

## UNCLASSIFIED

PE NUMBER: 0604329F  
PE TITLE: Small Diameter Bomb

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2006	
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604329F Small Diameter Bomb					
Cost (\$ in Millions)	FY 2005 Actual	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	73.573	63.521	104.080	143.723	123.533	128.009	76.895	322.743	1,281.662
5006 Small Diameter Bomb	73.573	38.381	13.362	0.000	0.000	0.000	0.000	0.000	370.901
5191 Small Diameter Bomb Increment II	0.000	25.140	90.718	143.723	123.533	128.009	76.895	322.743	910.761

(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, A-10, Joint Strike Fighter (JSF), F-22A, F-117, F-16, B-52, and the Predator B. SDB is currently in the IOT&E Phase of a combined System Development Demonstration (SDD) and Low Rate Initial Production (LRIP) with FRP planned for the fourth quarter of 2006. SDB will continue multiple incremental development activities to attack moving targets, further reduce collateral damage, investigate alternate aircraft integration platforms, incorporate Anti-Jam Improvements 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.

R-1 Shopping List - Item No. 75-1 of 75-12

Exhibit R-2 (PE 0604329F)

## Exhibit R-2, RDT&amp;E Budget Item Justification

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604329F Small Diameter Bomb

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	75.815	85.988	85.209
(U) Current PBR/President's Budget	73.573	63.521	104.080
(U) Total Adjustments	-2.242	-22.467	
(U) Congressional Program Reductions		-21.550	
Congressional Rescissions	-0.058	-0.917	
Congressional Increases			
Reprogrammings	-0.524		
SBIR/STTR Transfer	-1.660		

(U) **Significant Program Changes:**

SDB II RDT&E funding had a congressional decrease of \$21.55M in FY06. To fully fund Development, the AF realigned \$15.8M of SDB I Procurement funds to SDB II RDT&E in FY07.

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## Exhibit R-2a, RDT&amp;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

5006 Small Diameter Bomb

Cost (\$ in Millions)	FY 2005 Actual	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	73.573	38.381	13.362	0.000	0.000	0.000	0.000	0.000	370.901
Quantity of RDT&E Articles	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, A-10, Joint Strike Fighter (JSF), F-22A, F-117, F-16, B-52, and the Predator B. SDB is currently in the IOT&E Phase of a combined System Development Demonstration (SDD) and Low Rate Initial Production (LRIP) with FRP planned for the fourth quarter of 2006.

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 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue aircraft integration.	8.724	1.095	1.078
(U) Continue program office support.	0.811	0.720	0.236
(U) Continue mission support.	0.456	0.512	0.359
(U) Continue System Development and Demonstration (SDD) phase for fixed target variant.	56.017	36.054	11.689
(U) Continue SDD testing and continue test support.	7.565	0.000	0.000
(U) Total Cost	73.573	38.381	13.362

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

	<u>FY 2005</u> <u>Actual</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) Missile Procurement, AF, 0207327F, App 3020	29.122	53.336	99.062	96.386	148.230	164.543	137.449	481.092	1,209.220

(U) **D. Acquisition Strategy**

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

Project 5006

R-1 Shopping List - Item No. 75-3 of 75-12

Exhibit R-2a (PE 0604329F)

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## Exhibit R-2a, RDT&amp;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

**5006 Small Diameter Bomb**

using Firm Fixed Price contracts. The Air Force downselected to Boeing in August 2003. SDD is a fixed target variant with near precision and significant weapon effectiveness. SDD is a Cost Plus Award Fee contract.

