

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)					
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	0	0	191,089	402,258	514,223	729,506	645,856	Continuing	TBD
5064 Airframe	0	0	41,764	198,121	276,393	562,801	560,190	Continuing	TBD
5065 Sensors	0	0	149,325	204,137	237,830	166,705	85,666	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0
<p>1. In FY 2003, the Air Force established a program element for the Multi-sensor Command and Control Constellation (MC2C). The MC2C is a horizontally integrated architecture of Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) capabilities. The MC2C is a key enabler for the effects-based capabilities needed to achieve Global Strike Task Force (GSTF) objectives. MC2C absorbs, and continues the Multi-Platform Radar Technology Insertion Program radar effort that was previously reported in PE 0207581F Joint STARS, Project Number 674995. MC2C also transitions the 707-based MP-RTIP radar to a 767-based MP-RTIP radar with funding from PE 0207581F Joint STARS, Project Number 670003.</p> <p>2. FYDP RDT&E Article Deliveries: FY 2004: 1 767-400ER Testbed FY 2006: 1 Global Hawk MP-RTIP radar for integration FY 2007: 1 767 MP-RTIP radar for integration 1 NATAR radar for integration</p> <p>3. In FY03, the Multi-sensor Command and Control Constellation (MC2C) program anticipates receiving \$488.0M from th Cost of War Transfer Account. These funds are not included in the Air Force baseline. Funding will be used to accelerate the purchase of an RDT&E 767-400ER aircraft from FY 2004 to FY 2003 (see note 2 above). Additionally, funds will be used for engineering aircraft integration, designing common fleet modifications, network development, and future spiral effort exploration and planning.</p>									

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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)	
<p>(U) <u>A. Mission Description</u></p> <p>The Multi-sensor Command and Control Constellation (MC2C) is a horizontally integrated architecture of Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) capabilities. The MC2C will function as an enabling force for the Global Strike Task Force and other military operations. This vision integrates current, developmental, and future manned/unmanned space, air and ground sensors, data links, ground stations, exploitation tools, communication/information dissemination systems and C2 and battle management elements to give the warfighter real-time visibility on of the battlefield and other areas of military operations. The MC2C seeks to achieve horizontal integration through Network Centric Collaborative Targeting (NCCT).</p> <p>A key element of MC2 Constellation (MC2C) is the Multi-sensor Command and Control Aircraft (MC2A) which is vital to constellation system integration and overall system architecture. The MC2A is an advanced manned aircraft with state-of-the-art sensors that will extend the commander's eyes and ears while serving as a primary element of the theater C2 architecture. A constellation of high and medium altitude endurance Unmanned Air Vehicles (UAVs) and space sensors will augment and supplement the sensor capabilities of the MC2A to provide precise target location/identification data. This will provide a seamless environment to re-task sensors from collection to targeting support missions. The MC2 Constellation of C2 and ISR sensors must provide capabilities over the entire range of military operations from peacetime, through small-scale contingencies, to major theater war.</p> <p>The MC2A, an advanced manned wide area surveillance and battle management weapon system, will employ Ground Moving Target Indication (GMTI) and Air Moving Target Identification (AMTI) sensors, battle management cells, communications, data links, an AOC execution cell for execution of operations, and after action battlefield assessments. The MC2A will also interface with multi-service ground and space-based sensors, fighter and bomber aircraft and other sensors creating decision-quality data to increase battlespace awareness and shorten the decision cycle for combat operations, such as detection, designation, and prosecution of time critical targets. The Air Force will develop the MC2A capability in a spiral development fashion. The Multi-Platform Radar Technology Insertion Program, delivering an advanced GMTI as a Pre-Planned Product Improvement (P3I) for Joint STARS E-8C, integrated on a 767-400ER airframe, is the first spiral of the MC2A. Future spirals will be integrated based on concept/development studies, with AMTI as a candidate for spiral 2 of MC2A.</p> <p>The vision for MC2A Spiral 1, GMTI and battle management on a 767-400ER, is fully consistent with the currently approved MP-RTIP program. The MP-RTIP program was restructured and approved by SECAF and USD(AT&L) on 28 Jul 00 and placed in pre-engineering and manufacturing development to design the advanced radar while the warfighter conducted an Analysis of Alternative (AoA) to determine which platform would host the advanced radar capability (see FY2001 & FY2002 R-2 Exhibit for PE 0207581F). While MP-RTIP will deliver the Spiral 1 (GMTI) capability to the warfighter, it will also provide for a robust Global Hawk reconnaissance capability, and enable NATO's Alliance Ground Surveillance (AGS) program.</p>		
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<p>(U) <u>B. Budget Activity Justification</u> These funds are required to meet the requirements, capabilities and efforts further defined in the 'Mission Description' section of the two following R-2s.</p>																																																										
<p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2001</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2002</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2003</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> <tr> <td>(U) Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. Congressional/General Reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">b. Small Business Innovative Research</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">e. Rescissions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2002 PBR</td> <td></td> <td></td> <td style="text-align: right;">191,089</td> <td style="text-align: right;">TBD</td> </tr> <tr> <td>(U) Current Budget Submit/FY 2003 PBR</td> <td></td> <td></td> <td style="text-align: right;">191,089</td> <td style="text-align: right;">TBD</td> </tr> </tbody> </table>					<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>	(U) Previous President's Budget	0	0	0	0	(U) Appropriated Value					(U) Adjustments to Appropriated Value					a. Congressional/General Reductions					b. Small Business Innovative Research					c. Omnibus or Other Above Threshold Reprogram					d. Below Threshold Reprogram					e. Rescissions					(U) Adjustments to Budget Years Since FY 2002 PBR			191,089	TBD	(U) Current Budget Submit/FY 2003 PBR			191,089	TBD
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<p>(U) <u>Significant Program Changes:</u> The FY03 increase since the FY02 PBR reflects the transition of an MP-RTIP radar hosted on a JSTARS E-8C platform to a 767-400ER platform as the first spiral toward a Multi-sensor Command and Control Aircraft (MC2A) capability.</p>																																																										

