

UNCLASSIFIED

EXHIBIT R-2, FY 2001 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604727N

PROGRAM ELEMENT TITLE: Joint Standoff Weapon (JSOW)

(U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1999 Actual</u>	<u>FY 2000 Budget</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
E2068/E2436 JSOW	44,864	30,398	20,823	5,613	0	0	0	0	702,985
TOTAL	44,864	30,398	20,823	5,613	0	0	0	0	702,985
Quantity of RDT&E Articles	9	8	8	0	0	0	0		

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 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 most target area surface-to-air threat systems. The JSOW launch-and-leave capability will allow several target kills per aircraft sortie. The JSOW program will first develop a baseline weapon for use against fixed area targets. The JSOW Baseline (AGM-154A) variant includes a kinematically efficient airframe, an integrated Inertial/Global Positioning System (INS/GPS) navigation capability, and a BLU-97/B submunition payload. This weapon is designed up front for pre-planned product improvements. The JSOW AGM-154A was approved for Full Rate Production (FRP) on 13 October 1998. The JSOW Unitary (AGM-154C) variant will add a terminal seeker, Autonomous Target Acquisition (ATA) capability, and a unitary warhead to enable the attack of blast/fragmentation targets. The JSOW Unitary will provide increased accuracy and lethality and the capability for aimpoint selection. The Unitary Engineering and Management Development (E&MD) program includes the completion of development through Operational Evaluation (OPEVAL) completion in FY-02. Following completion of OPEVAL, Low Rate Initial Production (LRIP) is planned in FY-02. The Unitary E&MD program was restructured via a Cost-As-An-Independent-Variable (CAIV) effort resulting in a streamlined E&MD and production program and a significant reduction in the Unitary Average Unit Procurement Price (AUPP). The JSOW/BLU-108 (AGM-154B) variant incorporates the Sensor Fuze Weapon submunition (BLU-108) into the baseline vehicle. The JSOW/BLU-108 variant will provide a standoff delivery capability against massed armor and land combat vehicles. The AGM-154B was approved for LRIP on 13 October 1998. Through adherence to international standards for weapons interfaces and minimized weight and dimension considerations, JSOW will be compatible with Air Force and NATO aircraft. JSOW is a joint Navy/Air Force program.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ENGINEERING AND MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

**R-1 Item No. 122
UNCLASSIFIED**

UNCLASSIFIED

EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604727N

PROJECT NUMBER: E2068/E2436

PROGRAM ELEMENT TITLE: Joint Standoff Weapon (JSOW)

PROJECT TITLE: Joint Standoff Weapon (JSOW)

(U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1999 Actual</u>	<u>FY 2000 Budget</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
E2068/E2436 JSOW	44,864	30,398	20,823	5,613	0	0	0	0	702,985
TOTAL	44,864	30,398	20,823	5,613	0	0	0	0	702,985
Quantity of RDT&E Articles	9	8	8	0	0	0	0		
Quantity of RDT&E Articles	9	8	8	0	0	0	0		

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 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 most target area surface-to-air threat systems. The JSOW launch-and-leave capability will allow several target kills per aircraft sortie. The JSOW program will first develop a baseline weapon for use against fixed area targets. The JSOW Baseline (AGM-154A) variant includes a kinematically efficient airframe, an integrated Inertial/Global Positioning System (INS/GPS) navigation capability, and a BLU-97/B submunition payload. This weapon is designed up front for pre-planned product improvements. The JSOW AGM-154A was approved for Full Rate Production (FRP) on 13 October 1998. The JSOW Unitary (AGM-154C) variant will add a terminal seeker, Autonomous Target Acquisition (ATA) capability, and a unitary warhead to enable the attack of blast/fragmentation targets. The JSOW Unitary will provide increased accuracy and lethality and the capability for aimpoint selection. The Unitary E&MD program includes the completion of development through Operational Evaluation (OPEVAL) completion in FY-02. Following completion of OPEVAL, Low Rate Initial Production (LRIP) is planned in FY-02. The Unitary Engineering and Management Development (E&MD) program was restructured via a Cost-As-An-Independent-Variable (CAIV) effort resulting in a streamlined E&MD and production program and a significant reduction in the Unitary Average Unit Procurement Price (AUPP). The JSOW/BLU-108 (AGM-154B) variant incorporates the Sensor Fuze Weapon submunition (BLU-108) into the baseline vehicle. The JSOW/BLU-108 variant will provide a standoff delivery capability against massed armor and land combat vehicles. The AGM-154B was approved for LRIP on 13 October 1998. Through adherence to international standards for weapons interfaces and minimized weight and dimension considerations, JSOW will be compatible with Air Force and NATO aircraft. JSOW is a joint Navy/Air Force program.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ENGINEERING AND MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

