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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604329F I Small Diameter Bomb (SDB) - EMD							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	731.858	125.101	113.334	68.759	-	68.759	32.842	63.366	15.544	15.840	6.533	1,173.177
655191: SDB Increment II	731.858	125.101	113.334	68.759	-	68.759	32.842	63.366	15.544	15.840	6.533	1,173.177
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
MDAP/MAIS Code: 439												
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
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. The AC-130 is being considered as an additional objective platform. SDB II will be compatible with the BRU-61 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.												
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 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	
Previous President's Budget	143.000	115.000	54.000	-	54.000	
Current President's Budget	125.101	113.334	68.759	-	68.759	
Total Adjustments	-17.899	-1.666	14.759	-	14.759	
• Congressional General Reductions	-0.182	-0.017				
• Congressional Directed Reductions	-5.000	-1.649				
• Congressional Rescissions	-	-				
• Congressional Adds	-	-				
• Congressional Directed Transfers	-	-				
• Reprogrammings	2.500	-				
• SBIR/STTR Transfer	-3.884	-				
• Other Adjustments	-11.333	-	14.759	-	14.759	
Change Summary Explanation						
FY13 - -\$0.182M for Congressional General Reduction, Congressional Directed Reduction for other product development cost growth (-\$5M) and sequestration (-\$11.333M), \$2.5M Below Threshold Reprogramming and -\$3.884M for Small Business Innovation Research (SBIR).						
FY14 - -\$1.649M Congressional Directed Reduction, -.017M for Federally Funded Research and Development Centers (FFRDC).						
FY15 - \$14.759M Air Force add to address SDB contract						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2013	FY 2014	FY 2015
Title: Development				100.803	71.944	28.927
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 2013 Accomplishments:						
Continued System Capability and Manufacturing Process Demonstration activity and built first electronics production representative all-up-round (AUR). Transitioned test asset assembly to production facilities. Continued Developmental Test (DT) activities for SDB II Normal Attack Mode. Executed four Guided Test Vehicle (GTV) flight missions and three Controlled Test Vehicle (CTV) flight missions. Started AUR environmental qualification testing and reliability testing. Completed Manufacturing Readiness Assessment. 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.						
FY 2014 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Complete System Verification Review and conduct Milestone C review. Continue DT for Normal Attack Mode and begin Live Fire testing. Begin the Captive Carry Reliability Test (CCRT) program. Begin development of maintenance and aircrew training. Complete Common Munitions Bit/Reprogramming Equipment software development. Conduct Production Readiness Review. 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. FY 2015 Plans: Complete DT for Coordinate Attack Mode and Semi-Active Laser Mode. Complete Live Fire testing. Complete CCRT program. Conduct 28 Government Normal Attack test shots. 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 incorporates tests and targets, Modeling and Simulation (M&S), target lethality, data link and mission planning. Develop Suite 8E 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 2013 Accomplishments: Continued to execute ground and flight testing and target procurement to support testing. Continued DT activities for SDB II Normal Attack Mode. Performed logistics demonstration. Conducted Advanced Joint Effectiveness Model (AJEM) lethality modeling and testing. Continued collaboration with National Security Agency (NSA) and Joint Interoperability Test Command (JITC) on weapon data link key management software. Continued Aviation and Missile Research Development and Engineering Center (AMRDEC) support for modeling and simulation tasks and Verification, Validation, and Accreditation (VV&A). Integrated SDB II with Command and Control Infrastructure, including Air and Space Operations Center (AOC). Delivered interim release of mission planning software and continued mission planning support during DT. FY 2014 Plans: Continue to conduct ground and flight testing and target procurement to support testing. Complete DT for Normal Attack Mode and begin Live Fire testing. Conduct AFOTEC Operational Assessment to support Milestone C. Begin update to F-15E training devices. Begin OFP update and qualification efforts for BRU-61. Continue AJEM lethality modeling and testing. Continue collaboration with NSA and JITC on weapon data link key management software. Continue AMRDEC support for modeling and		24.298	41.390	39.832