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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)	PROJECT 5064
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COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
5064 Airframe	0	0	41,764	198,121	276,393	562,801	560,190	Continuing	TBD

1. In FY 2003, the Air Force established a program element for the Multi-sensor Command and Control Constellation (MC2C). The MC2C is a horizontally integrated architecture of Command and Control (C2) and intelligence, Surveillance, and Reconnaissance (ISR) capabilities. The MC2C is a key enabler for the effect-based capabilities needed to achieve Global Strike Task Force (GSTF) objectives. MC2C Project Number 675074, Airframe transition hosting of a 707-based Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar to a 767-400ER with funding from PE 0207581 Joint STARS, Project Number 670003.

2. In FY03, the Multi-sensor Command and Control Constellation (MC2C) program anticipates receiving \$488.0M from the Cost of War Transfer Account. These funds are not included in the Air Force baseline. Funding will be used to accelerate the purchase of an RDT&E 767-400ER aircraft from FY 2004 to FY 2003 (see note 1 above). Additionally, funds will be used for engineering aircraft integration, designing common fleet modifications, network development, and future spiral effort exploration and planning.

(U) A. Mission Description

Project 675064, Airframe, is established within the MC2C PE 0207449F in response to the Air Force Chief of Staff direction to develop an integrated intelligence, surveillance, and reconnaissance capability known as the Multi-sensor Command and Control Constellation (MC2C). The MC2C is a key enabler for the effects-based capabilities necessary to achieve Global Strike Task Force (GSTF) objectives. Project 675064 is applicable for platforms chosen to host sensor and communications capability that contribute to the MC2 Constellation. The Multi-sensor Command and Control Aircraft (MC2A) is a vital element for constellation integration and overall architecture.

The Multi-sensor Command and Control Aircraft (MC2A) is a 767-400ER aircraft that will host the Multi-Platform Radar Technology Insertion Program sensor to form the core capability for the MC2A Spiral 1, Ground Moving Target Indicator (GMTI) and battle management capability. There is an Air Force and Army need to provide, from airborne platforms, near-real time surveillance and targeting information on moving and stationary ground targets (growth to maritime operations), slow moving rotary and fixed wing aircraft and rotary antennas to enable operational and tactical commander's make and execute battle decisions. A current level of wide area surveillance (WAS) capability exists in the Joint Surveillance Target Attack Radar System (Joint STARS) E-8C (707 aircraft) based weapons systems. The system is capable of being cued by other reconnaissance, surveillance, and target acquisition systems and is able to respond rapidly to worldwide contingencies. The Multi-Platform Radar Technology Insertion Program (MP-RTIP), formerly a pre-planned product improvement to Joint STARS, will deliver a significantly enhanced

