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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z I Department of Defense (DoD) Unmanned Systems Common Development
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	43.371	7.574	7.786	3.320	-	3.320	3.998	3.842	3.869	3.944	Continuing	Continuing
P440: UAS Airspace Integration	24.613	4.415	0.680	0.990	-	0.990	1.000	1.000	1.000	1.000	Continuing	Continuing
P442: Interoperability	17.867	2.967	6.906	1.980	-	1.980	2.648	2.492	2.519	2.594	Continuing	Continuing
P443: Unmanned Systems Roadmap	0.891	0.192	0.200	0.350	-	0.350	0.350	0.350	0.350	0.350	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Department of Defense (DoD) Unmanned Systems (UxS) Common Development program is a joint effort to develop and demonstrate common standards, architectures, and technologies that address unmanned systems' issues across all Military Services. The intent is to increase interoperability and effectiveness by promoting cooperative development of solutions that are applicable across all unmanned systems. This effort initially focused on addressing DoD unmanned aircraft system (UAS) integration into the National Airspace System (NAS) and a demonstration of a common, interoperable ground station architecture and associated interface standards. While UAS initially were the primary focus, interoperability among all unmanned and manned systems is the long-term goal.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	7.791	3.129	3.486	-	3.486
Current President's Budget	7.574	7.786	3.320	-	3.320
Total Adjustments	-0.217	4.657	-0.166	-	-0.166
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.662			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.003	-			
• SBIR/STTR Transfer	-0.214	-			
• Efficiency Reductions	-	-	-0.064	-	-0.064
• FY16 FFRDC	-	-0.005	-	-	-
• Economic Assumptions	-	-	-0.027	-	-0.027
• Leadership Realignment	-	-	-0.063	-	-0.063
• Fiscal Guidance Adjustment	-	-	-0.012	-	-0.012

**Change Summary Explanation**

The FY2017 funding request was reduced by \$ 0.063 million to account for the availability of prior year execution balances.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Office of the Secretary Of Defense										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / Department of Defense (DoD) Unmanned Systems Common Development				<b>Project (Number/Name)</b> P440 / UAS Airspace Integration			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
P440: UAS Airspace Integration	24.613	4.415	0.680	0.990	-	0.990	1.000	1.000	1.000	1.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Airborne Sense-and-Avoid (ABSAA) and Ground Based Sense-and-Avoid (GBSAA) technology development transitioned to UAS programs of record during FY2013.

**A. Mission Description and Budget Item Justification**

Global Hawk and Triton, as well as other Group 3-5 UAS, need a sense-and-avoid (SAA) capability as an alternate means of compliance to Title 14 Code of Federal Regulations, Part 91.111 and Part 91.113, requirement to see-and-avoid other aircraft. The Air Force is leading the effort to develop an ABSAA system that is suitable to support operations within US and foreign national airspace. The RQ-4 Global Hawk, MQ-4C Triton, MQ-1B Predator, MQ-1C Gray Eagle, and MQ-9 Reaper all have a requirement for SAA capability and will leverage the technology being developed by the Air Force. The Army is leading the development of a GBSAA system to provide a solution for improved airspace access in terminal operations as well as operations/training within the GBSAA system's coverage area (e.g., Gray Eagle at Fort Hood, Shadow operations at Cherry Point). This system will provide a near-term solution and is an integral part of the long-term permanent solution.

This joint funding also supports development of common operating concepts, policy, standards, modeling and simulation, and technology to enable DoD UAS to routinely access the national and international airspace systems.

