

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 1999
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BUDGET ACTIVITY 5 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604727F Joint Standoff Weapons Systems	PROJECT 1000
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COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
1000 Joint Standoff Weapons Systems	21,458	14,756	10,307	1,512	0	0	0	0	0	193,771
Quantity of RDT&E Articles	8	**	0	0	0	0	0	0	0	27

(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, and F-15E. B-2 and B-52 integration is currently underway; B-2 is funding its own integration while B-52 integration is being funded by both JSOW and the Joint Air-to-Surface Standoff Missile (JASSM). The program also includes the development of JSOW Common Munitions Built-In Test (BIT) Reprogramming Equipment (CMBRE) software which is a tester for JSOW, Joint Direct Attack Munition (JDAM), Wind Corrected Munitions Dispenser (WCMD), and future smart weapons. The JSOW mission planning module continues to be developed concurrently with Air Force Mission Support System (AFMSS) Aircraft/Weapons/Electronics (AWE) development. Finally, this program element contains funding for the development of the BRU-57*, a MIL-STD-1760 dual-carriage ejector rack capable of carrying smart munitions. BRU-57 will allow the F-16C/D to carry four smart weapons including JSOW (a JSOW threshold requirement), 1000 lb JDAM, and WCMD. JSOW is a joint Air Force/Navy program; Navy is the lead service with the Air Force funding development of the AGM-154B. JSOW is an ACAT I[C/D] program.

(U) FY 1998 (\$ in Thousands):

- (U) \$11,395 Continued AGM-154B development and associated Systems Engineering and Program Management (SEPM); continued F-16 and B-52 aircraft integration support; continued development/test of AFMSS module and JSOW CMBRE software
- (U) \$136 Government Furnished Equipment (GFE)--BLU-108 refurbishment
- (U) \$508 Completed JSOW Developmental Test & Evaluation (DT&E) flight testing; completed captive carry flights; continued F-16 Block 50 T5 integration
- (U) \$4,238 Continued engineering support, program office support, Navy technical support at China Lake, and other government support
- (U) \$4,472 Continued BRU-57 development, integration, and flight testing
- (U) \$709 AGM-154B advanced component buy for Initial Operational Test & Evaluation (IOT&E) assets
- (U) \$21,458 Total

* BRU-55 nomenclature changed to BRU-57 during FY98

** AF currently reprogramming funds to procure 10 IOT&E test assets. \$3,200 JSOW procurement funds are being reprogrammed to another procurement program in exchange for receiving \$3,200 RDT&E funds to purchase the test assets. Reference JSOW P-40 exhibit (February 1999).

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BUDGET ACTIVITY		February 1999
5 - Engineering and Manufacturing Development	PE NUMBER AND TITLE	PROJECT
	0604727F Joint Standoff Weapons Systems	1000
<p>(U) <u>FY 1999 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> - (U) \$9,500 Complete AGM-154B development; continue development and test of B-52 AFMSS module; continue integration and planning support for B-1B and F-15E; conduct design-to-cost initiatives to make AGM-154B more reliable/cost effective and allow increased performance to comply with Office of the Secretary of Defense directives; correct B-1 and B-2 explosive atmosphere issue with JSOW missile and perform software maintenance - (U) \$1,393 Telemetry instrumentation kits for IOT&E - (U) \$1,067 Continue engineering support, program office support, and Navy technical support at China Lake, and other government support - (U) \$1,777 Complete BRU-57 flight and ground tests; complete BRU-57 Engineering and Manufacturing Development (EMD); continue F-16 Operational Flight Program (OFP) software development - (U) \$615 Conduct F-16/50T5 JSOW self-targeting/F-16 production OFP verification/Operational Analysis 2 (OA2) testing - (U) \$404 Identified as a source for SBIR - (U) \$14,756 Total <p>(U) <u>FY 2000 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> - (U) \$6,967 Continue design-to-cost initiatives; continue JSOW software maintenance; complete development/testing of AFMSS module. Initiate new Joint Mission Planning Systems (JMPS) - (U) \$1,730 Complete F-16 OFP Smart Rack development - (U) \$1,360 Continue engineering support, program office support and Navy technical support at China Lake, and other government support - (U) \$250 AGM-154B IOT&E flight tests - (U) \$10,307 Total <p>(U) <u>FY 2001 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> - (U) \$1,400 Complete new JMPS mission planning interface and design-to-cost initiatives - (U) \$112 Continue program office support - (U) \$1,512 Total <p>(U) <u>B. Budget Activity Justification</u> 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.</p>		
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE February 1999				
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604727F Joint Standoff Weapons Systems			PROJECT 1000				
(U) C. <u>Program Change Summary (\$ in Thousands)</u>											
		<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total</u>	<u>Cost</u>				
(U) Previous President's Budget (FY 1999 PB)		21,992	15,134	10,495	1,540	196,388					
(U) Appropriated Value		24,676	15,134								
(U) Adjustments to Appropriated Value											
a. Congressional/General Reductions		-853	-378								
b. SBIR		-1,841									
c. Omnibus or Other Above Threshold Reprogram		-524									
d. Below Threshold Reprogramming											
(U) Adjustments to Budget Years Since FY 1999 PB				-188	-28						
(U) Current Budget Submit/FY 2000 PB		21,458	14,756	10,307	1,512	193,771					
 (U) Significant Program Changes: FY99: \$3,200 is being reprogrammed to purchase 10 IOT&E assets; \$404 identified as a source for SBIR.											
 (U) D. <u>Other Program Funding Summary (\$ in Thousands)</u>											
Appropriation:		<u>FY 1998</u>	<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>To</u>	<u>Total</u>
(U) Missile Procurement, AF										<u>Compl</u>	<u>Cost</u>
P-1 Line Item 4, JSOW											
JSOW		20,155	41,724	78,831	97,251	65,890	74,563	128,491	174,249	1184,100	1865,254
SEEK EAGLE		1,112	10,243	1,150	0	1,033	3,293	1,286	1,286	Cont.	Cont.