**R-1 Item No. 122
UNCLASSIFIED**

UNCLASSIFIED

EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604727N

PROJECT NUMBER: E2068/E2436

PROGRAM ELEMENT TITLE: Joint Standoff Weapon (JSOW)

PROJECT TITLE: Joint Standoff Weapon (JSOW)

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1999 ACCOMPLISHMENTS:

(U) UNITARY:

(\$36,733) Continued E&MD efforts, captive flight testing, and CAIV studies; complete qualification of the Low Cost Guidance Electronics Unit (LCGEU)

common

to all JSOW variants.

(\$ 1,720) Continued systems engineering technical efforts, Mission Planning System integration, safety approvals, and Developmental Testing and Evaluation (DT&E) planning.

(\$ 1,058) Completed F/A-18 Integration.

(U) BLU-108:

(\$ 2,247) Completed E&MD contract efforts; acquire OPEVAL weapons.

(\$ 2,456) Continued systems engineering technical efforts, Mission Planning System integration, insensitive munitions qualification, safety approvals, and Operational Test & Evaluation (OT&E) planning.

(\$ 650) Completed Sensor Fuze Weapon E&MD efforts; acquire Government Furnished Equipment submunitions for Operational Evaluation assets

2. (U) FY 2000 PLAN:

(U) UNITARY:

(\$27,386) Continue E&MD efforts, configuration audits, and environmental testing.

(\$ 1,618) Conduct systems engineering technical efforts, Mission Planning System integration and contractor flight tests.

(\$ 648) Begin Navy DT&E planning/preparations.

(U) BLU-108:

(\$ 746) Complete Navy OPEVAL.

3. (U) FY 2001 PLAN:

(U) UNITARY

(\$16,303) Continue E&MD efforts, configuration audits, and environmental testing

(\$ 2,665) Conduct combined Developmental Testing and Operational Testing (DT/OT) testing.

(\$ 1,855) Continue systems engineering technical support; complete insensitive munitions qualification and system safety approvals.

R-1 Item No. 122

UNCLASSIFIED

UNCLASSIFIED

EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604727N

PROJECT NUMBER: E2068

PROGRAM ELEMENT TITLE: Joint Standoff Weapons (JSOW)

PROJECT TITLE: Joint Standoff Weapons (JSOW)

(U) B. PROGRAM CHANGE SUMMARY

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
(U) FY 2000 President' s Budget:	47,346	30,567	21,133
(U) Appropriated Value:	48,022		30,567
(U) Adjustments from Pres Budget:	-2,482	-169	-310
(U) FY 2001 President Budget Submit:	44,864	30,398	20,823

CHANGE SUMMARY EXPLANATION:

