

UNCLASSIFIED

PE NUMBER: 0604329F
PE TITLE: Small Diameter Bomb

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2005

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604329F Small Diameter Bomb

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	118.828	75.815	85.988	85.209	131.299	141.327	90.759	11.458	0.000	867.441
5006 Small Diameter Bomb	118.828	75.815	38.935	13.232	0.000	0.000	0.000	0.000	0.000	373.568
5191 Small Diameter Bomb Increment II	0.000	0.000	47.053	71.977	131.299	141.327	90.759	11.458	0.000	493.873

(U) **A. Mission Description and Budget Item Justification**

Small Diameter Bomb (SDB) is an Air Force ACAT 1D program providing increased kills per sortie on current and future aircraft platforms. SDB addresses the following warfighter requirements: multiple kills per pass; multiple ordnance carriage; adverse weather operations, near-precision munitions capability; capability against fixed targets; reduced munitions footprint; increased weapons effectiveness; minimized potential for collateral damage; and reduced susceptibility of munitions to countermeasures. Threshold aircraft is the F-15E. Objective aircraft include the B-1, B-2, Joint Strike Fighter (JSF), F/A-22, F-117, F-16, B-52, Predator B, and the Joint Unmanned Combat Air System (JUCAS). SDB is currently in System Development Demonstration (SDD) phase with Milestone C planned for the third quarter of 2005. SDB will continue multiple incremental development to attack moving targets and pursue network CENTRIC interoperability (Increment 2,3). SDB is a key component of the Air Force's Global Strike Task Force CONOPS.

The government is buying the SDB based on a contractor-developed, government-approved System Performance Specification (SPS) which became contractually binding at contract award. The contractor will assume performance responsibility as defined in the SPS and warrants system performance for 20 years. Accordingly, the contractor is responsible not only for the design of the missile system, but also for planning and executing the seamless verification program to verify the system performance. In its role as facilitator and advisor to the contractor, the government formally arranges and funds the use of government flight test support for testing. Although funded by the government, flight test support funds are part of the negotiated commitment between the contractor and the government ensuring the contractor is able to execute the test program according to the scope of the SDD contract.

This program is in Budget Activity 5 - System Development and Demonstration (SDD) because this RDT&E effort develops the Small Diameter Bomb weapon system.

(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	125.373	76.489	85.525	87.257
(U) Current PBR/President's Budget	118.828	75.815	85.988	85.209
(U) Total Adjustments	-6.545	-0.674		
(U) Congressional Program Reductions	0.000	-0.674		
Congressional Rescissions	0.000			
Congressional Increases	0.000			
Reprogrammings	-2.757			
SBIR/STTR Transfer	-3.788			
(U) <u>Significant Program Changes:</u>				

R-1 Shopping List - Item No. 74-1 of 74-11

Exhibit R-2 (PE 0604329F)

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Exhibit R-2, RDT&E Budget Item Justification		DATE
BUDGET ACTIVITY	PE NUMBER AND TITLE	
05 System Development and Demonstration (SDD)	0604329F Small Diameter Bomb	
N/A		

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Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)					0604329F Small Diameter Bomb			5006 Small Diameter Bomb		
Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5006 Small Diameter Bomb	118.828	75.815	38.935	13.232	0.000	0.000	0.000	0.000	0.000	373.568
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

Small Diameter Bomb (SDB) is an Air Force ACAT 1D program providing increased kills per sortie on current and future aircraft platforms. SDB addresses the following warfighter requirements: multiple kills per pass; multiple ordnance carriage; adverse weather operations, near-precision munitions capability; capability against fixed targets; reduced munitions footprint; increased weapons effectiveness; minimized potential for collateral damage; and reduced susceptibility of munitions to countermeasures. Threshold aircraft is the F-15E. Objective aircraft include the B-1, B-2, Joint Strike Fighter (JSF), F/A-22, F-117, F-16, B-52, Predator B, and the Joint Unmanned Combat Air System (JUCAS). SDB is currently in System Development Demonstration (SDD) phase with Milestone C planned for the third quarter of 2005.