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(U) E. Acquisition Strategy

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.

(U) F. Schedule Profile

	<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<u>Acquisition Milestones</u>																
BRU-57 Critical Design Review	*															
BRU-57 Development/Testing Completion						*										
BRU-57 Production Contract Award							X									
AGM-154A Prod Award (LRIP 2/First AF buy)	*															
AGM-154A Milestone III/FRP						*										
AGM-154B LRIP Decision						*										
USAF JSOW Required Assets Available												X				
AGM-154B Milestone III/FRP														X		
<u>T&E Milestones</u>																
AGM-154B DT&E (Start/Comp)			*													
AGM-154B System Qual Test (Start/Comp)		*														
BRU-57 Qualification and Reliability (Start/Comp)			*			*										
AGM-154B OA2								X								
AGM-154B IOT&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 1999	
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604727F Joint Standoff Weapons Systems					PROJECT 1000	
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U) Major Contracts					12,104	10,893	6,967	1,400			
(U) Support Contracts					2,095	166	549	0			
(U) Program Office Support/Other Government Support					2,143	901	811	112			
(U) Test and Evaluation					508	615	250	0			
(U) Government Furnished Equipment					136	0	0	0			
(U) BRU-57					4,472	1,777	1,730	0			
(U) Identified as a source for SBIR					0	404	0	0			
TOTAL					21,458	14,756	10,307	1,512			
(U) B. <u>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 1998</u>	<u>Budget FY 1998</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
Identified as a source for SBIR							404				404
<u>Product Development Organizations</u>											
Raytheon Sys. Co.	SS/CPIF	Jun 95	134,698	134,698	104,802	12,104	10,893	6,967	1,400	0	134,698
Lockheed	FP/CPIF	Feb 95	16,980	16,980	9,700	4,050	1,500	1,730	0	0	16,980
M Tech	FP/CPIF	Oct 95	7,465	7,465	7,245	220	0	0	0	0	7,465
<u>Support and Management Organizations</u>											
China Lake NWC	MIPR	Apr 97	N/A	N/A	3,548	550	400	100	0	0	4,648
ASC/YH & Other			N/A	N/A	10,877	3,688	667	1,260	112	0	18,325
<u>Test and Evaluation Organizations</u>											
AFDTC, Eglin AFB	REO	Apr 97	N/A	N/A	5,586	508	615	250	0	0	7,135
BRU-57 Misc.	REO/Other		N/A	N/A	0	202	277	0	0	0	479
Project 1000					Page 5 of 6 Pages				Exhibit R-3 (PE 0604727F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604727F Joint Standoff Weapons Systems				PROJECT 1000		
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands) (Contd.)</u>										
Government Furnished Property:										
<u>Item Description</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Delivery Date</u>	<u>Total Prior to FY 1998</u>	<u>Budget FY 1998</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Property</u>										
Textron	FPIF	Mar 96	Various	3,980	136	0	0	0	0	4,116
<u>Support and Management Property</u>										
Not Applicable										
<u>Test and Evaluation Property</u>										
Not Applicable										
Identified as a Source for SBIR				0	0	404	0	0	0	404
Subtotal Product Development				125,727	16,510	12,393	8,697	1,400	0	163,259
Subtotal Support and Management				14,425	4,238	1,067	1,360	112	0	22,973
Subtotal Test and Evaluation				5,586	710	892	250		0	7,135
Total Project				145,738	21,458	14,756	10,307	1,512	0	193,771
Project 1000										
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Exhibit R-3 (PE 0604727F)										