

## UNCLASSIFIED

PE NUMBER: 0207581F  
PE TITLE: JOINT STARS

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2005		
BUDGET ACTIVITY 07 Operational System Development					PE NUMBER AND TITLE 0207581F JOINT STARS					
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	59.877	88.238	78.084	79.836	81.543	58.286	58.091	58.043	Continuing	TBD
0003 JSTARS	59.877	88.238	78.084	79.836	81.543	58.286	58.091	58.043	Continuing	TBD

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

The Joint Surveillance Target Attack Radar System (Joint STARS) program produces the world's premier airborne ground surveillance platform, meeting joint combat capability requirements. The 707-based E-8C Joint STARS aircraft provides radar-derived all-weather surveillance and targeting information on moving and stationary ground targets, slowly moving rotary and fixed wing aircraft, and rotating antennas. Joint STARS provides target information for matching direct attack aircraft, standoff weapons, and ground-based attack assets against selected targets, and can be cued by other intelligence, surveillance, and reconnaissance (ISR) and target acquisition systems. This capability enables air and ground commanders to effectively make and execute battle decisions, and helps achieve predictive battlespace awareness.

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 in tracking and killing time-critical targets. Concept exploration, program definition/risk reduction efforts, and studies support continuous improvements in Command/ Control and ISR (C2ISR) capabilities, and interoperability with Joint Service, allied, and coalition systems. These efforts include, but are not limited to, manned and unmanned platforms, space data links, advanced Battle-Management Command, Control and Communications (BMC3) concepts, ISR Constellation, Air Moving Target Indicator (AMTI), Ground Moving Target Indicator (GMTI), Mode 5/S, Network Centric Collaborative Targeting (NCCT), Interim Capability for Airborne Networking (ICAN), and other large airborne platform integration efforts. These efforts include the use of a dedicated test aircraft, laboratories, and test support facilities. The result is greater mission capability, higher mission reliability, and maximum weapon system availability. The Joint STARS program will coordinate with and participate in projects developing international standards (including NATO standards) to ensure joint, allied, and coalition interoperability.

This program is in Budget Activity 7, Operational Systems Development, due to efforts supporting a post-Milestone III operational weapon system.

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## BUDGET ACTIVITY

07 Operational System Development

## PE NUMBER AND TITLE

0207581F JOINT STARS

(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	57.760	89.247	128.415	79.361
(U) Current PBR/President's Budget	59.877	88.238	78.084	79.836
(U) Total Adjustments	2.117	-1.009		
(U) Congressional Program Reductions				
Congressional Rescissions		-1.009		
Congressional Increases				
Reprogrammings	3.827			
SBIR/STTR Transfer	-1.710			

(U) **Significant Program Changes:**

- Wing Structural Integrity Program (WSIP) accounts for FY04 increase in test costs. It is a one-time wing structure upgrade of the dedicated test aircraft. The remaining fleet is receiving the same modification via APAF funds.
- FY04 received funding for Traffic Collision Avoidance System (TCAS) & MODE S (transponder upgrade/replacement).

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

DATE

February 2005

BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
<b>07 Operational System Development</b>					<b>0207581F JOINT STARS</b>			<b>0003 JSTARS</b>		
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
0003 JSTARS	59.877	88.238	78.084	79.836	81.543	58.286	58.091	58.043	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

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

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This program is in Budget Activity 7, Operational Systems Development, due to efforts supporting a post-Milestone III operational weapon system.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Connectivity, Airborne Battlefield Command & Control Center Capability Insertion (ACI), etc.	6.533	0.000	0.000	0.000
(U) Spiral Development, Kill Chain and Integration/Analysis, Interoperability (examples: Wide Area Tracker, Advanced Radar Modes, Automatic Target Recognition, NCCT, ICAN, Find-Fix-Target-Track-Engage-Assess (F2T2EA), SPO operations, International, Kassper, etc.)	11.534	7.006	5.787	4.680
(U) Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) formerly Global Air Traffic Mgmt (GATM) (i.e.; TCAS, Mode 5/S, etc.)	6.866	46.821	29.385	34.583
(U) Training & Support Systems development (examples: Weapon System Trainer Motion/Visual, Navigation Trainer, etc.)	0.987	0.500	0.000	0.000
(U) Link 16 ASU support, connectivity efforts, etc.	0.000	3.821	17.032	10.095
(U) Test effort (examples: Joint Test Force, JSTARS Extended Test Support contract, range support, PL-2 security, support of T-3 test aircraft, test labs, etc.)	33.957	30.090	25.880	30.478

Project 0003

R-1 Shopping List - Item No. 155-3 of 155-7

Exhibit R-2a (PE 0207581F)

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Exhibit R-2a, RDT&E Project Justification									DATE		
									February 2005		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE		
07 Operational System Development					0207581F JOINT STARS				0003 JSTARS		
(U)	Total Cost				59.877				88.238	78.084	79.836
(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)	Aircraft Procurement, AF, BP10 (PE 0207581F)									Continuing	TBD
(U)	Modifications, BP11 (PE 0207581F)	34.406	44.452	15.506	12.558	44.865	31.532	32.442	32.757	Continuing	TBD
(U)	Spares, BP16 (PE 0207581F)	15.699	8.024	0.592	1.120	1.292	1.404	1.439	1.456	Continuing	TBD
(U)	D. Acquisition Strategy										
	The AF will continue development for various fleetwide modifications throughout the life of the Joint STARS weapon system using modifications to the post-production contract.										