The government is buying the SDB based on a contractor-developed, government-approved System Performance Specification (SPS) which became contractually binding at contract award. The contractor will assume performance responsibility as defined in the SPS and warrants system performance for 20 years. Accordingly, the contractor is responsible not only for the design of the missile system, but also for planning and executing the seamless verification program to verify the system performance. In its role as facilitator and advisor to the contractor, the government formally arranges and funds the use of government flight test support for testing. Although funded by the government, flight test support funds are part of the negotiated commitment between the contractor and the government ensuring the contractor is able to execute the test program according to the scope of the SDD contract.

This program is in Budget Activity 5 - System Development and Demonstration (SDD) because this RDT&E effort develops the Small Diameter Bomb weapon system.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue aircraft integration.	0.321	8.838	0.175	0.178
(U) Continue program office support.	3.530	1.187	0.000	0.000
(U) Continue mission support.	1.431	0.555	0.780	0.833
(U) Continue System Development and Demonstration (SDD) phase for fixed target variant.	107.207	57.685	37.980	12.221
(U) Continue SDD testing and continue test support.	6.339	7.550	0.000	0.000
(U) Total Cost	118.828	75.815	38.935	13.232

(U) **C. Other Program Funding Summary (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Missile Procurement, AF, 0207327F, App 3020	0.000	29.144	59.052	114.304	105.003	124.319	194.513	195.696	734.162	1,556.193

Exhibit R-2a, RDT&E Project Justification		DATE February 2005
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604329F Small Diameter Bomb	PROJECT NUMBER AND TITLE 5006 Small Diameter Bomb
<p>(U) <u>D. Acquisition Strategy</u></p> <p>All major contracts within this Program Element have been awarded through full and open competition. Two contractors were selected for the 24 month CAD phase using Firm Fixed Price contracts. The Air Force downselected to Boeing in August 2003. SDD will be a fixed target variant with near precision and significant weapon effectiveness. SDD is a Cost Plus Award Fee contract.</p>		
Project 5006		
R-1 Shopping List - Item No. 74-4 of 74-11		
Exhibit R-2a (PE 0604329F)		

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Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2005

BUDGET ACTIVITY						PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE				
05 System Development and Demonstration (SDD)						0604329F Small Diameter Bomb					5006 Small Diameter Bomb				
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2004 Cost</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>	
(U) <u>Product Development</u>															
CAD Contract 1	FFP	Lockheed Martin, Orlando FL	53.616			0.000	N/A					0.000	53.616	53.616	
CAD Contract 2	FFP	Boeing, St Louis MO	53.616			0.000	N/A					0.000	53.616	53.616	
SDD Baseline Contract	CPAF	Boeing, St Louis MO	2.510	107.207	Oct-03	57.685	Oct-03	37.980	Oct-03	12.221	Oct-03	0.000	217.603	217.603	
Subtotal Product Development			109.742	107.207		57.685		37.980		12.221		0.000	324.835	324.835	
Remarks:															
(U) <u>Support</u>															
F-15 SPO	PO (In-House)	Wright Patterson AFB, OH	6.507	0.000	N/A	8.720	N/A	0.000	N/A	0.000	N/A	0.000	15.227	15.227	
Other A/C SPOs	PO (In-House)	Wright Patterson AFB, OH	1.131	0.321	N/A	0.118	N/A	0.175	N/A	0.178	N/A	0.000	1.923	1.923	
Sverdrup Inc.	C/CPAF	Eglin AFB, FL	4.001	2.040	Jun-01	0.868	Jun-01	0.000	Jun-01	0.000	Jun-01	0.000	6.909	6.909	
Other	Misc	Various	3.309	2.050	N/A	0.555	N/A	0.480	N/A	0.593	N/A	0.000	6.987	6.987	
Subtotal Support			14.948	4.411		10.261		0.655		0.771		0.000	31.046	31.046	
Remarks:															
(U) <u>Test & Evaluation</u>															
46 TW	PO (In-House)	Eglin AFB, FL	1.462	6.339	N/A	7.550	N/A	0.000	N/A	0.000	N/A	0.000	15.351	15.351	
Subtotal Test & Evaluation			1.462	6.339		7.550		0.000		0.000		0.000	15.351	15.351	
Remarks:															
(U) <u>Management</u>															
Madison Reasearch	C/CPAF	Eglin AFB, FL	0.606	0.871	Jun-01	0.319	Jun-01	0.300	Jun-01	0.240	Jun-01	0.000	2.336	2.336	
Subtotal Management			0.606	0.871		0.319		0.300		0.240		0.000	2.336	2.336	
Remarks:															
(U) Total Cost			126.758	118.828		75.815		38.935		13.232		0.000	373.568	373.568	