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## Exhibit R-3, RDT&amp;E Project Cost Analysis

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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) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &amp;</u> <u>Type</u>	<u>Performing</u> <u>Activity &amp;</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>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	109.804	56.016	Oct-03	36.054	Oct-03	11.034	Oct-03	0.000	212.908	212.908
Subtotal Product Development			217.036	56.016		36.054		11.034		0.000	320.140	320.140
Remarks:												
(U) <u>Support</u>												
F-15 SPO	PO (In-House)	Wright Patterson AFB, OH	6.507	8.519	N/A	0.592	N/A	1.539	N/A	0.000	17.157	17.157
Other A/C SPOs	PO (In-House)	Wright Patterson AFB, OH	1.460	0.205	N/A	0.503	N/A	0.194	N/A	0.000	2.362	2.362
Sverdrup Inc.	C/CPAF	Eglin AFB, FL	6.049	0.624	Jun-01	0.720	Jun-01	0.236	Jun-01	0.000	7.629	7.629
Other	Misc	Various	5.299	0.456	N/A	0.212	N/A	0.059	N/A	0.000	6.026	6.026
Subtotal Support			19.315	9.804		2.027		2.028		0.000	33.174	33.174
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
46 TW	PO (In-House)	Eglin AFB, FL	7.757	7.565	N/A	0.000	N/A	0.000	N/A	0.000	15.322	15.322
Subtotal Test & Evaluation			7.757	7.565		0.000		0.000		0.000	15.322	15.322
Remarks:												
(U) <u>Management</u>												
COLSA	C/CPAF	Eglin AFB, FL	1.477	0.188	Jun-01	0.300	Aug-05	0.300	Aug-05	0.000	2.265	2.265
Subtotal Management			1.477	0.188		0.300		0.300		0.000	2.265	2.265
Remarks:												
(U) Total Cost			245.585	73.573		38.381		13.362		0.000	370.901	370.901

