

# UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0305421N I (U)RQ-4 Modernization							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	149.892	144.477	229.404	219.894	-	219.894	136.526	98.684	80.594	72.113	0.000	1,131.584
2939: RQ-4 Modernization	149.892	144.477	229.404	219.894	-	219.894	136.526	98.684	80.594	72.113	0.000	1,131.584
Program MDAP/MAIS Code: Project MDAP/MAIS Code(s): 373												
Note												
Controls locked prior to updating the Cost to Complete value on the R-2. To reflect the correct funding profile, the CTC value should read 83.826 for a Total Cost of 1,215.410.												
MQ-4C Triton RDTE funding for modernization was segregated into a new program element (from PE 0305220N to PE 0305421N) for increased transparency.												
A. Mission Description and Budget Item Justification												
MQ-4C Triton Unmanned Air System (UAS). The popular name Triton was approved for the MQ-4C UAS in June 2012, designating the RQ-4 Broad Area Maritime Surveillance (BAMS) UAS as the MQ-4C Triton.												
The MQ-4C Triton is a high altitude-long endurance UAS designed to provide Fleet and combatant commanders with persistent maritime Intelligence, Surveillance and Reconnaissance (ISR) of nearly all the world's high-density sea-lanes, littorals, and areas of national interest. Teamed with its manned-capability counterpart, the P-8A, Triton will be a key component of the Navy's family of systems to achieve maritime domain awareness. MQ-4C Triton will seek to leverage Maritime Patrol and Reconnaissance Force manpower, training and maintenance efficiencies.												
The MQ-4C Triton features sensors designed to provide near worldwide coverage through a network of five orbits inside and outside continental United States, with sufficient air vehicles to remain airborne for 24 hours a day, 7 days a week, out to ranges of 2000 nautical miles. Onboard sensors will provide detection, classification, tracking and identification of maritime targets and include maritime radar, electro-optical/infra-red and Electronic Support Measures systems. Additionally, the MQ-4C will have a communications relay capability designed to link dispersed forces in the theater of operations and serve as a node in the Navy's networked strategy. Tactical-level data analysis will occur in real-time at shore-based mission control sites connected to the air vehicle via satellite communications. Further intelligence exploitation can be conducted at Fleet shore-based sites or aboard aircraft carriers and other ships.												
The MQ-4C Triton UAS will implement phased capability upgrades within the ongoing acquisition program to pace capability with rapidly evolving technologies and threats to ensure the Navy maintains persistent ISR dominance through the system's lifecycle, and to support the Intelligence, Surveillance, Reconnaissance and Targeting transition plan. System upgrades will include Multi-Intelligence capabilities, Counter Electronic Attack upgrades, a more robust electronic support capability and continue improvements to baseline mission system payloads.												

# UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy Date: February 2018

<b>Appropriation/Budget Activity</b> 1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 0305421N I (U)RQ-4 Modernization
--	---

The MQ-4C air vehicle, mission control system, specialized sensors, and communications suite will play a significant role in achieving the Navy's strategic vision for the 21st century. The Triton system as a persistence ISR enabler provides the supported combatant commander and fleet commander with unparalleled situational awareness of the maritime battle space to develop and sustain the common operational tactical picture. The system will also serve as a Fleet response plan enabler with a persistent, global force offering to provide critical trip wire information for intelligence preparation of the environment. Triton will connect to both the Global Information Grid and the Distributed Common Ground System-Navy information backbone to provide the Warfighter with unprecedented levels of battlespace awareness to synchronize actions necessary to maintain maritime Full Spectrum Superiority.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Previous President's Budget	181.266	229.404	176.195	-	176.195
Current President's Budget	144.477	229.404	219.894	-	219.894
Total Adjustments	-36.789	0.000	43.699	-	43.699
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.089	0.000			
• Program Adjustments	0.000	0.000	45.518	-	45.518
• Rate/Misc Adjustments	0.000	0.000	-1.819	-	-1.819
• Congressional Directed Reductions	-36.700	-	-	-	-
Adjustments					

## Change Summary Explanation

The Triton program was revised to align key program events and funding (+\$45.7M) with the development of the Multi-INT capability upgrade in order to continue to support the Maritime Intelligence, Surveillance, Reconnaissance, and Targeting (MISR&T) Transition Plan.