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

DATE

February 2005

BUDGET ACTIVITY						PE NUMBER AND TITLE						PROJECT NUMBER AND TITLE					
07 Operational System Development						0207581F JOINT STARS						0003 JSTARS					
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2004 Cost</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>			
(U) <u>Product Development</u>																	
Weapon System Trainer (WST)	Various	Various	17.570	0.000		0.000		0.000		0.000		Continuing	TBD	TBD			
ASU	SS/CPAF	HAFB, MA	8.485	0.000		1.395	Jan-05	17.032	Nov-05	10.095	Nov-06	0.000	37.007	39.644			
CNS/ATM (GATM)	Various	HAFB, MA	15.266	6.521	Apr-04	43.707	Jan-05	29.385	Nov-05	34.583	Nov-06	22.819	152.281	TBD			
Spiral Development	Various	Various	3.213	4.491	Nov-03	2.625	Nov-04	1.456	Nov-05	1.044	Nov-06	Continuing	TBD	TBD			
ACI Migration (formally ABCCC)	SS/CPAF	HAFB, MA	12.548	5.614	Jan-04	0.000		0.000		0.000		0.000	18.162	TBD			
Subtotal Product Development			57.082	16.626		47.727		47.873		45.722		Continuing	TBD	TBD			
Remarks:	Where Various Contract Method & Types take place, earliest date funds will be obligated is noted.																
(U) <u>Support</u>																	
SPO Ops Support	Various	HAFB, MA	102.968	8.810	Oct-03	13.389	Oct-04	2.717	Oct-05	2.907	Oct-06	Continuing	TBD	TBD			
Subtotal Support			102.968	8.810		13.389		2.717		2.907		Continuing	TBD	TBD			
Remarks:	Where Various Contract Method & Types take place, earliest date funds will be obligated is noted.																
(U) <u>Test &amp; Evaluation</u>																	
E-8C JSTARS Ext. Test Spt (JETS)	Various	Various	358.082	26.164	Nov-03	19.130	Nov-04	17.799	Nov-05	22.362	Nov-06	Continuing	TBD	TBD			
JTF Range/Support	Various	Various	39.038	6.761	Nov-03	6.826	Nov-04	7.501	Nov-05	7.510	Nov-06	Continuing	TBD	TBD			
PL-2	Various	Various	0.465	0.630	Nov-03	0.929	Nov-04	0.580	Nov-05	0.606	Nov-06	Continuing	TBD	TBD			
Subtotal Test & Evaluation			397.585	33.555		26.885		25.880		30.478		Continuing	TBD	TBD			
Remarks:	Where Various Contract Method & Types take place, earliest date funds will be obligated is noted.																
(U) <u>Management</u>																	
Integration & Analysis				0.886		0.237		1.614		0.729		Continuing	TBD	TBD			
Subtotal Management			0.000	0.886		0.237		1.614		0.729		Continuing	TBD	TBD			
Remarks:																	
(U) Total Cost			557.635	59.877		88.238		78.084		79.836		Continuing	TBD	TBD			

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

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BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207581F JOINT STARS

