

**UNCLASSIFIED**

<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>								DATE <b>February 2000</b>	
<b>BUDGET ACTIVITY</b> <b>05 - Engineering and Manufacturing Development</b>				<b>PE NUMBER AND TITLE</b> <b>0604727F Joint Standoff Weapons Systems</b>				<b>PROJECT</b> <b>651000</b>	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
651000 Joint Standoff Weapons Systems	17,177	10,150	1,498	0	0	0	0	Continuing	TBD
Quantity of RDT&E Articles	10	0	0	0	0	0	0	0	0

**(U) A. Mission Description**  
 The Joint Standoff Weapon (JSOW) is an air-to-ground weapon designed to attack a variety of targets during day, night, and adverse weather conditions. JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of enemy point defenses. The JSOW accuracy and launch-and-leave capability will allow several target kills per aircraft sortie. Integration of the JSOW baseline weapon, the AGM-154A (BLU-97 Combined Effects Bomblets), and the JSOW anti-armor weapon, the AGM-154B (BLU-108 submunition), with the threshold F-16C/D Block 50 aircraft is also included. The program provides for development and test of a dispenser design for the AGM-154B variant which employs a Sensor Fuzed Weapon (SFW) BLU-108 submunition payload. Future integration (objective aircraft) is planned for the B-1B, F-16C/D Block 40/30, and F-15E. B-2 integration is complete. The program also includes the development of JSOW Common Munitions Built-In Test (BIT) Reprogramming Equipment (CMBRE) software. The JSOW mission planning module continues to be developed concurrently with Air Force Mission Support System (AFMSS) Aircraft/Weapons/Electronics (AWE) development. Starting in FY99 through FY01, primary efforts will include an AGM-154B cost-reduction initiative, continued Air Force Mission Support System (AFMSS) development/upgrades, testing and integrating the DoD-directed Selective Availability Anti-Spoofing Module (SAASM), JSOW air vehicle and support software improvements, and BRU-57 Smart Rack development. The Joint AF/Navy program office and contractor design-to-cost initiative will reduce the current cost of the AGM-154B BLU-108 dispenser system. SAASM integration will enable JSOW to handle new encryption protocols mandated to be operational by FY04. Although JSOW SAASM is Navy-led, AF unique SAASM integration issues will need to be funded. AFMSS will be enhanced for the new platforms (B-1B, F-15E) integrated with JSOW during this timeframe. JSOW software development and testing continues in order to be compatible with all JSOW variants and across all AF and Navy launch platforms. Finally, funds will continue development of the BRU-57 Smart Rack, the AF's first MIL-STD-1760 dual carriage smart weapon ejector rack. F-16C/Ds will be able to carry increased payloads of four JSOWs, 1000lb JDAMs, or WCMDs. The F-16 with BRU-57 is a JSOW objective requirement and will require operational flight program software modifications.

JSOW is a joint Air Force/Navy program. The Navy is the lead service with the Air Force having developmental responsibility for the AGM-154B. AGM-154A & B are ACAT I C programs. AGM-154C (Navy only) is ACAT I D.

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<b>05 - Engineering and Manufacturing Development</b>	<b>0604727F Joint Standoff Weapons Systems</b>	<b>February 2000</b> <b>651000</b>
(U) <b><u>A. Mission Description Continued</u></b>		
(U) <u>FY 1999 (\$ in Thousands)</u>		
(U) \$8,315	Completed AGM-154B development; continued development and test of B-52 AFMSS module; continued integration and planning support for B-1B and F-15E; conducted design-to-cost initiatives to make AGM-154B more reliable/cost effective. Corrected B-1 and B-2 explosive atmosphere issue with JSOW missile and performed software maintenance.	
(U) \$1,393	Telemetry instrumentation kits for Multi-Service Operational Test & Evaluation (MOT&E)	
(U) \$2,824	Purchased MOT&E Assets	
(U) \$2,269	Continued engineering support, program office support, and Navy technical support at China Lake, and other government support.	
(U) \$1,877	Completed BRU-57 flight and ground tests; completed BRU-57 Engineering and Manufacturing Development (EMD); continued F-16 Operational Flight Program (OFP) software development.	
(U) \$499	Conducted F-16/50T5 JSOW self-targeting, F-16 production OFP verification, Development/Operational & Testing (DT/OT).	
(U) \$17,177	Total	
(U) <u>FY 2000 (\$ in Thousands)</u>		
(U) \$6,773	Continue design-to-cost initiatives; continue JSOW software improvements/upgrades; complete development/testing of AFMSS module for B-1B, F-15E, and F-16; AF-unique SAASM integration/mission planning.	
(U) \$1,700	Complete F-16 OFP Smart Rack development.	
(U) \$1,112	Continue engineering support, program office support, and other government support. Complete B-52 integration.	
(U) \$565	Fund/continue AGM-154B tests, including P3I Improved BLU-108 (IBLU) test, F-16 DT/OT, and production verification flight tests.	
(U) \$10,150	Total	
(U) <u>FY 2001 (\$ in Thousands)</u>		
(U) \$1,400	Close out/complete on-going aircraft integration, SAASM integration, AFMSS mission planning interface, and design-to-cost initiatives; continue software compatibility development.	
(U) \$98	Complete engineering and program office support	
(U) \$1,498	Total	
(U) <b><u>B. Budget Activity Justification</u></b>		
	The RDT&E program element is in Budget Activity 5, EMD, because it supports the development of Air Force JSOW and BRU-57 and associated software, flight testing, and other developmental efforts.	