The FY 2019 funding request was reduced by \$0.205M 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.

# UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy									Date: February 2018			
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0305421N / (U)RQ-4 Modernization				Project (Number/Name) 2939 / RQ-4 Modernization			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
2939: RQ-4 Modernization	149.892	144.477	229.404	219.894	-	219.894	136.526	98.684	80.594	72.113	0.000	1,131.584
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 373												
A. Mission Description and Budget Item Justification												
<p>MQ-4C Triton Unmanned Air System (UAS). The MQ-4C Triton is a high altitude-long endurance UAS designed to provide Fleet and combatant commanders with persistent maritime Intelligence, Surveillance and Reconnaissance (ISR) of nearly all the world's high-density sea-lanes, littorals, and areas of national interest. Teamed with its manned-capability counterpart, the P-8A, Triton will be a key component of the Navy's family of systems to achieve maritime domain awareness. MQ-4C Triton will seek to leverage Maritime Patrol and Reconnaissance Force manpower, training and maintenance efficiencies.</p> <p>The MQ-4C Triton features sensors designed to provide near worldwide coverage through a network of five orbits inside and outside continental United States, with sufficient air vehicles to remain airborne for 24 hours a day, 7 days a week, out to ranges of 2000 nautical miles. Onboard sensors will provide detection, classification, tracking and identification of maritime targets and include maritime radar, electro-optical/infra-red and Electronic Support Measures systems. Additionally, the MQ-4C will have a communications relay capability designed to link dispersed forces in the theater of operations and serve as a node in the Navy's networked strategy. Tactical-level data analysis will occur in real-time at shore-based mission control sites connected to the air vehicle via satellite communications. Further intelligence exploitation can be conducted at Fleet shore-based sites or aboard aircraft carriers and other ships.</p> <p>The MQ-4C Triton UAS will implement phased capability upgrades within the ongoing acquisition program to pace capability with rapidly evolving technologies and threats to ensure the Navy maintains persistent ISR dominance through the system's lifecycle, and to support the Intelligence, Surveillance, Reconnaissance and Targeting transition plan. System upgrades will include Multi-Intelligence capabilities, Counter Electronic Attack upgrades, a more robust electronic support capability and continue improvements to baseline mission system payloads.</p> <p>The MQ-4C air vehicle, mission control system, specialized sensors, and communications suite will play a significant role in achieving the Navy's strategic vision for the 21st century. The Triton system as a persistence ISR enabler provides the supported combatant commander and fleet commander with unparalleled situational awareness of the maritime battle space to develop and sustain the common operational tactical picture. The system will also serve as a Fleet response plan enabler with a persistent, global force offering to provide critical trip wire information for intelligence preparation of the environment. Triton will connect to both the Global Information Grid and the Distributed Common Ground System-Navy information backbone to provide the Warfighter with unprecedented levels of battlespace awareness to synchronize actions necessary to maintain maritime Full Spectrum Superiority.</p>												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	
Title: Product Development							131.531	216.479	202.555	0.000	202.555	
Articles:							-	-	-	-	-	

