

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series
--	--

<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
--	---	--

**Line Item MDAP/MAIS Code:** 530

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,318.970	56.275	43.555	58.577	0.000	58.577	42.082	33.948	37.866	38.647	91.978	1,721.898
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,318.970	56.275	43.555	58.577	0.000	58.577	42.082	33.948	37.866	38.647	91.978	1,721.898
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>1,318.970</b>	<b>56.275</b>	<b>43.555</b>	<b>58.577</b>	<b>0.000</b>	<b>58.577</b>	<b>42.082</b>	<b>33.948</b>	<b>37.866</b>	<b>38.647</b>	<b>91.978</b>	<b>1,721.898</b>

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

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

**Description:**

DESCRIPTION:

This line item funds modifications to T/AV-8B aircraft. The AV-8B is a single engine, single crew member (two crew members for the trainer) aircraft capable of vertical/short take-off and landing operations. The AV-8B meets the Marine Corps requirements for a light attack aircraft to provide responsive offensive air power that can operate from ships and austere forward bases in direct support of ground forces. The overall goal of the modifications budgeted in FY 2019 is to continue incorporation of Obsolescence Replacement/Readiness Management Plan systems; electrical and structural changes; upgrade air-to-air weapon system employment and integration components; inventory sustainment and upgrade efforts to offset obsolescence and attrition; incorporation of LITENING Pod upgrades, to include an advanced tactical Datalink and release of associated software upgrades; incorporation of AV-8B F402-RR-408 engine safety and operational changes and incorporation of a digitally interoperable Link 16 capability and associated software upgrades.

The AV-8B active inventory (November 2017) consists of 4 configurations:

- 16 Two-Seat T/AV-8B Aircraft
- 34 Night Attack Aircraft
- 55 RADAR Remanufacture Aircraft
- 20 RADAR Production Aircraft

Retrofit quantities of each Engineering Change Proposal (ECP) vary by aircraft configuration type & inventory when the change was introduced into production. Retrofit quantities of each ECP also vary depending on whether the ECP applies to the airframe or an individual Weapons Replaceable Assembly. Non-recurring Engineering (NRE) varies from year to year based on complexity of ECPs and upgrades being engineered for implementation in a given year. Publications and Integrated Logistics Support (ILS) also vary from year to year based on complexity of logistics elements and number of publications required to be updated for each individual ECP.

NOTE:

Service Life - 2026. 1 Day Attack Upgrade aircraft and one RADAR Remanufacture aircraft stricken from inventory in FY17.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification: PB 2019 Navy** **Date:** February 2018

**Appropriation / Budget Activity / Budget Sub Activity:**  
1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft

**P-1 Line Item Number / Title:**  
0514 / AV-8 Series

**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:** 530

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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-3a	1 / AV-8B LITENING POD (OSIP 023-00) (Upgrade)				- / 608.168	- / 20.792	- / 16.814	- / 30.509	- / 0.000	- / 30.509
P-3a	2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04) (Upgrade)				- / 58.647	- / 4.883	- / 3.818	- / 3.858	- / 0.000	- / 3.858
P-3a	3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06) (TBD)				- / 161.220	- / 18.092	- / 15.395	- / 20.687	- / 0.000	- / 20.687
P-3a	4 / DIGITAL INTEROPERABILITY (OSIP 014-16) (Upgrade)				- / 9.142	- / 12.508	- / 7.528	- / 3.523	- / 0.000	- / 3.523
P-3a	5 / INACTIVE OSIPS (TBD)				- / 481.793	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 1,318.970</b>	<b>- / 56.275</b>	<b>- / 43.555</b>	<b>- / 58.577</b>	<b>- / 0.000</b>	<b>- / 58.577</b>

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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-3a	1 / AV-8B LITENING POD (OSIP 023-00) (Upgrade)				- / 21.880	- / 21.324	- / 26.950	- / 27.416	- / 41.434	- / 815.287
P-3a	2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04) (Upgrade)				- / 3.392	- / 3.706	- / 4.461	- / 4.550	- / 15.634	- / 102.949
P-3a	3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06) (TBD)				- / 14.738	- / 7.473	- / 6.455	- / 6.681	- / 34.910	- / 285.651
P-3a	4 / DIGITAL INTEROPERABILITY (OSIP 014-16) (Upgrade)				- / 2.072	- / 1.445	- / 0.000	- / 0.000	- / 0.000	- / 36.218
P-3a	5 / INACTIVE OSIPS (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 481.793
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 42.082</b>	<b>- / 33.948</b>	<b>- / 37.866</b>	<b>- / 38.647</b>	<b>- / 91.978</b>	<b>- / 1,721.898</b>

\*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.

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

**Justification:**  
The FY 2019 funding request was reduced by \$0.912M to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

FY 2019 funding will also continue funding COFP V4 software upgrade, required to utilize ATDL, and associated firmware validation and logistics elements to include training and support equipment. COFP V4 will integrate new data sets to the aircraft mission and weapon systems computers, and will integrate Pod Datalink encryption. FY 2019 will also begin procurement of the ATDL, and will begin non-recurring engineering efforts for the LITENING Digital Port Upgrade. The increase in FY 2019 is due to the V4 effort increasing due to being in verification and qualification, as well as aircraft OFP software integration phase, starting ATDL procurement and LITENING Digital Port NRE.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 1 / AV-8B LITENING POD (OSIP 023-00)

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total	MDAP/MAIS Code:		
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-	-		
Gross/Weapon System Cost (\$ in Millions)	608.168	20.792	16.814	30.509	0.000	30.509	21.880	21.324	26.950	27.416	41.434	815.287			
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Net Procurement (P-1) (\$ in Millions)	608.168	20.792	16.814	30.509	0.000	30.509	21.880	21.324	26.950	27.416	41.434	815.287			
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
<b>Total Obligation Authority (\$ in Millions)</b>	<b>608.168</b>	<b>20.792</b>	<b>16.814</b>	<b>30.509</b>	<b>0.000</b>	<b>30.509</b>	<b>21.880</b>	<b>21.324</b>	<b>26.950</b>	<b>27.416</b>	<b>41.434</b>	<b>815.287</b>			
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-			
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-			

**Description:**

AV-8B LITENING POD (OSIP 023-00)  
DESCRIPTION/JUSTIFICATION:

