

UNCLASSIFIED

PE NUMBER: 0604222F

PE TITLE: Nuclear Weapons Support

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

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	13.344	13.951	14.895	20.121	20.046	20.186	20.230	Continuing	TBD
4236 Engineering Analysis	3.316	4.094	4.528	7.311	7.417	7.542	7.636	Continuing	TBD
4807 Nuclear Weapons & CP Technologies	5.620	4.846	5.413	5.608	5.466	5.460	5.421	Continuing	TBD
5708 Nuclear Weapons Support	4.408	5.011	4.954	7.202	7.163	7.184	7.173	Continuing	TBD

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

The Air Force Nuclear Weapons & Counterproliferation Agency (AFNWCA) and the Air Force Materiel Command's Nuclear Weapons Center (AFMC/NWC) are tasked with maintaining and providing all Air Force (AF) nuclear weapons, nuclear weapon systems and counterproliferation expertise. These organizations provide technical and programmatic guidance as well as performing independent analyses on all Air Force nuclear weapons; nuclear weapon systems activities including weapons development/sustainment, interoperability, safety/security/reliability, stockpile management/retirement; counterforce and counterproliferation assessments; and nuclear certification and nuclear certification management.

Specific mission tasking includes:

--- Support AF, Department of Defense (DoD) and Joint DoD-Department of Energy (DOE) weapons acquisition activities for the sustainment and/or development of nuclear weapons, delivery systems, logistics/handling support systems, weapon storage facilities, maintenance/trainer/test equipment, and technical orders to include nuclear certification as required.

--- Analyze and document nuclear weapons issues related to risk assessment, data collection, model development, and weapon effectiveness in support of the DoD-DOE Annual Surety Report, DOE Stockpile Stewardship Plan, the DoD-DOE Annual Weapon Assessment, and DoD-DOE nuclear stockpile planning/requirements assessment, .

--- Identify, evaluate, and assess current and projected counterproliferation systems to include participating in the pre-acquisition process as appropriate for those projects being evaluated for possible development and/or supporting current operations related to chemical, biological, radiological, nuclear, and explosives (CBRNE) counterforce strikes.

This program is essential to maintaining the current and future safety, security, and reliability of weapons in the AF nuclear stockpile as well as their delivery and support systems. This program also addresses current and future Air Force nuclear deterrence and counterproliferation needs.

These efforts are Budget Activity 5, System Development and Demonstration, because they include system specific programs leading to approved life extension programs for and/or modifications to AF nuclear weapons, weapon systems, and support systems as well as developing new weapons or modifications to existing weapons and/or weapon systems to meet evolving counterforce and/or counterproliferation mission requirements.

Exhibit R-2, RDT&E Budget Item Justification

DATE

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	13.185	15.154	11.923
(U) Current PBR/President's Budget	13.344	13.951	14.895
(U) Total Adjustments	0.159	-1.203	
(U) Congressional Program Reductions		-1.000	
Congressional Rescissions	-0.009	-0.203	
Congressional Increases			
Reprogrammings	0.350		
SBIR/STTR Transfer	-0.182		
(U) <u>Significant Program Changes:</u>			
FY05: Below threshold reprogramming of \$0.350M to cover shortfall in civilian pay account			
FY06: Reflects congressional directed adjustments			
FY07: Funding increased to support AF and DoD transformation objectives			

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Exhibit R-2a, RDT&E Project Justification

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

PROJECT NUMBER AND TITLE

4236 Engineering Analysis

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
4236 Engineering Analysis	3.316	4.094	4.528	7.311	7.417	7.542	7.636	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

Perform engineering analysis for all Air Force (AF) nuclear weapons, delivery systems, support systems, and counterproliferation/counterforce efforts. Provide the engineering and technical management expertise required in critical areas of nuclear weapons safety, security, and reliability; operations; modernization; testing; certification; and counterproliferation/counterforce.