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: February 2018		
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0305421N / (U)RQ-4 Modernization		Project (Number/Name) 2939 / RQ-4 Modernization		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<p><b>Description:</b> MQ-4C Triton Unmanned Air System (UAS) modernization effort for incorporation of phased capability upgrades. The prime contractor is responsible for integration of upgrades into the Triton UAS including associated management, engineering and logistics activities. Capability upgrades will also include development of system payloads directly with original equipment manufacturers.</p> <p><b>FY 2018 Plans:</b> Funding increase from FY17 to FY18 supports higher levels of development effort for the integration of modernization capabilities. FY18 continues development of phased capability upgrades as the program initiates test asset modification and software development, including Multi-Intelligence capabilities in support of the Intelligence, Surveillance, Reconnaissance and Targeting transition plan. Funding includes Sense and Avoid radar development, AMP development and integration of development assets for capability upgrades including electro-optical/infra-red, SIGINT High Band and SIGINT Low Band systems.</p> <p><b>FY 2019 Base Plans:</b> FY19 continues development of capability upgrades as the program initiates test asset modification and software development, including Multi-Intelligence capabilities in support of the Intelligence, Surveillance, Reconnaissance and Targeting transition plan. Funding includes Sense and Avoid radar development, AMP development and integration of development assets for capability upgrades including electro-optical/infra-red, SIGINT High Band and SIGINT Low Band systems.</p> <p><b>FY 2019 OCO Plans:</b> N/A</p> <p><b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Decrease of \$13.924M from FY18 to FY19 reflects the ramp down in development efforts for Triton's GFE Multi-INT sensor hardware.</p>						
<p><b>Title:</b> ILS, Support, Studies &amp; Analysis</p> <p><b>Articles:</b></p> <p><b>Description:</b> Integrated Logistics Support, Studies and Analysis.</p> <p><b>FY 2018 Plans:</b> Funding continues in FY18 to support the development and integration of logistics and product support considerations for Triton's modernization upgrade. Efforts include integrated logistics support, technical engineering services, sensor reliability and maintainability risk reduction, logistics supportability analyses and</p>		2.517 -	2.679 -	2.789 -	0.000 -	2.789 -

## UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: February 2018		
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0305421N / (U)RQ-4 Modernization		Project (Number/Name) 2939 / RQ-4 Modernization		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
environmental planning, modeling and simulation, development of manpower and basing assessments, and development of technical data to support fielding of the MQ-4C Triton UAS modernization capabilities. <b>FY 2019 Base Plans:</b> Funding continues in FY19 to support the development and integration of logistics and product support considerations for Triton's modernization upgrade. Efforts include integrated logistics support, technical engineering services, sensor reliability and maintainability risk reduction, logistics supportability analyses and environmental planning, modeling and simulation, development of manpower and basing assessments, and development of technical data to support fielding of the MQ-4C Triton UAS modernization capabilities. <b>FY 2019 OCO Plans:</b> N/A <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Increase of \$0.110M from FY18 to FY19 is due to increase in required ILS efforts.						
Title: Test & Evaluation (T&E)  Articles:  Description: T&E efforts.  FY 2018 Plans: Funding continues in FY18 to support DT activities, including integrated test team labor to reduce risk in design and development, to perform subsystem level ground and acceptance testing, obtain the necessary satellite communications required for testing and continue OT support to allow test and fielding of the MQ-4C Triton UAS phased capability upgrades in accordance with the program schedule.  FY 2019 Base Plans: Funding continues in FY19 to support DT activities, including integrated test team labor to reduce risk in design and development, to perform subsystem level ground and acceptance testing, obtain the necessary satellite communications required for testing and continue OT support to allow test and fielding of the MQ-4C Triton UAS phased capability upgrades in accordance with the program schedule. Increase from FY18 to FY19 in preparation for the start of IFC 4 ground and flight test.  FY 2019 OCO Plans: N/A  FY 2018 to FY 2019 Increase/Decrease Statement:		7.718 -	7.543 -	12.750 -	0.000 -	12.750 -

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Navy			<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 1319 / 7		<b>R-1 Program Element (Number/Name)</b> PE 0305421N / (U)RQ-4 Modernization		<b>Project (Number/Name)</b> 2939 / RQ-4 Modernization	

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Increase of \$5.207M from FY18 to FY19 is due to preparation for the start of IFC 4 ground and flight test.					
<b>Title:</b> Program Management (PM)  <b>Description:</b> PM support and travel.  <b>FY 2018 Plans:</b> Continue the following: PM support and travel, development of milestone and acquisition-related documentation, capability refinement and open systems architecture development, resource justification, affordability assessments and cost analyses, risk reduction and risk management, system integration and interoperability planning, technology maturity reviews, program protection planning, corrosion prevention planning, and joint and international cooperation efforts.  <b>FY 2019 Base Plans:</b> Continue the following: PM support and travel, development of milestone and acquisition-related documentation, capability refinement and open systems architecture development, resource justification, affordability assessments and cost analyses, risk reduction and risk management, system integration and interoperability planning, technology maturity reviews, program protection planning, corrosion prevention planning, and joint and international cooperation efforts.  <b>FY 2019 OCO Plans:</b> N/A  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Decrease of \$0.903 from FY18 to FY19 due to reduction in required PM support for requirements.	2.711	2.703	1.800	0.000	1.800
<b>Articles:</b>	-	-	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	144.477	229.404	219.894	0.000	219.894

