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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy										Date: February 2015			
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV								
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
Total Program Element	310.329	41.713	43.294	52.770	-	52.770	33.024	6.161	6.271	6.440	Continuing	Continuing	
2768: MQ-8 Fire Scout	310.329	41.713	43.294	52.770	-	52.770	33.024	6.161	6.271	6.440	Continuing	Continuing	
Program MDAP/MAIS Code: 253													

A. Mission Description and Budget Item Justification

MQ-8 Unmanned Air System Joint Military Intelligence Program.

The MQ-8 Unmanned Air System (popular name "Fire Scout") program went through a Title 10 Section 2433 (Nunn-McCurdy Breach) review in 2014 due to a unit cost breach. The Department certified a restructured program to Congress on 16 June 2014. The restructured program that was certified includes MQ-8B air vehicles procured under the original program of record, MQ-8C air vehicles procured under the Department of the Navy's Rapid Deployment Capability (RDC) procurement process, and an additional 21 MQ-8C air vehicles to be procured to complete the program Fleet requirements of 70 air vehicles (61 procurement and 9 RDT&E), and associated Mission Control Stations (MCS), Unmanned Aerial Vehicle Common Automatic Recovery Systems (UCARS) and support equipment. The restructured program also includes the endurance upgrade, radar, and weapons capabilities, such as those developed under the Navy's RDC authorities. All acquisition actions previously planned under the RDCs have transitioned into the restructured program of record.

The MQ-8B based system had an approved Milestone C (MS C) in May 2007. The Nunn-McCurdy certification process revoked the MS C approval. MS C for the restructured MQ-8 program is currently scheduled in the 2QFY16.

The MQ-8 Fire Scout provides real-time and non-real-time Intelligence, Surveillance and Reconnaissance (ISR) data to tactical users without the use of manned aircraft or reliance on limited joint theater or national assets. The baseline MQ-8 can accomplish missions including over-the-horizon tactical reconnaissance, classification, targeting and laser designation and battle management (including voice communication relay). The MQ-8 Fire Scout launches and recovers vertically, and can operate from any suitably equipped air capable ship, as well as area land bases. Interoperability is achieved through the use of the Tactical Control System (TCS) software integrated into the Mission Control Station (MCS) (also referred to as Ground Control Station (GCS)) and through the use of the Tactical Common Data Link (TCDL). The data from the MQ-8 will be provided through standard DoD Command, Control, Communications, Computers and ISR system architectures and protocols.

A deployed MQ-8 System is comprised of: air vehicle(s), payloads (i.e. electro-optical/infra-red/laser designator-range finder, Automated Identification System, communications relay, radar, weapons, and other specialty payloads), MCS (with TCS and TC DL integrated for interoperability), a UCARS for automatic launch and recovery, and associated spares and support equipment. A limited number of land-based mission control stations supplement the shipboard systems to support shore-based operations, such as pre-deployment or acceptance functional check flights. These land-based mission control stations will also support depot-level maintenance/post-maintenance activities.

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The MQ-8C provides additional mission endurance and payload-weight-power, increased reliability, and improved maintainability to the MQ-8 Fire Scout System. The MQ-8C is a more cost efficient and capable air vehicle that meets the requirements of the updated Fire Scout Capability Production Document. The Navy plans to procure 40 MQ-8C air vehicles to support the Navy's fleet of small surface combatant suitably equipped air capable ships, including the Littoral Combat Ship (LCS). This budget transitions the MQ-8C Endurance Upgrade, Radar, and Weapons capabilities into the Program of Record.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	41.713	47.294	53.199	-	53.199
Current President's Budget	41.713	43.294	52.770	-	52.770
Total Adjustments	-	-4.000	-0.429	-	-0.429
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-4.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	-	-	-0.429	-	-0.429

Change Summary Explanation

Technical: FYDP funds support the Navy decision to transition MQ-8C Endurance Upgrade, Radar, and Weapons capabilities into the Program of Record.

Schedule:

Revised milestone terminology: Removed Rapid Deployment Capability (RDC) terminology to align with transition of RDC capabilities to the program of record.

Updated associated T&E events to remove reference to RDC.

Updated Milestone C decision, MQ-8C IOC, T&E events, and other milestones to align to the restructured MQ-8 program.

Updated Radar and Weapons capability contract awards and reviews.

