

## UNCLASSIFIED

PE NUMBER: 0207450F  
PE TITLE: E-10 Squadrons

## Exhibit R-2, RDT&amp;E Budget Item Justification

DATE

February 2005

## BUDGET ACTIVITY

## 05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

## 0207450F E-10 Squadrons

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	0.000	419.006	397.011	389.245	587.615	438.500	294.874	74.784	Continuing	TBD
5131 Airframe	0.000	217.986	250.582	205.263	420.642	315.545	248.953	74.784	Continuing	TBD
5132 Sensors	0.000	201.020	146.429	183.982	166.973	122.955	45.921	0.000	Continuing	TBD

1. In FY 2006, this PE was renamed E-10 Squadrons (formerly Multi-sensor Command and Control Aircraft [MC2A]). The name was changed to directly associate the PE title with the E-10A, the approved Mission Design Series (MDS) designation for the MC2A.
2. In FY 2006, Project Number 5131, MC2A Airframe, was changed to Airframe since the term MC2A was no longer being used to identify the aircraft and the new PE title already referenced the aircraft type.
3. In FY 2006, Project Number 5132, MC2A Sensors, was changed to Sensors since the term MC2A was no longer being used to identify the aircraft and the new PE title already referenced the aircraft type.

(U) **A. Mission Description and Budget Item Justification**

The E-10 is a key node of the C2 Constellation (see PE 0207449F) bringing operational command and control to the joint warfighter through the use of advanced sensors, sensor fusion, network-centric warfare and high-speed, wide-band communications systems. The E-10 aircraft series will employ both on-board and off-board sensors, communications, data links, and battle management integration software to execute the full range of military operations. The E-10 will interface with multi-Service ground/air/space-based sensors, intelligence and communications assets to shorten the decision cycle for combat operations. The E-10 will enable the detection, designation, and prosecution of time critical targets by providing battlespace situational awareness. The result is weapons-quality target cueing for joint and coalition shooters to engage time sensitive cruise missiles and other fleeting high-priority targets.

The E-10A, equipped with the Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar, will deliver a focused Air Moving Target Indicator (AMTI) capability for Cruise Missile Defense (CMD); an advanced, next-generation Ground Moving Target Indicator (GMTI) and Synthetic Aperture Radar (SAR) imaging capability for surface surveillance; and an open-system architecture to facilitate dynamic Battle Management, Command and Control (BMC2) with growth potential for Unmanned Aerial Vehicle (UAV) control, space-based radar interface and Intelligence, Surveillance and Reconnaissance (ISR) management functions. The initial spiral of E-10A's Increment 1 will deliver the core capability to perform the focused AMTI and GMTI missions to include data processing and advanced communications links. Future spirals within E-10A Increment 1 are envisioned to incorporate sensor fusion, advanced battle management functions, UAV control, space-based radar integration and laser communications, while future E-10 increments are envisioned to incorporate advanced sensors for air surveillance operations.

The MP-RTIP program will also provide a radar for a robust Global Hawk reconnaissance capability. It also continues to support NATO Alliance Ground Surveillance (AGS) radar conceptual design and early decision analysis activities to support OSD's strategy for the United States' involvement in the NATO AGS program.

This program is categorized as Budget Activity (BA) 5 to reflect a program in System Development and Demonstration (SDD). MP-RTIP entered SDD in FY04; the E-10A program is in the Pre-SDD, or Technology Development, phase.

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## BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

0207450F E-10 Squadrons

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	0.000	538.860	530.458	438.500
(U) Current PBR/President's Budget	0.000	419.006	397.011	389.245
(U) Total Adjustments	0.000	-119.854		
(U) Congressional Program Reductions		-116.120		
Congressional Rescissions		-3.734		
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer				

(U) Significant Program Changes:

FY 2005 begins reporting for E-10 Squadrons, PE 0207450F. This activity continues from FY 2004 as previously reported in C2 Constellation, PE 0207449F in Project 5064 (Airframe) and Project 5065 (Sensor). The Current PBR/President's Budget reflects a restructured acquisition strategy.

## Exhibit R-2a, RDT&amp;E Project Justification

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## BUDGET ACTIVITY

## 05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

0207450F E-10 Squadrons

## PROJECT NUMBER AND TITLE

5131 Airframe

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5131 Airframe	0.000	217.986	250.582	205.263	420.642	315.545	248.953	74.784	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

1. In FY 2006, this PE was renamed E-10 Squadrons (formerly Multi-sensor Command and Control Aircraft [MC2A]). The name was changed to directly associate the PE title with the E-10A, the approved Mission Design Series (MDS) designation for the MC2A.