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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)	PROJECT 5064
<p>(U) <u>A. Mission Description Continued</u> WAS system capability to the warfighter when hosted on a 767-400ER as the MC2A. The MC2A will greatly improve the commander's ability to conduct wide area surveillance to detect, locate, classify, track, and monitor moving targets and provide target information to assigned direct aerospace and ground weapons systems.</p> <p>Funds in Project 675064 will be used to purchase a Boeing 767-400ER aircraft and design, develop, and execute the acquisition program to transform the 'green' 767-400ER into a testbed suitable for integration of the MP-RTIP radar and all necessary subsystems required to form an advanced WAS capability as Spiral 1 of MC2A. This activity will yield a 'smart' design that preserves size, weight and power allocations for MC2A Spiral 2, an Air Moving Target Indicator capability. The testbed will be production representative of MC2A Spiral 1 suitable for effectively demonstrating operational utility in the DT/OT environment.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$0 Activity prior to FY02 reported in PE 0207581F, Project 670003. (U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u> (U) \$0 Activity prior to FY03 reported in PE 0207581F, Project 674995. (U) \$0 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u> (U) \$16,429 Continue C2ISR Transitioning/Replatforming (707 to 767-400ER) (U) \$25,000 Continue Future Studies/Spiral Development--includes concept exploration, program definition/risk reduction, evaluation of airframe to host Spiral 2 (AMTI sensor) and other spiral development efforts supporting continuous improvements and implementation of Command & Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities to enable a joint global strike task force. These efforts include but are not limited to manned and unmanned platforms, space, data links--Multi-Platform Common Data Link (MP-CDL) etc, combat identification, and advanced battle management command, control, and communications (BMC3) concepts such as Network Centric Collaborative Targeting (NCCT). (U) \$335 SPO Operations (U) \$41,764 Total</p>		
Project 5064	Page 5 of 14 Pages	Exhibit R-2A (PE 0207449F)

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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)				PROJECT 5064		
(U) B. Project Change Summary This program is in Budget Activity 7 - Operational System Development. FY03-FY07 funds transferred to this project originated in PE 0207581 Joint STARS, Project 670003.										
(U) C. Other Program Funding Summary (\$ in Thousands)										
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>	
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>		
(U) AF RDT&E										
(U) PE 0207449F/Project 675065 Sensors	0	0	149,325	204,137	237,830	166,705	85,666	Continuing	Continuing	
(U) PE 0207581F/Project 674995 MP-RTIP	0	77,630	0	0	0	0	0	Continuing	Continuing	
(U) PE 0207581F/Project 670003 JSTARS (partial total)	50,359	0	0	0	0	0	0	Continuing	Continuing	
(U) Other APPN										
(U) D. Acquisition Strategy The MP-RTIP Acquisition Strategy was approved by SECAF and USD(AT&L) on 28 Jul 00. The warfighter, AC2ISRC/A3, has completed the MP-RTIP Platform Analysis-of-Alternatives (Dec 01) and has received AFROC and Chief of Staff of the Air Force direction. The Boeing 767-400ER testbed will be procured and system design engineering initiated in FY2003 to transform the green aircraft into an operationally representative testbed. Subsequent to a Milestone B decision in FY2003 for the MC2A Spiral 1/MP-RTIP, system development & demonstration (SDD) will proceed for the enhanced WAS										
(U) E. Schedule Profile										
			<u>FY 2001</u>			<u>FY 2002</u>			<u>FY 2003</u>	
			1	2	3	4	1	2	3	4
(U) Purchase 767-400ER									1	
(U) Initiate System Design Engineering									X	
* Denotes completed event										X
X Denotes planned event										
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
07 - Operational System Development				0207449F Multi-sensor Command and Control Constellation (MC2C)				5064		
(U) A. Project Cost Breakdown (\$ in Thousands)										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	707 to 767 Transition									16,000
(U)	Future Studies/Spiral Development Activities									25,429
(U)	SPO Operations									335
(U)	Total									41,764
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)										
(U) Performing Organizations:										
<u>Contractor or Government</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>										
TBD	TBD	TBD						41,429	Continuing	TBD
<u>Support and Management Organizations</u>										
Program Office Support	N/A	N/A						335	Continuing	TBD
<u>Test and Evaluation Organizations</u>										
TBD	TBD	TBD						0	Continuing	TBD
(U) Government Furnished Property:										
<u>Item</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Delivery</u>		<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>							
<u>Product Development Property</u>										
N/A										
<u>Support and Management Property</u>										
N/A										
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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)	PROJECT 5065
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COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
5065 Sensors	0	0	149,325	204,137	237,830	166,705	85,666	Continuing	TBD