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</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>Cost To Complete</b>	<b>Total Cost</b>
• RDT&E/0305220N: (U)MQ-4C Triton	113.606	84.115	14.395	-	14.395	11.796	11.417	14.094	14.381	0.000	3,537.149
• APN/0442: MQ-4 Triton	499.894	579.392	627.265	-	627.265	571.971	605.997	604.330	758.923	5,975.539	10,797.450
• APN/0605: Spares and Repair Parts	95.851	56.915	37.403	-	37.403	36.420	6.430	0.000	0.000	0.000	336.973

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Navy			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305421N / (U)RQ-4 Modernization	<b>Project (Number/Name)</b> 2939 / RQ-4 Modernization	

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

<b>Line Item</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>Cost To Complete</b>	<b>Total Cost</b>
• MILCON/0212176N: <i>Facilities New Footprint - Fleet Ops</i>	30.475	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	88.385
• MILCON/0815976N: <i>Facilities New Footprint - Training</i>	41.380	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	79.411
• APN/0596: <i>MQ-4 Series</i>	0.000	39.996	48.278	-	48.278	7.793	0.000	0.000	0.000	0.000	96.067
• OMN/1D4D: <i>Weapons Maintenance</i>	0.000	11.310	16.519	-	16.519	24.003	37.795	46.332	47.315	Continuing	Continuing
• MILCON/0305220N: <i>Triton FOB 3rd Fleet</i>	0.000	0.000	0.000	-	0.000	0.000	55.809	0.000	0.000	0.000	55.809

**Remarks**

**D. Acquisition Strategy**

The MQ-4C Triton acquisition approach supports the Navy's Maritime Intelligence, Surveillance, Reconnaissance, and Targeting (MISR&T) Transition Plan by providing a stable and effective baseline early operational capability in FY18 to facilitate Fleet introduction and learning while continuing System Development and Demonstration engineering and integrated test on Signals Intelligence (SIGINT) and other upgrades to deliver a Multi-INT configuration at Initial Operational Capability (IOC). Phased capability upgrades will continue post IOC to enable the MQ-4C Triton to keep pace with rapidly evolving technologies and threats, and address correction of deficiencies and obsolescence issues to ensure the Navy maintains persistent Intelligence, Surveillance and Reconnaissance dominance through the system's lifecycle.

**E. Performance Metrics**

Successfully achieve Integrated Test, Operational Evaluation and Initial Operation Capability.

