Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force												Date: March 2014
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	28.740	100.507	-	-	-	-	-	-	-	-	-	129.247
645363: *MP-RTIP*	0.000	8.805	-	-	-	-	-	-	-	-	-	8.805
646002: *Three Dimensional Expeditionary Long Range Radar*	28.740	91.702	-	-	-	-	-	-	-	-	-	120.442
MDAP/MAIS Code: 393												

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY 2013, PE 0604283F includes Congressional funding added for the Joint Surveillance Target Attack Radar System (JSTARS) Recapitilization (Recap). This program is in Budget Activity 04, Advanced Component Development and Prototypes (ACD&P). Efforts are necessary to evaluate integrated technologies, representative modes, or prototype systems in a high fidelity and realistic operating environment.

In FY 2014, Project 646002, Three-Dimensional Expeditionary Long-Range Radar (3DELRR), efforts were transferred to PE 0207455F, Three-Dimensional Expeditionary Long-Range Radar, Project 646002, in order to provide this program its own Program Element.

In FY 2015, Project 645363, MP-RTIP efforts were transferred to PE 0307581F, NextGen JSTARS, Project 650003, JSTARS Recapitalization, in order to consolidate efforts and continue development of the JSTARs Recap.

A. Mission Description and Budget Item Justification

JSTARS Recap will provide a unique blend of Battle Management Command and Control (BMC2) and Intelligence, Surveillance, and Reconnaissance (ISR) that enables the central tenant of Air Forces doctrine "Centralized Control and Decentralized Execution". Air Battle Managers onboard the JSTARS use its wide area ground surveillance radar to build situational awareness and identify targets which are passed to strike assets or crossed cued with ISR platforms. The capability to perform this dual mission at the tactical edge both reduces the time to execute the kill chain and improves ISR collections across the range of military options.

This program element enhances the warfighter's ability to achieve the joint vision of combat operations. It develops advanced battle management aids and information fusion technologies to enable rapid decisions by automating tracking and addressing time-critical targets. Concept exploration, program definition/risk reduction efforts, and studies support continuous improvements in development of BMC2 capabilities, network centric operational capabilities, and interoperability with joint service, allied, and coalition systems.

The JSTARS Recap Program efforts in this program element include: BMC2 System and Sensor Systems. It may also include the furtherance of other related activities to include, but not be limited to, Open System Architecture (OSA) development and/or refinement for sensor systems and BMC2. Future JSTARS Recap efforts not in

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force	Date: March 2014
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*

this program element include Air Vehicle & Avionics Systems; Data, Voice, & Advanced Communications Systems; and Systems Engineering & Integration (SE&I). For further details on these future efforts, see PE 0307581F.

Activities also include studies and analyses to support both current program planning/execution and future program planning.

JSTARS Recap:

The JSTARS Recap program was initiated to satisfy the JSTARS Mission Area capability gaps and life-cycle affordability challenges as defined in the Synthetic Aperture Radar/Moving Target Indicator (SAR/MTI); JSTARS Mission Area Analysis of Alternative (AoA) and the SAR/MTI, BMC2 Initial Capabilities Document (ICD). The JSTARS Recap program consists of multiple efforts for the development and integration of all sub-systems necessary to satisfy the requirements documented in the ICD, AOA and, upon completion, the Capability Development Document (CDD). The efforts include, but are not limited to: BMC2 System and Sensor Systems; as well as related OSA development or refinement activities to improve AF weapon system life-cycle affordability. These efforts are detailed below.

1. BMC2 System - The BMC2 System development effort builds upon a broad body of work in OSA by evaluating and applying lessons learned from system designs across many areas such as Air Operations Centers (AOC), AWACS Block 40/45, and the Open Mission Systems (OMS) Working Group. The BMC2 System will provide an on-board BMC2 solution that meets the Joint/Air Force Requirements as defined in the AoA, ICD, and CDD, using an evolutionary approach, made possible by an OSA design that firmly defines interfaces and messaging standards, thereby enabling rapid technology insertion based on mission need and funds availability. The BMC2 System development effort will also inform the AF OSA concept and frameworks with regard to applicability and efficacy of on-board BMC2 mission systems.