The system integrates and procures an external targeting pod that includes an infrared and low-light television targeting device capable of detecting, classifying, auto-tracking, and designating air-to-surface targets. The system will support first-pass autonomous delivery of conventional, precision guided and accurate munitions to include Laser Maverick, Guided Bomb Unit (GBU)-12, GBU-16, and Joint Direct Attack Munitions. The system will provide targeting capabilities for the AV-8B Fleet of Night Attack and RADAR aircraft through the end of its service life. The AV-8B Program Office is the single management authority, procuring, integrating, and managing the LITENING Pod program on all United States Marine Corps (USMC) (AV-8B/F/A-18/EA-6B) platforms in order to maintain commonality within the USMC Tactical Air (TACAIR) for LITENING capabilities. Under this structure, the G4 LITENING pod is being procured and integrated on the AV-8B, F/A-18, and EA-6B platforms via aircraft-specific Operational Flight Programs (OFPs). The G4 upgrade vastly improves combat capabilities through increased coverage, expanded Improvised Explosive Device detection capability, and expanding range of video downlink to support ground units equipped with Remote Operated Video Enhanced Receiver (ROVER) and Video Scout ground stations. Theater Joint Tactical Air Requests are specifically requesting LITENING Datalink capabilities for Intelligence, Surveillance, and Reconnaissance. The upgrade doubles the Forward Looking Infrared resolution, and adds Laser Target Image Processing (LTIP) for enhanced detection and targeting capability; increasing the survivability and effectiveness of ground forces. Further upgrades to the Pod Common USMC OFP, such as COFP V3 and V4, will be integrated in follow-on AV-8B, F/A-18, and EA-6B platform OFPs. Future upgrades are planned to the LITENING Datalink. The Advanced Tactical Datalink (ATDL), in conjunction with COFP V4, will permit collaborative and networked payloads to communicate with each other and determine appropriate action against multiple targets simultaneously. It will enable usage of multiple data waveforms for information exchange in both air-to-air and air-to-ground environments among an increasing number of contributors, providing the ability to link ground forces into a digital interoperable, robust, and flexible network architecture. The ATDL will serve as a conduit between disparate networks and waveforms and off-board relative and pertinent data to maneuvering forces in real time and will provide wireless networking capability. Support equipment will include portable power units, trouble shooting support equipment and video viewing devices. The associated software upgrade will integrate tracking Algorithm updates providing more reliable tracking of moving targets, improvements to the passive ranging, improvements to Pod focus and mode selection process, and image overlay mode. The LITENING Digital Port Upgrade will enable the LITENING pod to connect to the aircraft via high speed Ethernet connection, which will enable transmission of high definition LITENING pod video to a tablet display in the cockpit via an aircraft wiring kit. This will enable aircrew to view pod video in high definition in order to better identify threats and positively identify targets.

FY19 funding will also continue funding COFP V4 software upgrade, required to utilize ATDL, and associated firmware validation and logistics elements to include training and support equipment. COFP V4 will integrate new data sets to the aircraft mission and weapon systems computers, and will integrate Pod Datalink encryption. FY19 will also begin procurement of the ATDL, and will begin non-recurring engineering efforts for the LITENING Digital Port Upgrade. The increase in FY19 is due to the V4 effort increasing due to being in verification and qualification, as well as aircraft OFP software integration phase, starting ATDL procurement and LITENING Digital Port NRE.

All LITENING modifications, software/firmware validation, and associated logistics elements support all three USMC TACAIR Expeditionary platforms that are currently supporting Overseas Contingency Operations (OCO) combat operations, and all Commandant of the Marine Corps directed pre-deployment training requirements. COFP costs will fluctuate between years due to software/firmware upgrade

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 1 / AV-8B LITENING POD (OSIP 023-00)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>
<p>complexity for specific software upgrades, as well as differences in scope between early contractor efforts for Pod software, and following Organic efforts for aircraft software coding and integration. Conduct mitigations for parts obsolescence in the LITENING pod and associated training and support equipment. Funds will be utilized to manage, process, and incorporate LITENING upgrades and implement changes to sustain and improve the digital interoperability systems readiness including safety, mission availability, system employment, and component reliability, maintainability, and obsolescence conditions as these emerging deficiencies arise and require modification. This funding will ensure that software is upgraded and integrated, and logistically supported to ensure the LITENING capabilities are integrated with aircraft OFPs.</p> <p><b>DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:</b>          The LITENING Targeting Pod is a non-developmental item and has been in full production for several years. FY19 baseline funding will continue Common OFF V4 upgrade efforts to include integration into platform OFPs, continues ATDL upgrade efforts, begins procurement of ATDLs, begins engineering effort associated with LITENING Digital Port Upgrade, will continue Block 1 to G4 LITENING Pod upgrades, and will perform software/firmware validation and associated logistics elements to include publications, training equipment and support equipment. The LITENING pod will be in service past the out of service date of the AV-8B, as the Expeditionary USMC LITENING pod will remain in service and require ongoing upgrades to support its use on the USMC F/A-18 platform through its service life.</p>		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>										<b>Date:</b> February 2018				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1					<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series					<b>Modification Number / Title:</b> 1 / AV-8B LITENING POD (OSIP 023-00)				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>							
<b>Models of Systems Affected:</b> AV-8B Night Attack & Radar/Reman				<b>Modification Type:</b> Upgrade				<b>Related RDT&amp;E PEs:</b>						
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)		
<b>Procurement</b>														
<b>Modification Item 1 of 1: AV-8B LITENING POD (OSIP 023-00)</b>														
A Kits														
Recurring														
1.1.1) ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.592	19 / 1.462	24 / 1.884	18 / 1.441	4 / 0.320	73 / 5.699		
<b>Subtotal: Recurring</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.592</b>	<b>- / 1.462</b>	<b>- / 1.884</b>	<b>- / 1.441</b>	<b>- / 0.320</b>	<b>- / 5.699</b>		
Non-Recurring														
1.2.1) Installation Kits N/R - Organic <sup>(1)</sup>	- / -	- / -	- / -	- / 18.779	- / -	- / 18.779	- / 0.598	- / -	- / -	- / -	- / -	- / 19.377		
<b>Subtotal: Non-Recurring</b>	<b>- / 0.000</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 18.779</b>	<b>- / -</b>	<b>- / 18.779</b>	<b>- / 0.598</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / 19.377</b>		
B Kits														
Recurring														
2.1.1) Pod Upgrade Kits (BLOCK 1 to GEN4) - Organic <sup>(2)</sup>	39 / 56.806	- / -	3 / 5.483	4 / 7.456	- / -	4 / 7.456	- / -	- / -	- / -	- / -	- / -	46 / 69.745		
2.1.2) Common OFP V4 - Organic <sup>(3)</sup>	- / -	- / 4.876	- / 7.430	- / 8.791	- / -	- / 8.791	- / 5.811	- / 1.555	- / -	- / -	- / -	- / 28.463		
2.1.3) Advanced Tactical Datalink (ATDL) WRA - Organic <sup>(4)</sup>	- / -	- / -	- / -	8 / 2.268	- / -	8 / 2.268	23 / 6.997	24 / 7.536	34 / 10.781	31 / 10.032	- / -	120 / 37.614		
2.1.4) Litening Digital Port Pod Upgrade - Organic	- / -	- / -	- / -	- / -	- / -	- / -	8 / 2.757	19 / 6.813	24 / 8.778	26 / 9.700	43 / 16.043	120 / 44.091		
2.1.5) Archived ECPs - Organic	204 / 319.634	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	204 / 319.634		
2.1.6) Archived ECP's (OCO) - Organic	68 / 97.198	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	68 / 97.198		
<b>Subtotal: Recurring</b>	<b>- / 473.638</b>	<b>- / 4.876</b>	<b>- / 12.913</b>	<b>- / 18.515</b>	<b>- / -</b>	<b>- / 18.515</b>	<b>- / 15.565</b>	<b>- / 15.904</b>	<b>- / 19.559</b>	<b>- / 19.732</b>	<b>- / 16.043</b>	<b>- / 596.745</b>		
Non-Recurring														
2.2.1) Installation Equipment N/R - Organic <sup>(5)</sup>	- / 40.671	- / 14.613	- / 2.080	- / 1.666	- / -	- / 1.666	- / 1.362	- / 1.173	- / 1.036	- / 1.014	- / 11.489	- / 75.104		
<b>Subtotal: Non-Recurring</b>	<b>- / 40.671</b>	<b>- / 14.613</b>	<b>- / 2.080</b>	<b>- / 1.666</b>	<b>- / -</b>	<b>- / 1.666</b>	<b>- / 1.362</b>	<b>- / 1.173</b>	<b>- / 1.036</b>	<b>- / 1.014</b>	<b>- / 11.489</b>	<b>- / 75.104</b>		
<b>Subtotal: AV-8B LITENING POD (OSIP 023-00)</b>	<b>311 / 514.309</b>	<b>- / 19.489</b>	<b>3 / 14.993</b>	<b>12 / 28.960</b>	<b>- / -</b>	<b>12 / 28.960</b>	<b>39 / 18.117</b>	<b>62 / 18.539</b>	<b>82 / 22.479</b>	<b>75 / 22.187</b>	<b>47 / 27.852</b>	<b>631 / 686.925</b>		
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 514.309</b>	<b>- / 19.489</b>	<b>- / 14.993</b>	<b>- / 28.960</b>	<b>- / -</b>	<b>- / 28.960</b>	<b>- / 18.117</b>	<b>- / 18.539</b>	<b>- / 22.479</b>	<b>- / 22.187</b>	<b>- / 27.852</b>	<b>- / 686.925</b>		
<b>Support (All Modification Items)</b>														
3.1) Engineering Change Orders	- / 1.748	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.748		
3.2) Data <sup>(6)</sup>	- / 1.525	- / 0.025	- / 0.051	- / 0.052	- / -	- / 0.052	- / 0.409	- / 0.053	- / 0.054	- / 0.056	- / 0.361	- / 2.586		
3.3) Training Equipment <sup>(7)</sup>	- / 21.031	- / 0.335	- / 0.638	- / 0.342	- / -	- / 0.342	- / 1.524	- / 0.353	- / 0.360	- / 0.367	- / 2.544	- / 27.494		