## Exhibit R-4, RDT&amp;E Schedule Profile

DATE

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

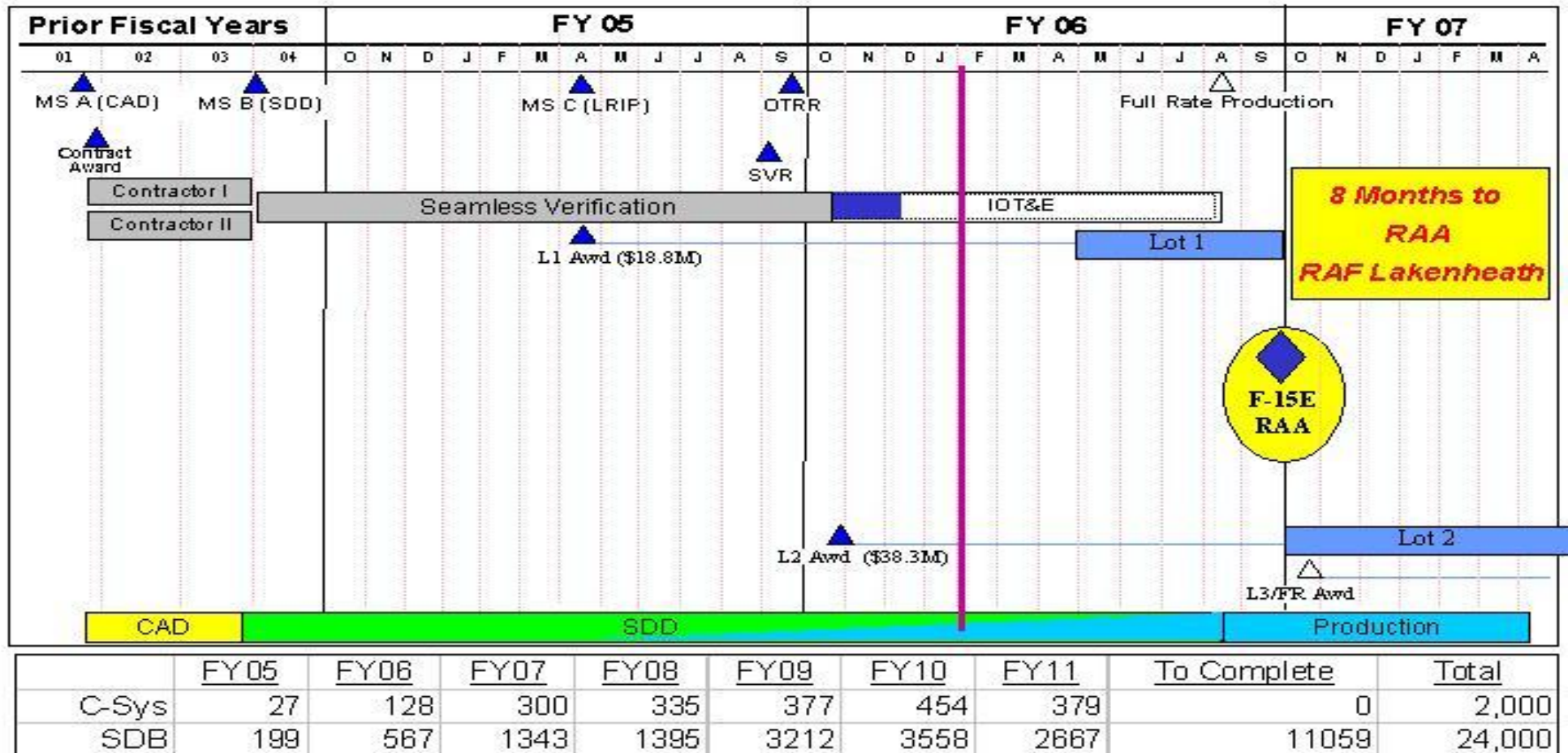
PE NUMBER AND TITLE

0604329F Small Diameter Bomb

PROJECT NUMBER AND TITLE

5006 Small Diameter Bomb

# SDB I Schedule



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## Exhibit R-4a, RDT&amp;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 2005FY 2006FY 2007

(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&amp;E Project Justification

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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 2005 Actual	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	25.140	90.718	143.723	123.533	128.009	76.895	322.743	910.761
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

Small Diameter Bomb II (SDB II) is a joint interest program providing the warfighter a capability to attack mobile targets from stand-off in weather. SDB II addresses the following warfighter requirements: attack mobile targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, near-precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, and provides a migration path to net-centric ops capability. Threshold aircraft are the F-15E for the US Air Force and the Joint Strike Fighter (JSF) for the US Navy (RAA TBD). Objective aircraft include: F-22A, B-1, B-2, F-117, F-16, B-52, and the Predator B. SDB II begins Technology Development/Risk Reduction in FY06 and Milestone B is scheduled in FY10. Milestone C is planned for FY13 followed by RAA on the F-15E in FY14. 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 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Initiate Increment II Risk Reduction Phase	0.000	20.299	84.836
(U) Initiate Aircraft Integration		1.260	1.921
(U) Continue Program Office Support		3.581	3.961
(U) Total Cost	0.000	25.140	90.718

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

	<u>FY 2005</u> <u>Actual</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	9.513	9.999	10.018						29.911

(U) **D. Acquisition Strategy**

All major contracts within this Program Element will be awarded through full and open competition. Up to two contractors will be selected for the 42 month Risk Reduction phase using Cost Plus Fixed Fee contracts. Downselect to one contractor will occur prior to System Development and Demonstration (SDD). SDD will be a Cost Plus Fixed Fee with performance incentives. This approach allows higher risk, less mature technologies to be fielded in an evolutionary fashion. Limited US Navy funding and resources may support the Risk Reduction phase.

The Government is buying the SDB II based on contractor-developed, Government-approved System Performance Specification (SPS) which will become contractually binding at downselect. The contractor will be accountable for system performance as defined in the SPS may include a system warranty. Accordingly, the contractor is responsible not only for the design of the weapon system, but also for planning and executing the Development Test and 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. Although funded by the



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Exhibit R-2a, RDT&E Project Justification		DATE <b>February 2006</b>
BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604329F Small Diameter Bomb</b>	PROJECT NUMBER AND TITLE <b>5191 Small Diameter Bomb Increment II</b>
<p>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 DT&amp;E Program according to the scope of the RR/SDD contract.</p> <p>Note: SDB II program Acquisition Strategy and funding adjusted to incorporate GAO recommendation. (B295402, 18 Feb 05)</p>		
Project 5191	R-1 Shopping List - Item No. 75-9 of 75-12	Exhibit R-2a (PE 0604329F)

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## Exhibit R-3, RDT&amp;E Project Cost Analysis