2. Sensor Systems - The Sensor Systems development effort intends to leverage the government owned, platform-independent, radar OSA enterprise specification to develop a modern radar that meets the Joint/Air Force Requirements as defined in the AoA, ICD, and CDD. JSTARS Recap is the first planned Major Defense Acquisition Program (MDAP) to leverage this body of work. JSTARS Recap also takes into considerations lessons learned from the Dismount Detection Radar (DDR) Quick Reaction Capability (QRC) program, which was a pathfinder for OSA radar in a small, pod configured for surface surveillance missions. The JSTARS Recap Sensor Systems development effort will not only satisfy the requirements of the JSTARS Recap, but also intends to provide critical feedback to an OSA radar concept and framework with regard to applicability and efficacy in a wide area surface surveillance mission. Other sensor systems may include, but are not limited to, Electro-Optical/Infrared (EO/IR) and multi/hyper-spectral.

Beginning in FY 2012, PE 0604283F funds the development of the Three-Dimensional Expeditionary Long-Range Radar (3DELRR) which will replace the current legacy AN/TPS-75 radar. 3DELRR will be the principal United States Air Force (USAF) long-range, ground-based sensor for detecting, identifying, tracking, and reporting aerial targets for the Joint Force Air Component Commander (JFACC) through the Theater Air Control System (TACS). 3DELRR will respond to the operational need to detect and report highly maneuverable, small radar cross section targets to enable battlefield awareness while at the same time mitigating the reliability, maintainability, and sustainability issues plaguing the AN/TPS-75 radar system. The 3DELRR will provide air controllers with a precise, real-time air picture of sufficient quality to conduct control of individual aircraft under a wide range of environmental and operational conditions. It will replace the aging USAF AN/TPS-75 radar system as the AN/

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force	Date: March 2014
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*

TPS-75 is incapable of detecting some current and emerging threats. In addition, as the AN/TPS-75 is reaching the end of its service life, it is more difficult and costly to maintain. The United States Marine Corps (USMC) is considering 3DELRR as a potential replacement for the AN/TPS-59, at the end of its service life, to support the Marine Air-Ground Task Force (MAGTF) Commander through the Marine Air Command and Control System (MACCS).

3DELRR will address system sustainability, transportability and operational availability shortfalls while providing long-range surveillance, detection, and tracking of Air Breathing Targets (ABTs) and, potentially, Theater Ballistic Missiles (TBMs). This capability will support the USAF contribution to the primary roles of the Airspace Control Authority (ACA) and the Area Air Defense Commander (AADC) and enhance the USAF contributions to the Integrated Air and Missile Defense (IAMD) mission area. This new radar will provide the USAF Control and Reporting Center (CRC) and, if purchased by the USMC, the Tactical Air Operations Center (TAOC), with real-time data to display air activity.

The Pre-Engineering & Manufacturing Development (Pre-EMD) efforts of the 3DELRR Program began in FY 2012 and continued through FY 2013. Acquisition activities included, but were not limited to: full and open source selection to award up to three competing contracts; requirements refinement; completion of the preliminary design development; continued software and hardware subsystem-level development; modeling and simulation to support the system development; implementation of mitigation techniques to combat existing and emerging system threats (including cyber warfare), test planning, and implementation of the program protection plan. A Preliminary Design Review (PDR) and Capability Demonstration C Event were conducted during this timeframe to ensure success in the development of a preliminary system design. Activities also included studies and analyses to support both current program planning and execution, and future program planning, as well as Milestone (MS) B documentation and preparation for a MS B review.