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<b>Title:</b> Unmanned Aircraft System Airspace Integration Initiatives	4.415	0.680	0.990
<b>Description:</b> Starting in FY 2010 the Department's sense-and-avoid (SAA) developmental efforts are enhanced by this defense-wide program element. This program has provided joint funding to accelerate the development of SAA technology and standards to enable UAS to routinely access the national and international airspace systems. This program also supports development of UAS airspace integration policy and standards, as well as the modeling, simulation, and operational analysis needed to validate the standards. In FY 2013 ABSAA and GBSAA efforts transitioned to the Services.			
<b>FY 2015 Accomplishments:</b> Published MIL-HDBK-516C that includes the airworthiness criteria, standards, and methods of compliance for both fixed and rotary wing UAS and SAA integrated in these aircraft systems. Continued to define airworthiness requirements for small UAS (Groups 1-3). Completed analysis of UAS airspace integration (AI) safety case development issues in order to facilitate expanded UAS access to the National Airspace System (NAS). Conducted analysis to address high priority safety gaps as identified by the SAA Science and Research Panel (SARP). The SARP has been working on recommendation for a quantitative means of compliance with sUAS Well Clear vs. manned aircraft and a BVLOS level of safety. The SARP hosted an open industry day and			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / <i>Department of Defense (DoD) Unmanned Systems Common Development</i>	<b>Project (Number/Name)</b> P440 / <i>UAS Airspace Integration</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<p>SARP workshops focused on closing these research gaps. Additionally, the SARP provided recommendations on quantifying elements of pilot situation awareness to address two high priority gaps. Tracked DoD SAA research gaps and coordinated research activities across DoD, NASA, FAA, and DHS. Coordinated system requirements and safety guidelines within appropriate standards development organizations. Collected UAS basing information, which can be used to conduct operational analysis and assist DoD in overcoming UAS AI challenges. Supported Joint Test program as they developed standardized UAS procedures for flight in US airspace. Compiled annual UAS safety data in accordance with 2011 DoD-FAA Memorandum of Agreement (MOA). Updated pilot training program in cooperation with Aircraft Owners and Pilots Association. Engaged government and industry stakeholders to identify low size, weight, power, and cost detect-and-avoid innovations that support broad-spectrum low-altitude military UAS operations. Started GBSAA installation at Beale AFB, CA. Identified, evaluated and published recommended best practices for quantifying the contribution of the UAS pilot performance of the SAA function to overall airspace safety.</p> <p>Funding includes a FY 2015 Congressional Add of \$4.089 million.</p> <p><b>FY 2016 Plans:</b> Complete updates to and implement DoD/FAA MOA. Implement findings from the Joint Test of UAS operation in US airspace. Complete small UAS Groups 1-3 airworthiness requirements study and provide a document that identifies gaps and recommends courses of action. Complete survey and analysis of UAS CONUS operating locations and airspace requirements. Continue analysis of UAS AI Safety Case issues to expand UAS access to the NAS. Develop and validate separation minima that enable low-altitude military UA to remain well clear of other aircraft. Identify and address key capability gaps for broad-spectrum military UAS operations at low altitudes. Through the SARP, coordinate with and leverage the resources of the FAA, NASA and DHS to work common integration challenges. Investigate and identify best-candidate solutions for low size, weight, power and cost approaches supporting military small UAS (sUAS) operations in national, international and foreign national airspace. Finalize and report recommended criteria and methods to quantify the contribution of the UAS pilot performance of the SAA function to overall airspace safety. Engage with FAA to discuss concepts, architectures, functional requirements as well as policy and procedural issues regarding UAS Spectrum, Communications, Command and Control and other infrastructure that will need to be enhanced, improved or replaced in order to facilitate DoD UAS integration into the NAS. Collaborate to develop and implement operating systems in the NAS that support UAS integration, such as GBSAA. Identify specific use cases of current operations and identify the gaps/deltas between current UAS operations in the NAS under a Certificate of Waiver or Authorization (COA) and UAS operating as fully integrated into the NAS. Identify specific scenarios for research, implementation, and testing. Identify operational use cases for research, development, and testing, and provide semantic decision support, and modeling and simulation.</p> <p><b>FY 2017 Plans:</b></p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
Evaluate and validate identified best-candidate solutions for low size, weight, power and cost technology supporting military sUAS operations in national, international and foreign national airspace. Develop and finalize quantitative safety assessment approaches that support unique UAS operations to support emerging DoD needs and inform future rulemaking. Make formal recommendations for separation minima that enable low-altitude military UAS to remain well clear of other aircraft. Continue to engage the FAA to advance DoD UAS airspace integration. Finalize implementation of the UAS Airspace Integration Joint Test into Service regulations and training.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.415	0.680	0.990

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Office of the Secretary Of Defense** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / Department of Defense (DoD) Unmanned Systems Common Development	<b>Project (Number/Name)</b> P440 / UAS Airspace Integration
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<b>Product Development (\$ in Millions)</b>				<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Airworthiness	Various	AED/AFMLCC/ NAVAIR : AL/OH/MD	0.366	0.000		0.000		0.000		-		0.000	0	0.366	-
<b>Subtotal</b>			0.366	0.000		0.000		0.000		-		0.000	0.000	0.366	-

**Remarks**  
Airborne Sense-and-Avoid (ABSAA) and Ground Based Sense-and-Avoid (GBSAA) technology development transitioned to UAS programs of record during FY2013. The majority of the "Prior Year" Funding was for ABSAA and GBSAA. For purposes of this R-3, all prior year funding has been included in the UAS Task Force category.