Exhibit R-4, RDT&E Schedule Profile

DATE

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604329F Small Diameter Bomb

PROJECT NUMBER AND TITLE

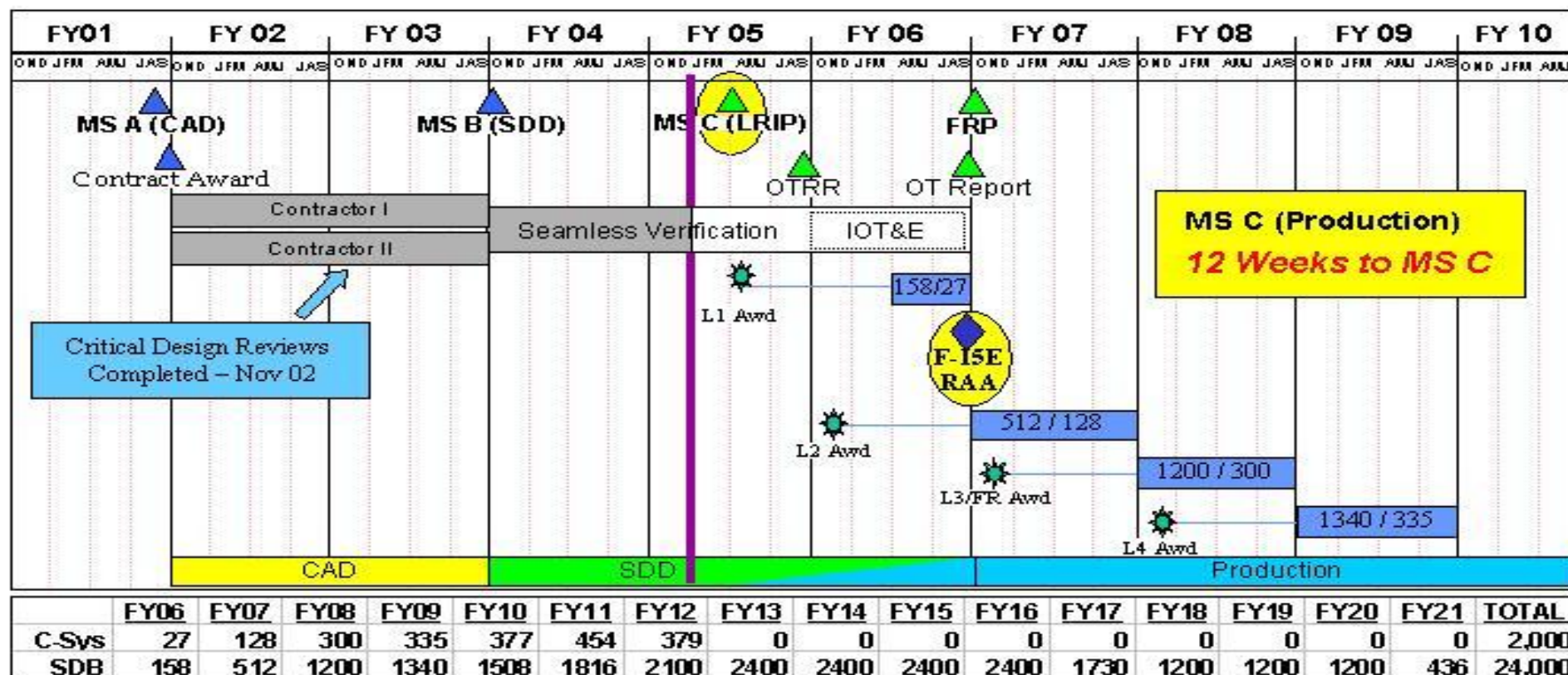
5006 Small Diameter Bomb

SDB Increment I Schedule

Commander's Intent: You Will Deliver Small Diameter Bomb (SDB) to the Warfighter in FY06. Schedule Is Paramount



Small Diameter Bomb



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Exhibit R-4a, RDT&E Schedule Detail