Budget Activity Justification: These efforts are Budget Activity 5, System Development and Demonstration, because they include system specific programs to identify and develop life extension programs for as well as solutions to problems and/or deficiencies in Air Force nuclear weapons, nuclear weapon systems, and the supporting infrastructure.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Nuclear Weapons Program Support. Provide leadership to and management of the AF-led Project Officers Groups for the nuclear weapons in AF stockpile to include the technical analysis to support life extension programs for nuclear weapons in the AF stockpile, inactive stockpile, use control, long term storage, and retirement/dismantlement issues.	2.292	2.672	2.979
(U) Counterproliferation Support. Provide pre-acquisition technical, engineering, and management support for candidate weapons to counter future threats such as hard and deeply buried targets (HDBT) or weapons of mass destruction to include conducting counterproliferation operational assessments as well as developing new analytical methodologies needed to conduct these assessments and/or support Unified/Specified Combatant Command operations.	1.024	1.422	1.549
(U) Total Cost	3.316	4.094	4.528

(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) Not Applicable									

(U) **D. Acquisition Strategy**

Multiple Cost Plus Award Fee (CPAF) and/or Time and Materials (T&M) contracts, and Military Interdepartmental Purchase Requests (MIPRs) are/will be used for technical analyses and technical support in safety, operations and counterproliferation assessments.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2006		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604222F Nuclear Weapons Support					PROJECT NUMBER AND TITLE 4236 Engineering Analysis		
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</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>												
In-House Studies/Analysis and Engineering Activities*	Civil Service	AFNWCA (Kirtland AFB, NM)	10.327	1.127	Oct-04	1.284	Oct-05	1.300	Oct-06	Continuing	TBD	TBD
Studies, Analysis, & Evaluations	CPAF/T&M	Multiple**	3.700	0.182	Feb-05	0.584	Feb-06	0.761	Jan-07	Continuing	TBD	TBD
Engineering & Technical Services	CPAF	Rhino Corp (Albuquerque, NM)	2.363	1.128	Jan-05	1.357	Jan-06	1.768	Jan-07	Continuing	TBD	TBD
Subtotal Product Development			16.390	2.437		3.225		3.829		Continuing	TBD	TBD
Remarks:	* - Total Prior to FY2005 Cost includes costs previously reported in Project 655708, Nuclear Weapons Support ** - ITT Systems (Albuquerque, NM, & Colorado Springs, CO), Applied Sciences Labs (Albuquerque, NM); SAIC (Arlington, VA)											
(U) <u>Support</u>												
Management & Professional Support Services	T&M	ANSER (Arlington, VA); SAIC (Arlington, VA)	1.260	0.495	Feb-05	0.475	Jan-06	0.475	Jan-07	Continuing	TBD	TBD
Subtotal Support			1.260	0.495		0.475		0.475		Continuing	TBD	TBD
Remarks:												
(U) <u>Test & Evaluation</u>												
Various Test Centers	MIPR	Multiple	1.660	0.250	Mar-05	0.250	Mar-06	0.078	Mar-07	Continuing	TBD	TBD
Subtotal Test & Evaluation			1.660	0.250		0.250		0.078		Continuing	TBD	TBD
Remarks:												
(U) <u>Management</u>												
In-House Programmatic/Financial Management*	Civil Service	AFNWCA (Kirtland AFB, NM)	1.152	0.134	Oct-04	0.144	Oct-05	0.146	Oct-06	Continuing	TBD	TBD
Subtotal Management			1.152	0.134		0.144		0.146		Continuing	TBD	TBD
Remarks:	* - Total Prior to FY2005 Cost includes costs previously reported in Project 655708, Nuclear Weapons Support, this Program											
(U) Total Cost			20.462	3.316		4.094		4.528		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

PROJECT NUMBER AND TITLE

4236 Engineering Analysis

**Lead Project Officer/Project Officers Group
Management (Joint DoD/DOE)****Weapons Surveillance, Sustainment,
Modernization, & Life Extension Activities**

Gravity Bombs (B61/B83) Life Extension Programs

Modernization/Life Extension Programs

Nuclear Surety Enhancements

ICBM Warhead (W62/W78/W87) Life Extension
Program

Modernization/Life Extension Programs

Nuclear Surety Enhancements

Land-Based Strategic Nuclear Deterrent

Cruise Missile Warheads(W80/W84)