**UNCLASSIFIED**

**Exhibit P-3a, Individual Modification: PB 2019 Navy** **Date:** February 2018

**Appropriation / Budget Activity / Budget Sub Activity:** 1506N / 05 / 1 **P-1 Line Item Number / Title:** 0514 / AV-8 Series **Modification Number / Title:** 1 / AV-8B LITENING POD (OSIP 023-00)

**ID Code** (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

**Models of Systems Affected:** AV-8B Night Attack & Radar/Reman **Modification Type:** Upgrade **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)
3.4) Support Equipment <sup>(8)</sup>	111 / 7.690	- / 0.081	- / 0.082	- / 0.084	- / -	- / 0.084	- / 0.718	- / 0.125	- / 0.137	- / 0.127	- / 0.628	111 / 9.672
3.5) ILS <sup>(9)</sup>	- / 4.453	- / 0.025	- / 0.026	- / 0.026	- / -	- / 0.026	- / 0.061	- / 0.027	- / 0.027	- / 0.028	- / 0.076	- / 4.749
3.6) Other Support	- / 57.412	- / 0.837	- / 1.024	- / 1.045	- / -	- / 1.045	- / 1.051	- / 1.067	- / 1.086	- / 1.109	- / 7.246	- / 71.877
<i>Subtotal: Support</i>	- / 93.859	- / 1.303	- / 1.821	- / 1.549	- / -	- / 1.549	- / 3.763	- / 1.625	- / 1.664	- / 1.687	- / 10.855	- / 118.126
<b>Installation</b>												
<i>Modification Item 1 of 1:</i> AV-8B LITENING POD (OSIP 023-00)	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 1.160	- / 2.807	- / 3.542	- / 2.727	- / 10.236
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.160	- / 2.807	- / 3.542	- / 2.727	- / 10.236
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>608.168</b>	<b>20.792</b>	<b>16.814</b>	<b>30.509</b>	<b>0.000</b>	<b>30.509</b>	<b>21.880</b>	<b>21.324</b>	<b>26.950</b>	<b>27.416</b>	<b>41.434</b>	<b>815.287</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 1 / AV-8B LITENING POD (OSIP 023-00)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 1:** AV-8B LITENING POD (OSIP 023-00)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 1.160	- / -	- / -	0 / 0.000	8 / 1.160
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 2.807	- / -	0 / 0.000	19 / 2.807
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 3.542	0 / 0.000	24 / 3.542
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 2.147	18 / 2.147
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.580	4 / 0.580
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 1.160	19 / 2.807	24 / 3.542	22 / 2.727	73 / 10.236

**Installation Schedule**

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	5	5	5	4	6	6	6	6	22	73
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	5	5	5	4	6	6	6	28	73

**Method of Implementation (Organic):** Pod Upgrade Kits (BLOCK 1 to GEN4) **Installation Quantity:** 46

**Method of Implementation (Organic):** Advanced Tactical Datalink (ATDL) WRA - Not Installed **Installation Quantity:** 120

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 1 / AV-8B LITENING POD (OSIP 023-00)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>
<b>Modification Item 1 of 1:</b> AV-8B LITENING POD (OSIP 023-00)		
<b>Installation Information</b>		
<b>Method of Implementation (Organic):</b> Litening Digital Port Pod Upgrade - Not Installed		<b>Installation Quantity:</b> 120
<b>Method of Implementation (Organic):</b> Archived ECPs		<b>Installation Quantity:</b> 204
<b>Method of Implementation (Organic):</b> Archived ECP's (OCO)		<b>Installation Quantity:</b> 68

**Footnotes:**

- (1) Installation Kits N/R: Installation Kits N/R is required in FY19 to perform complex NRE/verification required to procure and install ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit.
- (2) Pod Upgrade Kits (BLOCK 1 to GEN4): The Block 1 to Gen 4 Pod Upgrade Kit contract per unit price decreases with each unit procured, to include units procured by other services. FY18 and FY19 are expected to be a standalone small quantity procurements, impacting per unit price.
- (3) Common OFP V4: Planned implementation via aircraft platform ECP following completion of Common OFP V3. COFP V4 will incorporate ATDL software. This upgrade will be implemented in aircraft via platform ECPs for AV-8B, F/A-18, and EA-6B. Costs fluctuate from year to year due to varying costs of contractor efforts to write Pod software, and following multiple-year Government efforts to write aircraft side software to integrate with contractor Pod software. Increase in FY19 is due to plans to be in work at organic field activities integrating COFP V4 with AV-8B, F/A-18, and EA-6B platform OFPs and verifying contractor software on aircraft. Quantity is not reflected as each platform will produce software that will be incorporated via ECP at the O-level in all aircraft capable of utilizing the LITENING pod.
- (4) Advanced Tactical Datalink (ATDL) WRA: Increase in quantity from FY20 through FY23 required to permit collaborative and networked payloads to communicate with each other and determine appropriate action against multiple targets simultaneously.
- (5) Installation Equipment N/R: NRE supports integration of COFP V4, as well as NRE for Advanced Tactical Datalink (ATDL). Firmware validations also performed under this line. NRE fluctuates from year to year based on the complexity of the effort undergoing NRE. Increase in FY17 from PB18 is due to beginning NRE on the ATDL, and the increased amount of non-recurring engineering required to integrate the ATDL in the Litening Pod as utilized aboard the AV-8B and F/A-18. FY19 NRE required to perform necessary validation of LITENING firmware updates with the AV-8B, F/A-18, and EA-6B platforms.
- (6) Data: FY20 increase is due required publication updates to incorporate the COFP V4 and ATDL hardware into the Fleet LITENING Pods, as well as the incorporation of the LITENING Digital Port upgrade and ECP-TBD LITENING Video to Cockpit Wiring modification into the publications. Amounts fluctuate per fiscal year due to changes in publication efforts planned for each year, and depending on the types of upgrades in work in a given year. Costs change due to number, type, and complexity of hardware/software/firmware updates planned each year. This OSIP is made up of multiple upgrades, and each upgrade is not in the same state each year, nor does each upgrade impact the same number of pages in publications.
- (7) Training Equipment: Trainer funding is required in FY19-FY21 for COFP V4 and ATDL trainer upgrades. FY's 17, 18, and 20 reflect NAWC TSD organic efforts for these upgrades. Costs increase in FY20 due to expected contract award to account for ATDL and COFP V4 efforts. Costs fluctuate from year to year due to changing levels of effort required organically and by contracts to support COFP V4 as well as ATDL. As the effort progresses, the funds required fluctuate from year to year.
- (8) Support Equipment: Increase in FY20 is due to requirement to upgrade support equipment utilized to playback LITENING video.
- (9) ILS: Increase in FY20 due to ILS required to support ECP-TBD AV-8B LITENING Video to Cockpit Wiring Kit modification.