Adjusted production and delivery schedules for current and out-year procurements.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV				Project (Number/Name) 2768 / MQ-8 Fire Scout			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2768: MQ-8 Fire Scout	310.329	41.713	43.294	52.770	-	52.770	33.024	6.161	6.271	6.440	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The MQ-8 Fire Scout program went through a Title 10 Section 2433 (Nunn-McCurdy Breach) review in 2014 due to a unit cost breach. The Department certified a restructured program to Congress on 16 June 2014. The restructured program that was certified includes MQ-8B air vehicles procured under the original program of record, MQ-8C air vehicles procured under the Department of the Navy's Rapid Deployment Capability (RDC) procurement process, and an additional 21 MQ-8C air vehicles to be procured to complete the program Fleet requirements of 70 air vehicles (61 procurement and 9 RDT&E), and associated Mission Control Stations (MCS), Unmanned Aerial Vehicle Common Automatic Recovery Systems (UCARS) and support equipment. The restructured program also includes the endurance upgrade, radar, and weapons capabilities, such as those developed under the Navy's RDC authorities. All acquisition actions previously planned under the RDCs have transitioned into the restructured program of record.

The MQ-8B based system had an approved Milestone C (MS C) in May 2007. The Nunn-McCurdy certification process revoked the MS C approval. MS C for the restructured MQ-8 program is currently scheduled in the 2QFY16.

The MQ-8 Fire Scout provides real-time and non-real-time Intelligence, Surveillance and Reconnaissance (ISR) data to tactical users without the use of manned aircraft or reliance on limited joint theater or national assets. The baseline MQ-8 can accomplish missions including over-the-horizon tactical reconnaissance, classification, targeting and laser designation and battle management (including voice communications relay). The MQ-8 launches and recovers vertically, and can operate from any suitably equipped air capable ship, as well as area land bases. Interoperability is achieved through the use of the Tactical Control System (TCS) software integrated into the Mission Control Station (MCS) (also referred to as Ground Control Station (GCS)) and through the use of the Tactical Common Data Link (TCDL). The data from the MQ-8 will be provided through standard DoD Command, Control, Communications, Computers and ISR system architectures and protocols.

A deployed MQ-8 system is comprised of: air vehicle(s), payloads (i.e. electro-optical/infra-red/laser designator-range finder, Automated Identification System, communications relay, radar, weapons, and other specialty payloads), MCS (with TCS and TCDL integrated for interoperability), a UCARS for automatic launch and recovery, and associated spares and support equipment. A limited number of land-based mission control stations supplement the shipboard systems to support shore-based operations, such as pre-deployment or acceptance functional check flights. These land based mission control stations will also support depot-level maintenance/post-maintenance activities.

The MQ-8C provides additional mission endurance and payload-weight-power, increased reliability, and improved maintainability to the MQ-8 Fire Scout System. The MQ-8C is a more cost efficient and capable air vehicle that meets the requirements of the Fire Scout Capability Production Document (CPD). This budget transitions the MQ-8C Endurance Upgrade, Radar, and Weapons capabilities into the Program of Record.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015			
Appropriation/Budget Activity 1319 / 7		R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV		Project (Number/Name) 2768 / MQ-8 Fire Scout		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Hardware and System Development		21.891	17.900	31.355	-	31.355
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Continued MQ-8C hardware, software modifications, and other payload integration. Continued Littoral Combat Ship (LCS) and other air capable ship class integration. Continued MQ-8B radar development and integration.						
FY 2015 Plans: Continue MQ-8C Rapid Deployment Capability hardware, software modifications, Coastal Battlefield Reconnaissance and Analysis (COBRA), and other payload integration. Continue MQ-8 integration and testing on LCS. Correct deficiencies from MQ-8C and MQ-8B. Initiate MQ-8C Endurance Upgrade, Radar, and Weapons capabilities into the Program of Record.						
FY 2016 Base Plans: Continue MQ-8C hardware, software modifications, COBRA, and other payload integration. Continue MQ-8 integration and testing on LCS. Continue transition of MQ-8C Endurance Upgrade, Radar and Weapons capabilities into the Program of Record.						
FY 2016 OCO Plans: N/A						
Title: Development/Operational Testing		6.100	7.500	5.500	-	5.500
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Continued MQ-8C air vehicle and MQ-8B Radar testing. Completed MQ-8B based LCS dynamic interface testing for LCS-3 and LCS-4. Completed MQ-8B weapons Quick Reaction Assessment. Continued LCS and other Class Ship integration and testing.						
FY 2015 Plans: Continue MQ-8C testing and initiate LCS integration. Complete MQ-8B radar testing. Continue other payload integration and testing. Initiate development testing for MQ-8C radar, weapons, and other payload capabilities. Initiate Initial Operational Test and Evaluation (IOT&E) for MQ-8C air vehicle.						
FY 2016 Base Plans:						