Modernization/Life Extension Programs

W84 Advanced Study

W80 Advanced Study

W80 Integration Analysis

ACM Hi Fi Guidance System Analysis

**Annual Nuclear Weapon Assessments (All
Weapons) (Joint DoD/DOE)****Nuclear Weapons Council Directed Special
Studies & Analyses (as Required)****Nuclear Weapons & Counterproliferation
Technologies**

Pre-Acquisition Activities

Advanced Technology Analyses/Evaluations

FY05	FY06	FY07	FY08	FY09	FY10	FY11
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Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

PROJECT NUMBER AND TITLE

4236 Engineering Analysis

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) <u>Schedule Profile</u>			
(U) Project Officers Group (POG) Management/Engineering & Technical Analysis	1-4Q	1-4Q	1-4Q
(U) Nuclear Weapon Life Extension Programs (LEP) [B61/B83, W80, and W87]	1-4Q	1-4Q	1-4Q
(U) Annual Weapon Assessment [B61/83, W80/84, and W62/W78/W87]	3Q	3Q	3Q
(U) Minuteman III Safety Enhanced Reentry Vehicle Support	1-4Q	1-4Q	1-4Q
(U) Mk12A/Mk21 Fuze Component Replacement Program Support	3-4Q	1-4Q	1-4Q
(U) Start/Complete W84 Study		2Q	3Q
(U) W80 Advanced Feature Proof of Concept Flight			3Q
(U) W80 Warhead Integration Analysis		1-4Q	1-4Q
(U) Start W80 Advanced Feature Development Analysis			4Q
(U) ICBM Flight Test Study	1-4Q		
(U) ICBM Warhead Force Structure Study	2-4Q	1-4Q	1-4Q
(U) W78/W87 Nuclear Surety Program		1-4Q	1-4Q
(U) B61 Flight Test Program	2-4Q	1-4Q	1-4Q
(U) B83 Special Developmental Flight Tests			1-4Q
(U) Gravity Weapon Software/Hardware Analysis		1-4Q	1-4Q
(U) Counterproliferation Support	1-4Q	1-4Q	1-4Q

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Exhibit R-2a, RDT&E Project Justification

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

PROJECT NUMBER AND TITLE

4807 Nuclear Weapons & CP Technologies

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
4807 Nuclear Weapons & CP Technologies	5.620	4.846	5.413	5.608	5.466	5.460	5.421	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

Perform engineering analyses of counterforce systems and operations against asymmetric threats (e.g., chemical, biological, radiological, and nuclear (CBRN); and hard and deeply buried targets (HDBT)), prepare recommended solutions resulting from these analyses and related efforts for entry into acquisition. Plan for and transition counterforce selected concepts into either an acquisition or advanced concept technology demonstration (ACTD) program to include identifying funding, technical, schedule, and programmatic content. Prepare the necessary acquisition-related documentation to support program and/or decision reviews.

Develop, evaluate, and utilize tools required for the employment of current inventoried and new counterforce weapons, including intelligence, surveillance, and reconnaissance; battle damage assessment; and target defeat/collateral effects predictions for current and future operations.

Budget Activity Justification: These efforts are Budget Activity 5, System Development and Demonstration, because they are system specific programs that result in identifying and developing or modifying weapons to meet new and evolving counterforce and counterproliferation mission requirements. Efforts also include developing and/or validating target planning software for existing/new counterforce and/or counterproliferation weapons.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Develop pre-acquisition strategies/studies of conventional and other advanced alternatives for counterproliferation/counterforce technologies & capabilities against chemical, biological, radiological, and nuclear (CBRN) targets	1.694	1.776	1.919
(U) Perform studies of Counterproliferation Advanced Concept Research and Development (R&D) to support advanced conventional and nuclear capabilities.	2.712	2.127	2.645
(U) Research, develop and/or improve (to include verification, validation, and assessment (VV&A)) the fidelity and utility of counterproliferation/ counterforce target planning tools	1.037	0.806	0.717
(U) Provide Operational Support to the Joint Chiefs of Staff, Major Commands and Combatant Commanders for evaluating counter strike operations against CBRN facilities (e.g., intelligence analysis and support, weapon effectiveness, collateral damage, etc.)	0.177	0.137	0.132
(U) Total Cost	5.620	4.846	5.413

