

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification								DATE:			
APPROPRIATION/BUDGET ACTIVITY								June 2001			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5						R-1 ITEM NOMENCLATURE					
						0604618N; Joint Direct Attack Munition (JDAM)					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Total PE Cost	132.161*	10.800*	28.845**	56.285						Continuing	Continuing
A2137/Joint Direct Attack Munition (JDAM)	132.161	10.800	28.845	56.285						Continuing	Continuing
Quantity of RDT&E Articles	114		20	20						Continuing	Continuing
* Note: FY2000 and prior year funds were executed under Project Unit E2137											
**The FY 2001 budget reflects a \$3.000M Congressional add for DAMASK Component Packaging executed under A2893.											
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: JDAM is a joint acquisition program combining Department of Navy and Air Force requirements to upgrade existing General Purpose Bomb capabilities in adverse weather and at medium to high altitude releases. The upgrade is accomplished by the addition of a guidance tail kit to existing General Purpose Bombs (2000 lb and 1000lb inventory bombs). The Air Force is the executive service. The Navy's participation in JDAM involves joint development of JDAM components and support of Navy-Marine Corps unique requirements such as aircraft integration on the F/A-18. JDAM will provide an accurate (defined as not more than 13 meters) adverse weather capability. The program will incorporate commonality with the Joint Standoff Weapon where feasible. The JDAM Product Improvement Program (PIP) will field improvements for any JDAM system with initial emphasis on attaining precision (3 meters or less) accuracy through non-seeker and seeker initiatives.											
The JDAM Joint Operational Requirements Document (JORD) has recently been updated to include a requirement for a JDAM capability with the 500lb inventory bomb (MK82). The Air Force will continue to be the executive service for this effort. The Navy will participate in the joint development of the JDAM MK82 and support the Navy-Marine Corps unique requirements such as aircraft integration on the F/A-18, utilizing a smartrack for additional weapon carriage.											
114 Guided Test Vehicles (GTVs) were procured in FY96 during the Engineering and Management Development (E&MD) baseline contract. 20 GTVs will be procured in FY01 and FY02 for the MK82 development.											
(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.											

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EXHIBIT R-2a, RDT&E Project Justification								DATE: June 2001			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604618N; Joint Direct Attack Munition (JDAM)					PROJECT NUMBER AND NAME A2137 / Joint Direct Attack Munition (JDAM)					
COST (\$ in Millions)	Prior Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	[*] 132.161	[*] 10.800	^{**} 28.845	56.285						Continuing	Continuing
RDT&E Articles Qty	114		20	20						Continuing	154

* Note: FY2000 and prior year funds were executed under Project Unit E2137

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U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: JDAM is a joint acquisition program combining Department of Navy and Air Force requirements to upgrade existing General Purpose Bomb capabilities in adverse weather and at medium to high altitude releases. The upgrade is accomplished by the addition of a guidance tail kit to existing General Purpose Bombs (2000 lb and 1000lb inventory bombs). The Air Force is the executive service. The Navy's participation in JDAM involves joint development of JDAM components and support of Navy-Marine Corps unique requirements such as aircraft integration on the F/A-18. JDAM will provide an accurate (defined as not more than 13 meters) adverse weather capability. The program will incorporate commonality with the Joint Standoff Weapon where feasible. The JDAM Product Improvement Program (PIP) will field improvements for any JDAM system with initial emphasis on attaining precision (3 meters or less) accuracy through non-seeker and seeker initiatives.

The JDAM Joint Operational Requirements Document (JORD) has recently been updated to include a requirement for a JDAM capability with the 500lb inventory bomb (MK82). The Air Force will continue to be the executive service for this effort. The Navy will participate in the joint development of the JDAM MK82 and support the Navy-Marine Corps unique requirements such as aircraft integration on the F/A-18, utilizing a smartrack for additional weapon carriage.