- (U) (U) Funding: The FY 1999 net decrease of \$2482 thousand reflects a \$1,091 thousand decrease for Small Business Innovation Research assessment; a decrease of \$1,181 thousand for reprioritization of requirements within the Navy; a decrease of \$217 thousand for inflation adjustments; partially offset by an increase of \$7 thousand for minor budget adjustments. FY 2000 reflects \$169 thousand decrease for an Across-the-Board Congressional rescission. The FY 2001 net decrease of \$310 thousand reflects a \$61 thousand decrease for Strategic Sourcing Plan (SPP) initiative; a \$120 thousand decrease for SPP functionality assessments; a \$142 thousand decrease for revised economic assumptions; a \$132 thousand decrease for reprioritization of requirements within the Navy; these decreases are partially offset by a \$113 thousand increase for Military and Civilian Pay Rates; and \$32 thousand increase for Navy Working Capital Fund Rates.
- (U) (U) Schedule: JSOW BLU-108: 1Q/00 LRIP option exercise deleted due to FY00 Appropriations Conference deferring FY00 BLU-108 funding. BLU-108 MOT&E start and Milestone III dates have changed to reduce program risk.
- (U) (U) Technical: JSOW Unitary: N/A

R-1 Item No. 122
UNCLASSIFIED

UNCLASSIFIED

EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604727N

PROJECT NUMBER: E2068/E2436

PROGRAM ELEMENT TITLE: Joint Standoff Weapons (JSOW)

PROJECT TITLE: Joint Standoff Weapons (JSOW)

(U) C. OTHER PROGRAM FUNDING SUMMARY

<u>Appn</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>Actual</u>	<u>Budget</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>
USN WP,N; PE: 223000								
\$s	118,077	115,145	171,624	200,913	194,926	167,906	139,221	1,992,579
Qtys	328	454	636	762	739	663	574	8,609
USAF WP,F; PE: 27324F								
\$s	55,797	49,067	92,326	63,256	76,596	130,591	178,182	1,156,164
Qtys	86	74	174	164	216	454	561	4,340

Related RDT&E

(U) PE: 0604727F (USAF RDT&E,F)

R-1 Item No. 122

UNCLASSIFIED

UNCLASSIFIED

EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 6004727N

PROJECT NUMBER: E2068/E2436

PROGRAM ELEMENT TITLE: Joint Standoff Weapon (JSOW)

PROJECT TITLE: Joint Standoff Weapon (JSOW)

(U) D. ACQUISITION STRATEGY: The contracting strategy for JSOW is planned to be sole source for the life of the program. Cost type contracts were used for the E&MD program effort. Fixed price type contracts will be used during production.

(U) E. SCHEDULE PROFILE

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>TO COMPLETE</u>
(U) Program Milestones				
• Baseline	1Q/99 MS-III			
• BLU-108			3Q/01 MS-III	
• Unitary	1Q/99 WIPT			4Q/02 MS-III
•	2Q/99 OIPT			
	2Q/99 DRM			
 (U) Engineering Milestones				
• Baseline				
• BLU-108				
• Unitary				
 (U) T&E Milestones				
• Baseline				
• BLU-108		4Q/00-2Q/01		
		OPEVAL(MOT&E)		
• Unitary			2Q/01 1 st Free Flight	1Q/02-3Q/02 OPEVAL
			2Q/01-4Q/01	
			DT&E	
 (U) Contract Milestones				
• Baseline	1Q/99 FRP Award	1Q/00 FRP Option	1Q/01 FRP Option	
• BLU-108	1Q/99 LRIP Option		1Q/01 LRIP Option	
• Unitary	1Q/99 Restructure			1Q/02 LRIP
	Contract Mod			

R-1 Item No. 122

UNCLASSIFIED

UNCLASSIFIED
EXHIBIT R-3, FY 2001 RDT&E,N COST ANALYSIS

DATE: Feb 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604727N

PROJECT NUMBER: E2068/E2436

PROJECT TITLE: Joint Standoff Weapons (JSOW)