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Appropriation/Budget Activity 1319 / 7				R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV				Project (Number/Name) 2768 / MQ-8 Fire Scout			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Complete Dynamic Interface testing of MQ-8C on both classes of LCS. Complete MQ-8C Endurance Upgrade developmental testing. Complete IOT&E testing of MQ-8C on LCS. Continue other payload integration and testing.											
FY 2016 OCO Plans: N/A											
Title: Engineering and Technical Services							13.722	17.894	15.915	-	15.915
Articles:							-	-	-	-	-
FY 2014 Accomplishments: Continued engineering, program technical management, logistics support for the MQ-8 Fire Scout system. Initiated MQ-8 system upgrade with the MQ-8C air vehicle subsystem. Continued payload and system studies and design.											
FY 2015 Plans: Continue engineering, program technical management, logistics support. Continue acquisition planning to transition the MQ-8C, Radar, and Weapons capabilities into the Program of Record. Continue Radar, Weapons, other payloads, Littoral Combat Ship (LCS) capabilities payloads, and system studies and design.											
FY 2016 Base Plans: Continue engineering, program technical management, logistics support. Continue acquisition planning and execution to transition the MQ-8C, Radar, and Weapons capabilities into the MQ-8 Program of Record. Continue Radar, Weapons, other payloads, LCS capabilities payloads, and system studies and design.											
FY 2016 OCO Plans: N/A											
Accomplishments/Planned Programs Subtotals							41.713	43.294	52.770	-	52.770
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APN, 044300: MQ-8 UAV	74.080	109.663	120.020	-	120.020	98.501	88.670	97.363	84.345	342.226	1,635.416
• APN, 060510: MQ-8 UAV Spares	12.261	12.573	-	-	-	-	-	-	-	-	112.953
• APN, 058800: MQ-8 Series	-	8.741	22.464	-	22.464	19.956	9.583	5.477	5.583	24.472	96.276
Remarks											

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Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV	Project (Number/Name) 2768 / MQ-8 Fire Scout
D. Acquisition Strategy The Navy is updating our acquisition strategy to restructure the MQ-8 Fire Scout program and capitalize on prior Rapid Deployment Capability efforts, while leveraging existing program investments. The updated acquisition strategy will maintain commonality of MQ-8B and MQ-8C systems, payloads, avionics, software, and ancillary equipment where possible. It will continue integration and test of MQ-8C, Radar, and Weapons capabilities to support the Capability Production Document. Initial Operational Capability (IOC) of an MQ-8B based system was achieved in 2QFY14 while IOC of an MQ-8C based system is anticipated in 4QFY16. A Milestone C with a production decision will follow completion of Operational Test.		
E. Performance Metrics Successfully provide an MQ-8C air vehicle that supports operational deployments. Successfully provide a Radar capability for operational deployments. Successfully achieve LCS Ship Integration.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV				Project (Number/Name) 2768 / MQ-8 Fire Scout					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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 (MQ-8)	C/CPIF	Northrop Grumman Corp : San Diego, CA	224.273	21.891	Nov 2013	13.745	Nov 2014	24.355	Nov 2015	-		24.355	78.200	362.464	362.464
Primary Hardware Development (MQ-8)	C/CPIF	Raytheon Corp : Falls Church, VA	16.251	-		4.155	Nov 2014	7.000	Nov 2015	-		7.000	5.900	33.306	33.308
Subtotal			240.524	21.891		17.900		31.355		-		31.355	84.100	395.770	395.772
Remarks															
The FY16 increase supports integration of MQ-8C, radar and weapons capabilities into the program of record.															
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Integrated Logistics Support	Various	Various : Various	3.977	2.100	Nov 2013	4.420	Nov 2014	3.000	Nov 2015	-		3.000	11.900	25.397	-
Subtotal			3.977	2.100		4.420		3.000		-		3.000	11.900	25.397	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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	WR	NAWCAD : PAXRV, MD	9.971	4.500	Nov 2013	5.100	Nov 2014	3.500	Nov 2015	-		3.500	10.900	33.971	-
Operational Test & Evaluation/QRA	WR	NAWCAD : PAXRV, MD	2.331	1.600	Nov 2013	2.400	Nov 2014	2.000	Nov 2015	-		2.000	4.200	12.531	-
Prior Years T&E no longer funded in the FYDP	Various	Various : Various	0.342	-		-		-		-		-	-	0.342	-
Subtotal			12.644	6.100		7.500		5.500		-		5.500	15.100	46.844	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy **Date:** February 2015