114 Guided Test Vehicles (GTVs) were procured in FY96 during the Engineering and Management Development (E&MD) baseline contract. 20 GTVs will be procured in FY01 and FY02 for the MK82 development.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$ 0.276) Continued JDAM Mission Planning Module (MPM) support for the Tactical Aircraft Mission Planning System (TAMPS) and the Joint Mission Planning System (JMPS).
- (U) (\$ 3.662) Continued to perform systems engineering, ILS and program support for the JDAM 2000 lb (MK84/BLU-109) MS-III decision.
- (U) (\$ 4.097) Performed systems engineering, ILS and program support for the JDAM Product Improvement Program (PIP) concept exploration phase in preparation for the MS-I decision.
- (U) (\$ 2.765) Continued to perform systems engineering, aircraft integration, ILS, airworthiness testing, and program support for the 1000 lb (MK83) Low Rate Initial Production (LRIP) decision.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		June 2001
PROGRAM ELEMENT NUMBER AND NAME 0604618N; Joint Direct Attack Munition (JDAM)		PROJECT NUMBER AND NAME A2137 / Joint Direct Attack Munition (JDAM)
<p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS (Continued):</p> <p>2. FY 2001 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$ 1.363) Continue JDAM baseline MPM support for the transition to JMPS, as well as MPM support for the JDAM MK82 . - (U) (\$ 5.428) Perform aircraft integration and Operational Flight Program (OFP) software development for the JDAM MK82 and smartrack (BRU-55). - (U) (\$ 7.326) Perform systems engineering, ILS and program support for the MK82 effort, and preparation for the JDAM PIP MS-I decision. - (U) (\$ 8.494) Perform engineering analysis, design and integration for the JDAM PIP seeker development, \$3M of which is for the DAMASK Repackaging Effort. - (U) (\$ 0.779) Complete Developmental Testing (DT) and Follow-on Operational Testing and Evaluation (FOT&E) of the MK83 JDAM. - (U) (\$ 0.559) Initiate Air Worthiness testing of the MK82 JDAM. - (U) (\$ 4.205) Procure test assets for the MK82 effort. - (U) (\$ 0.691) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 68. <p>3. FY 2002 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$ 4.485) Continue JDAM baseline MPM support for the transition to JMPS, as well as MPM support for the JDAM MK82 and PIP effort. - (U) (\$ 16.722) Perform aircraft integration, and OFP software development for the JDAM MK82 and JDAM PIP seeker. - (U) (\$ 10.769) Perform systems engineering, ILS and program support for the MK83 MS-III decision, the MK82 effort, and the JDAM PIP seeker development program. - (U) (\$ 12.162) Continue to perform engineering analysis, design and integration for the JDAM PIP seeker development. - (U) (\$ 8.948) Complete Air Worthiness testing and initiate DT of the MK82 JDAM. - (U) (\$ 3.199) Continue to procure test assets for the MK82 effort. 		

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EXHIBIT R-2a, RDT&E Project Justification			DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604618N; Joint Direct Attack Munition (JDAM)	PROJECT NUMBER AND NAME A2137 / Joint Direct Attack Munition (JDAM)	

(U) B. PROGRAM CHANGE SUMMARY:

	FY2000	FY2001	FY2002
(U) FY 2001 President's Budget:	11.717	26.151	38.796
(U) Adjustments from the President's Budget:	-0.917	2.694	17.489
(U) FY 2002 President's Budget Submit:	10.800	28.845	56.285

CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 2000 net decrease of \$ 0.917 million consists of a decrease of \$1.000 million for CAWCF loss assessment, a decrease of \$0.155 million for Small Business Innovative Research Assessment, a decrease of \$0.236 million for a reprioritization of requirements with the Navy, a decrease of \$0.046 million for a Congressional Rescission, and an increase of \$0.520 million for a FY99 funds swap that will be used for award fee. The FY 2001 net increase of \$2.694 million consist of a decrease of \$0.039 million for a reprioritization of requirements within the Navy, a decrease of \$0.204 million for a Congressional Reduction, a decrease of \$0.063 million for a government-widerescission, and an increase of \$3.000 million for DAMASK repackaging. The FY 2002 net increase of \$17.489 million consists of a decrease of \$10.000 million for aviation weapons reduction, a decrease of \$0.244 million for a reprioritization of requirements within the Navy, an increase of \$0.122 million for economic assumptions, and increase of \$27.600 million for JDAM MK82 minimunitions development .