B. Program Change Summary ($ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	114.417	-	-	-	-
Current President's Budget	100.507	-	-	-	-
Total Adjustments	-13.910	-	-	-	-
• Congressional General Reductions	-0.147	-			
• Congressional Directed Reductions	-13.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	10.000	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.559	-			
• Other Adjustments	-9.204	-	-	-	-

Change Summary Explanation

FY13: -13M Congressional Directed Reduction was excess to need for the 3DELRR Program
FY13: +10M Congressional Add was for SAR/MTI Alternatives
FY13: -1.559M SBIR Bill
FY13: -9.204M Other Adjustment was for Sequestration

Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	Project (Number/Name) 645363 / *MP-RTIP*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
645363: *MP-RTIP*	-	8.805	-	-	-	-	-	-	-	-	-	8.805
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY 2013, PE 0604283F includes Congressional funding added for the Joint Surveillance Target Attack Radar System (JSTARS) Recapitilization (Recap). This program is in Budget Activity 04, Advanced Component Development and Prototypes (ACD&P). Efforts are necessary to evaluate integrated technologies, representative modes, or prototype systems in a high fidelity and realistic operating environment.

In FY 2015, Project 645363, MP-RTIP efforts were transferred to PE 0307581F, NextGen JSTARS, Project 650003, JSTARS Recapitalization, in order to consolidate efforts and continue development of the JSTARs Recap.

A. Mission Description and Budget Item Justification

The Joint Surveillance Target Attack Radar System (JSTARS) Recapitalization (Recap) will provide a unique blend of Battle Management Command and Control (BMC2) and Intelligence, Surveillance, and Reconnaissance (ISR) that enables the central tenant of Air Forces doctrine "Centralized Control and Decentralized Execution". Air Battle Managers onboard the JSTARS use its wide area ground surveillance radar to build situational awareness and identify targets which are passed to strike assets or crossed cued with ISR platforms. The capability to perform this dual mission at the tactical edge both reduces the time to execute the kill chain and improves ISR collections across the range of military options.

This program element enhances the warfighter's ability to achieve the joint vision of combat operations. It develops advanced battle management aids and information fusion technologies to enable rapid decisions by automating tracking and addressing time-critical targets. Concept exploration, program definition/risk reduction efforts, and studies support continuous improvements in development of BMC2 capabilities, network centric operational capabilities, and interoperability with joint service, allied, and coalition systems.

The JSTARS Recap Program efforts in this program element include: BMC2 System and Sensor Systems. It may also include the furtherance of other related activities to include, but not be limited to, Open System Architecture (OSA) development and/or refinement for sensor systems and BMC2. Future JSTARS Recap efforts not in this program element include Air Vehicle & Avionics Systems; Data, Voice, & Advanced Communications Systems; and Systems Engineering & Integration (SE&I). For further details on these future efforts, see PE 0307581F.

Activities also include studies and analyses to support both current program planning/execution and future program planning.

JSTARS Recap:

Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 645363 / *MP-RTIP*

The JSTARS Recap program was initiated to satisfy the JSTARS Mission Area capability gaps and life-cycle affordability challenges as defined in the Synthetic Aperture Radar/Moving Target Indicator (SAR/MTI); JSTARS Mission Area Analysis of Alternative (AoA) and the SAR/MTI, BMC2 Initial Capabilities Document (ICD). The JSTARS Recap program consists of multiple efforts for the development and integration of all sub-systems necessary to satisfy the requirements documented in the ICD, AOA and, upon completion, the Capability Development Document (CDD). The efforts include, but are not limited to: BMC2 System and Sensor Systems; as well as related OSA development or refinement activities to improve AF weapon system life-cycle affordability. These efforts are detailed below.

1. BMC2 System - The BMC2 System development effort builds upon a broad body of work in OSA by evaluating and applying lessons learned from system designs across many areas such as Air Operations Centers (AOC), AWACS Block 40/45, and the Open Mission Systems (OMS) Working Group. The BMC2 System will provide an on-board BMC2 solution that meets the Joint/Air Force Requirements as defined in the AoA, ICD, and CDD, using an evolutionary approach, made possible by an OSA design that firmly defines interfaces and messaging standards, thereby enabling rapid technology insertion based on mission need and funds availability. The BMC2 System development effort will also inform the AF OSA concept and frameworks with regard to applicability and efficacy of on-board BMC2 mission systems.