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	58.647	4.883	3.818	3.858	0.000	3.858	3.392	3.706	4.461	4.550	15.634	102.949
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	58.647	4.883	3.818	3.858	0.000	3.858	3.392	3.706	4.461	4.550	15.634	102.949
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>58.647</b>	<b>4.883</b>	<b>3.818</b>	<b>3.858</b>	<b>0.000</b>	<b>3.858</b>	<b>3.392</b>	<b>3.706</b>	<b>4.461</b>	<b>4.550</b>	<b>15.634</b>	<b>102.949</b>

*(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 Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04 )

**DESCRIPTION/JUSTIFICATION:**

The AV-8B is a single engine aircraft with unique capabilities. The Vertical/Short Take-off Landing environment is very unforgiving and allows no tolerance for engine problems. The Engine Life Management Program is a comprehensive program to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine. Funding provided is to incorporate Engineering Change Proposals (ECP) to increase safety of flight and operational readiness of the F-402-RR-408 Engine.

**DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

Operational, Safety and Improvement Program 02-04 supports the Harrier AV-8B ELMP through Aircraft Procurement, Navy funding. Power Plant changes are required throughout the aircraft service life as the aircraft ages and operationally revealed deficiencies are discovered, researched, and solutions engineered. The Component Improvement Program, which is Research Development Test & Evaluation funded, provides for the development and demonstration of the engineered solutions to these deficiencies and Power Plant changes are initiated through the ECP process. The power plant program procures the necessary kits, installation, non-recurring engineering, peculiar support equipment, and technical data. The kits provided are for engine, propulsion accessories and related hardware to support the AV-8B F402-RR-408 engine. The purpose of the program is to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine. The ELMP is comprised of several Engineering Project Description (EPD) investigations that provide engineering solutions for fleet safety and parts obsolescence issues. The EPD investigations and resulting ECPs will be implemented and formalized under the development program and incorporated into the F402-RR-408 via OSIP 02-04. This OSIP also provides funding for the Integrated Logistics Support program whose primary objective is to achieve an effective, affordable and supportable program for the engine that fulfills its readiness and fleet operational requirements at the lowest Life Cycle Cost.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>										<b>Date:</b> February 2018			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1					<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series					<b>Modification Number / Title:</b> 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> AV-8B Night Attack & Radar/Reman				<b>Modification Type:</b> Upgrade				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)	
<b>Procurement</b>													
<b>Modification Item 1 of 1:</b> ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)													
A Kits													
Recurring													
1.1.1) ECP-1095 GTS Brake Seal - Organic	- / -	41 / 0.600	43 / 0.630	43 / 0.642	- / -	43 / 0.642	8 / 0.120	8 / 0.120	8 / 0.122	8 / 0.124	63 / 0.994	222 / 3.352	
1.1.2) ECP TBD EVICS Interrogator / Obsolescence - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	194 / 6.000	194 / 6.000	
1.1.3) ECP TBD LPC1 Redesign - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	3 / 0.300	
1.1.4) ECP TBD #2 Bearing Redesign - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	3 / 0.300	
1.1.5) ECP TBD CCOC Thermocouples - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	3 / 0.300	
1.1.6) ECP TBD FMU Obsolescence - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	192 / 3.000	192 / 3.000	
1.1.7) ECP TBD MK107 Conversion to 408B - Organic	- / -	1 / 0.534	1 / 0.536	1 / 0.538	- / -	1 / 0.538	1 / 0.540	1 / 0.550	1 / 0.561	1 / 0.572	- / -	7 / 3.831	
1.1.8) Archived ECPs - Organic	449 / 11.509	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	449 / 11.509	
<b>Subtotal: Recurring</b>	<b>- / 11.509</b>	<b>- / 1.134</b>	<b>- / 1.166</b>	<b>- / 1.180</b>	<b>- / -</b>	<b>- / 1.180</b>	<b>- / 0.660</b>	<b>- / 0.670</b>	<b>- / 0.683</b>	<b>- / 0.696</b>	<b>- / 10.894</b>	<b>- / 28.592</b>	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / 0.104	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.104	
<b>Subtotal: Non-Recurring</b>	<b>- / 0.104</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / 0.104</b>	
B Kits													
Non-Recurring													
2.1.1) Installation Equipment N/R - Organic	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.400	
<b>Subtotal: Non-Recurring</b>	<b>- / 0.400</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>	<b>- / 0.000</b>	<b>- / 0.400</b>	
<b>Subtotal: ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)</b>	<b>449 / 12.013</b>	<b>42 / 1.134</b>	<b>44 / 1.166</b>	<b>44 / 1.180</b>	<b>- / -</b>	<b>44 / 1.180</b>	<b>9 / 0.660</b>	<b>9 / 0.670</b>	<b>9 / 0.683</b>	<b>9 / 0.696</b>	<b>458 / 10.894</b>	<b>1,073 / 29.096</b>	
<b>Subtotal: Procurement, All Modification Items</b>	<b>- / 12.013</b>	<b>- / 1.134</b>	<b>- / 1.166</b>	<b>- / 1.180</b>	<b>- / -</b>	<b>- / 1.180</b>	<b>- / 0.660</b>	<b>- / 0.670</b>	<b>- / 0.683</b>	<b>- / 0.696</b>	<b>- / 10.894</b>	<b>- / 29.096</b>	
<b>Support (All Modification Items)</b>													
3.3) Data	- / 4.736	- / 0.303	- / 0.206	- / 0.197	- / -	- / 0.197	- / 0.162	- / 0.165	- / 0.168	- / 0.130	- / 1.417	- / 7.484	
3.4) Support Equipment	- / 16.755	- / 1.151	- / 1.174	- / 1.197	- / -	- / 1.197	- / 1.221	- / 1.245	- / 1.270	- / 1.292	- / 0.463	- / 25.768	
3.5) ILS <sup>(10)</sup>	- / 19.468	- / 2.115	- / 1.089	- / 1.219	- / -	- / 1.219	- / 1.283	- / 1.560	- / 2.274	- / 2.366	- / 2.053	- / 33.427	
3.6) Other Support	- / 4.975	- / 0.180	- / 0.183	- / 0.065	- / -	- / 0.065	- / 0.066	- / 0.066	- / 0.066	- / 0.066	- / 0.807	- / 6.474	
3.8) Archived Support Costs	- / 0.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.700	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Models of Systems Affected:</b> AV-8B Night Attack & Radar/Reman	<b>Modification Type:</b> Upgrade	<b>Related RDT&amp;E PEs:</b>
---	-----------------------------------	-------------------------------