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

	<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>Complete</u>	
(U) Not Applicable									

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Exhibit R-2a, RDT&E Project Justification		DATE February 2006
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604222F Nuclear Weapons Support	PROJECT NUMBER AND TITLE 4807 Nuclear Weapons & CP Technologies
<p>(U) <u>D. Acquisition Strategy</u> Cost Plus Award Fee (CPAF) and/or Time and Materials (T&M) contracts and/or MIPRs will be used for advanced analyses and development of selected alternatives leading to, or associated with, acquisition pre-Milestone activities.</p>		
<p>Project 4807</p> <p>R-1 Shopping List - Item No. 66-8 of 66-16</p> <p>Exhibit R-2a (PE 0604222F)</p>		

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2006		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604222F Nuclear Weapons Support					PROJECT NUMBER AND TITLE 4807 Nuclear Weapons & CP Technologies		
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</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>												
Technology Assessments & Demonstrations	MIPR	Multiple*	9.960	2.132	Jan-05	1.480	Jan-06	1.309	Jan-07	Continuing	TBD	TBD
Modeling and Simulation	CPAF	Multiple**	0.881	0.968	Jan-05	0.943	Jan-06	0.950	Jan-07	Continuing	TBD	TBD
Development/Verification												
Studies, Analyses, & Evaluations	CPAT	Multiple**	12.476	1.522	Dec-04	1.828	Dec-05	2.549	Dec-06	Continuing	TBD	TBD
Subtotal Product Development			23.317	4.622		4.251		4.808		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u>												
Management & Professional Support Services	CPAF/T&M	Multiple***	3.769	0.998	Dec-04	0.595	Dec-05	0.605	Dec-06	Continuing	TBD	TBD
Subtotal Support			3.769	0.998		0.595		0.605		Continuing	TBD	TBD
Remarks:												
(U) <u>Test & Evaluation</u>												
TBD	TBD	TBD									0.000	TBD
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	TBD
Remarks:												
(U) <u>Management</u>												
N/A											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			27.086	5.620		4.846		5.413		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

PROJECT NUMBER AND TITLE

4807 Nuclear Weapons & CP Technologies

Advanced Technologies Activities**Agent Defeat Weapon Technology Demonstrations****Agent Defeat Weapon Concept Studies****Advanced Nuclear Concept Studies****Counter-CBRNE Operations Technology Demonstration****Counterproliferation Planning Tools Development****Agent Defeat Weapon Prediction Tools****Counter-CBRNE Operations Tools****Nuclear Weapons Effects/Vulnerability Tools****Warfighter Operational Reachback Support (as Required)**

FY05	FY06	FY07	FY08	FY09	FY10	FY11
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= Release of next version of software tool