2. Sensor Systems - The Sensor Systems development effort intends to leverage the government owned, platform-independent, radar OSA enterprise specification to develop a modern radar that meets the Joint/Air Force Requirements as defined in the AoA, ICD, and CDD. JSTARS Recap is the first planned Major Defense Acquisition Program (MDAP) to leverage this body of work. JSTARS Recap also takes into considerations lessons learned from the Dismount Detection Radar (DDR) Quick Reaction Capability (QRC) program, which was a pathfinder for OSA radar in a small, pod configured for surface surveillance missions. The JSTARS Recap Sensor Systems development effort will not only satisfy the requirements of the JSTARS Recap, but also intends to provide critical feedback to an OSA radar concept and framework with regard to applicability and efficacy in a wide area surface surveillance mission. Other sensor systems may include, but are not limited to, Electro-Optical/Infrared (EO/IR) and multi/hyper-spectral.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: BMC2 System ***Description:*** Multiple efforts to define reference architecture, demonstrate prototypes, and develop an Open System Architecture BMC2 system. ***FY 2013 Accomplishments:*** Technology risk reduction and program office support to initiate a new program as a result of the JSTARS mission area AoA. Included studies, analysis, market research, Open System Architecture interface definition, and risk reduction.	2.777	-	-
Title: Sensor Systems ***Description:*** Multiple efforts to define reference architecture, demonstrate prototypes, and develop an Open System Architecture Radar Wide Area Surveillance system. ***FY 2013 Accomplishments:***	6.028	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 645363 / *MP-RTIP*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Technology risk reduction and program office support to initiate a new program as a result of the JSTARS mission area AoA. Included studies, analysis, market research, Open System Architecture interface definition, and risk reduction.			
Accomplishments/Planned Programs Subtotals	8.805	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• PE 0307581F, BPAC 650003: *JSTARS Recap*	-	-	73.088	-	73.088	334.137	640.589	536.459	376.198	287.000	2,247.471
• APAF: BA05: Line Item # TBD: *JSTARS Recap APAF Production*	-	-	-	-	-	-	-	111.214	272.277	3,925.464	4,309.000

Remarks

D. Acquisition Strategy

The JSTARS Recap Acquisition Strategy is designed to enable maximum competition for each major sub-system through the EMD phase. Each major sub-system has a capable industry base large enough to make competition an effective tool in achieving the goal of system affordability.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	Project (Number/Name) 645363 / *MP-RTIP*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BMC2 System	SS/CPFF	Various : Various,	0.000	2.777	Aug 2013	-		-		-		-	-	2.777	-
Sensor Systems	C/CPFF	Various : Various,	0.000	3.000	Mar 2014	-		-		-		-	-	3.000	-
		Subtotal	0.000	5.777		-		-		-		-	-	5.777	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	Various	Various : Various,	0.000	3.028	Aug 2013	-		-		-		-	-	3.028	-
		Subtotal	0.000	3.028		-		-		-		-	-	3.028	-

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	8.805		-		-		-		-	-	8.805	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 645363 / *MP-RTIP*