2. In FY 2006, Project Number 5131, MC2A Airframe, was changed to Airframe since the term MC2A was no longer being used to identify the aircraft and the new PE title already referenced the aircraft type.

3. FYDP RDT&E Article Deliveries:

FY 2008: 1 767-400ER/MP-RTIP Testbed for modification

(U) **A. Mission Description and Budget Item Justification**

This project is established to design, develop, and integrate modifications to a wide-body aircraft to host multiple sensor configurations, and its Battle Management Command & Control (BMC2) suite. The E-10 is a key node of the C2 Constellation (see PE 0207449F) bringing operational command and control to the joint warfighter through the use of advanced sensors, sensor fusion, network-centric warfare and high-speed, wide band communications systems. The E-10 aircraft series will employ both on-board and off-board sensors, communications, data links, and battle management integration software to execute the full range of military operations. The E-10 will interface with multi-Service ground/air/space-based sensors, intelligence and communications assets to shorten the decision cycle for combat operations. The E-10 will enable the detection, designation, and prosecution of time critical targets by providing battlespace situational awareness. The result is weapons-quality target cueing for joint and coalition shooters to engage time sensitive cruise missiles and other fleeting high-priority targets.

The E-10A, equipped with the Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar, will deliver a focused Air Moving Target Indicator (AMTI) capability for Cruise Missile Defense (CMD); an advanced, next-generation Ground Moving Target Indicator (GMTI) and synthetic Aperture Radar (SAR) imaging capability for surface surveillance; and an open-system architecture to facilitate dynamic BMC2 with growth potential for Unmanned Aerial Vehicle (UAV) control, space-based radar interface and Intelligence, Surveillance and Reconnaissance (ISR) management functions. The initial spiral of E-10A's Increment 1 will deliver the core capability to perform the focused AMTI and GMTI missions to include data processing and advanced communications links. Future spirals within E-10A Increment 1 are envisioned to incorporate sensor fusion, advanced battle management functions, UAV control, space-based radar integration and laser communications, while future E-10 increments are envisioned to incorporate advanced sensors for air surveillance operations.

Funds in this project will be used to: (1) incrementally fund the purchase of a Boeing 767-400ER aircraft to serve as the testbed for the wide-area surveillance "large-sized" variant of the MP-RTIP radar system, (2) design, develop, and modify the "green" commercial 767-400ER platform to provide the technology testbed, (3) support Weapon System Integration activities to include development of key BMC2 communications and computing applications to prove out the MP-RTIP radar and establish future BMC2 architectures for the E-10A, (4) pursue future studies/spiral development to support continuous improvement and implementation of Command & Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities.

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## Exhibit R-2a, RDT&amp;E Project Justification

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BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)					0207450F E-10 Squadrons			5131 Airframe			
(U)	Continue systems engineering and design activities						21.226	22.075	21.458		
(U)	Continue Weapon System Integration (WSI) efforts (including BMC2 efforts)--beginning with a demonstration aircraft and necessary BMC2 to prove the Key Performance Parameters (KPPs) and basic radar requirements associated with the WAS/MP-RTIP sensor						153.626	165.248	155.417		
(U)	Purchase MP-RTIP Lab/Test Hardware (Development Unit) materials						30.000	30.000	0.000		
(U)	Conduct Future Studies/Spiral Development--includes concept exploration, program definition/risk reduction (including BMC2 efforts), technology insertion/development, and spiral development efforts supporting continuous improvement and implementation of Command & Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities enabling the joint air and cruise missile defense architecture, joint decisive operations and the AEF Task Force CONOPS.						0.500	0.520	0.540		
(U)	Continue SPO Ops Effort						1.207	1.255	1.305		
(U)	Continue Test & Evaluation Efforts (examples include Joint Test Force (JTF), Air Force Operational Test and Evaluation Center (AFOTEC), Operator-In-The-Loop (OITL), Joint Interoperability Test Center (JITC))						1.427	1.484	1.543		
(U)	Total Cost				0.000		217.986	250.582	205.263		
(U)	C. Other Program Funding Summary (\$ in Millions)										
		<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</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>Estimate</u>	<u>Complete</u>	
(U)	AF RDT&E										
(U)	PE 0207449F Project 5065 (Sensors)	145.586	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U)	PE 0207449F Project 5064 (Airframe)	209.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U)	PE 0207450F Project 5132 (Sensors)	0.000	201.020	146.429	183.982	166.973	122.955	45.921	0.000	Continuing	TBD
(U)	APAF										
(U)	PE 0207450F (E-10 Production)	0.000	0.000	0.000	0.000	0.000	69.535	705.502	773.687	Continuing	TBD
(U)	D. Acquisition Strategy										
	OSD directed a restructure of the E-10A program. The overall acquisition strategy will be based upon evolutionary acquisition using spiral development. The E-10A Increment 1 capability will deliver the core capability to perform focused AMTI for CMD and GMTI/SAR for surface surveillance, including data processing and advanced communications links. Future spirals will be incorporated as funding and technology allow.										