1. In FY2003, the Air Force established a program element for the Multi-Sensor Command and Control Constellation (MC2C). The MC2C is a horizontally integrated architecture of Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance capabilities. The MC2C is a key enabler for the effects-based capabilities needed to achieve Global Strike Take Force (GSTF) objectives. MC2C absorbs, and continues the Multi-Platform Radar Technology Insertion Program radar effort that was previously reported in PE 0207581F Joint STARS, Project Number 674995.

2. In FY03, the Multi-sensor Command and Control Constellation (MC2C) program anticipates receiving \$488.0M from th Cost of War Transfer Account. These funds are not included in the Air Force baseline. Funding will be used to accelerate the purchase of an RDT&E 767-400ER aircraft from FY 2004 to FY 2003 (see note 1 above). Additionally, funds will be used for engineering aircraft integration, designing common fleet modifications, network development, and future spiral effort exploration and planning.

(U) A. Mission Description

Project 5065, Sensors, is established within the MC2C PE 0207449F in response to the Air Force Chief of Staff direction to develop an integrated intelligence, surveillance, and reconnaissance capability known as the Multi-sensor Command and Control Constellation (MC2C).

A sensor program with direct application to the MC2 Constellation is the Multi-Platform Radar Technology Insertion Program delivering a sensor that will form the core capability for the MC2A Spiral 1 767-400ER based weapons system. The Multi-Platform Radar Technology Insertion Program (MP-RTIP), as reported in FY2001 and FY2002 R-2 Exhibit for PE 0207581F, is the result of a restructuring of the Joint STARS Radar Technology Insertion Program (RTIP), formerly a Pre-Planned Product Improvement to Joint STARS. MP-RTIP will deliver Multi-sensor Command and Control Aircraft (MC2A) capability to the warfighter, provide for a robust Global Hawk reconnaissance/surveillance capability, and enable a NATO Trans-Atlantic Advanced Radar program for NATO AGS. The MC2A capability will allow commanders to conduct wide area surveillance to detect, locate, classify, track, and monitor moving targets and provide target information to assigned direct aerospace and ground weapons systems. Wide area surveillance is required to monitor the movement and disposition of enemy forces and for use in resource prioritization, force allocation, and Intelligence Preparation of the Battlefield at Air Force, Army, Navy Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) elements. To this end, MP-RTIP, consistent with an MC2A spiral development strategy, will design a modular, scalable, two-dimensional active electronically scanned array (2D-AESA) radar, and develop, fabricate, and test the MP-RTIP radars on the 767-400ER