<b>Support (\$ in Millions)</b>				<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
UAS Task Force	MIPR	Various : Various	24.247	0.000		0.000		-		-		-	-	-	-
Congressional Add	Various	Various : Various	0.000	4.100		0.000		-		-		-	0	4.100	-
DoD Policy Board on Federal Aviation Support	Sub Allot	Various : Various	0.000	0.315		0.680		0.990		-		0.990	Continuing	Continuing	-
<b>Subtotal</b>			24.247	4.415		0.680		0.990		-		0.990	-	-	-

<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>			
<b>Project Cost Totals</b>			24.613	4.415	0.680	0.990	-	0.990	-	-	-

**Remarks**  
Airborne Sense-and-Avoid (ABSAA) and Ground Based Sense-and-Avoid (GBSAA) technology development transitioned to UAS programs of record during FY2013. This joint funding also supports development of common operating concepts, policy, standards, modeling and simulation, and technology to enable DoD UAS to routinely access the national and international airspace systems.

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

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**P 440 Airspace Integration**



**ABSAA and GBSAA**

Airborne Sense-and-Avoid (ABSAA) and Ground Based Sense-and-Avoid (GBSAA) technology development transitioned to UAS programs of record during FY2013. The FY2014 President's Budget transferred \$83.169M (FYDP) to the Services' UAS program PEs for this purpose.

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>SARP</b>				
BVLOS Level of Safety	3	2015	4	2016
SUAS Groups 1-3 Airworthiness	4	2014	4	2016
Identify gaps for broad-spectrum military UAS operations at low altitudes	2	2016	3	2016
<b>FY 2015 Congressional Add</b>				
Beale AFB GBSAA	4	2015	2	2017
Grand Forks AFB GBSAA	1	2016	2	2017
<b>PBFA</b>				
UAS AI Support	1	2016	4	2017

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**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / Department of Defense (DoD) Unmanned Systems Common Development	<b>Project (Number/Name)</b> P442 / Interoperability
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P442: <i>Interoperability</i>	17.867	2.967	6.906	1.980	-	1.980	2.648	2.492	2.519	2.594	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Interoperability project will develop and demonstrate an interoperable, standards-based, open ground station architecture for cross-domain (air, ground, maritime) unmanned systems. The intent is to improve joint and coalition interoperability and to promote competition through the implementation of open standards and open architectures.

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

	FY 2015	FY 2016	FY 2017
<b>Title:</b> Interoperability	2.967	6.906	1.980
<b>Description:</b> Develop and demonstrate an interoperable, standards-based, open ground station architecture for cross-domain (air, ground, maritime) unmanned systems; improve joint and coalition interoperability; and promote competition through the implementation of open standards and open architectures.			
<b>FY 2015 Accomplishments:</b> Released UCS V3.4. Completed Phase II alignment with JCUA, USIPs, and FACE. Assessed National Information Exchange Model (NIEM) for adoption. Completed UCS Repository Technical Governance documentation which will provide Unmanned Systems Programs of Record (PoRs), their Prime System Integrator (PSI) contractors, and industry the aim, content, and functionality of the Repository; and to include sections on its business acumen, mandated product description, and UCS conformance regimen. Continued to support UCS PoR migration, to include a UMS maritime demonstration test in a lab environment. The same may apply to an Unmanned Ground Robotics device in cooperation with the Joint Ground Robotics Enterprise (JGRE) and Joint Robotic and Autonomous Systems Team (JRAST). Completed JGRE studies on Communication Waveform Analysis; Military Standard/Interoperability Profile Transition to Industry Standards; and Common Control Architecture. Initiated UCS Open Business Model (OBM) revision to include all unmanned system domains (air, ground, maritime).			
<b>FY 2016 Plans:</b> Support, prepare, and conduct live unmanned system operational tests and demonstrations. Continue cross-domain (air, ground, maritime) harmonization efforts in coordination with the JRAST.			
<b>FY 2017 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / <i>Department of Defense (DoD) Unmanned Systems Common Development</i>	<b>Project (Number/Name)</b> P442 / <i>Interoperability</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
Support, prepare, and conduct live unmanned system operational tests and demonstrations. Continue cross-domain (air, ground, maritime) harmonization efforts in coordination with the JRAST.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.967	6.906	1.980