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Exhibit R-2a, RDT&E Project Justification		DATE <b>February 2005</b>
BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0207450F E-10 Squadrons</b>	PROJECT NUMBER AND TITLE <b>5131 Airframe</b>
<p>The proposed acquisition strategy will focus on technology development/risk reduction, with emphasis on demonstrating a Cruise Missile Defense capability coupled with interleaved Ground Moving Target Indicator (GMTI) and Synthetic Aperture Radar (SAR) capabilities. This will allow entry into a low-risk SDD phase for the E-10 Weapon System.</p>		
<p>Project 5131</p>		
<p>R-1 Shopping List - Item No. 98-6 of 98-15</p>		
<p>Exhibit R-2a (PE 0207450F)</p>		

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## Exhibit R-3, RDT&amp;E Project Cost Analysis

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## BUDGET ACTIVITY

## 05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

## 0207450F E-10 Squadrons

## PROJECT NUMBER AND TITLE

## 5131 Airframe

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &amp;</u> <u>Type</u>	<u>Performing</u> <u>Activity &amp;</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Award</u> <u>Date</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u>														
Weapon System Integration (WSI) and Battle Management Command and Control (BMC2)	SS/CPAF and C/PAF (See Remark 1)	Northrop Grumman Corporation; Melbourne, FL				153.626	Nov-04	165.248	Nov-05	155.416	Nov-06	Continuing	TBD	TBD
767-400ER Testbed	SS/FFP	The Boeing Company; Seattle, WA				10.000	Nov-04	30.000	Nov-05	25.000	Nov-06	Continuing	TBD	TBD
MP-RTIP Lab/Test Hardware (Development Unit)	SS/CPAF	Northrop Grumman Corporation (MP-RTIP); El Segundo, CA				30.000	Nov-04	30.000	Nov-05	0.000	Nov-06	Continuing	TBD	TBD
Systems Engineering	Various (See Remark 2)	Various				11.507	Oct-04	12.064	Oct-04	11.147	Oct-04	Continuing	TBD	TBD
Future Studies/Spiral Development	Various (See Remark 2)	Various				0.500	Mar-05	0.520	Jan-06	0.540	Jan-07	Continuing	TBD	TBD
Subtotal Product Development			0.000	0.000		205.633		237.832		192.103		Continuing	TBD	TBD
Remarks:	1. A source selection was conducted for the BMC2 effort and awarded in Sep-04 which is why there are two contract methods annotated. 2. Where Various Contract Method & Types take place, earliest date funds will be obligated is noted.													
(U) <u>Test &amp; Evaluation</u>														
AFOTEC	MIPR	Various				0.155	Jan-05	0.161	Jan-06	0.167	Jan-07	Continuing	TBD	TBD
Joint Test Force (JTF)	SS/T&M	Titan Systems Corporation; Melbourne, FL				0.713	Jan-05	0.742	Jan-06	0.772	Jan-07	Continuing	TBD	TBD
Operator-In-The-Loop (OITL)	SS/T&M	Hanscom AFB, MA				0.450	Feb-05	0.468	Dec-05	0.487	Dec-06	Continuing	TBD	TBD
Joint Interoperability Test Center (JITC)	MIPR	Interop Joint Venture, VA				0.109	Feb-05	0.113	Dec-05	0.118	Dec-06	Continuing	TBD	TBD
Subtotal Test & Evaluation			0.000	0.000		1.427		1.484		1.544		Continuing	TBD	TBD
Remarks:														
(U) <u>Management</u>														
Program Office Support	Various (See Remark)	Various				1.207	Oct-04	1.255	Oct-05	1.305	Oct-06	Continuing	TBD	TBD

