Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense

Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 5:

PE 0604165D8Z I Prompt Global Strike Capability Development

R-1 Program Element (Number/Name)

**Date:** February 2015

System Development & Demonstration (SDD)

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	825.537	63.491	95.626	78.817	-	78.817	183.905	205.561	224.174	227.206	Continuing	Continuing
P164: Hypersonic Glide Experiment and Concepts Demonstration Support	364.970	3.305	2.000	2.000	-	2.000	2.000	2.000	2.000	2.000	Continuing	Continuing
P166: Alternate Re-Entry System/Warhead Engineering	361.276	59.986	90.064	72.950	-	72.950	176.187	199.252	218.117	221.000	Continuing	Continuing
P167: Test Range Development	62.446	-	-	1.000	-	1.000	2.000	1.000	1.000	1.000	Continuing	Continuing
P168: OSD CPGS Studies	36.845	0.200	3.562	2.867	-	2.867	3.718	3.309	3.057	3.206	Continuing	Continuing

#### A. Mission Description and Budget Item Justification

This Program Element (PE) was established to develop and demonstrate technologies and applications that advance conventional prompt global strike (CPGS) warfighting capabilities. The program uses a national team with participation from the Services, Agencies, national research laboratories, and further involvement of competitive industry. Program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of boosters, payload delivery vehicles (PDVs), non-nuclear warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events as well as DoD budgets. In FY 2016, as in previous years, funding for the individual Service initiatives will be contingent upon their abilities to execute and achieve satisfactory progress towards project goals as determined by the CPGS portfolio manager.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	65.393	70.762	79.348	-	79.348
Current President's Budget	63.491	95.626	78.817	-	78.817
Total Adjustments	-1.902	24.864	-0.531	-	-0.531
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
Congressional Adds	-	25.000			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	-0.289	-			
SBIR/STTR Transfer	-1.613	-			
FY 2016 baseline adjustment	-	-	-0.531	-	-0.531

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Sec	cretary Of Defense	Date: February 2015
Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Nar PE 0604165D8Z / Prompt Global Stri	me) ike Capability Development
FFRDC Reduction -	-0.136 -	-
Change Summary Explanation		
Program baseline realigned by the department for other priorities.		

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense												Date: February 2015			
Appropriation/Budget Activity 0400 / 5						<b>am Element</b> 65D8Z <i>I Proi</i> Developmer	P164 <i>I Hyp</i>	Number/Name) personic Glide Experiment and Demonstration Support							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost			
P164: Hypersonic Glide Experiment and Concepts Demonstration Support	364.970	3.305	2.000	2.000	-	2.000	2.000	2.000	2.000	2.000	Continuing	Continuing			
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-					

#### A. Mission Description and Budget Item Justification

This Program Element (PE) was established to develop and demonstrate technologies and applications that advance conventional prompt global strike (CPGS) warfighting capabilities. The program uses a national team with participation from the Services, Agencies, national research laboratories, and further involvement of competitive industry. Program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of boosters, payload delivery vehicles (PDVs), non-nuclear warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events as well as DoD budgets. In FY 2016, as in previous years, funding for the individual Service initiatives will be contingent upon their abilities to execute and achieve satisfactory progress towards project goals as determined by the CPGS portfolio manager.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016	
Title: Hypersonic Glide Experiments and Concept Demonstration Development/Support	3.305	2.000	2.000	
Description: This sub-project develops technologies and applications that could lead to a system with the following characteristics: effects on targets in a very short-period of time from execution order; non-ballistic flight over the majority of the flight path; positive control from launch to impact; adequate cross-range/ maneuverability to avoid overflight issues; controlled stage drop over Broad Ocean Area. This sub-project also oversees development of non-nuclear warhead technologies to defeat time-sensitive targets for near and longer-term CPGS applications. The technologies developed will have cross-Service and cross-concept applicability and will be developed through close coordination among DoD components. This activity will support both ground and flight tests, and provide all national data to inform a potential acquisition program.  The objectives of this sub-project are to:  - Assess boost-glide technologies in light of ground and flight test events and associated modeling and simulation.  - Analyze the military utility of multiple, 3-axis stabilized vehicles performance with respect to thermal protection materials, aerodynamics and control surfaces, navigation, guidance, control (NG&C), boosters, and weapons performance.  - Assess the feasibility of producing an affordable solution to fill the CPGS capability gap.  - Continue systems definition/engineering/development of integrated weaponized payload delivery vehicles and subsystems in order to identify and reduce risks and mature technologies for a potential extended range acquisition program.				
	1			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of th	e Secretary Of Defense	Date: F	ebruary 2015				
Appropriation/Budget Activity 0400 / 5	P164 I Hypersonic	iect (Number/Name) 4 I Hypersonic Glide Experiment a cepts Demonstration Support					
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016			
FY 2014 Accomplishments:  - Analyzed developmental test results in the areas of aerodynamic instrumentation, vehicle recovery, and propulsion.  - Conducted planning of flight tests in coordination with other Servi developmental testing.  - Continued trade studies to evaluate system alternatives, affordate readiness.  - Continued risk reduction and technology maturation efforts through and technology readiness to subsystems.  - Continued work on Technology Development Strategy and systemedata, trade studies and on-going risk reduction/technology developments.  - Conduct trade studies to evaluate system alternatives, affordabilitintegrated system complete with system architecture, and industriated continue aerodynamic and weapon risk reduction and technology improve modeling and simulation capabilities and technology read tests of alternative warheads  - Update the Technology Development Strategy and System Engirengineering and test data, trade studies and on-going risk reduction.  - Complete planning for low cost terminal phase delivery vehicle teaerodynamic, and materials performance to CPGS mission terminal	ices to validate knowledge base garnered from enhanced bility, end-to-end system concepts and industrial manufacturing ground tests to improve modeling and simulation capabilism engineering documentation, incorporating CPGS community, end-to-end system concepts that will study a weaponized manufacturing readiness y maturation efforts through ground and wind tunnel tests to iness, assessing readiness to conduct component technology development efforts esting to include analysis of guidance, navigation, control,	ring lities unity ed o					
FY 2016 Plans:  - Conduct trade studies to evaluate system alternatives, affordabili integrated system complete with system architecture, and industria - Continue aerodynamic and weapon risk reduction and technologi improve modeling and simulation capabilities and technology read component technology tests  - Conduct planning for low cost terminal phase delivery vehicle test aerodynamic, and materials performance to CPGS mission terminal	al manufacturing readiness y maturation efforts through ground and wind tunnel tests to iness, assessing readiness to conducted integrated penetra ting to include analysis of guidance, navigation, control,						
	Accomplishments/Planned Programs Subt	otals 3.305	2.000	2.00			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the	e Secretary Of Defense	Date: February 2015
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	Project (Number/Name) P164 I Hypersonic Glide Experiment and Concepts Demonstration Support
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		
E. Performance Metrics N/A		