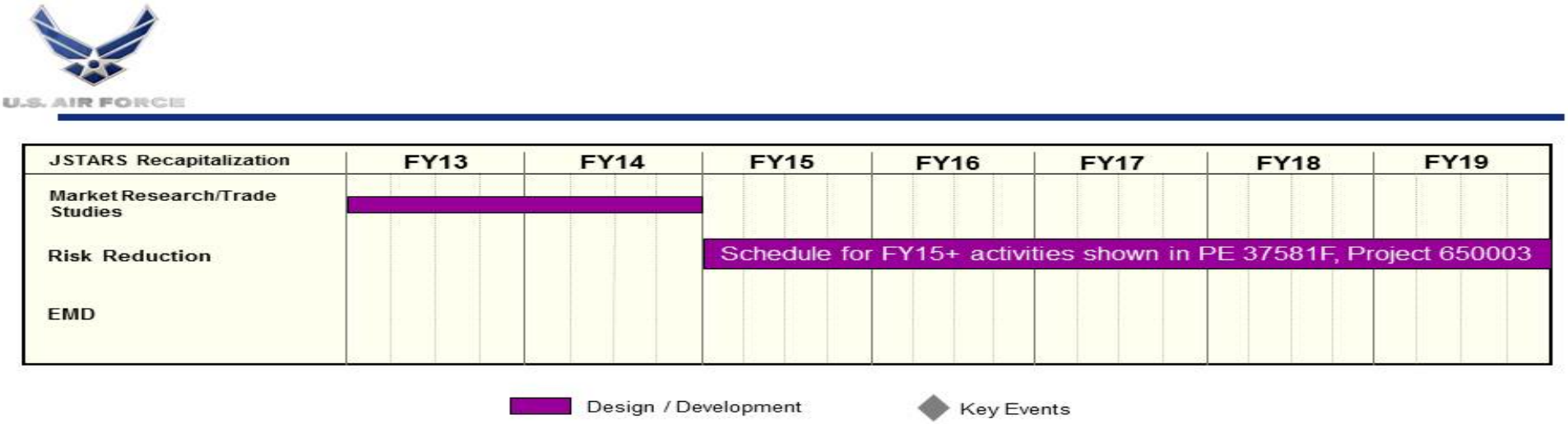

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*				Project (Number/Name) 646002 / *Three Dimensional Expeditionary Long Range Radar*			
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
646002: *Three Dimensional Expeditionary Long Range Radar*	28.740	91.702	-	-	-	-	-	-	-	-	-	120.442
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY 2014, Project 646002, Three-Dimensional Expeditionary Long-Range Radar (3DELRR), efforts were transferred to PE 06027455F, Battle Management Command and Control (BMC2) Sensor Development, Project 646002, in order to provide this program its own Program Element.

A. Mission Description and Budget Item Justification

Beginning in FY12, PE 0604283F funds the development of the Three-Dimensional Expeditionary Long-Range Radar (3DELRR) which will replace the current legacy AN/TPS-75 radar. 3DELRR will be the principal United States Air Force (USAF) long-range, ground-based sensor for detecting, identifying, tracking, and reporting aerial targets for the Joint Force Air Component Commander (JFACC) through the Theater Air Control System (TACS). 3DELRR will respond to the operational need to detect and report highly maneuverable, small radar cross section targets to enable battlefield awareness while at the same time mitigating the reliability, maintainability, and sustainability issues plaguing the AN/TPS-75 radar system. The 3DELRR will provide air controllers with a precise, real-time air picture of sufficient quality to conduct control of individual aircraft under a wide range of environmental and operational conditions. It will replace the aging USAF AN/TPS-75 radar system as the AN/TPS-75 is incapable of detecting some current and emerging threats. In addition, as the AN/TPS-75 is reaching the end of its service life, it is more difficult and costly to maintain. The United States Marine Corps (USMC) is considering 3DELRR as a potential replacement for the AN/TPS-59, at the end of its service life, to support the Marine Air-Ground Task Force (MAGTF) Commander through the Marine Air Command and Control System (MACCS).

3DELRR will address system sustainability, transportability and operational availability shortfalls while providing long-range surveillance, detection, and tracking of Air Breathing Targets (ABTs) and, potentially, Theater Ballistic Missiles (TBMs). This capability will support the USAF contribution to the primary roles of the Airspace Control Authority (ACA) and the Area Air Defense Commander (AADC) and enhance the USAF contributions to the Integrated Air and Missile Defense (IAMD) mission area. This new radar will provide the USAF Control and Reporting Center (CRC) and, if purchased by the USMC, the Tactical Air Operations Center (TAOC), with real-time data to display air activity.