Project 5131

R-1 Shopping List - Item No. 98-7 of 98-15

Exhibit R-3 (PE 0207450F)

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## Exhibit R-3, RDT&amp;E Project Cost Analysis

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## BUDGET ACTIVITY

## 05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

0207450F E-10 Squadrons

## PROJECT NUMBER AND TITLE

5131 Airframe

Systems Engineering/IV&V (FFRDC)	SS/CPFF	MITRE Corporation; Bedford, MA	9.719	Oct-04	10.011	Oct-05	10.311	Oct-06	Continuing	TBD	TBD	
Subtotal Management			0.000	0.000	10.926		11.266		11.616	Continuing	TBD	TBD
Remarks:	Where Various Contract Method & Types take place, earliest date funds will be obligated is noted.											
(U) Total Cost			0.000	0.000	217.986		250.582		205.263	Continuing	TBD	TBD
Remarks:	FY2003 and FY2004 reflected in PE 0207449F C2 Constellation, Project 5064 (Airframe).											

## Exhibit R-4, RDT&amp;E Schedule Profile

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

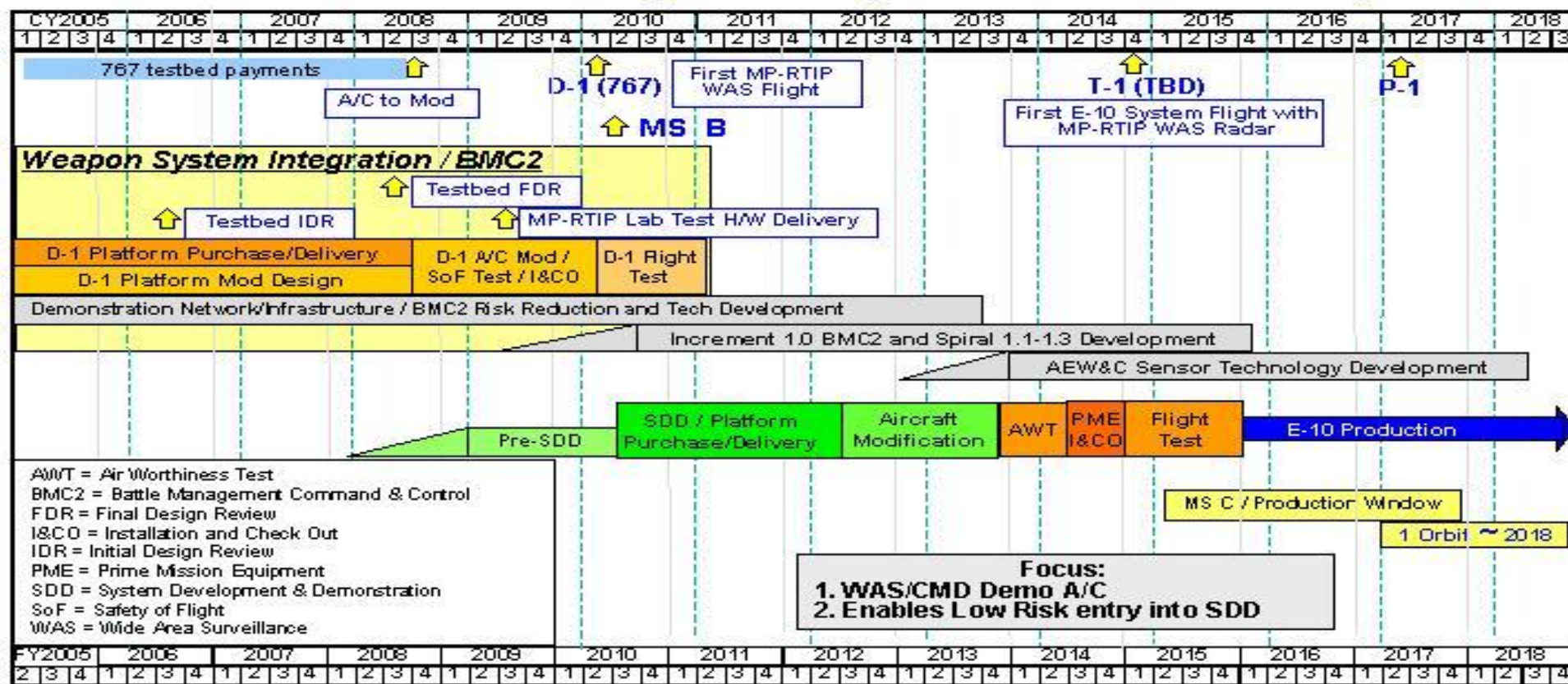
PE NUMBER AND TITLE

0207450F E-10 Squadrons

PROJECT NUMBER AND TITLE

5131 Airframe

# E-10A Program (restructured)





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## Exhibit R-4a, RDT&amp;E Schedule Detail