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)
<i>Subtotal: Support</i>	- / 46.634	- / 3.749	- / 2.652	- / 2.678	- / -	- / 2.678	- / 2.732	- / 3.036	- / 3.778	- / 3.854	- / 4.740	- / 73.853
<b>Installation</b>												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	<b>58.647</b>	<b>4.883</b>	<b>3.818</b>	<b>3.858</b>	<b>0.000</b>	<b>3.858</b>	<b>3.392</b>	<b>3.706</b>	<b>4.461</b>	<b>4.550</b>	<b>15.634</b>	<b>102.949</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>
<b>Modification Item 1 of 1:</b> ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)		

**Footnotes:**

<sup>(10)</sup> ILS: FY19 increase due to increased ECP development and support at Rolls Royce in coordination with AV-8B International partners.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	161.220	18.092	15.395	20.687	0.000	20.687	14.738	7.473	6.455	6.681	34.910	285.651
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	161.220	18.092	15.395	20.687	0.000	20.687	14.738	7.473	6.455	6.681	34.910	285.651
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>161.220</b>	<b>18.092</b>	<b>15.395</b>	<b>20.687</b>	<b>0.000</b>	<b>20.687</b>	<b>14.738</b>	<b>7.473</b>	<b>6.455</b>	<b>6.681</b>	<b>34.910</b>	<b>285.651</b>

*(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 Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

**DESCRIPTION/JUSTIFICATION:**

Obsolescence Replacement provides for maintaining the readiness of the AV-8B weapons system until its projected end of service, which is now 2026 or until replaced by short take-off and vertical landing (STOVL) operations F-35B. This requires the airframe and integrated systems to exceed planned service life and requires both systems modifications and obsolescence solutions. Funds will be utilized to procure kits and kit components, incorporate Engineering Change Proposals (ECPs) and implement changes to sustain and improve AV-8B weapons system readiness including safety, mission availability, structural integrity, air-to-ground and air-to-air weapon system employment, stores expansion, and component (avionics/systems) reliability, maintainability, and obsolescence conditions, including peculiar support equipment. This program may be required to provide emergent, timely remedial action for any aircraft system, component or structure. All depot level modification installations will be planned and programmed concurrent with Integrated Maintenance Plan (IMP)/Planned Maintenance Interval (PMI) scheduled depot overhaul events to minimize aircraft out-of-service periods, unless safety or aircraft availability require stand-alone installations, or depot lack of capacity requires contracted modification installations.

FY19 Installation funding supports installs of the following modifications: Center Tank Structural Mods, RADAR Utility Test Panel Upgrade, Frame 43 Bushings, Canopy Latch, Frame 29 Structure Mod, and Outrigger Positive Indicator.

FY17 - FY23 Qty profile updated based on Depot's current schedule for modification installation.

With the end of service life currently being 2026, OSIP 06-06 Obsolescence Replacement continues to focus on those ECPs that maintain the readiness of the AV-8B weapons system with consideration for cost and schedule. Procurement kit quantities have been accelerated for several ECPs in order to capitalize on and piggyback off of the compressed Link 16 installation schedule; this allows aircraft to receive multiple ECPs in conjunction with the Link 16 install which is not only a cost savings but also allows for aircraft to be returned to Ready Basic Aircraft (RBA) status in a significantly more timely manner. Determination of ECP kit quantities is based off of fleet requirements as outlined in the A-11 as well as information from the TYCOM which reflects the squadron transition plan for the AV-8B fleet.

Support costs required for Obsolescence ECPs do not correlate significantly with the quantity or unit cost of kits procured.

Non-recurring engineering and integrated logistic support (ILS) work continues for ECPs, procurements and installations for new and ongoing obsolescence and readiness requirements. Key efforts include an improved Canopy Latch, a Center Tank Structural Modification, and modifications to Frame 29, Frame 43, Leading Edge Root Extension (LERX), GR-9 Compatibility and Seat Caution Light Incorporation that address safety, integrity and obsolescence issues. Additional safety and reliability modifications include Outrigger Landing Gear Position Indicators, RADAR Utility Test Panel, RADAR ECS Filtration incorporation, Oil Caution Light Relocation, Landing, Approach and Hover Light Improvements, and OSP3R processor card obsolescence replacement. Other efforts include weapons capability ECPs and obsolescence mitigation ECPs, the integration and logistics elements required for use of Common Avionics Procured KY-58 obsolescence replacement, data/ILS updates for ECPs and support equipment

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>	
procurements unique to the use of the BRU-70, and Display Computer. Various kit procurements and installations will continue throughout the Future Years Defense Plan. NRE will fluctuate due to mix and complexity of Readiness Management Plan ECPs being written and verified in each year. All ECPs do not require the same level of NRE.		
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>										<b>Date:</b> February 2018			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1					<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series					<b>Modification Number / Title:</b> 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> [No Model Specified]				<b>Modification Type:</b> TBD				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)	
<b>Procurement</b>													
<i>Modification Item 1 of 1:</i> OBSOLESCENCE REPLACEMENT (OSIP 006-06)													
A Kits													
Recurring													
1.1.1) ECP-PMA-257-2011-0001 Center Tank Structural Modification - NonOrganic	73 / 2.772	- / -	9 / 0.183	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	82 / 2.955	
1.1.2) ECP PMA-257-2008-0004 Frame 43 Bushings - NonOrganic	95 / 0.765	9 / 0.023	6 / 0.047	14 / 0.110	- / -	14 / 0.110	- / -	- / -	- / -	- / -	- / -	124 / 0.945	
1.1.3) ECP-MDC-AC-8B-00331 Frame 11 - NonOrganic (11)	21 / 1.723	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 1.723	
1.1.4) ECP-MDC-AV-8B-00332 Canopy Latch - NonOrganic	66 / 1.447	24 / 0.920	24 / 0.968	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	114 / 3.335	
1.1.5) ECP-PMA-257-2010-0002 Frame 29 Structure Modification - NonOrganic	40 / 2.416	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 2.416	
1.1.6) ECP-CP-049 Leading Edge Root Extension (LERX) - Organic	- / -	- / -	64 / 0.824	64 / 0.840	- / -	64 / 0.840	64 / 0.608	28 / 0.200	- / -	- / -	- / -	220 / 2.472	
1.1.7) ECP-TBD Seat Caution Light Incorporation - NonOrganic	- / -	4 / 0.630	- / -	74 / 0.768	- / -	74 / 0.768	31 / 0.328	- / -	- / -	- / -	- / -	109 / 1.726	
1.1.8) ECP-MDC-AV8B-0339 Utility Test Panel Upgrade - NonOrganic	- / -	40 / 1.861	35 / 1.462	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	75 / 3.323	
1.1.9) ECP-TBD Radar Environmental Control System (ECS) Filter Incorporation - Organic	- / -	- / -	- / -	74 / 0.779	- / -	74 / 0.779	- / -	- / -	- / -	- / -	- / -	74 / 0.779	
1.1.10) ECP-TBD Outrigger Positive Indicator - NonOrganic	- / -	- / -	2 / 0.020	74 / 0.740	- / -	74 / 0.740	33 / 0.336	- / -	- / -	- / -	- / -	109 / 1.096	
1.1.11) ECP-TBD AIM-9X Wiring Kit - Organic	- / -	- / -	110 / 1.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	110 / 1.650	
1.1.12) ECP-TBD Oil Caution Light - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	74 / 1.850	35 / 0.892	- / -	- / -	- / -	109 / 2.742	
1.1.13) ECP-TBD Nose Landing Gear Taxi Light - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	74 / 3.700	35 / 1.783	- / -	- / -	- / -	109 / 5.483	
1.1.14) ECP-TBD-Radome Replacement - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.250	10 / 2.550	90 / 22.950	109 / 27.750	
1.1.15) A Kits/Recurring - ARCHIVED ECPs - NonOrganic	2,637 / 12.420	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,637 / 12.420	
<b>Subtotal: Recurring</b>	<b>- / 21.543</b>	<b>- / 3.434</b>	<b>- / 5.154</b>	<b>- / 3.237</b>	<b>- / -</b>	<b>- / 3.237</b>	<b>- / 6.822</b>	<b>- / 2.875</b>	<b>- / 2.250</b>	<b>- / 2.550</b>	<b>- / 22.950</b>	<b>- / 70.815</b>	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic <sup>(12)</sup>	- / 21.222	- / 2.385	- / 0.303	- / 1.610	- / -	- / 1.610	- / 0.108	- / 0.109	- / 0.096	- / 0.145	- / -	- / 25.978	
<b>Subtotal: Non-Recurring</b>	<b>- / 21.222</b>	<b>- / 2.385</b>	<b>- / 0.303</b>	<b>- / 1.610</b>	<b>- / -</b>	<b>- / 1.610</b>	<b>- / 0.108</b>	<b>- / 0.109</b>	<b>- / 0.096</b>	<b>- / 0.145</b>	<b>- / 0.000</b>	<b>- / 25.978</b>	