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Office of the Secretary Of Defense  Date: February 2015										
0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	P164 <i>I Hyp</i>	umber/Name) personic Glide Experiment and Demonstration Support							

Support (\$ in Million	ıs)			FY 2	2014	FY 2	015	FY 2 Ba			2016 CO	FY 2016 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
Hypersonic Glide Experiment Support	Allot	Space and Missile Center : Los Angeles, CA	364.970	3.305		2.000		2.000		-		2.000	-	-	-
		Subtotal	364.970	3.305		2.000		2.000		-		2.000	-	-	-
			Prior					FY 2	2016	FY 2	2016	FY 2016	Cost To	Total	Target Value of

FY 2015

2.000

Base

2.000

oco

Total

2.000

Complete

Cost

Contract

FY 2014

3.305

Years

364.970

**Project Cost Totals** 

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of De		Date: February 2015	
1	,	, ,	umber/Name)
0400 / 5	PE 0604165D8Z I Prompt Global Strike	P164 <i>I Hyp</i>	personic Glide Experiment and
	Capability Development	Concepts I	Demonstration Support

## **Hypersonic Glide Experiment Support**

Trade Studies, Ground Testing	FY 2016				FY 2017				FY 2018			FY 2019				FY 2020				
and Systems Engineering	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Office of the Secretary Of D		Date: February 2015	
1	PE 0604165D8Z I Prompt Global Strike	P164 / Hyp	umber/Name) personic Glide Experiment and Demonstration Support

## Schedule Details

	St	art	E	nd
Events	Quarter	Year	Quarter	Year
Hypersonic Glide Experiment Support	1	2014	4	2020

Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense											
Appropriation/Budget Activity 0400 / 5						R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development Project (New Page 1) Project (New Page 2)						/Warhead
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 FY 2016 OCO Total FY 2017 FY 2018 FY 2					FY 2020	Cost To Complete	Total Cost
P166: Alternate Re-Entry System/Warhead Engineering	361.276	59.986	90.064	72.950	-	72.950	176.187	199.252	218.117	221.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