The Pre-Engineering & Manufacturing Development (Pre-EMD) efforts of the 3DELRR Program began in FY12 and continued through FY13. Acquisition activities included, but were not limited to: full and open source selection to award up to three competing contracts; requirements refinement; completion of the preliminary design development; continued software and hardware subsystem-level development; modeling and simulation to support the system development; implementation of mitigation techniques to combat existing and emerging system threats (including cyber warfare), test planning, and implementation of the program protection plan. A Preliminary Design Review (PDR) and Capability Demonstration C Event were conducted during this timeframe to ensure success in the development of a preliminary

Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 646002 / *Three Dimensional Expeditionary Long Range Radar*

system design. Activities also included studies and analyses to support both current program planning and execution, and future program planning, as well as Milestone (MS) B documentation and preparation for a MS B review.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: 3DELRR Technology Development (TD); Pre-EMD Period	91.702	-	-
Description: TD phase and Pre-EMD efforts associated with delivering a new long-range ground-based sensor. ***FY 2013 Accomplishments:*** The pre-EMD period of the 3DELRR Program continued through FY13. Acquisition activities during FY13 included but were not limited to, a full and open source selection, managing up to three concurrent prime contracts, completion of the preliminary design development, continuation of software and hardware subsystem-level development to support the system development, implementation of mitigation techniques to combat existing and emerging system threats (including cyber warfare), test planning, and implementation of the program protection plan. A combined System Requirements and Function Review (SRFR), Preliminary Design Review (PDR), and Capability Demonstration C Event ensured the program achieved a preliminary system design. Activities also included studies and analyses to support both current program planning and execution and future program planning as well as continued development of MS B documentation.			
Accomplishments/Planned Programs Subtotals	91.702	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• RDTE: BA04: PE 0207455F: *Three Dimensional Long Range Radar*	-	54.191	88.825	-	88.825	98.250	68.613	24.790	35.734	Continuing	Continuing
• OPAF: BA04: Line Item # 646002: *Three Dimensional Long Range Radar*	-	-	-	-	-	-	-	73.393	162.656	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Three-Dimensional Expeditionary Long-Range Radar (3DELRR) Project will provide full capability via limited competition to further advance command and control (C2) capabilities supporting Battlefield Management.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 646002 / *Three Dimensional Expeditionary Long Range Radar*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
3DELRR Modeling & Simulation	SS/CPFF	MIT/Lincoln Laboratory : Lexington, MA	3.220	2.115	Dec 2012	-		-		-		-	-	5.335	5.275
3DELRR System Threat Assessment	SS/CPFF	MITRE : Bedford, MA	0.317	0.408	Nov 2012	-		-		-		-	-	0.725	0.636
3DELRR Pre-EMD Period	C/FFP	Various : Various,	19.996	82.492	Oct 2012	-		-		-		-	-	102.488	122.157
		Subtotal	23.533	85.015		-		-		-		-	-	108.548	128.068

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
3DELRR System Engineering - A	SS/CPFF	MIT/Lincoln Laboratory : Lexington, MA	0.929	1.173	Jan 2013	-		-		-		-	-	2.102	3.827
3DELRR System Engineering - B	MIPR	Naval Research Laboratory : Washington, DC	0.016	0.106	Oct 2012	-		-		-		-	-	0.122	0.181
3DELRR System Engineering - C	SS/CPFF	Carnegie Mellon University : Pittsburgh, PA	0.000	0.177	Dec 2012	-		-		-		-	-	0.177	0.538
		Subtotal	0.945	1.456		-		-		-		-	-	2.401	4.546

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
3DELRR 46th Test Wing	PO	46th TW : Ft Walton Beach, FL	0.100	0.110	Oct 2012	-		-		-		-	-	0.210	0.400
3DELRR Joint Interoperability Test Command	MIPR	JITC : Ft. Huachuca, AZ	0.000	0.015	Apr 2013	-		-		-		-	-	0.015	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 646002 / *Three Dimensional Expeditionary Long Range Radar*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.100	0.125		-		-		-		-	-	0.225	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
3DELRR Program Management Administration	Various	Various : Various,	4.162	5.106	Oct 2012	-		-		-		-	-	9.268	11.765
		Subtotal	4.162	5.106		-		-		-		-	-	9.268	11.765

	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	28.740	91.702		-		-		-		-	-	120.442	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 646002 / *Three Dimensional Expeditionary Long Range Radar*