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV	Project (Number/Name) 2768 / MQ-8 Fire Scout
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Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Government Engineering Support	WR	NAWCAD : PAXRV, MD	43.579	6.222	Nov 2013	7.380	Nov 2014	7.716	Nov 2015	-		7.716	19.200	84.097	-
Program Management Support	Various	Various : Various	6.471	5.100	Nov 2013	5.624	Nov 2014	4.700	Nov 2015	-		4.700	12.800	34.695	-
Travel	WR	NAVAIR : PAXRV, MD	0.833	0.300	Nov 2013	0.470	Nov 2014	0.499	Nov 2015	-		0.499	Continuing	Continuing	Continuing
Prior years Mgmt Svcs no longer funded in the FYDP	Various	Various : Various	2.301	-		-		-		-		-	-	2.301	-
Subtotal			53.184	11.622		13.474		12.915		-		12.915	-	-	-

Remarks
Travel contract type is TO.

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	310.329	41.713	43.294	52.770	-	52.770	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

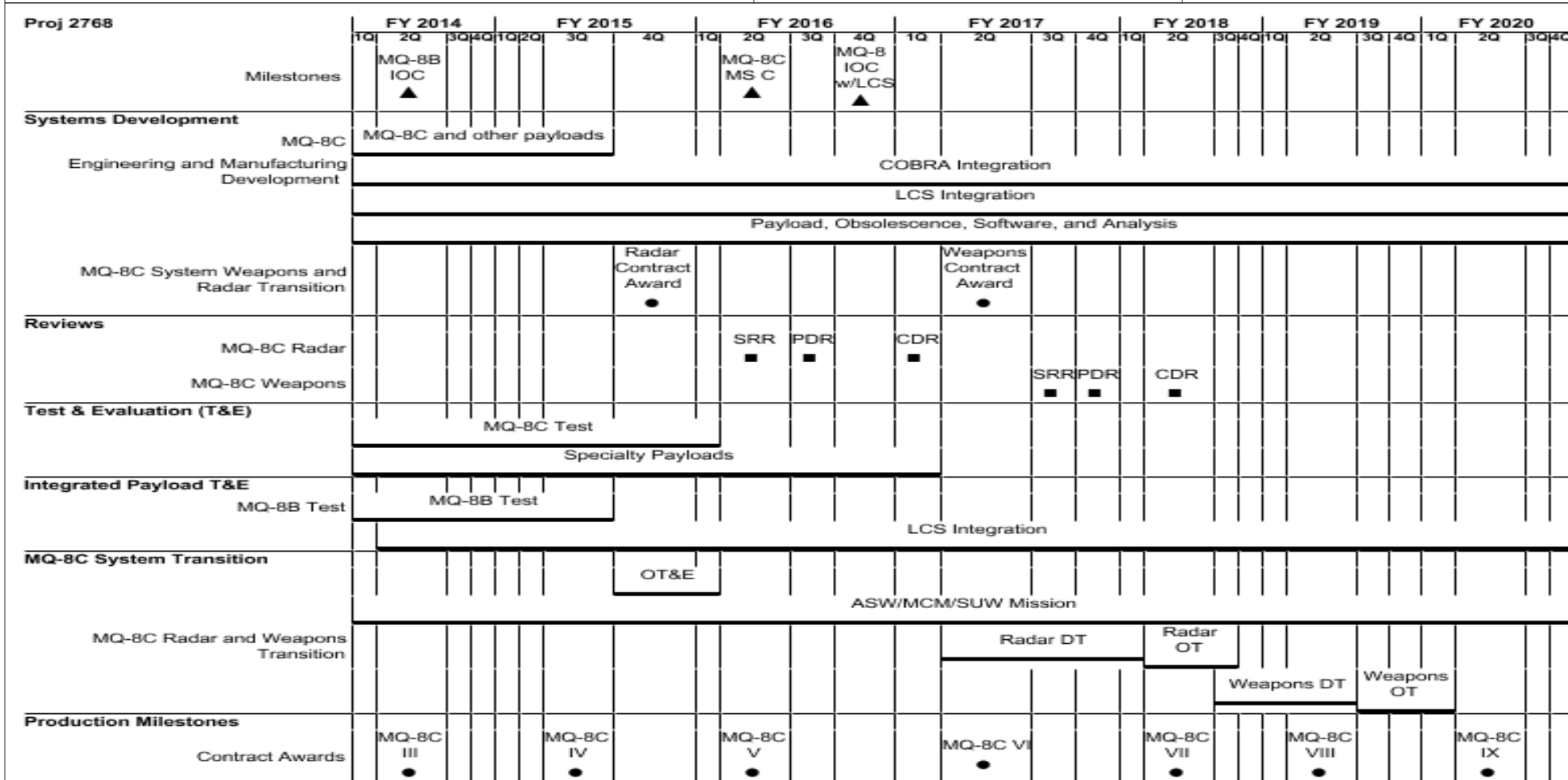
1319 / 7

R-1 Program Element (Number/Name)