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0207450F E-10 Squadrons

PROJECT NUMBER AND TITLE

5131 Airframe

(U) Schedule ProfileFY 2004FY 2005FY 2006FY 2007

(U) \*\* System Requirements Review

2Q

(U) \*\* Downselect BMC2 Subcontractor

4Q

(U) Delta System Requirements Review

1Q

(U) Testbed Initial Design Review (IDR)

2Q

\*\* FY2003 and FY2004 events reflected in PE 0207449F C2 Constellation, Project 5064 (Airframe)

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## Exhibit R-2a, RDT&amp;E Project Justification

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## BUDGET ACTIVITY

## 05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

0207450F E-10 Squadrons

## PROJECT NUMBER AND TITLE

5132 Sensors

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5132 Sensors	0.000	201.020	146.429	183.982	166.973	122.955	45.921	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

1. In FY 2006, this PE was renamed E-10 Squadrons (formerly Multi-sensor Command and Control Aircraft [MC2A]). The name was changed to directly associate the PE title with the E-10A, the approved Mission Design Series (MDS) designation for the MC2A.

2. In FY 2006, Project 5132, MC2A Sensors, was changed to Sensors since the term MC2A was no longer being used to identify the aircraft and the new PE title already referenced the aircraft type.

3. FYDP RDT&E Article Deliveries:

FY 2006: 1 Global Hawk (GH) Development Unit (DU) radar for integration

FY 2007: 1 GH DU radar for integration

FY 2008: 1 GH DU radar for radar lab mode checkout and troubleshooting

FY 2009: 1 Wide Area Surveillance (WAS) DU radar for System Integration Lab (SIL), concurrent mode development, testbed/flight test

FY 2010: 1 WAS DU radar for SIL, concurrent mode development, testbed/flight test

(U) **A. Mission Description and Budget Item Justification**

This project is established to develop a family of modular, scalable next generation sensors for multiple platforms to support network centric operations with integrated intelligence, surveillance, and reconnaissance capability.

The Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar, a modular, scalable, two-dimensional active electronically scanned array (2D-AESA) radar, is the sensor capability of the E-10A Increment 1 weapon system to provide cruise missile defense and improved ground moving target indicator (GMTI)/synthetic aperture radar (SAR) imaging. MP-RTIP will deliver a "large sensor" variant for the E-10A aircraft, and a "small sensor" variant for the Global Hawk.

Funds in this project will be used for the development, fabrication, and test of the MP-RTIP family of scaleable radars on the various platforms (E-10A and Global Hawk). The project also continues to support NATO Alliance Ground Surveillance (AGS) conceptual design and early design development activities.

This project is categorized as Budget Activity (BA) 5 to reflect a program in System Development and Demonstration (SDD).

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous activity reported in PE 0207449F, Project 5065				
(U) Continue MP-RTIP design and development of radars for integration on the E-10A and Global Hawk target platforms		198.639	143.972	181.597
(U) Continue Test Efforts (examples include Operator-In-The-Loop [OITL]; Joint Test Force Support; AFOTEC Support; and Independent Verification & Validation [IV&V])		1.139	1.185	1.232
(U) Continue Future Studies/Spiral Development insertion-- includes concept exploration, program definition/risk reduction, sensor technology insertion/development and spiral development efforts		0.500	0.500	0.350

Project 5132

R-1 Shopping List - Item No. 98-11 of 98-15

Exhibit R-2a (PE 0207450F)

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## BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

## PE NUMBER AND TITLE

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## PROJECT NUMBER AND TITLE

5132 Sensors

supporting continuous improvements and implementation of Command & Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities enabling the joint air and missile defense architecture, joint decisive operations and the AEF Task Force CONOPS.