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2013	FY 2014	FY 2015
simulation tasks and VV&A. Continue integration of SDB II with Command and Control Infrastructure, including AOC. Continue mission planning support during DT. Conduct Milestone C review.												
FY 2015 Plans: Complete DT for Coordinate Attack Mode and Semi-active Laser Mode. Complete Live Fire testing. Complete CCRT program. Conduct 28 Government Normal Attack test shots. Complete update to F-15E training devices. Continue OFP update and qualification efforts for BRU-61. Continue 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 integration of SDB II with Command and Control Infrastructure, including AOC. Continue mission planning support during DT. Begin data link software updates.												
Accomplishments/Planned Programs Subtotals										125.101	113.334	68.759
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• MPAF: BA05: Line Item # SDB000: Small Diameter Bomb	1.974	36.024	70.578	-	70.578	111.096	106.120	72.896	148.824	1,327.953	1,875.465	
• RDT&E: BA05: PE 0604329N: Small Diameter Bomb	16.577	16.565	28.916	-	28.916	41.580	63.439	63.308	67.887	90.899	468.799	
• WPN: BA05: Line Item # 223800: Small Diameter Bomb	-	-	-	-	-	-	24.181	93.599	95.464	456.758	669.332	
Remarks												
Navy RDT&E funds include F-35B and F-35C Integration and Support Cost												
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 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) which has been approved by the Government. 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 system performance. The Government formally arranges and funds the use of Government flight test support for DT&E.												

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F. Performance Metrics 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.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force												Date: March 2014			
Appropriation/Budget Activity 3600 / 5						R-1 Program Element (Number/Name) PE 0604329F / Small Diameter Bomb (SDB) - EMD				Project (Number/Name) 655191 / SDB Increment II					
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	151.922	-		-		-		-		-	-	151.922	151.922
Risk Reduction Contract 2	C/CPFF	Raytheon : Tucson, AZ	150.800	-		-		-		-		-	-	150.800	150.800
EMD Contract	C/FPIF	Raytheon : Tucson, AZ	286.003	98.391	Oct 2012	28.833	Oct 2013	19.346	Oct 2014	-		19.346	27.605	460.178	460.178
Technical Support Contract	SS/ Various	Raytheon : Tucson, AZ	1.971	2.412	Nov 2012	43.111	Dec 2013	9.581	Dec 2014	-		9.581	10.535	67.610	67.610
MPACT High Pressure Air Compressor System	SS/FFP	Boeing : St. Charles, MO	3.175	-		-		-		-		-	-	3.175	3.175
F-15E Integration and Test Support	SS/ Various	Boeing : St. Louis, MO	35.106	3.435	Jan 2013	5.642	Jan 2014	2.011	Jan 2015	-		2.011	0.668	46.862	46.862
BRU-61/A Integration and Test Support	SS/ Various	Boeing : St. Charles, MO	4.706	0.200	Mar 2013	4.031	Mar 2014	3.080	Mar 2015	-		3.080	2.074	14.091	14.091
Mission Planning	Various	Various : Various,	4.858	0.055	Dec 2012	0.602	Dec 2013	0.326	Dec 2014	-		0.326	0.060	5.901	5.901
Data Link Integration & Support	Various	Various : Various,	2.304	0.410	Dec 2012	0.691	Dec 2013	0.400	Dec 2014	-		0.400	4.138	7.943	7.943
System Performance & Lethality	Various	Various : Various,	28.009	3.197	Nov 2012	0.817	Nov 2013	1.801	Nov 2014	-		1.801	0.863	34.687	34.687
Other Product Development	Various	Various : Various,	7.526	0.970	Nov 2012	3.955	Nov 2013	1.501	Nov 2014	-		1.501	83.116	97.068	97.068
Subtotal			676.380	109.070		87.682		38.046		-		38.046	129.059	1,040.237	1,040.237
Remarks None.															
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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,	1.698	0.954	Apr 2013	0.879	Apr 2014	0.615	Apr 2015	-		0.615	0.486	4.632	4.632
Subtotal			1.698	0.954		0.879		0.615		-		0.615	0.486	4.632	4.632

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Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DT&E: 96th Test Wing	PO	96th Test Wing : Eglin AFB, FL	8.842	5.116	Nov 2012	6.704	Nov 2013	14.619	Nov 2014	-		14.619	-	35.281	35.281
DT&E: UTTR, WSMR	Various	Various : Various,	2.942	1.086	Nov 2012	10.059	Nov 2013	9.516	Nov 2014	-		9.516	-	23.603	23.603
Targets	PO	Various : Various,	16.971	5.093	Jan 2013	3.775	Jan 2014	2.710	Jan 2015	-		2.710	1.122	29.671	29.671
Other Test Support	Various	Various : Various,	2.728	1.245	Dec 2012	1.780	Dec 2013	1.392	Dec 2014	-		1.392	1.375	8.520	8.520
Subtotal			31.483	12.540		22.318		28.237		-		28.237	2.497	97.075	97.075
Remarks None.															
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	0.933	0.458	Feb 2013	0.493	Feb 2014	0.381	Feb 2015	-		0.381	0.308	2.573	2.573
Technical and Engineering Acquisition Support (TEAS)	Various	Jacobs Technology : Eglin AFB, FL	14.119	1.087	Dec 2012	1.004	Dec 2013	0.786	Dec 2014	-		0.786	0.755	17.751	17.751
Program Management Administration (PMA)	Various	Various : Eglin AFB, FL	7.245	0.992	Oct 2012	0.958	Oct 2013	0.694	Oct 2014	-		0.694	1.020	10.909	10.909
Subtotal			22.297	2.537		2.455		1.861		-		1.861	2.083	31.233	31.233