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BUDGET ACTIVITY			PE NUMBER AND TITLE				PROJECT		
<b>05 - Engineering and Manufacturing Development</b>			<b>0604727F Joint Standoff Weapons Systems</b>				<b>651000</b>		
<b>(U) C. Program Change Summary (\$ in Thousands)</b>									
			<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>			
(U)	Previous President's Budget (FY 2000 PBR)		14,756	10,307	1,512	193,771			
(U)	Appropriated Value		15,134	10,307					
(U)	Adjustments to Appropriated Value								
	a. Congressional/General Reductions		-335	-24					
	b. Small Business Innovative Research		-404						
	c. Omnibus or Other Above Threshold Reprogram				-69				
	d. Below Threshold Reprogram		2,921						
	e. Rescissions								
	f. Other		-139	-64					
(U)	Adjustments to Budget Years Since FY 2000 PBR				-14				
(U)	Current Budget Submit/FY 2001 PBR		17,177	10,150	1,498	196,021			
(U)	<u>Significant Program Changes:</u>								
	FY99: \$3,200 reprogrammed to purchase 10 MOT&E assets								
<b>(U) D. Other Program Funding Summary (\$ in Thousands)</b>									
		<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</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)	Missile Procurement, AF P-1								
	Line Item 5, JSOW								
(U)	JSOW	38,265	38,917	90,828	63,256	76,596	130,591	178,182	1,793,402
(U)	SEEK EAGLE	9,511	1,150	0	1,023	1,175	1,269	1,267	TBD
(U)	<b>E. Acquisition Strategy</b>								
	JSOW awarded a joint service contract to Raytheon for EMD. A Cost Plus Incentive Fee (CPIF) contract was awarded for AGM-154A Low Rate Initial Production (LRIP) I. For AGM-154A LRIP II, a Fixed Price Incentive Fee (FPIF) contract was awarded. Both LRIP contracts were conducted in a sole source environment. A sole source AGM-154A Full Rate Production (FRP) and AGM-154B LRIP contract (FFP) was awarded on Dec 98. A sole source AGM-154A FRP contract (FFP) was awarded on Dec 99.								
(U)	<b>F. Schedule Profile</b>								
		<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>			
	Project 651000								

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(U) **F. Schedule Profile Continued**

	<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Acquisition Milestones												
(U) BRU-57 Development/Testing Completion		*										
(U) BRU-57 Production Contract Award			*									
(U) AGM 154A/B Production Contract Award	*				*				X			
(U) AGM-154A Milestone III/FRP	*											
(U) AGM-154B LRIP Decision	*											
(U) AGM-154B Milestone III/FRP												X
(U) T&E Milestones												
(U) BRU-57 Qualification and Reliability (Comp)		*										
(U) AGM-154B DT/OT				*								
(U) AGM-154B BLU-108 P3I Test									X			
(U) AGM-154B MOT&E (Start/Comp)									X		X	
* = Completed Event												
X = Planned Event												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2000				
BUDGET ACTIVITY <b>05 - Engineering and Manufacturing Development</b>				PE NUMBER AND TITLE <b>0604727F Joint Standoff Weapons Systems</b>				PROJECT <b>651000</b>			
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>											
						<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U)	Major Contracts					12,532	6,773	1,400			
(U)	Support Contracts					127	18	0			
(U)	Program Office Support/Other Government Support					2,142	1,094	98			
(U)	Test and Evaluation					499	565	0			
(U)	BRU-57					1,877	1,700	0			
(U)	Total					17,177	10,150	1,498			
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>											
<b>(U) Performing Organizations:</b>											
<u>Contractor or</u>	<u>Contract</u>										
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>							
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>	
<u>Product Development Organizations</u>											
	Raytheon Sys. Co.	SS/CPIF	Jun 95	136,902	136,902	116,197	12,532	6,773	1,400	0	136,902
	Lockheed	FP/CPIF	Feb 95	16,750	16,750	13,750	1,500	1,500		0	16,750
	M Tech	FP/CPIF	Oct 95	7,447	7,447	7,447	0	0	0	0	7,447
<u>Support and Management Organizations</u>											
	China Lake NWC	MIPR		N/A	N/A	4,807	419		0	0	5,226
	AAC/YH & Other			N/A	N/A	14,550	1,850	1,112	98	0	17,610
<u>Test and Evaluation Organizations</u>											
	AAC, Eglin AFB	REO		N/A	N/A	6,100	499	565	0	0	7,164
	BRU-57 Misc.	REO/Other		N/A	N/A	215	377	200	0	0	792
<b>(U) Government Furnished Property:</b>											
	<u>Contract</u>										
	<u>Method/Type</u>	<u>Award or</u>									
<u>Item</u>	<u>or Funding</u>	<u>Obligation</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>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>	

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BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604727F Joint Standoff Weapons Systems			PROJECT 651000	
<b>(U) Government Furnished Property Continued:</b>								
	<u>Contract</u>	<u>Award or</u>						
<u>Item</u>	<u>Method/Type</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Description</u>	<u>or Funding</u>	<u>Date</u>	<u>Date</u>	<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>
<u>Product Development Property</u>	<u>Vehicle</u>							<u>Total</u>
Textron	FPIF	Mar 96	Various	4,130	0	0	0	4,130
<u>Support and Management Property</u>								
<u>Test and Evaluation Property</u>								
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Subtotals</u>				<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>
Subtotal Product Development				141,524	14,032	8,273	1,400	0
Subtotal Support and Management				19,357	2,269	1,112	98	0
Subtotal Test and Evaluation				6,315	876	765	0	0
Total Project				167,196	17,177	10,150	1,498	0