(U) Continue SPO Operations	0.742	0.772	0.803
(U) Total Cost	0.000	201.020	146.429

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</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>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E										
(U) PE 0207449F Project 5065 (Sensors)	145.586	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U) PE 0207449F Project 5064 (Airframe)	209.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U) PE 0207450F Project 5131 (E-10 Airframe)	0.000	217.986	250.582	205.263	420.642	315.545	248.953	74.784	Continuing	TBD
(U) PE 0305205F Project 4799 (Global Hawk MP-RTIP Sensor)	30.062	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U) PE0305220F Project 5144 (Global Hawk MP-RTIP Sensor)	0.000	33.594	18.000	8.000	0.000	0.000	0.000	0.000	Continuing	TBD
(U) APAF										
(U) PE 0207450F (E-10 Production)	0.000	0.000	0.000	0.000	0.000	69.535	705.502	773.687	Continuing	TBD

(U) **D. Acquisition Strategy**

The MP-RTIP program supports the evolutionary acquisition of the E-10A and Global Hawk by providing sensors for Increment 1 of the E-10A and Spiral 4 of the Global Hawk.

The MP-RTIP program currently plans to provide sensors for seven E-10A aircraft (1 testbed and 6 production aircraft) and 12 Global Hawk air vehicles. Funds to procure production MP-RTIP radars are reflected as part of the full E-10A weapon system procurement and the Global Hawk (PE 0305220F), respectively. LRIP quantities for Global Hawk (6 radars) were established at the MP-RTIP Milestone B in FY 2004. LRIP quantities for the E-10A will be addressed at the E-10A Milestone B.

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Exhibit R-3, RDT&E Project Cost Analysis												DATE February 2005		
BUDGET ACTIVITY						PE NUMBER AND TITLE						PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)						0207450F E-10 Squadrons						5132 Sensors		
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &amp;</u> <u>Type</u>	<u>Performing</u> <u>Activity &amp;</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Award</u> <u>Date</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u> MP-RTIP (See Remark 1)	SS/CPAF	Northrop-Gru mman Corporation; El Segundo, CA				194.407	Nov-04	139.571	Nov-05	177.020	Nov-06	Continuing	TBD	TBD
Future Studies/Spiral Development	Various (See Remark 2)	TBD				0.500	Nov-04	0.500	Nov-05	0.350	Nov-06	Continuing	TBD	TBD
Subtotal Product Development			0.000	0.000		194.907		140.071		177.370		Continuing	TBD	TBD
Remarks:	1. MP-RTIP Phase 1 Contract awarded Dec-00; MP-RTIP Phase 2 Contract awarded Apr-04. 2. Where Various Contract Method & Types take place, earliest date funds will be obligated is noted.													
(U) <u>Test &amp; Evaluation</u> JTF Support	SS/T&M	Titan Systems Corporation; Melbourne, FL				0.664	Dec-04	0.691	Dec-05	0.718	Dec-06	Continuing	TBD	TBD
Test Support (AFOTEC, IV&V)	MIPR	Various				0.475	Oct-04	0.494	Oct-05	0.514	Oct-06	Continuing	TBD	TBD
Subtotal Test & Evaluation			0.000	0.000		1.139		1.185		1.232		Continuing	TBD	TBD
Remarks:														
(U) <u>Management</u> Program Office Support	Various (See Remark)	Various				0.742	Oct-04	0.772	Oct-05	0.803	Oct-06	Continuing	TBD	TBD
Systems Engineering/IV&V (FFRDC)	SS/CPFF	MITRE Corporation; Hanscom AFB, MA				4.232	Oct-04	4.401	Oct-05	4.577	Oct-06	Continuing	TBD	TBD
Subtotal Management			0.000	0.000		4.974		5.173		5.380		Continuing	TBD	TBD
Remarks:	Where Various Contract Method & Types take place, earliest date funds will be obligated is noted.													
(U) Total Cost			0.000	0.000		201.020		146.429		183.982		Continuing	TBD	TBD
Remark: FY 2002 and prior reflected in PE 0207581F, Joint STARS FY 2003 and FY 2004 reflected in PE 0207449F C2 Constellation, Project 5065 (Sensors)														