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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) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &amp;</u> <u>Type</u>	<u>Performing</u> <u>Activity &amp;</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
Risk Reduction Contract 1	CPFF	TBD		0.000	N/A	10.149	Apr-06	42.418	Apr-06	128.222	180.789	180.789
Risk Reduction Contract 2	CPFF	TBD		0.000	N/A	10.149	Apr-06	42.418	Apr-06	128.222	180.789	180.789
SDD	CPIF	TBD		0.000	N/A					466.876	466.876	466.876
Subtotal Product Development			0.000	0.000		20.298		84.836		723.320	828.454	828.454
Remarks:												
(U) <u>Support</u>												
F-15 SPO	PO (In-House)	Wright Patterson AFB, OH		0.000	N/A	1.260	N/A	1.921	N/A	11.913	15.094	15.094
Other A/C SPO's	PO (In-House)	Wright Patterson AFB, OH		0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	0.000
BRU-61/A	PO (In-House)	St. Louis, MO		0.000	N/A	0.500	Apr-06	0.096	Apr-06	0.000	0.596	0.596
TEAS (Sverdrup Inc.)	C/CPAF	Eglin AFB, FL		0.000	N/A	1.549	Feb-06	1.581	Feb-06	8.418	11.548	11.548
Other	Misc.	Various		0.000	N/A	1.223	N/A	1.968	N/A	13.228	16.419	16.419
Subtotal Support			0.000	0.000		4.532		5.566		33.559	43.657	43.657
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
46 TW	PO (In-House)	Eglin AFB, FL		0.000	N/A	0.000	N/A	0.000	N/A	36.341	36.341	36.341
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		36.341	36.341	36.341
Remarks:												
(U) <u>Management</u>												
TAMS	C/CPAF	Eglin AFB, FL		0.000	N/A	0.310	Aug-05	0.316	Aug-05	1.683	2.309	2.309
Subtotal Management			0.000	0.000		0.310		0.316		1.683	2.309	2.309
Remarks:												
(U) Total Cost			0.000	0.000		25.140		90.718		794.903	910.761	910.761

## Exhibit R-4, RDT&amp;E Schedule Profile

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

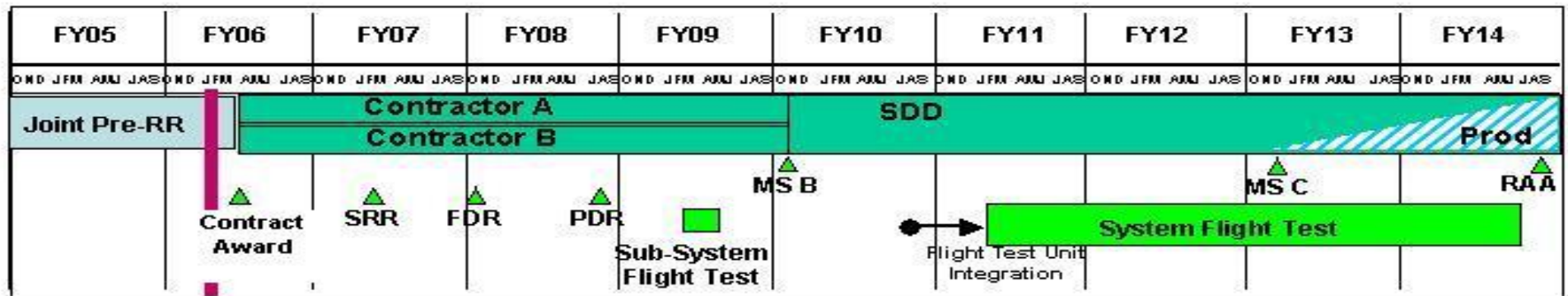
PE NUMBER AND TITLE

0604329F Small Diameter Bomb

PROJECT NUMBER AND TITLE

5191 Small Diameter Bomb Increment II

## SDB II Notional Schedule



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## Exhibit R-4a, RDT&amp;E Schedule Detail

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PE NUMBER AND TITLE

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PROJECT NUMBER AND TITLE

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

(U) Contract Award (Risk Reduction)

3Q

(U) System Requirements Review (SRR)

2Q