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0305421N / (U)RQ-4 Modernization				Project (Number/Name) 2939 / RQ-4 Modernization					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPFF	Northrop Grumman : Rancho Bernardo, CA	87.960	79.169	Nov 2016	146.472	Nov 2017	149.631	Nov 2018	-		149.631	331.154	794.386	796.786
Systems Engineering	Various	Various : Various	9.956	14.273	Nov 2016	8.000	Nov 2017	7.750	Nov 2018	-		7.750	1.000	40.979	-
Systems Engineering	WR	NAWC-AD : Patuxent River, MD	20.088	12.000	Nov 2016	23.529	Nov 2017	22.391	Nov 2018	-		22.391	49.716	127.724	-
Primary Hardware Development	SS/FFP	Raytheon : McKinney, TX	6.979	0.000	Nov 2016	0.000	Nov 2017	0.000	Nov 2018	-		0.000	0.000	6.979	6.979
Primary Hardware Development	C/CPFF	Sierra Nevada Corporation : Beaver Creek, OH	0.000	6.500	Jul 2017	6.500	Jan 2018	0.000		-		0.000	0.000	13.000	13.000
Primary Hardware Development	C/CPFF	Boeing Argon ST : Fairfax, VA	5.128	0.000	Nov 2016	0.000		0.000		-		0.000	0.000	5.128	5.128
Primary Hardware Development	C/CPFF	Ticom Geomatics : Austin, TX	0.000	5.000	Jul 2017	6.281	Jan 2018	6.800	Jan 2019	-		6.800	21.000	39.081	39.281
Primary Hardware Development	WR	NSWC-Crane : Crane, Indiana	10.203	11.027	Nov 2016	14.250	Nov 2017	0.050	Nov 2018	-		0.050	0.150	35.680	-
Primary Hardware Development	C/CPFF	L-3 Communication Systems : Salt Lake City, UT	0.000	0.000		7.757	Jan 2018	12.243	Jan 2019	-		12.243	0.000	20.000	20.000
Systems Engineering	C/CPFF	Mitre : Mclean, VA	1.118	1.952	Nov 2016	1.990	Nov 2017	1.990	Nov 2018	-		1.990	4.000	11.050	11.050
Systems Engineering	C/CPFF	MIT-Lincoln Labs : Lexington, MA	2.456	1.610	Nov 2016	1.700	Nov 2017	1.700	Nov 2018	-		1.700	3.000	10.466	10.466
Subtotal			143.888	131.531		216.479		202.555		-		202.555	410.020	1,104.473	N/A
Remarks															
The Product Development budget resources Northrop Grumman for Multi-INT integration design efforts, Raytheon for an Electro-Optical/Infrared (EO/IR) upgrade contract, Sierra Nevada Corporation for high band sensor kits, Boeing Argon for low band sensor kits, Ticom Geomatics for networking, L-3 Communication Systems for High Gain Common Data Link, NSWC-Crane for Airborne Mission Processor design and MITRE/MIT-LL for Airspace Integration efforts.															



**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0305421N / (U)RQ-4 Modernization				Project (Number/Name) 2939 / RQ-4 Modernization					
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Various	Various : Various	1.048	0.518	Nov 2016	0.529	Nov 2017	0.539	Nov 2018	-		0.539	1.550	4.184	-
Integrated Logistics Support	Various	Various : Various	0.650	0.675	Nov 2016	0.800	Nov 2017	0.873	Nov 2018	-		0.873	3.299	6.297	-
Integrated Logistics Support	WR	NAWC-AD : Patuxent River, MD	1.069	1.324	Nov 2016	1.350	Nov 2017	1.377	Nov 2018	-		1.377	4.337	9.457	-
Subtotal			2.767	2.517		2.679		2.789		-		2.789	9.186	19.938	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various : Various	0.650	0.611	Nov 2016	0.676	Nov 2017	0.690	Nov 2018	-		0.690	3.661	6.288	-
Developmental Test & Evaluation	WR	NAWC-AD : Patuxent River, MD	0.446	6.676	Nov 2016	5.857	Nov 2017	10.560	Nov 2018	-		10.560	35.348	58.887	-
Operational Test & Evaluation	Various	Various : Various	0.250	0.250	Nov 2016	0.510	Nov 2017	0.500	Nov 2018	-		0.500	7.200	8.710	-
Developmental Test & Evaluation (SATCOMM)	MIPR	DITCO : Various	0.000	0.181	Nov 2016	0.500	Nov 2017	1.000	Nov 2018	-		1.000	5.000	6.681	-
Subtotal			1.346	7.718		7.543		12.750		-		12.750	51.209	80.566	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	Various : Various	0.330	0.166	Nov 2016	0.170	Nov 2017	0.173	Nov 2018	-		0.173	0.896	1.735	-
Travel	Allot	Various : Various	0.061	0.045	Nov 2016	0.033	Nov 2017	0.034	Nov 2018	-		0.034	0.182	0.355	-
Program Management Support	C/CPFF	Ausley : Lexington Park, MD	1.500	2.500	Nov 2016	2.500	Nov 2017	1.593	Nov 2018	-		1.593	4.778	12.871	12.871
Subtotal			1.891	2.711		2.703		1.800		-		1.800	5.856	14.961	N/A

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy										Date: February 2018					
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0305421N / (U)RQ-4 Modernization					Project (Number/Name) 2939 / RQ-4 Modernization					
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			149.892	144.477		229.404		219.894		-		219.894	476.271	1,219.938	N/A
Remarks															