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>										<b>Date:</b> February 2018			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1				<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series						<b>Modification Number / Title:</b> 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> [No Model Specified]				<b>Modification Type:</b> TBD				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)	
<b>B Kits</b>													
Recurring													
2.1.1) ECP-TBD Open System Processor Version 3r (OSP3R) - Organic	- / -	- / -	- / -	145 / 4.480	- / -	145 / 4.480	- / -	- / -	- / -	- / -	- / -	145 / 4.480	
2.1.2) B Kits Recurring - ARCHIVED ECPs - Organic	128 / 30.236	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	128 / 30.236	
<b>Subtotal: Recurring</b>	- / 30.236	- / -	- / -	- / 4.480	- / -	- / 4.480	- / -	- / -	- / -	- / -	- / 0.000	- / 34.716	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic <sup>(13)</sup>	- / 23.585	- / 2.302	- / 0.237	- / 1.420	- / -	- / 1.420	- / 0.331	- / -	- / -	- / -	- / -	- / 27.875	
<b>Subtotal: Non-Recurring</b>	- / 23.585	- / 2.302	- / 0.237	- / 1.420	- / -	- / 1.420	- / 0.331	- / -	- / -	- / -	- / 0.000	- / 27.875	
<b>Subtotal: OBSOLESCENCE REPLACEMENT (OSIP 006-06)</b>	3,060 / 96.586	77 / 8.121	250 / 5.694	445 / 10.747	- / -	445 / 10.747	276 / 7.261	98 / 2.984	9 / 2.346	10 / 2.695	90 / 22.950	4,315 / 159.384	
<b>Subtotal: Procurement, All Modification Items</b>	- / 96.586	- / 8.121	- / 5.694	- / 10.747	- / -	- / 10.747	- / 7.261	- / 2.984	- / 2.346	- / 2.695	- / 22.950	- / 159.384	
<b>Support (All Modification Items)</b>													
3.2) Data	- / 1.123	- / -	- / 0.218	- / 0.110	- / -	- / 0.110	- / 0.005	- / -	- / -	- / -	- / -	- / 1.456	
3.3) Training Equipment	- / 0.995	- / -	- / 0.059	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.054	
3.4) Support Equipment	- / 5.305	- / 0.016	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.421	
3.5) ILS <sup>(14)</sup>	- / 3.796	- / 0.553	- / 0.548	- / 0.548	- / -	- / 0.548	- / 0.517	- / 0.517	- / 0.526	- / 0.536	- / 1.609	- / 19.150	
3.6) Other Support <sup>(15)</sup>	- / 30.983	- / 4.329	- / 3.505	- / 3.204	- / -	- / 3.204	- / 3.264	- / 3.325	- / 3.387	- / 3.450	- / 10.351	- / 65.798	
<b>Subtotal: Support</b>	- / 42.202	- / 4.898	- / 4.430	- / 3.862	- / -	- / 3.862	- / 3.786	- / 3.842	- / 3.913	- / 3.986	- / 11.960	- / 82.879	
<b>Installation</b>													
<b>Modification Item 1 of 1: OBSOLESCENCE REPLACEMENT (OSIP 006-06)</b>	- / 22.432	- / 5.073	- / 5.271	- / 6.078	- / 0.000	- / 6.078	- / 3.691	- / 0.647	- / 0.196	- / 0.000	- / 0.000	- / 43.388	
<b>Subtotal: Installation</b>	- / 22.432	- / 5.073	- / 5.271	- / 6.078	- / -	- / 6.078	- / 3.691	- / 0.647	- / 0.196	- / -	- / 0.000	- / 43.388	
<b>Total</b>													
<b>Total Cost (Procurement + Support + Installation)</b>	<b>161.220</b>	<b>18.092</b>	<b>15.395</b>	<b>20.687</b>	<b>0.000</b>	<b>20.687</b>	<b>14.738</b>	<b>7.473</b>	<b>6.455</b>	<b>6.681</b>	<b>34.910</b>	<b>285.651</b>	



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 1:** OBSOLESCENCE REPLACEMENT (OSIP 006-06)

**Manufacturer Information**

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Manufacturer Name: Various <sup>(16)</sup>	Manufacturer Location: Various
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 0

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Safety:: Installation Name: OBSOLESCENCE REPLACEMENT (OSIP 006-06 )

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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	2,540 / 22.432	35 / 5.052	93 / 4.429	22 / 4.101	0 / 0.000	22 / 4.101	4 / 0.676	- / -	- / -	- / -	0 / 0.000	2,694 / 36.690
FY 2017	- / -	1 / 0.021	64 / 0.795	12 / 0.432	0 / 0.000	12 / 0.432	- / -	- / -	- / -	- / -	0 / 0.000	77 / 1.248
FY 2018	- / -	- / -	2 / 0.047	65 / 1.545	0 / 0.000	65 / 1.545	9 / 1.817	- / -	- / -	- / -	0 / 0.000	76 / 3.409
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	162 / 1.198	- / -	- / -	- / -	0 / 0.000	162 / 1.198
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	212 / 0.647	- / -	- / -	0 / 0.000	212 / 0.647
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	70 / 0.196	- / -	0 / 0.000	70 / 0.196
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	<b>2,540 / 22.432</b>	<b>36 / 5.073</b>	<b>159 / 5.271</b>	<b>99 / 6.078</b>	<b>0 / 0.000</b>	<b>99 / 6.078</b>	<b>175 / 3.691</b>	<b>212 / 0.647</b>	<b>70 / 0.196</b>	<b>- / -</b>	<b>0 / 0.000</b>	<b>3,291 / 43.388</b>

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 1:** OBSOLESCENCE REPLACEMENT (OSIP 006-06)

**Installation Information**

**Method of Implementation:** Safety:: Installation Name: OBSOLESCENCE REPLACEMENT (OSIP 006-06 )

**Installation Schedule**

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	2,540	7	7	9	13	39	40	39	41	27	24	23	25	43	43	46	43	51	52	54	55	16	18	18	18	-	-	-	-	-	3,291
Out	2,540	7	7	9	13	39	40	39	41	27	24	23	25	43	43	46	43	51	52	54	55	16	18	18	18	-	-	-	-	-	3,291

<b>Method of Implementation (Organic):</b> ECP-CP-049 Leading Edge Root Extension (LERX)	<b>Installation Quantity:</b> 220
--	-----------------------------------

<b>Method of Implementation (Organic):</b> ECP-TBD Radar Environmental Control System (ECS) Filter Incorporation	<b>Installation Quantity:</b> 74
--	----------------------------------

<b>Method of Implementation (Organic):</b> ECP-TBD AIM-9X Wiring Kit	<b>Installation Quantity:</b> 110
--	-----------------------------------

<b>Method of Implementation (Organic):</b> ECP-TBD-Radome Replacement	<b>Installation Quantity:</b> 109
---	-----------------------------------

<b>Method of Implementation (Organic):</b> ECP-TBD Open System Processor Version 3r (OSP3R)	<b>Installation Quantity:</b> 145
---	-----------------------------------

<b>Method of Implementation (Organic):</b> B Kits Recurring - ARCHIVED ECPs - Not Installed	<b>Installation Quantity:</b> 128
---	-----------------------------------

**Footnotes:**

(11) ECP-MDC-AC-8B-00331 Frame 11: ECP has been placed in abeyance due to additional structural analysis of aircraft damage. The occurrence rate of crack damage to the Frame 11 has proven to be within tolerable limits.