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Exhibit R-4a, RDT&E Schedule Detail			DATE	
			February 2006	
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)	0604222F Nuclear Weapons Support	4807 Nuclear Weapons & CP Technologies		
(U) <u>Schedule Profile</u>		<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Effects Modeling Tools				
(U) ---Complete Initial Releasable Version		3Q		
(U) ---Begin/Complete Initial Validation			2Q	4Q
(U) Chemical Biological (CB) Agent Neutralization Calculator				
(U) ---Complete Latest Release Version		3Q		
(U) ---Issue Updates			3Q	4Q
(U) Nuclear Weapons Effects/Vulnerability Prediction Tools - Begin Development		4Q		
(U) Enhanced Cruise Missile (ECM)				
(U) ---Begin/Complete Phase 6.1 Study		1Q	1Q	
(U) ---Nuclear Weapons ICD/JCD Requirements Documents Development			2-4Q	
(U) ---Begin Phase 6.2 Study (Tentative)				2Q
(U) Anti-Biological/Chemical Weapon				
(U) ---Begin/Complete Phase 1 Study			1-3Q	
(U) ---Begin Phase 2 Study (Tentative)				4Q
(U) Agent Defeat Weapon (ADW)				
(U) ---Begin/Complete Requirements and Acquisition Documentation		2Q		2Q
(U) ---Begin/Complete Shredder Concept Assessment		2Q	4Q	
(U) ---Begin/Complete Bulk Neutralization Proof-of-Concept Demonstration		4Q		3Q
(U) ---Complete Delivery System Autonomous Operation Demonstration		4Q		
(U) ---Begin Baseline Legacy Weapon Test Database			1Q	
(U) Land Based Strategic Deterrent				
(U) ---Begin/Complete Analysis of Alternatives		2-4Q		
(U) ---ICBM Future Warhead Concepts Study		3Q		
(U) Future Gravity Warhead Concept Study			1Q	
(U) Nuclear Weapons Effects/Special Nuclear Study and Analyses			1Q	
(U) Counter-CBRNE Prompt Global Strike Analysis of Alternatives Study			3Q	
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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

PROJECT NUMBER AND TITLE

5708 Nuclear Weapons Support

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
5708 Nuclear Weapons Support	4.408	5.011	4.954	7.202	7.163	7.184	7.173	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

The Air Force Materiel Command's Nuclear Weapons Center (AFMC/NWC) provides direct technical and engineering support for all Air Force (AF) nuclear weapon systems, support systems, facilities, and special procedures. Perform studies and analysis for nuclear capable aircraft and missile systems to include ground and maintenance support equipment required to meet certification, safety, security, reliability, operational, and other requirements; oversees and manages the AF nuclear certification process; interfaces with the Department of Defense (DoD), Department of Energy (DOE) to include their national laboratories, the Air Staff, operational commands, and AF nuclear weapon system related System Program Offices (SPOs) to accomplish weapon sustainment/life extension programs

Budget Activity Justification: These efforts are Budget Activity 5, System Development and Demonstration, because they are system specific programs to identify and develop life extension programs for as well as solutions to problems and/or deficiencies in AF nuclear weapons, weapon systems and the supporting infrastructure.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Nuclear Delivery System Support. Prepare nuclear surety design criteria, standards, specifications, and related requirements documents for all AF ground-launched missile systems; provide nuclear surety design guidance to program office/contractors for weapon system modifications and upgrade programs; perform independent nuclear surety analyses for nuclear safety design certification of weapon system modifications; administer technical order review and validation/verification process; update/publish general nuclear weapons technical guidance; and perform nuclear certification oversight functions.	2.294	4.182	4.327
(U) Nuclear Weapons/Systems Assessments. Develop and/or update joint Department of Defense (DoD)-Department of Energy (DOE) nuclear surety assessment methodologies; conduct safety assessment of warhead maintenance operation in AF facilities; conduct fault tree analyses of nuclear weapons and weapon systems; evaluate safety implications of modifications of Air Force storage and maintenance facilities; provide nuclear surety support for all support equipment, facilities and special procedures; and develop and manage nuclear facility design criteria.	1.073	0.432	0.545
(U) Nuclear Weapons Program Support. Accomplish nuclear weapon safety, reliability, mission analysis and compatibility studies; support AF nuclear weapon stockpile activities, weapon use control analyses, and environmental and intrinsic radiation studies. Perform advanced weapons and weapon systems studies as directed.	1.041	0.397	0.082
(U) Total Cost	4.408	5.011	4.954

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

	<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>Complete</u>	

(U) Not Applicable

Project 5708

R-1 Shopping List - Item No. 66-12 of 66-16

Exhibit R-2a (PE 0604222F)

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Exhibit R-2a, RDT&E Project Justification		DATE February 2006
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604222F Nuclear Weapons Support	PROJECT NUMBER AND TITLE 5708 Nuclear Weapons Support
<p>(U) <u>D. Acquisition Strategy</u> RDT&E projects performed by AF organizations are direct funded. Contractor efforts are accomplished via cost plus award fee (CPAF) contacts awarded as a result of open competition.</p>		