**UNCLASSIFIED**

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

**Date:** February 2018

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0305421N / (U)RQ-4 Modernization

**Project (Number/Name)**  
2939 / RQ-4 Modernization

Proj 2939	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		
Acquisition Milestones						Baseline EOC ▲									Multi-INT EOC ▲			IOC ▲	FRP ◆											
System Development					Systems Demonstration and Development																									
	Phased Capability Upgrades - Multi-INT																Future Capability Development													
Test & Evaluation Activities					Integrated Test CT/DT/OT														Multi-INT IOT&E	Future Capability Follow-on Integrated Test										
						Operational Test Event ▼																								
Production Milestones																														
Contracts			LRIP Lot 2 CA APN ●				LRIP Lot 3 CA APN ●				LRIP Lot 4 CA APN ●				LRIP Lot 5 CA APN ●				FRP Lot 6 CA APN ●				FRP Lot 7 CA APN ●				FRP Lot 8 CA APN ●			
Deliveries					SDTA RDTEN Qty 2				LRIP Lot 1 APN Qty 4		LRIP Lot 2 APN Qty 2							LRIP Lot 3 APN Qty 3				LRIP Lot 4 APN Qty 3				LRIP Lot 5 APN Qty 3				

2019PB - 0305421N - 2939 MQ-4C Triton development activities are resourced by PE 0305220N and PE 0305421N.

## UNCLASSIFIED

Exhibit R-4A, RDT&amp;E Schedule Details: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0305421N / (U)RQ-4 Modernization

Project (Number/Name)

2939 / RQ-4 Modernization

## Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2939</b>				
Acquisition Milestones: Full Rate Production	3	2021	3	2021
Acquisition Milestones: Initial Operational Capability	2	2021	2	2021
Acquisition Milestones: Multi-INT Early Operational Capability	4	2020	4	2020
Acquisition Milestones: Baseline Early Operational Capability	2	2018	2	2018
System Development: System Development and Demonstration	1	2017	2	2021
System Development: Phased Capability Upgrades - Multi-INT	1	2017	2	2021
System Development: Future Capability Development	3	2021	4	2023
Test & Evaluation Activities: Integrated Test (Combined/Developmental/Operational)	1	2017	4	2020
Test & Evaluation Activities: Multi-INT Initial Operational Test and Evaluation	1	2021	2	2021
Test & Evaluation Activities: Future Capabilities Follow-on Integrated Test	3	2021	4	2023
Test & Evaluation Activities: Operational Test Event	2	2018	2	2018
Production Milestones: Contracts: Low Rate Initial Production Lot 2 Contract Award	3	2017	3	2017
Production Milestones: Contracts: Low Rate Initial Production Lot 3 Contract Award	3	2018	3	2018
Production Milestones: Contracts: Low Rate Initial Production Lot 4 Contract Award	3	2019	3	2019
Production Milestones: Contracts: Low Rate Initial Production Lot 5 Contract Award	3	2020	3	2020
Production Milestones: Contracts: Full Rate Production Lot 6 Contract Award	3	2021	3	2021
Production Milestones: Contracts: Full Rate Production Lot 7 Contract Award	3	2022	3	2022
Production Milestones: Contracts: Full Rate Production Lot 8 Contract Award	3	2023	3	2023
Production Milestones: Deliveries: System Demonstration Test Articles Delivery	1	2018	1	2018
Production Milestones: Deliveries: Low Rate Initial Production Lot 1 Delivery	3	2018	2	2019
Production Milestones: Deliveries: Low Rate Initial Production Lot 2 Delivery	3	2019	2	2020
Production Milestones: Deliveries: Low Rate Initial Production Lot 3 Delivery	2	2021	4	2021

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018		
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0305421N / (U)RQ-4 Modernization		Project (Number/Name) 2939 / RQ-4 Modernization	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Production Milestones: Deliveries: Low Rate Initial Production Lot 4 Delivery		2	2022	1	2023
Production Milestones: Deliveries: Low Rate Initial Production Lot 5 Delivery		3	2023	4	2023