3DELRR Program Schedule

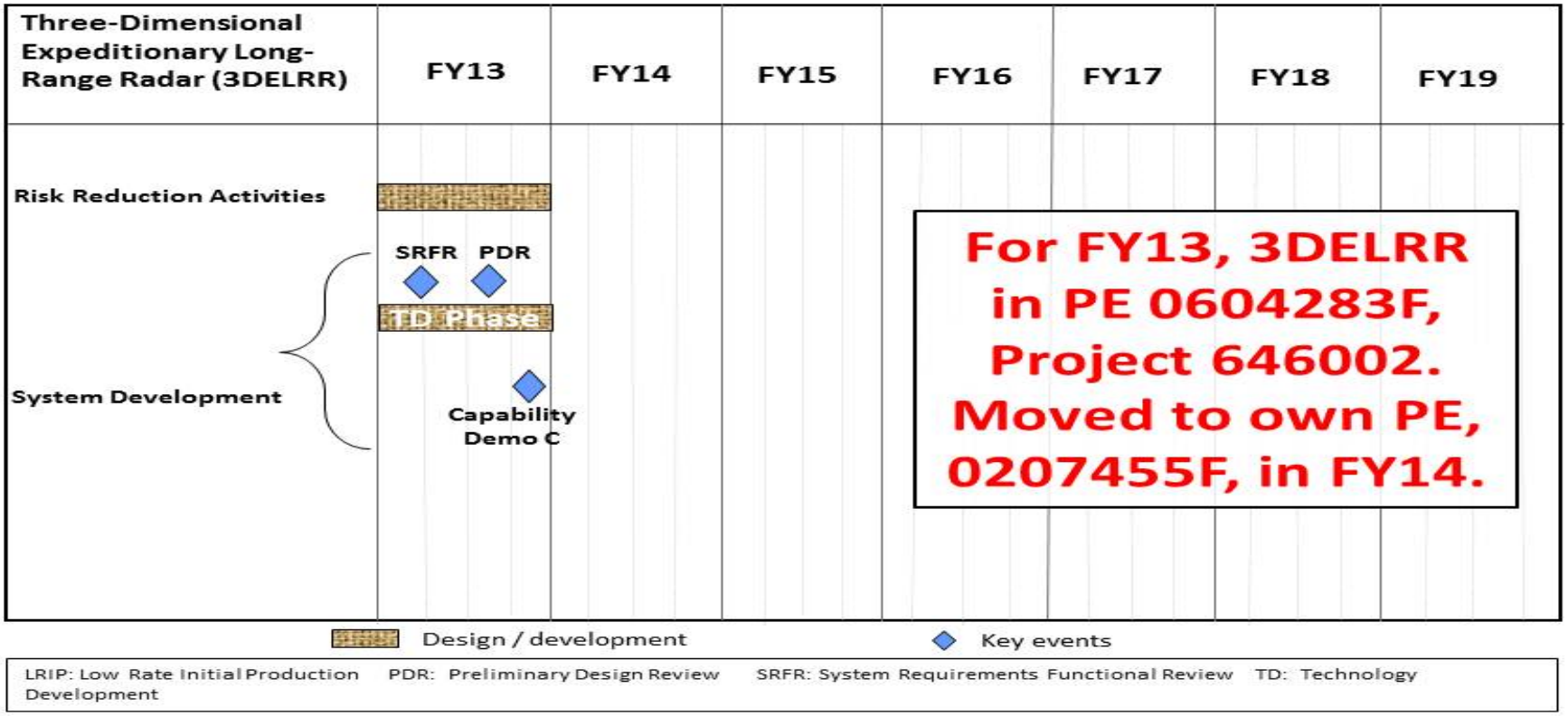

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604283F / *Battle Mgmt Com & Ctrl Sensor Development*	**Project (Number/Name)** 646002 / *Three Dimensional Expeditionary Long Range Radar*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
3DELRR Tech Development (TD) Phase	1	2013	4	2013
3DELRR System Requirement Functional Review	2	2013	2	2013
3DELRR Preliminary Design Review	3	2013	3	2013
3DELRR Capability Demonstration C	4	2013	4	2013