Project 5708

R-1 Shopping List - Item No. 66-13 of 66-16

Exhibit R-2a (PE 0604222F)

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Exhibit R-3, RDT&E Project Cost Analysis										DATE		
										February 2006		
BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)				0604222F Nuclear Weapons Support					5708 Nuclear Weapons Support			
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2005 Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development												
In-house Studies/Analysis & Other Government Activities	Civil Service	AAC/NW (Kirtland AFB, NM)	16.972	2.178	Oct-04	2.698	Oct-05	2.783	Oct-06	Continuing	TBD	TBD
Studies, Analyses, & Evaluations	CPAF	Sverdrup (Albuquerque, NM)	0.841	0.398	Mar-05	0.420	Mar-06	0.416		Continuing	TBD	TBD
Engineering & Technical Services	CPAF	Sverdrup (Albuquerque, NM)	2.115	1.089	Mar-05	1.107	Mar-06	0.955	Oct-06	Continuing	TBD	TBD
Subtotal Product Development			19.928	3.665		4.225		4.154		Continuing	TBD	TBD
Remarks:												
(U) Support												
Management & Professional Support Services	CPAF	MacAulay Brown (Albuquerque, NM)	1.435	0.355	Jan-05	0.306	Jan-06	0.320	Oct-06	Continuing	TBD	TBD
Subtotal Support			1.435	0.355		0.306		0.320		Continuing	TBD	TBD
Remarks:												
(U) Management												
In-House Programmatic/Financial Management	Civil Service	AAC/NW (Kirtland AFB, NM)	2.991	0.388	Oct-04	0.480	Oct-05	0.480	Oct-06	Continuing	TBD	TBD
Subtotal Management			2.991	0.388		0.480		0.480		Continuing	TBD	TBD
Remarks:												
(U) TAMS												
(U) Total Cost			24.354	4.408		5.011		4.954		Continuing	TBD	TBD
Remarks:												

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604222F Nuclear Weapons Support

PROJECT NUMBER AND TITLE

5708 Nuclear Weapons Support

**Nuclear Weapons System Project Officers
Group Activities (Joint DoD/DOE)****Nuclear Weapons System Certification**

Studies & Analyses

Testing Support

Tech Order Development & Management**Data Base Development & Management****Facility & Weapon System Design/Evaluation**