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604329F Small Diameter Bomb

PROJECT NUMBER AND TITLE

5006 Small Diameter Bomb

(U) Schedule ProfileFY 2004FY 2005FY 2006FY 2007

(U) Milestone B (Enter System Development Design (SDD))

1Q

(U) SDD Contract Award

1Q

(U) Begin Ground Testing

2Q

(U) Milestone C

3Q

(U) Low Rate Initial Production (LRIP) Contract Award

3Q

(U) Lot 2 Award

1Q

(U) F-15E RAA

4Q

(U) Lot 3 FRP Award

1Q

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Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604329F Small Diameter Bomb

PROJECT NUMBER AND TITLE

5191 Small Diameter Bomb Increment II

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5191 Small Diameter Bomb Increment II	0.000	0.000	47.053	71.977	131.299	141.327	90.759	11.458	0.000	493.873
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

Small Diameter Bomb (SDB) Increment II is a joint interest program providing the warfighter a capability to attack mobile targets in weather. SDB Increment II addresses the following warfighter requirements: attack mobile targets; multiple kills per pass; multiple ordinance carriage; all weather operations; near-precision munitions capability; capability against fixed targets; reduced munitions footprint; increased weapons effectiveness; minimized potential for collateral damage; reduced susceptibility of munitions, to countermeasures and provides a migration path to net centric ops capability. Threshold aircraft is the F-15E. Objective aircraft include the F/A-22, B-1, B-2, Joint Strike Fighter (JSF), F-117, F-16, B-52, Predator B, and the Joint Unmanned Combat Air System (JUCAS). SDB Increment II begins risk reduction in FY06 and Milestone B is scheduled in FY07. Milestone C is planned for FY10 followed by RAA on the F-15E in FY11. SDB will continue incremental development to pursue network CENTRIC interoperability. SDB is a key component of the Air Force's Global Strike Task Force CONOP.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Initiate Increment II Risk Reduction Phase		0.000	46.053	62.295
(U) Initiate Aircraft Integration				6.400
(U) Continue Program Office Support			1.000	3.282
(U) Total Cost	0.000	0.000	47.053	71.977

(U) **C. Other Program Funding Summary (\$ in Millions)**

	<u>FY 2004</u> <u>Actual</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) RDT&E,N		9.961	9.972	9.978						29.911
(U) Missile Procurement, AF, 0207327F, App 3020							58.700	61.100	Continuing	TBD

(U) **D. Acquisition Strategy**

All increments of SDB within this Program Element will be awarded sole source to Boeing. However, the Air Force expects Boeing to conduct a competition for major subsystems of the Increment II weapon to include the seeker and data link elements. The Air Force selected Boeing in August 2003 as the SDB prime contractor following a 24 month CAD. SDB is competing the seeker for FY06 program start.

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Exhibit R-3, RDT&E Project Cost Analysis												DATE February 2005		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)						PE NUMBER AND TITLE 0604329F Small Diameter Bomb					PROJECT NUMBER AND TITLE 5191 Small Diameter Bomb Increment II			
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2004 Cost</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u> SDD Increment II Contract	CPAF	Boeing-St. Louis, MO	N/A	0.000	0	0.000	N/A	46.053	Oct-06	62.295	Oct-06	316.661	316.661	425.009
Subtotal Product Development			0.000	0.000		0.000		46.053		62.295		316.661	316.661	425.009
Remarks:														
(U) <u>Support</u> F-15 SPO	PO (In-House)	Wright Patterson AFB, OH	N/A	0.000	0	0.000	N/A	0.000	Oct-06	6.400	Oct-06	7.400	7.400	13.800
Other A/C SPO's	PO (In-House)	Wright Patterson AFB, OH	N/A	0.000	0	0.000	N/A	0.000	N/A	0.000	N/A	0.747	0.747	0.747
Sverdrup Inc.	C/CPAF	Eglin AFB, FL		0.000		0.000	N/A	0.550	N/A	2.401	Oct-06	9.042	11.993	11.993
Other	Misc.	Various	N/A	0.000	0	0.000	N/A	0.000	N/A	0.400	N/A	9.515	9.515	9.915
Subtotal Support			0.000	0.000		0.000		0.550		9.201		26.704	29.655	36.455
Remarks:														
(U) <u>Test & Evaluation</u> 46 TW	PO (In-House)	Eglin AFB, FL	N/A	0.000	0	0.000	N/A	0.000	N/A	0.000	N/A	27.650	27.650	27.650
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000		27.650	27.650	27.650
Remarks:														
(U) <u>Management</u> Madison Research	C/CPAF	Eglin AFB, FL	N/A	0.000	0	0.000	N/A	0.450	N/A	0.481	N/A	3.828	3.828	4.759
Subtotal Management			0.000	0.000		0.000		0.450		0.481		3.828	3.828	4.759
Remarks:														
(U) Total Cost			0.000	0.000		0.000		47.053		71.977		374.843	377.794	493.873