## Exhibit R-4, RDT&amp;E Schedule Profile

DATE

February 2005

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

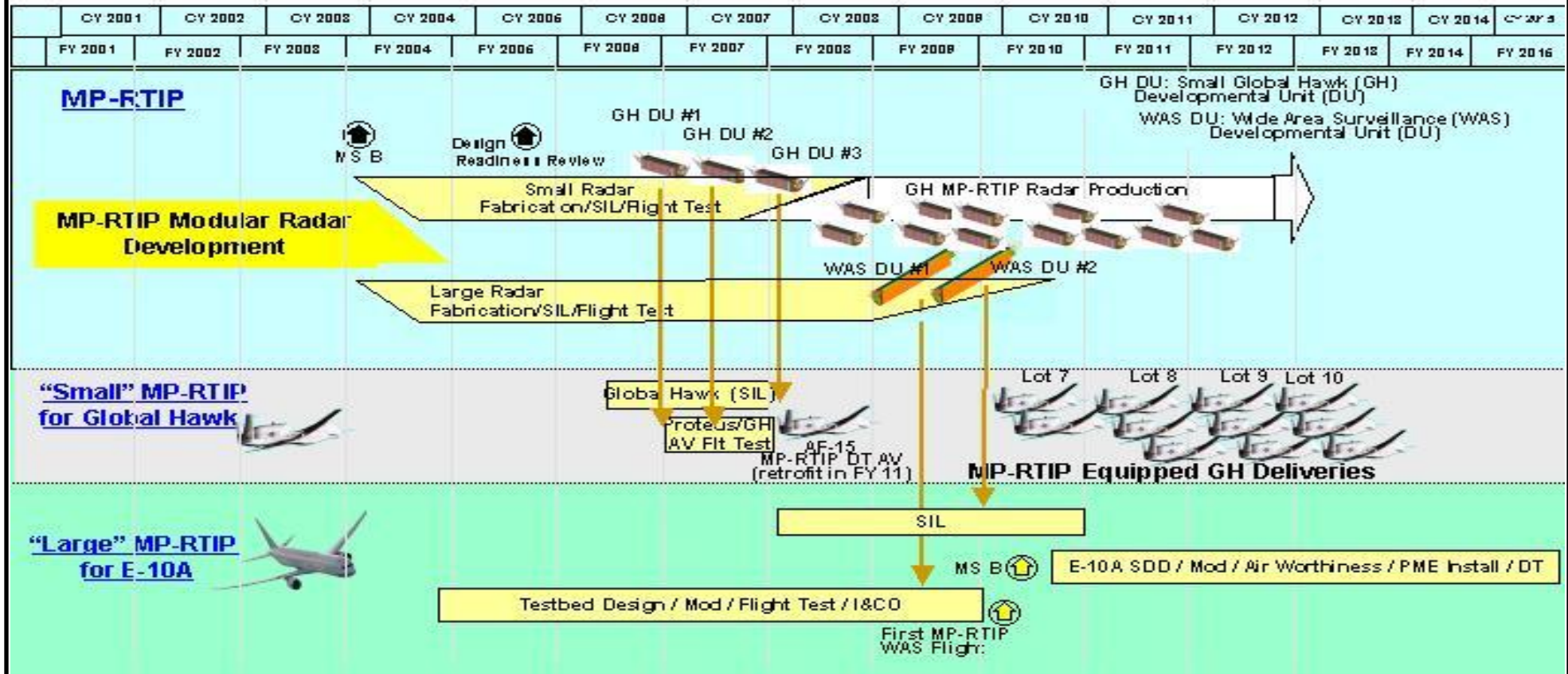
PE NUMBER AND TITLE

0207450F E-10 Squadrons

PROJECT NUMBER AND TITLE

5132 Sensors

# MP-RTIP Schedule



## UNCLASSIFIED

## Exhibit R-4a, RDT&amp;E Schedule Detail

DATE

February 2005

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0207450F E-10 Squadrons

PROJECT NUMBER AND TITLE

5132 Sensors

(U) **Schedule Profile**FY 2004FY 2005FY 2006FY 2007

(U) \*\* MILESTONE B

1Q

(U) \*\* FINAL DESIGN REVIEW

3Q

(U) BEGIN GLOBAL HAWK (GH) DEVELOPMENT UNIT (DU) #1 BUILD

2Q

(U) BEGIN GH DU #2 BUILD

3Q

(U) BEGIN WAS DU #1 BUILD

2Q

(U) GH DU # 1 TO FLIGHT TEST (ON PROTEUS SURROGATE)

4Q

(U) GH DU # 2 TO FLIGHT TEST (ON PROTEUS SURROGATE)

2Q

(U) GH DU#1 TO SIL/GH AIR VEHICLE

3Q

\*\* FY2004 reflected in PE 0207449F C2 Constellation, Project 5065 (Sensor)