<u>Cost Categories:</u>	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior Yrs Cost</u>	<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>		<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
				<u>FY 1999 Cost</u>	<u>Award Date</u>	<u>FY 2000 Cost</u>	<u>Award Date</u>	<u>FY 2001 Cost</u>	<u>Award Date</u>			
DEM/VAL contract	C/CPIF	Raytheon Lewisville TX	22,101	0		0		0			22,101	22,101
Pre-MS-I contract	C/CPIF	Raytheon Lewisville TX	3,275	0		0		0			3,275	3,275
Pre-E&MD contract	C/CPIF	Raytheon Lewisville TX	3,143	0		0		0			3,143	3,143
Baseline E&MD contract	C/CPIF	Raytheon Lewisville TX	243,776	0		0		0			243,776	243,776
Unitary pre-E&MD contract	SS/CPIF	Raytheon Lewisville TX	6,316	0		0		0			6,316	6,316
Unitary E&MD contract	SS/CPIF/AF	Raytheon Lewisville TX	123,518	35,193	10/98	27,386	10/99	16,303	10/00	2,503	204,903	204,903
Unitary E&MD contract award fee ²	Fee	Raytheon Lewisville TX	4,579	2,539	12/98	0		0			7,118	7,118
BLU-108 pre-E&MD contract	SS/CPIF	Raytheon Lewisville TX	474	0		0		0			474	474
BLU-108 E&MD contract	SS/CPIF	Raytheon Lewisville TX	9,265	1,406	12/98	0		0			10,671	10,671
BLU-108 Smart Rack	SS/CPIF	MTechnology Horsham PA	4,585	0		0		0			4,585	4,585
F/A-18 JSOW Integration	SS/CPIF	McDonnell Douglas St Louis MO	16,024	846	11/98	0		0			16,870	16,870
Software Integration IDIQ/TAMPS	SS/CPIF	Raytheon Lewisville TX	1,758	433	10/98	0		0			2,191	2,191
BLU-108 SFW E&MD	SS/CPIF	Textron	2,273	650	02/99	0		0			2,923	2,923
SFW E&MD contract Award Fee ³	Award Fee	Textron	80	0		0		0			80	80
Systems Engineering Technical Support	WX-Cost Reimbursement	NAWCWD China Lake CA	99,983	2,398	11/98	1,138	10/99	1,375	10/00		104,894	
F/A-18 Integration	WX-Cost Reimbursement	NAWCWD China Lake CA	14,845	213	12/98	0		0			15,058	
Engineering and technical services	SS/Various	various	16,114	486	11/98	300	10/99	300			17,200	
Miscellaneous Contracts (<\$1M)	SS/Various	Various	6,002	430	02/99	180	10/99	180	10/00	100	6,892	
Subtotal Project Development			578,111	44,594		29,004		18,158		2,603	672,470	
Subtotal Support			0	0		0		0	0			

Remarks:

Note 1: The Unitary E&MD contract (target value) is being modified to reflect funding available under restructured CAIV program. Note 2: Historical Unitary E&MD Award Fee information (percent awarded): Fee #1: 98.3%, Fee #2: 90.1%, Fee #3: 98.0%, Fee #4: 100% Note 3: No historical information available; this is a one-time award fee.

R-1 Item No. 122
UNCLASSIFIED

UNCLASSIFIED

EXHIBIT R-3, FY 2001 RDT&E,N COST ANALYSIS

DATE: Feb 2000

BUDGET ACTIVITY: 5

PROGRAM ELEMENT: 0604727N

PROJECT NUMBER: E2068/E2436

PROJECT TITLE: Joint Stand Off Weapons (JSOW)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total Prior Yrs Cost	FY 1999	FY 2000	FY 2001	Cost to Complete	Total Cost	Target Value of Contract
				Award Cost	Award Cost	Award Cost			
Developmental Test & Evaluation	WX/Cost Reimbursement	NAWCWD China Lake CA	19,115	190	648	2,032	563	22,548	
Operational Test & Evaluation	WX/Cost Reimbursement	OPTEVFOR	4,061	80	746	633	2,447	7,967	
Subtotal Test & Evaluation			23,176	270	1,394	2,665	3,010	30,515	
Remarks:									
Subtotal Management			0	0	0	0	0		
Remarks:									
Total Cost			601,287	44,864	30,398	20,823	5,613	702,985	

**R-1 Item No. 122
UNCLASSIFIED**