

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604329F: <i>Small Diameter Bomb</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	99.992	132.881	143.000	-	143.000	115.000	54.000	18.000	64.000	Continuing	Continuing
655191: <i>SDB Increment II</i>	99.992	132.881	143.000	-	143.000	115.000	54.000	18.000	64.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

The Cost to Complete and Total Cost for MDAP projects in this program element are documented in the R3. The Cost to Complete and Total Cost on the R2 are entered as "Continuing" and not reflective of the total cost for MDAP projects since the R2 does not account for prior years funding.

A. Mission Description and Budget Item Justification

Small Diameter Bomb Increment II (SDB II) is a joint interest United States Air Force (USAF) and Department of Navy (DoN) ACAT ID program, with the Air Force (AF) as the lead service. SDB II provides the warfighter the capability to attack mobile targets from stand-off, through weather. SDB II addresses the following warfighter requirements: attack moving and stationary targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures and provides a network enabled weapon capability via Link-16 and Ultra High Frequency (UHF) Weapon Data Link. The threshold aircraft for the AF is the F-15E, and the threshold aircraft for the DoN are the F-35B and F-35C. Objective aircraft include the F-22, F-16, F-35A, B-2, A-10, MQ-9, B-1, B-52, and the F/A-18 E/F. SDB II will be compatible with the BRU-61/A miniature munitions carriage, the CNU-660/E carriage system, the Common Munitions Bit and Reprogramming Equipment (CMBRE), and the Joint Mission Planning System (JMPS). The SDB II program will develop and field a single weapon storage container (USAF) and a dual weapon container (DoN).

SDB II completed a 42-month competitive Risk Reduction phase in October 2009. Milestone B approval to enter the Engineering and Manufacturing Development (EMD) phase was received on 29 July 2010 and the subsequent Acquisition Program Baseline was signed on 08 October 2010. A Fixed Price Incentive Firm EMD contract was awarded on 09 August 2010. SDB II is a key component of the Air Force's Global Strike Task Force CONOPs and Global Precision Attack Core Function.

Prior years funding estimate is \$493.1M.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development tasks aimed at meeting validated requirements prior to full-rate production.

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B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	
Previous President's Budget	153.505	132.891	124.626	-	124.626	
Current President's Budget	99.992	132.881	143.000	-	143.000	
Total Adjustments	-53.513	-0.010	18.374	-	18.374	
• Congressional General Reductions	-	-0.010				
• Congressional Directed Reductions	-	-				
• Congressional Rescissions	-0.513	-				
• Congressional Adds	-	-				
• Congressional Directed Transfers	-	-				
• Reprogrammings	-	-				
• SBIR/STTR Transfer	-	-				
• Other Adjustments	-53.000	-	18.374	-	18.374	
Change Summary Explanation						
FY11 Adjustments for Congressional General Reductions -\$0.513, Congressional Directed Reductions -\$53.000						
FY13 Adjustments included to fully fund approved SDB II program.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013
Title: Development				76.752	100.628	113.434
Description: Engineering and Manufacturing Development (EMD): Development of SDB II design that delivers the capability described in the SDB II Capability Development Document (CDD) as specified in the government approved SDB II System Performance Specification (SPS) and prepare for production, deployment, and sustainment.						
FY 2011 Accomplishments:						
Completed Integrated Baseline Review (IBR) on the EMD prime contract in November 2010. Completed IBR at major subcontractor. Conducted the SDB II Critical Design Review. Continued Integrated Systems Design (ISD) activities. Activities include, but are not limited to designing, developing, and verifying production capability that will deliver production quantities while ensuring the “as built” items conform to the EMD design and meet SPS requirements. Completed build of first tri-mode seeker and completed integration onto a Captive Flight Test (CFT) vehicle. Completed first EMD Controlled Test Vehicle (CTV) drop.						
FY 2012 Plans:						
Continue ISD activity and deliver the first all-up-round (AUR). The first All-Up-Round (AUR) will be used to continue Developmental Testing (DT) for the SDB II Normal Attack Mode. Activities include, but are not limited to, designing, developing,						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013
and verifying production capability that delivers production quantities while ensuring the “as built” items conform to the EMD design and meet SPS requirements.				
FY 2013 Plans: Continue ISD activity and deliver the first production representative AUR. Continue developmental test (DT) activities for SDB II Normal Attack Mode. Conduct first Live Fire test. Complete System Verification Review. Conduct Operational Assessment and prepare for Milestone C review. Begin reliability testing with a Captive Carry Reliability Test (CCRT) program. Activities include, but are not limited to, designing, developing, and verifying production capability that delivers production quantities while ensuring the “as built” items conform to the EMD design and meet SPS requirements.				
Title: Integration and Qualification Testing Description: F-15E aircraft Integration – Aircraft integration incorporates tests and targets, Modeling and Simulation (M&S), target lethality, data link and mission planning. Develop Suite 7E Operational Flight Program (OFP) upgrade to provide the capability to program the weapon with mission planned targets, weapon data link control, and exclusion zone information prior to launch of the weapon. It also allows the aircrew to make in-flight edits of target and weapon data link programming if/when required based on employment scenarios. FY 2011 Accomplishments: Conduct flight and ground testing. Continue F-15E OFP upgrades. Continue target acquisition to support testing. Conduct Advanced Joint Effectiveness Model (AJEM) lethality modeling and testing. Continue collaboration with National Security Agency (NSA) and Joint Interoperability Test Command (JITC) on weapon data link key management software. Continue Aviation and Missile Research Development and Engineering Center (AMRDEC) support used for modeling and simulation tasks and Verification, Validation, and Accreditation (VV&A). Plan development and modification of an Air and Space Operations Center software application to transmit data link network tasking. Continue to develop mission planning interfaces for the weapon. FY 2012 Plans: Continue to conduct ground and flight testing. Continue F-15E OFP upgrades. Continue target acquisition to support testing. Conduct AJEM lethality modeling and testing. Continue collaboration with NSA and JITC on weapon data link key managements software. Continue AMRDEC support for modeling and simulation tasks and VV&A. Continue to develop/modify Air and Space Operations Center software application to transmit data link network tasking. Deliver final release of mission planning software and continue mission planning support during Developmental Testing (DT). FY 2013 Plans: Continue to conduct ground and flight testing and target acquisition to support testing. Conduct Operational Assessment and prepare for Milestone C review. Conduct AJEM lethality modeling and testing. Continue collaboration with NSA and JITC on		21.073	29.200	27.172