Criteria Development

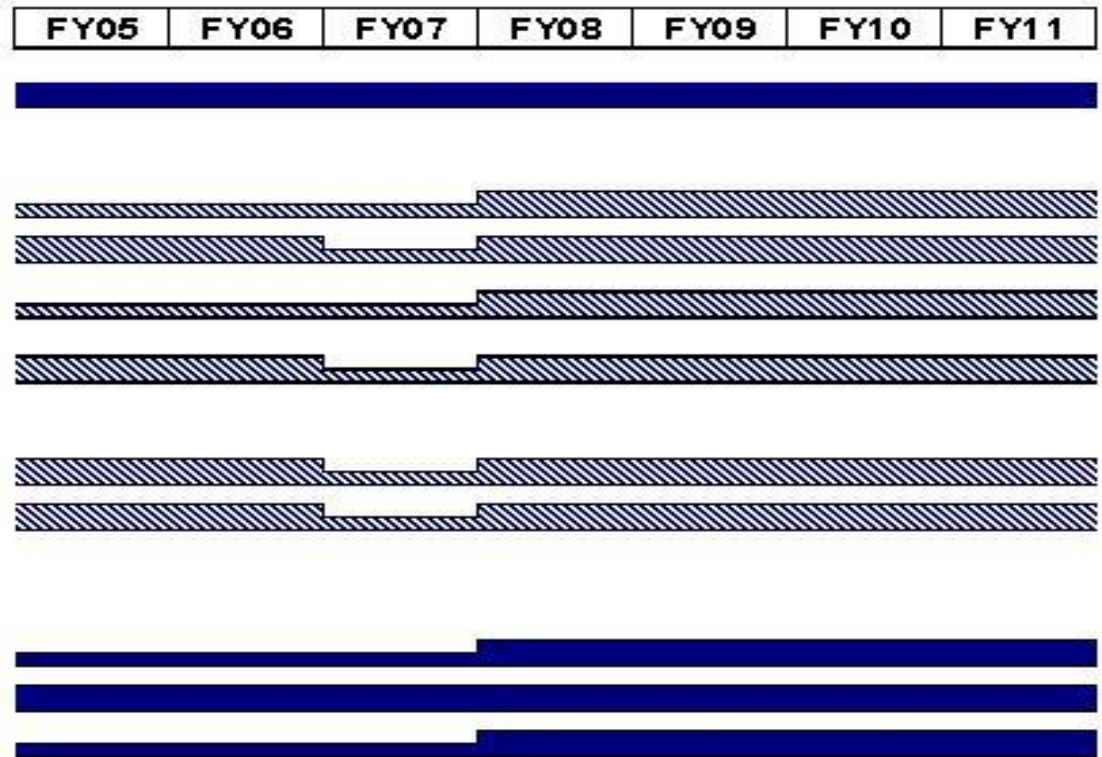
Implementation Guidance

**Nuclear Weapons Program Acquisition
Support (Joint DoD/DOE)**

Pre-Acquisition Concept Studies

Weapon Sustainment Activities

Weapon Retirement Activities



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail			DATE	
			February 2006	
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)	0604222F Nuclear Weapons Support	5708 Nuclear Weapons Support		
(U) <u>Schedule Profile</u>	FY 2005	FY 2006	FY 2007	
(U) Weapon System Project Officers Group (POG) Activities	1-4Q	1-4Q	1-4Q	
(U) Nuclear Weapons Certification Analyses				
(U) ---Nuclear Certification Management Meetings	2-4Q	2-4Q	2-4Q	
(U) ---Independent Surety Analysis	1-4Q	1-4Q	1-4Q	
(U) ---Compatibility Analysis	1-4Q	1-4Q	1-4Q	
(U) ---Surveillance Tests	1-4Q	1-4Q	1-4Q	
(U) ---Aircraft Monitor & Control (AMAC) Tests	4Q	1Q	2Q	
(U) ---Land Based Strategic Nuclear Deterrence Analysis		1-4Q	1-4Q	
(U) ---Intercontinental Ballistic Missile (ICBM) Security Mod Program		1-4Q	1-4Q	
(U) ---ICBM Crypto Upgrade Program		1-4Q	1-4Q	
(U) Data Base Development & Management	1-4Q	1-4Q	1-4Q	
(U) Tech Order (TO) Development & Management	1-4Q	1-4Q	1-4Q	
(U) ---Joint Strike Fighter (JSF) TO Development	1-4Q	1-4Q	1-4Q	
(U) Studies, Analyses, & Assessments				
(U) ---Safety Enhanced Reentry Vehicle (SERV) Safety Study	1-2Q			
(U) ---Strike Aircraft Operational Safety Review		1Q		
(U) ---Primary Nuclear Airlift Force (PNAF) Safety Study		1Q		
(U) ---ICBM Operational Safety Review		3Q		
(U) ---Long Term Storage Operational Safety Review			2Q	
(U) ---Technical Nuclear Safety Analysis (TNSA)	4Q	1Q		
(U) ---Weapons Maintenance Program Safety	1-4Q	1-4Q	1-4Q	
(U) ---Facilities Utilization/Design Studies	1-4Q	1-4Q	1-4Q	
(U) Nuclear Weapons Program Support				
(U) ---Pre Acquisition Concept Studies (Phase 6.1/6.2/6.2A) (as requested)	1-4Q	1-4Q	1-4Q	
(U) ---Nuclear Weapon Sustainment Activities (Phase 6/6.6)	1-4Q	1-4Q	1-4Q	
(U) ---Nuclear Weapon Retirement Activities (Phase 7)	2-4Q	2-4Q	2-4Q	
(U) Information Technology Activities	1-4Q	1-4Q	1-4Q	