(12) Installation Kits N/R: Year-to-year fluctuations due to the mix and complexity of Readiness Management Plan ECPs being written and verified in each year. All ECPs do not require the same level of NRE.

(13) Installation Equipment N/R: FY19 Increase to Installation Equipment N/R due to OSP3r Mission Systems Computer Processor Card NRE. Equip NRE will fluctuate due to mix and complexity of RMP ECPs being written and verified in each year. All ECPs do not require the same level of NRE.

(14) ILS: Increase from PB18 due to the incorporation ILS required to support the OSP3r ECP. ILS Support costs required for Obsolescence ECPs do not significantly fluctuate based on the quantity or unit cost of kits procured.

(15) Other Support: Increase from PB18 due to required obsolescence mitigation including avionics, hydraulic, electrical, flight controls, and structures bill of material development, and obsolescence ECP forecasting in order to support the extended end of service date. Other Support costs required for Obsolescence ECPs do not significantly fluctuate based on the quantity or unit cost of kits procured.

(16) Contract and delivery dates are not provided due to the compilation of various ECPs, which compose the install schedule and have different individual contract and delivery dates.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	9.142	12.508	7.528	3.523	0.000	3.523	2.072	1.445	0.000	0.000	0.000	36.218
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	9.142	12.508	7.528	3.523	0.000	3.523	2.072	1.445	0.000	0.000	0.000	36.218
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>9.142</b>	<b>12.508</b>	<b>7.528</b>	<b>3.523</b>	<b>0.000</b>	<b>3.523</b>	<b>2.072</b>	<b>1.445</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>36.218</b>

*(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 Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

**DESCRIPTION/JUSTIFICATION:**

The AV-8B is required to be digitally interoperable with other U.S. and Allied platforms via MIL-STD-6016 (Link 16) waveform. Airborne tactical Datalink messaging will be enabled via Link 16 waveform, providing the ability for the AV-8B to provide Precise Participant Location and Identification (PPLI), send and receive targeting information, view the common air/surface picture, and view Link surveillance tracks. This tactical data communication between the AV-8B, ground units, and joint assets will provide increased interoperability; improved safety/situational awareness/de-confliction, reduced kill timelines, and digital interoperability. Link 16 A and B kits will be incorporated into the aircraft via ECP. ECPs to include the Auxiliary Communications Navigation Identification Panel (ACNIP), Interference Blanker Unit (IBU) and the Mission Systems Computer (MSC) will also be required to be installed prior to or with Link 16 in order to utilize the capability, as will the APX-123 ECP, to be procured by PMA213. All ECPs will require NRE and logistics support elements to include tech data/pubs, ILS, training equipment/upgrade, support equipment procurement/modification and other support. This OSIP will also be used to perform efforts to address certifications and spectrum assignments of these systems, as well as parts obsolescence.

FY19 will begin Link 16 upgrades to meet crypto modernization standards, and will address logistics elements, to include trainer upgrades associated to the H7.0 software ECPs that will incorporate the Link 16 capability upgrade. As the Link 16 functionality is enabled by H6.2 software, and Link 16 capability is upgraded by the H7.0 software, this OSIP supports the validation and configuration management of the Link 16 and aircraft OFP software as impacted by Link 16. Technology upgrades at COTS vendor drives software changes to Link 16, which will be integrated via H7.0. Funds will be utilized to manage, process, and incorporate digital interoperability ECPs and implement changes to sustain and improve the digital interoperability systems readiness including safety, mission availability, system employment, and component reliability, maintainability, and obsolescence conditions as these emerging deficiencies arise and require modification. This funding will ensure that software is upgraded and integrated to ensure the LINK 16 capabilities are integrated with aircraft OFPs.

Support costs required for Link 16 Crypto Modernization upgrade do not correlate significantly with the quantity or unit cost of kits procured.

**DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

Support equipment procurement/upgrades/support and trainer upgrades began in FY17 for Link 16 and OFP ECPs, carrying through FY18 and Link 16 fielding. Installation of kits follows in FY18, followed by ECP and logistics element updates through the FYDP associated to the H7.0 ECP, which is required to integrate full Link 16 functionality. Crypto Modernization upgrade NRE will begin in FY18, and upgrades will begin in FY19 to meet crypto modernization standards, as well as H7.0 trainer upgrades to incorporate upgraded Link 16 capability.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>										<b>Date:</b> February 2018			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1				<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series						<b>Modification Number / Title:</b> 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> AV-8B Night Attack, Day Attack Upgrade, Radar/Reman & TAV-8B				<b>Modification Type:</b> Upgrade				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)	
<b>Procurement</b>													
<i>Modification Item 1 of 1:</i> DIGITAL INTEROPERABILITY (OSIP 014-16)													
A Kits													
Recurring													
1.1.1) ECP-MDC-AV8B-00336 Link 16 - NonOrganic <sup>(17)</sup>	52 / 2.827	21 / 1.114	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 3.941	
1.1.2) ECP-MDC-AV8B-00336 Link 16 ACNIP Light Plate Mod (Non-Organic) - NonOrganic <sup>(18)</sup>	128 / 0.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	128 / 0.178	
1.1.3) ECP-PMA257-2015-0001 IBU - Organic	100 / 1.312	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 1.312	
<i>Subtotal: Recurring</i>	- / 4.317	- / 1.114	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.431	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic <sup>(19)</sup>	- / 3.482	- / 0.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.011	
<i>Subtotal: Non-Recurring</i>	- / 3.482	- / 0.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 4.011	
B Kits													
Recurring													
2.1.1) ECP-MDC-AV8B-00336 Link 16 - Organic <sup>(20)</sup>	52 / 0.000	21 / 4.098	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 4.098	
2.1.2) ECP-TBD Link 16 Crypto Modern Upgrade - Organic <sup>(21)</sup>	- / -	- / -	- / -	33 / 0.875	- / -	33 / 0.875	30 / 0.812	13 / 0.352	- / -	- / -	- / -	76 / 2.039	
<i>Subtotal: Recurring</i>	- / 0.000	- / 4.098	- / -	- / 0.875	- / -	- / 0.875	- / 0.812	- / 0.352	- / -	- / -	- / 0.000	- / 6.137	
<i>Subtotal: DIGITAL INTEROPERABILITY (OSIP 014-16)</i>	332 / 7.799	42 / 5.741	- / -	33 / 0.875	- / -	33 / 0.875	30 / 0.812	13 / 0.352	- / -	- / -	- / -	450 / 15.579	
<i>Subtotal: Procurement, All Modification Items</i>	- / 7.799	- / 5.741	- / -	- / 0.875	- / -	- / 0.875	- / 0.812	- / 0.352	- / -	- / -	- / 0.000	- / 15.579	
<b>Support (All Modification Items)</b>													
3.1) Data <sup>(22)</sup>	- / 0.025	- / 0.165	- / 0.016	- / 0.179	- / -	- / 0.179	- / 0.060	- / -	- / -	- / -	- / -	- / 0.445	
3.2) Training Equipment <sup>(23)</sup>	- / -	- / 3.656	- / 1.165	- / 1.233	- / -	- / 1.233	- / 0.128	- / -	- / -	- / -	- / -	- / 6.182	
3.3) Support Equipment	- / -	- / 0.583	- / 0.186	- / 0.190	- / -	- / 0.190	- / 0.194	- / 0.198	- / -	- / -	- / -	- / 1.351	
3.4) ILS <sup>(24)</sup>	- / 0.665	- / 0.937	- / 0.675	- / 0.413	- / -	- / 0.413	- / 0.287	- / 0.293	- / -	- / -	- / -	- / 3.270	
3.5) Other Support <sup>(25)</sup>	- / 0.653	- / 1.426	- / 0.854	- / 0.633	- / -	- / 0.633	- / 0.591	- / 0.602	- / -	- / -	- / -	- / 4.759	
<i>Subtotal: Support</i>	- / 1.343	- / 6.767	- / 2.896	- / 2.648	- / -	- / 2.648	- / 1.260	- / 1.093	- / -	- / -	- / 0.000	- / 16.007	
<b>Installation</b>													