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2011	FY 2012	FY 2013
weapon data link key managements software. Continue AMRDEC support for modeling and simulation tasks and VV&A. Continue mission planning support during DT.												
Title: Management										2.167	3.053	2.394
Description: Provide support for SDB II program office to conduct operations to accomplish its mission. This includes, but is not limited to, Advisory and Assistance Support (A&AS) for technical and managerial support, and program management administration for travel and miscellaneous supplies. The SDB II Program Office at Eglin Air Force Base will act as the Single Manager for the entire life cycle of the SDB II weapon system.												
FY 2011 Accomplishments: Continue support for Program Office to conduct operations to accomplish its mission. Provide support required to complete a CDR and IBR.												
FY 2012 Plans: Continue support for Program Office to conduct operations to accomplish its mission. Provide support required to obtain Milestone C approval.												
FY 2013 Plans: Continue support for Program Office to conduct operations to accomplish its mission. Provide support required to obtain Milestone C approval.												
Accomplishments/Planned Programs Subtotals										99.992	132.881	143.000
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
• PE 0207327F, Small Diameter Bomb...: <i>Production</i>	0.000	0.000	42.000	0.000	42.000	62.000	88.000	87.000	81.000	1,529.637	1,889.637	
• PE 0604329N, Small Diameter Bomb...: <i>Navy RDT&E</i>	13.396	19.555	17.798	0.000	17.798	30.583	32.634	45.279	64.454	197.781	487.264	
• PE 0204162N, Small Diameter Bomb...: <i>Navy Procurement</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	25.543	653.590	679.133	
E. Acquisition Strategy												
The SDB II Engineering and Manufacturing Development (EMD) contract was awarded using competitive procedures. At the completion of the 42-month Risk Reduction phase in October 2009, one contractor was selected in April 2010 and awarded the EMD contract in August 2010. The EMD contract is a Fixed-Price												

