

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY

3600: *Research, Development, Test & Evaluation, Air Force*
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE

PE 0604330F: *Joint Dual-Role Air Dominance Missile (JDRADM)*

COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	6.853	9.799	29.759	-	29.759	47.575	77.640	146.375	188.004	Continuing	Continuing
645342: <i>Concept Development</i>	6.853	9.799	29.759	-	29.759	47.575	77.640	146.375	188.004	Continuing	Continuing

A. Mission Description and Budget Item Justification

JDRADM is envisioned as a multi-role (air-to-air & air-to-ground) missile for the 5th generation fighter force structure. It will provide increased flexibility, standoff range, and lethality to defeat 2020+ air and surface threats. It is intended for internal carriage on the F-22A and F-35, and external carriage on selected legacy aircraft. This program continues risk reduction and concept development efforts to ensure critical technologies are adequately assessed to support the Materiel Solution Analysis (MSA) phase of the program. The JROC approved Initial Capabilities Document (ICD) refers to this missile as the Next Generation Missile (NGM).

The program completed a successful Materiel Development Decision (MDD) DAB on 29 Nov 10. The program was approved to enter the MSA phase and conduct and complete an evaluation of alternative weapons to assess the performance, operational effectiveness, operational suitability, and estimated system procurement costs based on findings in the NGM ICD, dated April 2010. It also designated the AF as the lead Service.

This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	6.882	9.799	9.858	-	9.858
Current President's Budget	6.853	9.799	29.759	-	29.759
Total Adjustments	-0.029	-	19.901	-	19.901
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.029	-	19.901	-	19.901

Change Summary Explanation

FY12 funds added to continue joint effort with DARPA for an advanced missile demonstration to mature critical technologies during MSA.

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0604330F: Joint Dual-Role Air Dominance Missile (JDRADM)				PROJECT 645342: Concept Development				
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost	
645342: Concept Development	6.853	9.799	29.759	-	29.759	47.575	77.640	146.375	188.004	Continuing	Continuing	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0			
A. Mission Description and Budget Item Justification												
JDRADM is envisioned as a multi-role (air-to-air & air-to-ground) missile for the 5th generation fighter force structure. It will provide increased flexibility, standoff range, and lethality to defeat 2020+ air and surface threats. It is intended for internal carriage on the F-22A and F-35, and external carriage on selected legacy aircraft. This program continues risk reduction and concept development efforts to ensure critical technologies are adequately assessed to support the Materiel Solution Analysis (MSA) phase of the program. The JROC approved Initial Capabilities Document (ICD) refers to this missile as the Next Generation Missile (NGM).												
The program completed a successful Materiel Development Decision (MDD) DAB on 29 Nov 10. The program was approved to enter the MSA phase and conduct and complete an evaluation of alternative weapons to assess the performance, operational effectiveness, operational suitability, and estimated system procurement costs based on findings in the NGM ICD, dated April 2010. It also designated the AF as the lead Service.												
This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Product Development								4.353	8.599	27.159	-	27.159
Description: Risk Reduction Studies/Concept Development/Technology Maturation												
FY 2010 Accomplishments: Continue missile components and system design. Funds component technology efforts [Seeker Integrated Target Endgame (SITES), Multi-Role Responsive Ordnance Kill Mechanism (MRROKM), Dual-Role Air Dominance Missile Technology (DRADM-T), and JDRADM technology demonstration] to mature critical technologies to enter MSA. Continue mission support and provide program management to execute studies.												
FY 2011 Plans: Start a joint effort with DARPA for an advanced missile demonstration to mature critical technologies during MSA. Develop/demonstrate advanced control, agility and propulsion technologies; along with responsive warhead/fuzing capabilities; to give single missile near full spherical intercept capability independent of target												