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Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
<u>Remarks</u> None.															
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			731.858	125.101		113.334		68.759		-		68.759	134.125	1,173.177	1,173.177
<u>Remarks</u> EMD contract is budgeted to the contract ceiling price. The EMD Target Value includes AF funding only. The target value for the contract, including Navy funding, is \$450.827. UTTR: Utah Test and Training Range WSMR: White Sands Missile Range															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force

Date: March 2014

Appropriation/Budget Activity
3600 / 5

R-1 Program Element (Number/Name)
PE 0604329F / Small Diameter Bomb (SDB)
- EMD

Project (Number/Name)
655191 / SDB Increment II

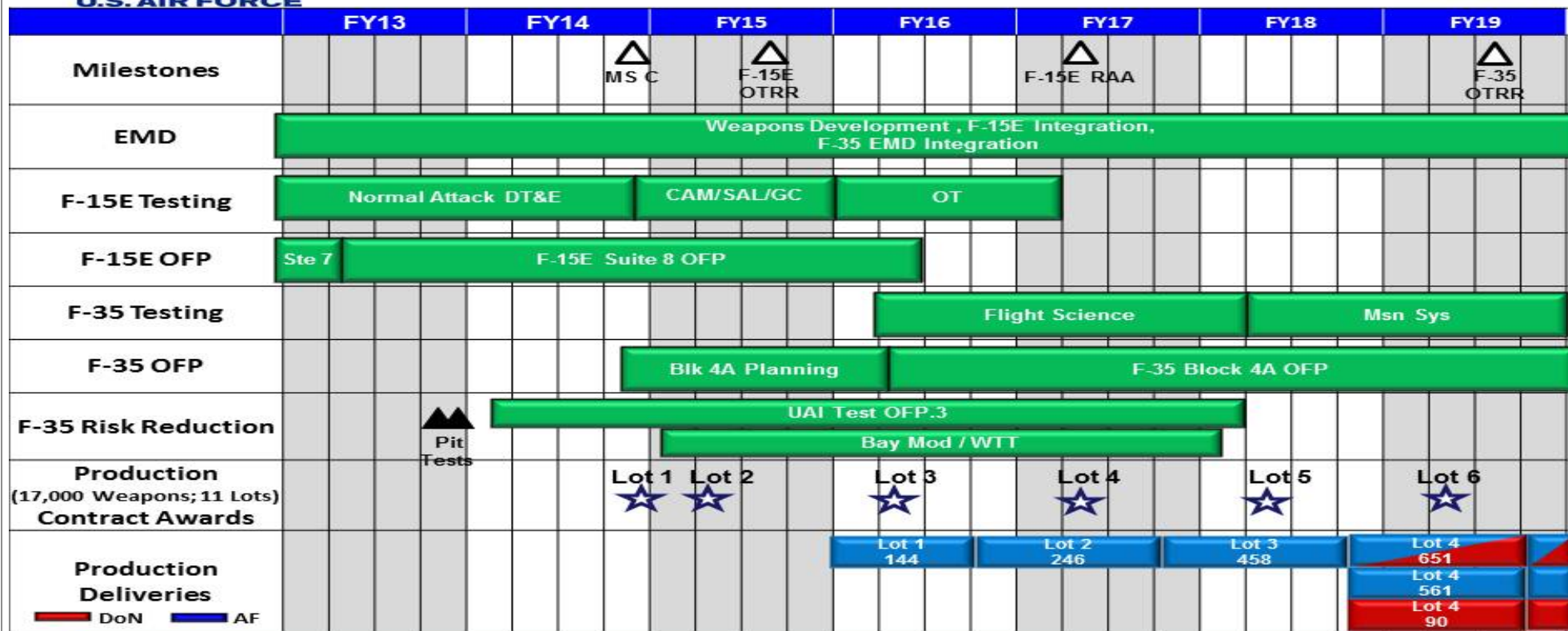


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Program Schedule

As of: 2/18/14



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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604329F / <i>Small Diameter Bomb (SDB)</i> - EMD	Project (Number/Name) 655191 / <i>SDB Increment II</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
F-15 Integration Developmental/Operational Testing	1	2013	4	2016
Milestone C	4	2014	4	2014
Start Government Confidence Testing	1	2015	2	2016
Commence Operational Testing	1	2016	1	2017
F-15E Required Assets Available	2	2017	2	2017