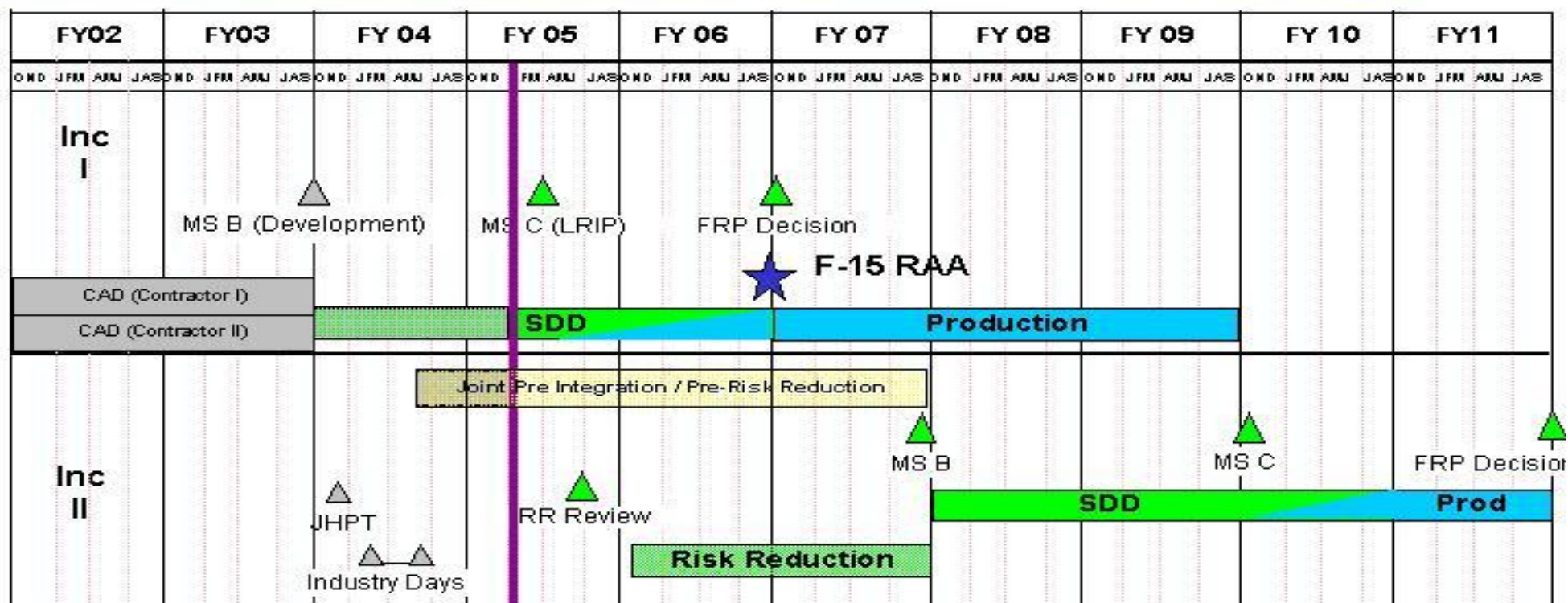
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05 System Development and Demonstration (SDD)

0604329F Small Diameter Bomb

5191 Small Diameter Bomb Increment II

Small Diameter Bomb



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Exhibit R-4a, RDT&E Schedule Detail

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604329F Small Diameter Bomb

PROJECT NUMBER AND TITLE

5191 Small Diameter Bomb Increment
II(U) Schedule ProfileFY 2004FY 2005FY 2006FY 2007

(U) Risk Reduction

1Q

(U) Milestone B

3Q