PE 0305231N / MQ-8 UAV

Project (Number/Name)

2768 / MQ-8 Fire Scout



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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV	Project (Number/Name) 2768 / MQ-8 Fire Scout
2016PB - 0305231N - 2768		

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV	Project (Number/Name) 2768 / MQ-8 Fire Scout	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2768				
Milestones: MQ-8 Initial Operational Capability (IOC)	2	2014	2	2014
Milestones: MQ-8 Initial Operational Capability (IOC) - MQ-8C Littoral Combat Ship (LCS)	4	2016	4	2016
Milestones: MQ-8C Milestone C Decision	2	2016	2	2016
Systems Development: MQ-8C: MQ-8C and other payloads	1	2014	3	2015
Systems Development: Engineering and Manufacturing Development: Coastal Battlefield Reconnaissance and Analysis Integration (COBRA), BLK 1/2/3	1	2014	4	2020
Systems Development: Engineering and Manufacturing Development: Littoral Combat Ship (LCS) Integration	1	2014	4	2020
Systems Development: Engineering and Manufacturing Development: Payload, Obsolescence, Software, and Analysis	1	2014	4	2020
Systems Development: MQ-8C System Weapons and Radar Transition: Radar Contract Award	4	2015	4	2015
Systems Development: MQ-8C System Weapons and Radar Transition: Weapons Contract Award	2	2017	2	2017
Reviews: MQ-8C Radar: System Requirements Review (SRR)	2	2016	2	2016
Reviews: MQ-8C Radar: Preliminary Design Review (PDR)	3	2016	3	2016
Reviews: MQ-8C Radar: Critical Design Review (CDR)	1	2017	1	2017
Reviews: MQ-8C Weapons: System Requirements Review	3	2017	3	2017
Reviews: MQ-8C Weapons: Preliminary Design Review	4	2017	4	2017
Reviews: MQ-8C Weapons: Critical Design Review	2	2018	2	2018
Test & Evaluation (T&E): MQ-8C Development Test	1	2014	1	2016
Test & Evaluation (T&E): Specialty Payloads	1	2014	1	2017

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy **Date:** February 2015

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0305231N / MQ-8 UAV	Project (Number/Name) 2768 / MQ-8 Fire Scout
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Integrated Payload T&E: MQ-8B Test: MQ-8B	1	2014	3	2015
Integrated Payload T&E: MQ-8B Test: Littoral Combat Ship (LCS) Integration	2	2014	4	2020
MQ-8C System Transition: Operational Test and Evaluation (OT&E)	4	2015	1	2016
MQ-8C System Transition: ASW/MCM/SUM Mission	1	2014	4	2020
MQ-8C System Transition: MQ-8C Radar and Weapons Transition: Radar Developmental Test (DT)	2	2017	1	2018
MQ-8C System Transition: MQ-8C Radar and Weapons Transition: Radar Operational Test (OT)	2	2018	3	2018
MQ-8C System Transition: MQ-8C Radar and Weapons Transition: Weapons Developmental Test (DT)	3	2018	2	2019
MQ-8C System Transition: MQ-8C Radar and Weapons Transition: Weapons Operational Test (OT)	3	2019	1	2020
Production Milestones: Contract Awards: Air Vehicles MQ-8C III	2	2014	2	2014
Production Milestones: Contract Awards: Air Vehicles MQ-8C IV	3	2015	3	2015
Production Milestones: Contract Awards: Air Vehicles MQ-8C V	2	2016	2	2016
Production Milestones: Contract Awards: Air Vehicles MQ-8C VI	2	2017	2	2017
Production Milestones: Contract Awards: Air Vehicles MQ-8C VII	2	2018	2	2018
Production Milestones: Contract Awards: Air Vehicles MQ-8C VIII	2	2019	2	2019
Production Milestones: Contract Awards: Air Vehicles MQ-8C IX	2	2020	2	2020