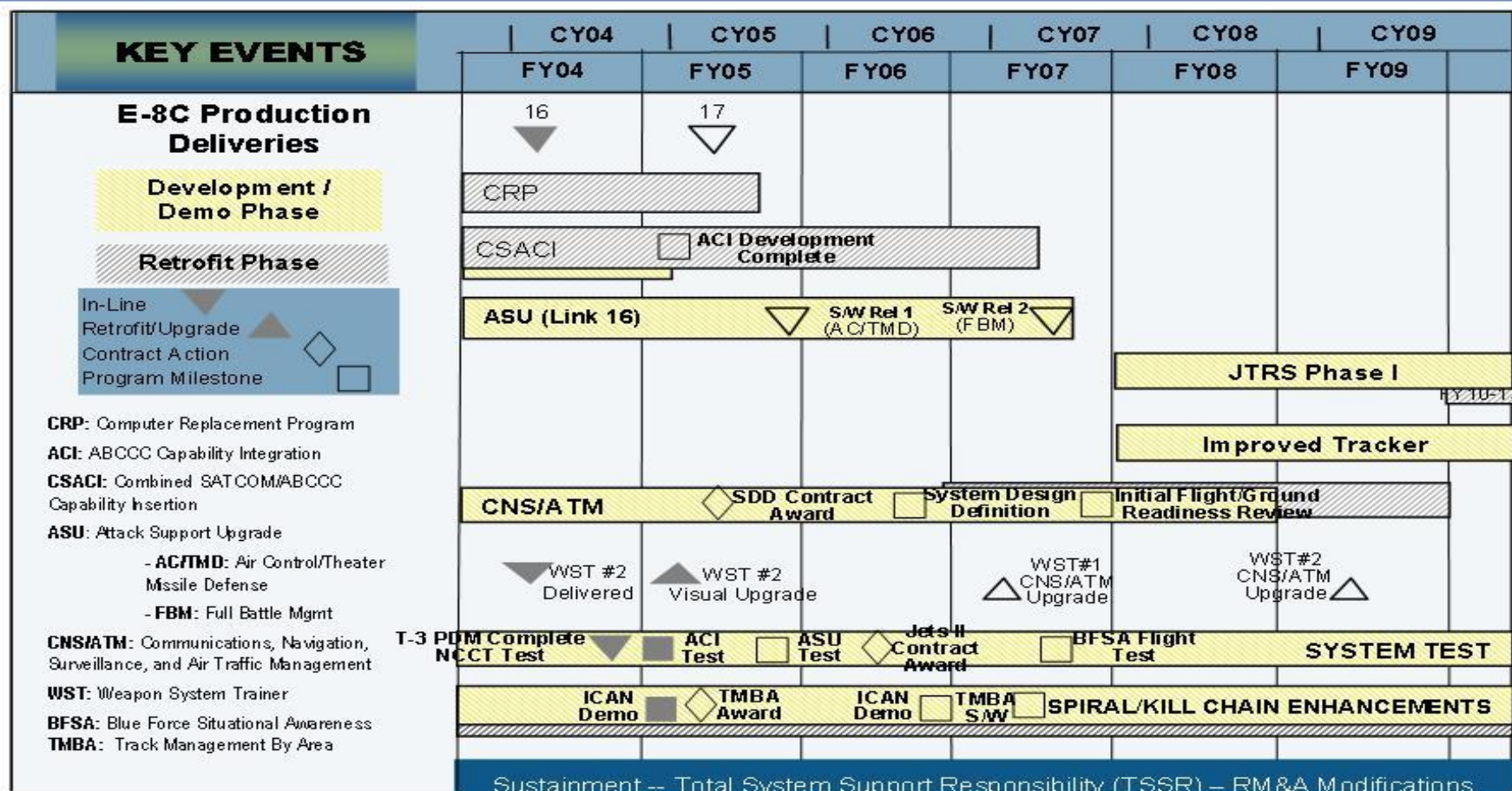
PROJECT NUMBER AND TITLE

0003 JSTARS



U.S. AIR FORCE

# Joint STARS Program Schedule



CRP: Computer Replacement Program

ACI: ABCCC Capability Integration

CSACI: Combined SATCOM/ABCCC Capability Insertion

ASU: Attack Support Upgrade

- AC/TMD: Air Control/Theater Missile Defense

- FBM: Full Battle Mgmt

CNS/ATM: Communications, Navigation, Surveillance, and Air Traffic Management

WST: Weapon System Trainer

BFSA: Blue Force Situational Awareness

TMBA: Track Management By Area

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Exhibit R-4a, RDT&E Schedule Detail			DATE	
			February 2005	
BUDGET ACTIVITY	PE NUMBER AND TITLE		PROJECT NUMBER AND TITLE	
07 Operational System Development	0207581F JOINT STARS		0003 JSTARS	
(U) <u>Schedule Profile</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Weapon System Trainer Delivered (WST)	2Q			
(U) WST #1 Flight Crew Training System Visual Upgrade		1Q		
(U) CNS/ATM RFP Release	3Q			
(U) CNS/ATM Contract Award		2Q		
(U) CNS/ATM WST Development Contract Award		3Q		
(U) CNS/ATM Initial System Design Review			1Q	
(U) CNS/ATM System Design Definition Complete			3Q	
(U) CNS/ATM Critical Design Review				3Q
(U) CNS/ATM Initial Flight/Ground Readiness Review				4Q
(U) ACI Development Complete (formally ABCCC)		1Q		
(U) ASU Air Control/Theater Missile Defense, S/W Release		4Q		
(U) ASU Full Battle Management, S/W Release				4Q
(U) Sys Test - JETS Wing Structural Integrity Program Complete/Delivered	4Q		1Q	
(U) Sys Test - NCCT Flight Test	4Q			
(U) Sys Test - ACI Capability Insertion Flight Test		1Q		
(U) Sys Test - ASU Phase I Flight Test		3Q		
(U) Sys Test - CNS/ATM (Weather Radar & TCAS) Flight Test		4Q		
(U) Sys Test - JETS II Contract Award			1Q	1Q
(U) Sys Test - ASU Phase II Flight Test			2Q	
(U) Sys Test - CNS/ATM Flight Test				2Q
(U) Sys Test - Blue Force Situational Awareness Flight Test				3Q
(U) Spiral Development - ICAN Proof of Concept @ Red Flag		1Q	4Q	4Q
(U) Spiral Development - Track Mgt By Area (TMBA) Award		2Q		
(U) Spiral Development - TMBA Integrated S/W Release				3Q