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0604330F: Joint Dual-Role Air Dominance Missile (JDRADM)		PROJECT 645342: Concept Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
orientation and velocity. Finalize demonstration missile design. Continue mission support and provide program management to ongoing product development. FY 2012 Base Plans: Continue support for the advanced missile demonstration to mature critical technologies during MSA. Continue mission support and provide program management to ongoing product development. FY 2012 OCO Plans:						
Title: Materiel Solution Analysis (MSA) Description: Evaluation of Alternative Weapons/Prep for Technology Development (TD) Phase FY 2010 Accomplishments: Fund efforts associated with a Materiel Development Decision/entrance into the MSA phase and support to the evaluation of alternative weapons preparation. Continue mission support and provide program management to execute MSA. FY 2011 Plans: Continue funding for the MSA phase. Conduct the evaluation of alternative weapons. Begin preparation for Milestone A and entrance into TD phase in FY13. Continue mission support and provide program management to execute MSA. FY 2012 Base Plans: Continue to fund MSA activities and preparation for Milestone A and entrance into TD phase in FY13. Continue mission support and provide program management to execute MSA. FY 2012 OCO Plans:		2.500	1.200	2.600	-	2.600
Accomplishments/Planned Programs Subtotals		6.853	9.799	29.759	-	29.759

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT				
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0604330F: Joint Dual-Role Air Dominance Missile (JDRADM)				645342: Concept Development				
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost	
• PE 0207163F: AMRAAM: RDT&E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing	
D. Acquisition Strategy												
NGM completed the pre-MSA phase of acquisition with risk reduction and critical technology maturity efforts supported by the Air Force Research Lab (AFRL). The program completed an MDD Defense Acquisition Board (DAB) in Nov 10 and proceeded into the MSA phase. Development of the NGM acquisition/contract strategy and formalizing requirements continues to evolve pending the completion of the evaluation of alternative weapons effort. These efforts will lead to a formal, documented solution(s) set, a Milestone A DAB in FY13 and entry into Technology Development (TD).												
E. 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.												

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0604330F: Joint Dual-Role Air Dominance Missile (JDRADM)				PROJECT 645342: Concept Development						
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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/Concept Development/Tech Maturation	Various	Various:Various,	4.353	8.599	Dec 2010	27.159	Dec 2011	-		27.159	Continuing	Continuing	0.000	
Materiel Solution Analysis (MSA)/Evaluation of Alternative Weapons	Various	Various:Various,	2.100	0.800	Dec 2010	1.800	Dec 2011	-		1.800	Continuing	Continuing	0.000	
Subtotal			6.453	9.399		28.959		-		28.959			0.000	
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	
Program Management and Admin (PMA)	Various	Various:Various,	0.400	0.400	Dec 2010	0.800	Dec 2011	-		0.800	Continuing	Continuing	0.000	
Subtotal			0.400	0.400		0.800		-		0.800			0.000	
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			6.853	9.799		29.759		-		29.759			0.000	

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force						DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0604330F: <i>Joint Dual-Role Air Dominance Missile (JDRADM)</i>			PROJECT 645342: <i>Concept Development</i>			
	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks									

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604330F: <i>Joint Dual-Role Air Dominance Missile (JDRADM)</i>	PROJECT 645342: <i>Concept Development</i>

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604330F: <i>Joint Dual-Role Air Dominance Missile (JDRADM)</i>	PROJECT 645342: <i>Concept Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
JROC approval of NGM Initial Capabilities Document (ICD)	3	2010	3	2010
Air Force Review Board (AFRB) approval to Materiel Development Decision (MDD)	3	2010	3	2010
NGM MDD Defense Acquisition Board (DAB) completed/approved	1	2011	1	2011
Materiel Solution Analysis (MSA) Phase	1	2011	1	2013
Evaluation of Alternative Weapons	1	2011	3	2011
AF/DARPA Triple Target Terminator (T3) CDR	4	2011	4	2011
AF/DARPA T3 Test Readiness Review (TRR)	4	2012	4	2012

UNCLASSIFIED