -	- / 1.032	
2.3) ShipALT/DSA Nonrecurring ⁽²⁶⁾	- / 3.630	- / 0.350	- / 0.347	- / 1.993	- / -	- / -	- / 1.993	
2.4) Enterprise Change Request ⁽²⁷⁾	- / 2.612	- / 0.414	- / 0.478	- / 2.111	- / -	- / -	- / 2.111	
2.5) Production Support	- / 2.323	- / 0.153	- / 0.336	- / 0.240	- / -	- / -	- / 0.240	
2.6) Other (DSA Recurring)	- / 1.626	- / 0.275	- / 0.248	- / 0.419	- / -	- / -	- / 0.419	
<i>Subtotal: Support</i>	- / 12.800	- / 1.642	- / 1.849	- / 5.795	- / -	- / -	- / 5.795	
Installation								
<i>Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades</i>	- / 13.127	- / 4.371	- / 2.251	- / 5.297	- / 0.000	- / -	- / 5.297	
<i>Subtotal: Installation</i>	- / 13.127	- / 4.371	- / 2.251	- / 5.297	- / -	- / -	- / 5.297	
Total								
Total Cost (Procurement + Support + Installation)	44.801	8.608	9.704	15.093	0.000	-	15.093	

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades

Manufacturer Information

Manufacturer Name: SAIC ⁽²⁸⁾	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 6

Dates	FY 2016	FY 2017	FY 2018
Contract Dates	Feb 2016	Jan 2017	Jan 2018
Delivery Dates	Feb 2017	Jan 2018	Jul 2018

Installation Information

Method of Implementation: Method:: Installation Name: Virginia Class

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 13.127	2 / 4.371	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	1 / 2.251	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	3 / 4.952	0 / 0.000	3 / 4.952
FY 2018	- / -	- / -	- / -	3 / 0.345	0 / 0.000	3 / 0.345
Total	8 / 13.127	2 / 4.371	1 / 2.251	6 / 5.297	0 / 0.000	6 / 5.297

Installation Schedule

PYS	FY 2016				FY 2017				FY 2018				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	8	-	-	-	-	1	1	-	1	-	-	2	2
Out	8	-	-	-	-	1	-	1	-	1	-	1	2

Footnotes:

⁽²⁴⁾ Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. Installation funds are required by the installing activity 3 months prior to the start of the installation. CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3-5 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. CSRR Increment 1 Version 5 will be another more complex modernization to the CSRR suite.

⁽²⁵⁾ Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.

⁽²⁶⁾ Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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⁽²⁷⁾ The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.

⁽²⁸⁾ Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades

ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:				
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	145.395	23.664	14.522	15.446	0.000	15.446
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	145.395	23.664	14.522	15.446	0.000	15.446
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	145.395	23.664	14.522	15.446	0.000	15.446
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR and upgrades on LOS ANGELES Class Submarines

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Exhibit P-3a, Individual Modification: FY 2018 Navy					Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12			P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment			Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades		
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD			Related RDT&E PEs: 0604503N		
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
Procurement								
<i>Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades</i>								
B Kits								
Recurring								
1.1.1) Equipment - Mod Kits Increment 1 Ver 3 - NonOrganic ⁽²⁹⁾	25 / 86.425	4 / 16.986	1 / 4.374	1 / 4.505	- / -	1 / 4.505		
1.1.2) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽³⁰⁾	- / -	- / -	1 / 0.258	4 / 1.061	- / -	4 / 1.061		
1.1.4) Equipment - LPI/LPD Solution 1 - NonOrganic	- / -	- / -	- / -	16 / 1.536	- / -	16 / 1.536		
<i>Subtotal: Recurring</i>	<i>- / 86.425</i>	<i>- / 16.986</i>	<i>- / 4.632</i>	<i>- / 7.102</i>	<i>- / -</i>	<i>- / 7.102</i>		
<i>Subtotal: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades</i>	<i>25 / 86.425</i>	<i>4 / 16.986</i>	<i>2 / 4.632</i>	<i>21 / 7.102</i>	<i>- / -</i>	<i>21 / 7.102</i>		
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 86.425</i>	<i>- / 16.986</i>	<i>- / 4.632</i>	<i>- / 7.102</i>	<i>- / -</i>	<i>- / 7.102</i>		
Support (All Modification Items)								
2.1) Enterprise Change Request/Nonrecurring ⁽³¹⁾	- / 4.146	- / 1.303	- / 0.850	- / 2.405	- / -	- / 2.405		
2.2) ShipALT/DSA Nonrecurring ⁽³²⁾	- / 1.441	- / 0.257	- / 0.372	- / 1.786	- / -	- / 1.786		
2.3) Data/Logistics ⁽³³⁾	- / 2.000	- / 0.448	- / 0.552	- / 0.570	- / -	- / 0.570		
2.4) Production Support	- / 6.014	- / 0.708	- / 0.257	- / 0.426	- / -	- / 0.426		
2.5) Other (DSA Recurring) ⁽³⁴⁾	- / 8.028	- / 0.784	- / 0.913	- / 0.708	- / -	- / 0.708		
<i>Subtotal: Support</i>	<i>- / 21.629</i>	<i>- / 3.500</i>	<i>- / 2.944</i>	<i>- / 5.895</i>	<i>- / -</i>	<i>- / 5.895</i>		
Installation								
<i>Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades</i>								
<i>Subtotal: Installation</i>	<i>- / 37.341</i>	<i>- / 3.178</i>	<i>- / 6.946</i>	<i>- / 2.449</i>	<i>- / 0.000</i>	<i>- / 2.449</i>		
Total								
Total Cost (Procurement + Support + Installation)	145.395	23.664	14.522	15.446	0.000	15.446		

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades

Manufacturer Information

Manufacturer Name: SAIC ⁽³⁵⁾	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 7

Dates	FY 2016	FY 2017	FY 2018
Contract Dates	Dec 2015	Jan 2017	Jan 2018
Delivery Dates	Dec 2016	Jan 2018	Aug 2018

Installation Information

Method of Implementation: Method:: Installation Name: LA Class

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	23 / 37.341	2 / 3.178	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	4 / 6.946	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	2 / 2.104	0 / 0.000	2 / 2.104
FY 2018	- / -	- / -	- / -	3 / 0.345	0 / 0.000	3 / 0.345
Total	23 / 37.341	2 / 3.178	4 / 6.946	5 / 2.449	0 / 0.000	5 / 2.449

Installation Schedule

PYS	FY 2016				FY 2017				FY 2018				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
In	20	-	2	-	2	-	-	-	2	3	-	-	2
Out	19	1	-	2	-	2	-	-	-	2	3	-	2

Footnotes:
⁽²⁹⁾ FY18 funding includes cost to procure two Radio Frequency Distribution and Control Systems (RFDACS) to support Legacy Ultra High Frequency (UHF) communications on LOS ANGELES Class platforms. Installation funds are required by the installing activity three months prior to the start of the installation. FY18 includes procurement of one CSRR Increment 1 Version 3 modernization kit.
⁽³⁰⁾ Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. Installation funds are required by the installing activity 3 months prior to the start of the installation. CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3-5 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. CSRR Increment 1 Version 5 will be another more complex modernization to the CSRR suite. FY18 includes procurement of four CSRR Increment 1 Version 4 modernization kits.

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Exhibit P-3a, Individual Modification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>⁽³¹⁾ The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.</p> <p>⁽³²⁾ Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.</p> <p>⁽³³⁾ Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.</p> <p>⁽³⁴⁾ DSA Recurring Cost includes funding for CSRR planning yard activities.</p> <p>⁽³⁵⁾ Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.</p>		