(U) Schedule: OT-IIB Verification of Correction of Deficiencies (VCD) completed 4Q/00 vice 2Q/00. Due to the slippage of the Pin Lock completion MS-III for the 2,000 lb variants (MK84/BLU-109) slipped from 3Q/00 to 1Q/01, IOC from 4Q/00 to 2Q/01, and the 1000 lb variant (MK83) MS-III has moved from 4Q/01 to 2Q/02. Due to the delay in starting the JDAM PIP AoA study, PIP MS-I has moved from 2Q/01 to 1Q/02. The revised JORD has resulted in the addition of the MK82 efforts to the schedule.

(U) Technical: Not Applicable.

(U) C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	FY 2000	FY 2001	FY 2002
PAN,MC/B.A.-1 Ammunition - JDAM	81.075	24.166	41.133
RDT&E P.E. 0604618F			
Air Force JDAM	11.304	11.055	15.656

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604618N; Joint Direct Attack Munition (JDAM)	PROJECT NUMBER AND NAME A2137 / Joint Direct Attack Munition (JDAM)																								
<p>(U) D. ACQUISITION STRATEGY: The Joint Direct Attack Munition (JDAM) program acquisition strategy is derived from the 1994 Federal Acquisition Streamlining Act (FASA). The focus of the program is to reduce acquisition management costs by buying bomb modification kits as if they were commercial items, including obtaining waivers to regulations that affect the efficiency of the contracting process. The JDAM contracting officer has authority to approve individual deviations from any Federal Acquisition Regulation (FAR) and Defense Acquisition Regulation Supplement (DFARS) provision not required by Statute of Executive Order for the JDAM EMD contract. The contract management philosophy includes partnering with the contractor, long term relationships with vendors, negotiations based on prices instead of costs, credit for past performance, and allowing the contractor to determine how to produce the product with the government providing only what the product must do. Cost is an independent variable. JDAM kits have a lifetime (20 year) warranty, significantly reducing Operating and Support costs.</p> <p>(U) E. SCHEDULE PROFILE: *</p> <table border="1"> <thead> <tr> <th></th> <th><u>FY 2000</u></th> <th><u>FY 2001</u></th> <th><u>FY 2002</u></th> </tr> </thead> <tbody> <tr> <td>(U) Program Milestones</td> <td></td> <td>1Q/01 MS-III MK84/BLU-109 2Q/01 IOC MK84/BLU-109</td> <td>2Q/02 MK83 MS-III</td> </tr> <tr> <td>(U) Engineering Milestones</td> <td></td> <td>3Q/01 MK82 PDR</td> <td>1Q/02 MK82 CDR</td> </tr> <tr> <td>(U) T&E Milestones</td> <td>4Q/00 OT-IIB (VCD)</td> <td>2Q/01 MK83 DT 4Q/01 MK83 FOT&E</td> <td>2Q/02 MK82 DT</td> </tr> <tr> <td>(U) Contract Milestones</td> <td></td> <td>1Q/01 MK84/BLU-109 FRP 1Q/01 MK3 LRIP</td> <td>2Q/02 MK83 FRP</td> </tr> <tr> <td>(U) Product Improvement</td> <td></td> <td>1Q/01 PIP AoA REPORT 2Q/01 MS-0 PIP</td> <td>1Q/02 MS-I PIP</td> </tr> </tbody> </table>				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	(U) Program Milestones		1Q/01 MS-III MK84/BLU-109 2Q/01 IOC MK84/BLU-109	2Q/02 MK83 MS-III	(U) Engineering Milestones		3Q/01 MK82 PDR	1Q/02 MK82 CDR	(U) T&E Milestones	4Q/00 OT-IIB (VCD)	2Q/01 MK83 DT 4Q/01 MK83 FOT&E	2Q/02 MK82 DT	(U) Contract Milestones		1Q/01 MK84/BLU-109 FRP 1Q/01 MK3 LRIP	2Q/02 MK83 FRP	(U) Product Improvement		1Q/01 PIP AoA REPORT 2Q/01 MS-0 PIP	1Q/02 MS-I PIP
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>																							
(U) Program Milestones		1Q/01 MS-III MK84/BLU-109 2Q/01 IOC MK84/BLU-109	2Q/02 MK83 MS-III																							
(U) Engineering Milestones		3Q/01 MK82 PDR	1Q/02 MK82 CDR																							
(U) T&E Milestones	4Q/00 OT-IIB (VCD)	2Q/01 MK83 DT 4Q/01 MK83 FOT&E	2Q/02 MK82 DT																							
(U) Contract Milestones		1Q/01 MK84/BLU-109 FRP 1Q/01 MK3 LRIP	2Q/02 MK83 FRP																							
(U) Product Improvement		1Q/01 PIP AoA REPORT 2Q/01 MS-0 PIP	1Q/02 MS-I PIP																							