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

N/A

**Remarks**

**D. Acquisition Strategy**

n/a

**E. Performance Metrics**

n/a

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Office of the Secretary Of Defense** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / Department of Defense (DoD) Unmanned Systems Common Development	<b>Project (Number/Name)</b> P442 / Interoperability
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<b>Product Development (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
UCS Architecture	MIPR	Various : Various	15.252	0.000		0.000		0.000		-		0.000	0	15.252	-
JGRE	Various	Various : Various	0.900	1.781		6.082		1.130		-		1.130	Continuing	Continuing	-
<b>Subtotal</b>			16.152	1.781		6.082		1.130		-		1.130	-	-	-

**Remarks**  
Prior Year cost are shown under UCS Architecture the primary product for P442.

<b>Support (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Interoperability Working Groups & Studies	Various	Various : Various	1.124	0.125		-		0.000		-		0.000	Continuing	Continuing	-
UAS Task Force/ UxS SMEs	MIPR	Various : VA	0.486	0.866		0.824		0.850		-		0.850	Continuing	Continuing	-
Weapons Integration	MIPR	NAWC-WD : China Lake, CA	0.105	0.195		0.000		0.000		-		0.000	0	0.300	-
<b>Subtotal</b>			1.715	1.186		0.824		0.850		-		0.850	-	-	-

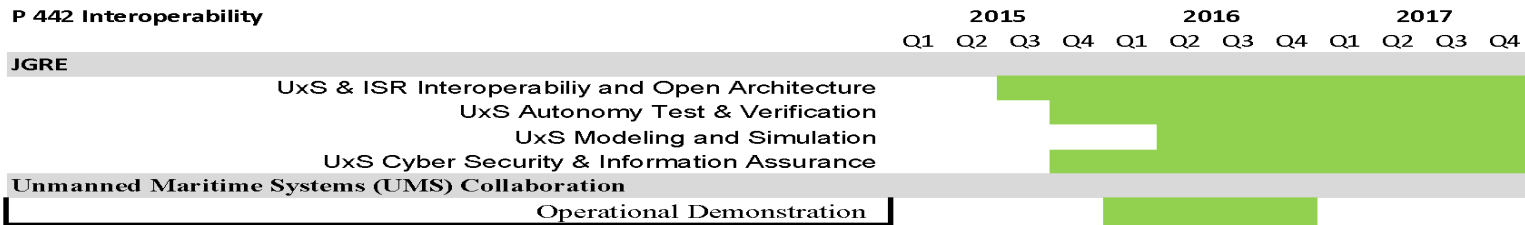
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		17.867	2.967	6.906	1.980	1.980	-	-	-

**Remarks**  
Interoperability efforts are focused on developing and demonstrating interoperable, standards-based, open ground station architecture for UAS and other unmanned systems; improving joint and coalition interoperability; and promoting competition through the implementation of open standards and open architectures.

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / Department of Defense (DoD) Unmanned Systems Common Development	<b>Project (Number/Name)</b> P442 / Interoperability
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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / <i>Department of Defense (DoD) Unmanned Systems Common Development</i>	<b>Project (Number/Name)</b> P442 / <i>Interoperability</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>JGRE</b>				
UxS & ISR Interoperability and Open Architecture	2	2015	4	2017
UxS Autonomy Test & Verification	4	2015	4	2017
UxS Modeling and Simulation	2	2016	4	2017
<b>Unmanned Maritime Systems (UMS) Collaboration</b>				
Operational Demonstration	1	2016	4	2016

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**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / Department of Defense (DoD) Unmanned Systems Common Development	<b>Project (Number/Name)</b> P443 / Unmanned Systems Roadmap
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P443: Unmanned Systems Roadmap	0.891	0.192	0.200	0.350	-	0.350	0.350	0.350	0.350	0.350	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This effort supports the Department's Unmanned Systems Integrated Roadmap and updates. The roadmap provides a DoD vision for the continuing development, fielding and employment of unmanned systems technologies; establishes the current state of unmanned systems in today's force; and outlines a strategy to address common challenges to achieve the shared vision across all unmanned domains (air, ground, and maritime).