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<p>(U) <u>A. Mission Description Continued</u> testbed developed by using funds in PE 0207449F Project 5064 for the MC2A Spiral 1 capability and/or other suitable testbeds for Global Hawk and NATO capabilities. Specifically, the MP-RTIP radar, when integrated on the 767-400ER platform must deliver mission capability as reflected in the validated RTIP Operational Requirements Document (ORD) by 2012. Although the users' need date for an MP-RTIP capability remains 2010, the user has accepted 2012. The Global Hawk variant of the MP-RTIP family will meet requirements and provide a robust reconnaissance and surveillance capability. The NATO variant of the MP-RTIP family of radars must meet the US sensor commitment to NATO in 2007 and support any level of cooperative development at Air Force direction.</p> <p>The MP-RTIP program includes concept exploration, technology development, system development/demonstrations, and spiral development supporting continuous improvements of the future MC2A 767-400ER based weapons system as well as the family of modular scalable AESA radars developed under the program. Activity to understand engineering trades for Spiral 1 and Spiral 2 sensor suites will be accomplished early in the program.</p>		
(U) <u>FY 2001 (\$ in Thousands)</u>		
(U) \$0	Activity prior to FY02 reported in PE 0207581F, Project 670003.	
(U) \$0	Total	
(U) <u>FY 2002 (\$ in Thousands)</u>		
(U) \$0	Activity prior to FY03 reported in PE 0207581F, Project 674995.	
(U) \$0	Total	
(U) <u>FY 2003 (\$ in Thousands)</u>		
(U) \$145,610	Continue Multi-Platform RTIP radar design and development for integration on a 767-400ER, Global Hawk target platforms, and NATAR.	
(U) \$1,910	Continue Test Efforts (includes Operator-In-The-Loop [OITL]; Joint Test Force Support; AFOTEC Support)	
(U) \$1,205	Continue SPO Operations	
(U) \$600	Continue Future Studies/Spiral Development--includes concept exploration, program definition/risk reduction, and spiral development efforts supporting continuous improvements and implementation of Command & Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities to enable a joint global strike task force. These efforts include but are not limited to manned and unmanned platforms, space, data links--Multi-Platform Common Data Link (MP-CDL) etc, combat identification, and advanced battle management command, control, and communications (BMC3) concepts such as Network Centric Collaborative Targeting (NCCT).	
(U) \$149,325	Total	
<p>Project 5065 Page 10 of 14 Pages Exhibit R-2A (PE 0207449F)</p>		

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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)			PROJECT 5065																																																																																											
<p>(U) <u>B. Project Change Summary</u> This program is in Budget Activity (BA) 7, Operational System Development. In an Acquisition Decision Memorandum dated 11 Dec 00, the Multi Platform-Radar Technology Insertion Program (MP-RTIP) was created from the Radar Technology Insertion Program (RTIP) to leverage the RTIP Wide Area Surveillance radar design for application to the Global Hawk and NATAR platforms. The MP-RTIP program is the result of a restructuring of the Joint Stars RTIP program, formerly a Pre-Planned Product Improvement to Joint Stars.</p> <p>Specific Changes: FY 2002: No Change FY 2003: Increase \$149,325 reflects decision to host the MP-RTIP radar on a 767-400ER and transfers funding for this continuing effort from PE 0207581F, Joint STARS, Project 674995, MP-RTIP.</p>																																																																																																		
<p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th><u>FY 2001</u></th> <th><u>FY 2002</u></th> <th><u>FY 2003</u></th> <th><u>FY 2004</u></th> <th><u>FY 2005</u></th> <th><u>FY 2006</u></th> <th><u>FY 2007</u></th> <th><u>Cost to</u></th> <th><u>Total Cost</u></th> </tr> <tr> <th></th> <th><u>Actual</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) AF RDT&E</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) PE 0207449F/Project 675064 Airframe</td> <td align="right">0</td> <td align="right">0</td> <td align="right">41,764</td> <td align="right">198,121</td> <td align="right">276,393</td> <td align="right">562,801</td> <td align="right">560,190</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td>(U) PE 0207581F/Project 674995 MP-RTIP</td> <td align="right">0</td> <td align="right">77,630</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td>(U) PE 0207581F/Project 670003 JSTARS (partial)</td> <td align="right">50,359</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td>(U) PE 0305206F/Project 674819</td> <td align="right">0</td> <td align="right">9,000</td> <td align="right">10,000</td> <td align="right">7,000</td> <td align="right">2,000</td> <td align="right">0</td> <td align="right">0</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td>(U) PE 0305205F/Project 674799</td> <td align="right">0</td> <td align="right">0</td> <td align="right">17,000</td> <td align="right">40,000</td> <td align="right">13,000</td> <td align="right">1,000</td> <td align="right">0</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td>(U) Other APPN Multi Platform-Common Data Link (PE 0305206F) GLOBAL HAWK (PE 0305205F)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>		<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>		(U) AF RDT&E										(U) PE 0207449F/Project 675064 Airframe	0	0	41,764	198,121	276,393	562,801	560,190	Continuing	Continuing	(U) PE 0207581F/Project 674995 MP-RTIP	0	77,630	0	0	0	0	0	Continuing	Continuing	(U) PE 0207581F/Project 670003 JSTARS (partial)	50,359	0	0	0	0	0	0	Continuing	Continuing	(U) PE 0305206F/Project 674819	0	9,000	10,000	7,000	2,000	0	0	Continuing	Continuing	(U) PE 0305205F/Project 674799	0	0	17,000	40,000	13,000	1,000	0	Continuing	Continuing	(U) Other APPN Multi Platform-Common Data Link (PE 0305206F) GLOBAL HAWK (PE 0305205F)									
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Project 5065			Page 11 of 14 Pages			Exhibit R-2A (PE 0207449F)																																																																																												