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<p>Incentive Firm (FPIF) contract with priced production options for the first five production lots. SDB II production Lots 1-3 are FPIF. Production Lots 4-5 are fixed price not-to-exceed pricing with an economic price adjustment clause for labor and materials. The Government is buying the SDB II based on the contractor System Performance Specification (SPS). The contractor is accountable for system performance as defined in the SPS and a system warranty as defined in the EMD contract. Accordingly, the contractor is accountable to the Government for the design of the weapon system, as well as the planning and execution of the Development Test & Evaluation (DT&E) program to verify the system performance. The Government formally arranges and funds the use of Government flight test support for DT&E.</p> <p>F. Performance Metrics</p> <p>Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604329F: <i>Small Diameter Bomb</i>	PROJECT 655191: <i>SDB Increment II</i>
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Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Risk Reduction Contract 1	C/CPFF	Boeing:St. Louis, MO	151.592	-		-		-		-	0.000	151.592	151.592
Risk Reduction Contract 2	C/CPFF	Raytheon:Tucson, AZ	151.592	-		-		-		-	0.000	151.592	151.592
EMD Contract	C/FPIF	Raytheon:Tucson, AZ	175.195	87.116	Oct 2011	91.244	Oct 2012	-		91.244	130.724	484.279	401.129
Technical Support Contract	SS/Various	Raytheon:Tucson, AZ	0.324	3.294	Jan 2012	3.082	Jan 2013	-		3.082	3.379	10.079	10.079
MPACT High Pressure Air Compressor System	SS/FFP	Boeing:St. Charles, MO	3.175	-		-		-		-	0.000	3.175	3.175
F-15E Integration and Test Support	SS/Various	Boeing:St. Louis, MO	30.351	5.762	Nov 2011	7.247	Jan 2013	-		7.247	10.555	53.915	53.915
BRU-61/A Integration and Test Support	SS/Various	Boeing:St. Louis, MO	3.901	1.056	Mar 2012	0.594	Mar 2013	-		0.594	6.618	12.169	12.169
Mission Planning	Various	Various:Various,	4.124	0.871	Nov 2011	0.618	Dec 2012	-		0.618	1.777	7.390	7.390
Data Link Integration & Support	Various	Various:Various,	1.517	0.256	Jul 2012	0.385	Jul 2013	-		0.385	4.280	6.438	6.438
System Performance & Lethality	Various	Various:Various,	21.034	8.500	Nov 2011	4.684	Nov 2012	-		4.684	8.127	42.345	42.345
Other Product Development	Various	Various:Various,	5.504	8.685	Mar 2012	15.611	Mar 2013	-		15.611	71.999	101.799	101.799
Subtotal			548.309	115.540		123.465		-		123.465	237.459	1,024.773	941.623

Remarks

Remarks:The EMD contract budget and Target Value differ due to:

- 1) EMD contract is budgeted to the contract ceiling price.
- 2) EMD contract budget includes funding for 28 additional developmental tests identified during Milestone B. The addition of the tests requires a modification to the contract and thus is not included in the current Target Value.

The EMD Target Value includes AF funding only. The target value for the contract including Navy funding is \$450.827.

Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Costs	Various	Various:Various,	1.011	0.255	Apr 2012	-		-		-	0.000	1.266	1.266
Subtotal			1.011	0.255		-		-		-	0.000	1.266	1.266

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Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Remarks None.														
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
DT&E	PO	46th Test Wing:Eglin AFB, FL	7.766	8.987	Jan 2012	10.671	Jan 2013	-		10.671	38.431	65.855	65.855	
Targets	PO	Various:Various,	14.763	3.823	Mar 2012	5.189	Mar 2013	-		5.189	5.959	29.734	29.734	
Other Test Support	Various	Various:Various,	1.357	1.223	Dec 2011	1.281	Dec 2012	-		1.281	3.562	7.423	7.423	
Subtotal			23.886	14.033		17.141		-		17.141	47.952	103.012	103.012	
Remarks None.														
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Technical Acquisition Management Support (TAMS)	Various	COLSA Corp:Eglin AFB, FL	0.736	0.311	Mar 2012	0.142	Feb 2013	-		0.142	0.328	1.517	1.517	
Technical and Engineering Acquisition Support (TEAS)	Various	Jacobs Technology:Eglin AFB, FL	13.442	0.676	Dec 2011	0.372	Dec 2012	-		0.372	0.517	15.007	15.007	
Program Management Administration (PMA)	Various	Various:Eglin AFB, FL	5.719	2.066	Oct 2011	1.880	Oct 2012	-		1.880	4.424	14.089	14.089	
Subtotal			19.897	3.053		2.394		-		2.394	5.269	30.613	30.613	

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	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	593.103	132.881		143.000		-		143.000	290.680	1,159.664	1,076.514

Remarks

None.

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604329F: <i>Small Diameter Bomb</i>	PROJECT 655191: <i>SDB Increment II</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

3600: *Research, Development, Test & Evaluation, Air Force*
BA 5: *Development & Demonstration (SDD)*

R-1 ITEM NOMENCLATURE

PE 0604329F: *Small Diameter Bomb*

PROJECT

655191: *SDB Increment II*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Critical Design Review	2	2011	2	2011
F-15 Integration Developmental/Operational Testing	1	2011	4	2016
Milestone C	4	2013	4	2013