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

	FY 2015	FY 2016	FY 2017
<b>Title:</b> Unmanned Systems Roadmap	0.192	0.200	0.350
<b>Description:</b> Develops and updates the Department's Unmanned Systems Integrated Roadmap.			
<b>FY 2015 Accomplishments:</b> Initiated the update of the Department's Unmanned Systems Integrated Roadmap and performed related studies supporting the Department's vision for unmanned systems. Maintained the on-line unmanned system catalogue for DoD use.			
<b>FY 2016 Plans:</b> Update and publish the Department's "Unmanned Systems Integrated Roadmap, 2016-2041" and perform related studies supporting the Department's vision for unmanned systems.			
<b>FY 2017 Plans:</b> Update the Department's Unmanned Systems Integrated Roadmap and perform related studies supporting the Department's vision for unmanned systems.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.192	0.200	0.350

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / <i>Department of Defense (DoD) Unmanned Systems Common Development</i>	<b>Project (Number/Name)</b> P443 / <i>Unmanned Systems Roadmap</i>

**E. Performance Metrics**

Provide up-to-date Unmanned Systems Roadmap providing a DoD vision for the continuing development, fielding and employment of unmanned systems technologies.

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

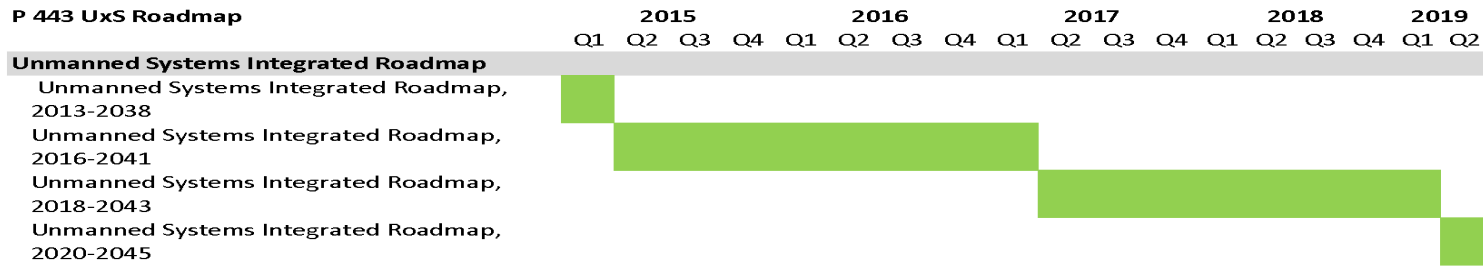
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / Department of Defense (DoD) Unmanned Systems Common Development	<b>Project (Number/Name)</b> P443 / Unmanned Systems Roadmap
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
Unmanned Systems Roadmap	Various	Various : Various	0.891	0.192		0.200		0.350		-		0.350	Continuing	Continuing	-
<b>Subtotal</b>			0.891	0.192		0.200		0.350		-		0.350	-	-	-
<b>Project Cost Totals</b>			0.891	0.192		0.200		0.350		-		0.350	-	-	-

**Remarks**  
 This effort supports the Department's Unmanned Systems Integrated Roadmap and updates. The roadmap is published every two years, with the most recent edition released in FY 2014.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / <i>Department of Defense (DoD) Unmanned Systems Common Development</i>	<b>Project (Number/Name)</b> P443 / <i>Unmanned Systems Roadmap</i>



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Office of the Secretary Of Defense		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604400D8Z / <i>Department of Defense (DoD) Unmanned Systems Common Development</i>	<b>Project (Number/Name)</b> P443 / <i>Unmanned Systems Roadmap</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Unmanned Systems Integrated Roadmap</i></b>				
2016-2041 Edition	2	2015	1	2017
2018-2043 Edition	1	2017	1	2019
2020-2045 Edition	1	2019	1	2021

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