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)	PROJECT 5065
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(U) **D. Acquisition Strategy**
 The MP-RTIP Program is currently planning for 4 to 5 manned wide area surveillance aircraft as well as 35 Global Hawk air vehicles to receive the 2D-AESA radars. The number of WAS and Global Hawk platforms is being redefined thru the Air Force transformation activity. Low Rate Initial Production (LRIP) quantity is one 767-400ER MC2A Spiral 1 system and seven sensors for Global Hawk. Exit criteria will be established at MS B that must be satisfied prior to proceed with LRIP. All other procurement activities for all platforms will be formally updated at MS B in FY03

(U) **E. Schedule Profile**

	<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) **MP-RTIP PHASE 1 AWARD	*											
(U) **MP-RTIP PHASE 1 DEFINITIZED			*									
(U) **MP-RTIP INTEGRATED BASELINE REVIEW			*									
(U) **RADAR REQUIREMENTS REVIEW					*							
(U) **RADAR FUNCTIONAL REVIEW						X						
(U) INITIAL DESIGN REVIEW (IDR)									X			
(U) MILESTONE B											X	

* Denotes completed event

X Denotes planned event

** Activity begun prior to FY 2003 under PE 0207581F, Joint STARS, Projects 670003 and 674995.

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
07 - Operational System Development				0207449F Multi-sensor Command and Control Constellation (MC2C)				5065		
(U) A. Project Cost Breakdown (\$ in Thousands)										
					<u>FY 2001</u>		<u>FY 2002</u>			<u>FY 2003</u>
(U)	MP-RTIP									145,610
(U)	Test Efforts (OITL, JTF, AFOTEC)									1,910
(U)	SPO Operations									1,205
(U)	Future Studies/Spiral Development									600
(U)	Total									149,325
MP-RTIP's funding was a part of Joint Stars PE 0207581F, Project 670003 through FY01. In FY02, MP-RTIP funding was reported in the Joint Stars PE 0207581F, Project 674995. In FY03, the Multi-sensor Command and Control Constellation (MC2C), PE 0207449F absorbed and continued the MP-RTIP effort.										
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)										
(U) Performing Organizations:										
<u>Contractor or Government Performing Activity</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Performing Activity EAC</u>	<u>Project Office EAC</u>	<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Organizations</u>										
Northrop	CPAF	DEC 00						145,610	Continuing	TBD
Grumman-Multi-Platform Radar Technology Insertion Program (RTIP)										
MIT/Lincoln Labs	Various	Various	N/A	N/A				600	Continuing	TBD
<u>Support and Management Organizations</u>										
Program Office Support	N/A	N/A	N/A	N/A				1,205	Continuing	TBD
<u>Test and Evaluation Organizations</u>										
OITL	Allotment	N/A	N/A	N/A				1,150	Continuing	TBD
JTF Support	Allotment	N/A	N/A	N/A				60	Continuing	TBD
AFOTEC Support	Allotment	N/A	N/A	N/A				700	Continuing	TBD
Project 5065				Page 13 of 14 Pages				Exhibit R-3 (PE 0207449F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002		
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT		
07 - Operational System Development				0207449F Multi-sensor Command and Control Constellation (MC2C)			5065		
(U) Government Furnished Property:									
<u>Item</u>	<u>Contract</u>	<u>Award or</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Method/Type</u>	<u>Obligation</u>	<u>Date</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Vehicle</u>		<u>Date</u>	<u>Date</u>						
<u>Product Development Property</u>									
N/A									
<u>Support and Management Property</u>									
N/A									
<u>Test and Evaluation Property</u>									
N/A									
<u>Subtotals</u>				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
				<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development							146,210	TBD	TBD
Subtotal Support and Management							1,205	TBD	TBD
Subtotal Test and Evaluation							1,910	TBD	TBD
Total Project							149,325	TBD	TBD