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Models of Systems Affected:</b> AV-8B Night Attack, Day Attack Upgrade, Radar/Reman & TAV-8B	<b>Modification Type:</b> Upgrade	<b>Related RDT&amp;E PEs:</b>
---	-----------------------------------	-------------------------------

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)
<b>Modification Item 1 of 1:</b> DIGITAL INTEROPERABILITY (OSIP 014-16)	- / 0.000	- / 0.000	- / 4.632	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 4.632
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 4.632	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 4.632
<b>Total</b>												
<b>Total Cost (Procurement + Support + Installation)</b>	9.142	12.508	7.528	3.523	0.000	3.523	2.072	1.445	0.000	0.000	0.000	36.218

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 1:** DIGITAL INTEROPERABILITY (OSIP 014-16)

**Manufacturer Information**

Manufacturer Name: Boeing - Link 16 <sup>(26)</sup>	Manufacturer Location: Various
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 10

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Jan 2017						
Delivery Dates	Nov 2017						

Manufacturer Name: Various - IBU	Manufacturer Location: Various
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 3

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

**Installation Information**

**Method of Implementation:** Contractor Field Mod Team:: Installation Name: Link 16 & Link 16 ACNIP Light Plate

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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	- / -	- / -	125 / 3.309	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	125 / 3.309
FY 2017	- / -	- / -	21 / 1.323	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	21 / 1.323
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
<b>Total</b>	- / -	- / -	146 / 4.632	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	146 / 4.632

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy		<b>Date:</b> February 2018
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

**Modification Item 1 of 1:** DIGITAL INTEROPERABILITY (OSIP 014-16)

**Installation Information**

**Method of Implementation:** Contractor Field Mod Team:: Installation Name: Link 16 & Link 16 ACNIP Light Plate

**Installation Schedule**

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	37	36	36	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146
Out	-	-	-	-	-	37	36	36	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146

<b>Method of Implementation (Organic):</b> ECP-PMA257-2015-0001 IBU	<b>Installation Quantity:</b> 100
---	-----------------------------------

<b>Method of Implementation (Organic):</b> ECP-MDC-AV8B-00336 Link 16 - Not Installed	<b>Installation Quantity:</b> 73
---	----------------------------------

<b>Method of Implementation (Organic):</b> ECP-TBD Link 16 Crypto Modern Upgrade - Not Installed	<b>Installation Quantity:</b> 76
--	----------------------------------

**Footnotes:**

(17) ECP-MDC-AV8B-00336 Link 16 A Kits: All 73 Link 16 kits will be installed at the D-level. Procurement shifted left into FY16 to align with B kits funded with BTR (Issue 64760).

(18) ECP-TBD Link 16 ACNIP Light Plate Mod (Non-Organic): 73 ACNIP Light Plate Kits will be installed at the D-Level and 55 ACNIP Light Plate Kits will be installed at the I-Level.

(19) Installation Kits N/R: An additional \$0.128M was awarded on Link 16 NRE contract with FY16 funding received via BTR (Issue 64760).

(20) ECP-MDC-AV8B-00336 Link 16 B Kits: Qty 52 B Kits were procured with \$11.122M of FY16 funding received via BTR (Issue 64760).

(21) ECP-TBD Link 16 Crypto Modern Upgrade in accordance with NSA mandated requirement.

(22) Data: Increase in FY19 due to publication updates required for H7.0 ECP that will enable Link 16 upgrade for full functionality.

(23) Training Equipment: Increase in FY19 due to the requirement to update the aircrew and maintenance trainers to H7.0 software configuration, which implements Link 16 full functionality with expanded messages. The ECPs that make up this OSIP are varying degrees of complexity with regards to trainer updates, and each ECP is not at the same state each year.

(24) ILS: ILS costs required for Link 16 Crypto Modernization upgrade do not significantly fluctuate based on the quantity or unit cost of kits procured.

(25) Other Support: Other Support costs required for Link 16 Crypto Modernization upgrade do not significantly fluctuate based on the quantity or unit cost of kits procured.

(26) Contract and delivery dates are not provided due to the compilation of various ECPs, which compose the install schedule and have different individual contract and delivery dates, as publications affected and training required are not correlated to unit price.

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy	<b>Date:</b> February 2018
--	----------------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1	<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series	<b>Modification Number / Title:</b> 5 / INACTIVE OSIPS
---	--	---

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	481.793	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	481.793
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	481.793	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	481.793
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>481.793</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>481.793</b>

*(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 Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

Inactive OSIPs prior year totals.



**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>										<b>Date:</b> February 2018			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1					<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series					<b>Modification Number / Title:</b> 5 / INACTIVE OSIPS			
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :							<b>MDAP/MAIS Code:</b>						
<b>Models of Systems Affected:</b> [No Model Specified]				<b>Modification Type:</b> TBD				<b>Related RDT&amp;E PEs:</b>					
Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	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)	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)	
<b>Procurement</b>													
<i>Modification Item 1 of 1: N/A</i>													
<i>Subtotal: N/A</i>													
<i>Subtotal: Procurement, All Modification Items</i>													
<b>Support (All Modification Items)</b>													
1.1) Inactive Osips													
<i>Subtotal: Support</i>													
<b>Installation</b>													
<i>Subtotal: Installation</i>													
<b>Total</b>													
<b>Total Cost (Procurement + Support + Installation)</b>													

**UNCLASSIFIED**

<b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy						<b>Date:</b> February 2018	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1506N / 05 / 1			<b>P-1 Line Item Number / Title:</b> 0514 / AV-8 Series			<b>Modification Number / Title:</b> 5 / INACTIVE OSIPS	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :					<b>MDAP/MAIS Code:</b>		
<b>Modification Item 1 of 1:</b> N/A							
<b>Manufacturer Information</b>							
Manufacturer Name: N/A				Manufacturer Location: N/A			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
<b>Dates</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Contract Dates							
Delivery Dates							
<b>Installation Information</b>							
<b>Method of Implementation (Organic):</b> Support Only Installation					<b>Installation Quantity:</b> 0		