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										June 2001		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604618N; Joint Direct Attack Munition (JDAM)			A2137 / Joint Direct Attack Munition (JDAM)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
OFP Development	WX	AWL/CL	18.261	2.000	11/00	8.225	11/01			Continuing	Continuing	
Mission Planning Development	C/CPAF	Raytheon, Tucson, AZ	6.012	0.642	11/00	3.424	11/01			Continuing	Continuing	
Aircraft Integration	SS/CPAF	Boeing	7.454	3.208	01/00	7.653	10/01			Continuing	Continuing	
PIP Development	C/CPAF	Boeing, St. Louis, MO	3.907	6.185	12/00	12.162	12/01			Continuing	Continuing	
In-House Support	WX	NAWC, CL	46.766	8.580	10/00	9.243	10/01			Continuing	Continuing	
Misc (efforts under \$1M-Aggregate)	Various	Various	4.463	0.798	11/00	1.367	11/00			Continuing	Continuing	
Award Fees	C/CPAF/M	Boeing	1.150							Continuing	Continuing	
Subtotal Product Development			88.013	21.413		42.074				Continuing	Continuing	
Remarks: Prior year funds were under Proj Unit E2137. Award Fees are associated with the procurement of test assets and were previously accounted for under Test and Evaluation.												
Travel	P.D	JDAM	1.323	0.150	10/00	0.190	10/01				1.663	
Engineering Services	Various	Various	11.210	1.017	10/00	1.575	10/01				13.802	
SBIR Assessment				0.691							0.691	
Subtotal Support			12.533	1.858		1.765					16.156	
Remarks: Prior year funds were under Proj Unit E2137.												

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)										DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT 0604618N; Joint Direct Attack Munition (JDAM)			PROJECT NUMBER AND NAME A2137 / Joint Direct Attack Munition (JDAM)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	NAWC/CL	15.774	1.020	10/00	8.646	10/01			Continuing	Continuing	
Operational Test & Evaluation	PD	OPTEVFOR	3.527	0.140	10/00	0.281	02/02			Continuing	Continuing	
Test Assets	MIPR	Boeing, St Louis, MO	13.592	3.433	10/00	3.136	10/01			Continuing	Continuing	
Misc. (efforts under \$1M-Aggregate)	Various	Various	3.850	0.771	11/00	0.073	11/01			Continuing	Continuing	
Subtotal T&E			36.743	5.364		12.136				Continuing	Continuing	
Remarks: Prior year funds were under Proj Unit E2137. Previous submissions included the cost for Award Fees associated with the procurement of test assets. Award Fees are not included in Product Development.												
Misc. (efforts under \$1M-Aggregate)	Various	Various	5.672	0.210	11/00	0.310	11/01			Continuing	Continuing	
Subtotal Management			5.672	0.210		0.310				Continuing	Continuing	
Remarks: Prior year funds were under Proj Unit E2137.												
Total Cost			142.961	28.845		56.285				Continuing	Continuing	
Remarks:												

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