#### A. Mission Description and Budget Item Justification

This Program Element (PE) was established to develop and demonstrate technologies and applications that advance conventional prompt global strike (CPGS) warfighting capabilities. The program uses a national team with participation from the Services, Agencies, national research laboratories, and further involvement of industry. Program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of boosters, payload delivery vehicles (PDVs), non-nuclear warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events as well as DoD budgets. In FY 2016, as in previous years, funding for the individual Service initiatives will be contingent upon their abilities to execute and achieve satisfactory progress towards project goals as determined by the CPGS portfolio manager.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016	
Title: Alternative Re-Entry System/Warhead Engineering and Delivery Vehicle Options/Development	59.986	90.064	72.950	
<b>Description:</b> This sub-project will test and evaluate alternative booster and delivery vehicle options and will assess the of producing an affordable solution to fill the CPGS capability gap. It will mature technologies that could lead to advance with the following characteristics: effects on targets in a very short-period of time from execution order; non-ballistic fligh majority of the flight path; positive control from launch to impact; adequate cross-range/maneuverability to avoid over flig and controlled stage drop over Broad Ocean Area. The technologies developed will have cross-Service and cross-concapplicability and will be developed through close coordination among DoD components. This activity will support both g flight tests, and provide all national data to inform a potential acquisition program.	ed systems It over the ght issues; cept			
FY 2014 Accomplishments:  - Completed manufacturing and testing of Hypersonic Glide Body and Booster to be used in AHW Flight Test 2  - Conducted pre-shipment and pre-launch reviews for AHW Flight Test 2  - Deployed to range, conducted pre-launch testing and training  - Executed AHW Flight Test 2 launch attempt  - Began post-test data analysis for AHW Flight Test 2 and initiated Failure Review Board to investigate launch anomaly  - Continued ground testing and development of advanced thermal protection materials and concepts				

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the	Date: F	Date: February 2015						
Appropriation/Budget Activity 0400 / 5	,	<b>oject (Number/Name)</b> 66 <i>I Alternate Re-Entry System/Warhea</i> gineering						
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016				
<ul> <li>Completed System Requirements Review through collaboration we Experiment 1 (FE-1) in FY 2017 using a scaled AHW glider</li> <li>Completed intermediate range KEP warhead sled test Preliminary</li> <li>Began planning for fabrication of prototype miniaturized hardware concepts</li> </ul>	Design Review	ss						
FY 2015 Plans:  - Continue AHW Flight Test 2 post-Flight test data analysis and cor - Complete Preliminary Design Review for FE-1 through collaborati - Complete Critical Design Review for FE-1 through collaboration w - Complete intermediate range KEP warhead sled test Critical Desi - Complete KEP warhead arena test - Conduct intermediate range KEP warhead sled test, analyze test - Leverage AHW FT-2 engineering workup, design algorithms and - Begin integrated system-level test, evaluation, and assembly for F - Support development of future flight test systems for CPGS concerns.	on with the national CPGS team with national CPGS team gn Review  data, and disseminate data to CPGS community essons learned for application to FE-1							
FY 2016 Plans: - Continue manufacturing and testing of Hypersonic Glide Body and - Begin intermediate range booster development with competitive in - Support development of future flight test systems for CPGS conce - Update the Technology Development Strategy and system engine and test data, trade studies, and on-going risk reduction/technology	ndustry epts as required eering documentation based on updated CPGS engineeri	ng						
	Accomplishments/Planned Programs Sub	totals 59.986	90.064	72.95				

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

N/A

Remarks

## D. Acquisition Strategy

N/A

## E. Performance Metrics

N/A

**UNCLASSIFIED** 

PE 0604165D8Z: *Prompt Global Strike Capability Developm...*Office of the Secretary Of Defense

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Office of the Sec	Date: February 2015	
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	Project (Number/Name) P166 I Alternate Re-Entry System/Warhead Engineering

Method   Performing   Prior   Award   Award   Award   Award   Cost To   Total   Value of	Test and Evaluation	(\$ in Milli	ons)		FY 2	2014	FY 2	2015	FY 2016 Base				FY 2016 OCO					
Alternative Reentry System/Warhead Engineering and Delivery Vehicle Options/ Development  Missile Defense Center/Navy Strategic Systems Program : Huntsville AL/Washington DC  Missile Defense Center/Navy Strategic Systems Program : Huntsville AL/Washington DC	Cost Category Item	Method	Performing	-	Cost		Cost		Cost		Cost		Cost			Target Value of Contract		
Subtotal         361.276         59.986         90.064         72.950         -         72.950         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	System/Warhead Engineering and Delivery Vehicle Options/	Allot	Missile Defense Center/Navy Strategic Systems Program : Huntsville	361.276	59.986		90.064		72.950		-		72.950	Continuing	Continuing	-		
			Subtotal	361.276	59.986		90.064		72.950		-		72.950	-	-	-		

	Prior					FY 2	2016	FY:	2016	FY 2016	Cost To	Total	Target Value of
	Years	FY 2	2014	FY 2	2015		se		CO		Complete		Contract
Project Cost Totals	361.276	59.986		90.064		72.950		-		72.950	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of D	Date: February 2015	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
0400 / 5	PE 0604165D8Z I Prompt Global Strike	P166 I Alternate Re-Entry System/Warhead
	Capability Development	Engineering

# **CPGS Flight Experiment 1**

	- 1	FY 2014		FY 2015				FY 2016				FY 2017				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Planning/Design																
Fabrication/Integration																
Test Execution									50							
Post-Test Analysis/Reporting																

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of De		Date: February 2015	
1	,	, ,	umber/Name)
0400 / 5	PE 0604165D8Z I Prompt Global Strike	P166 / Alte	ernate Re-Entry System/Warhead
	Capability Development	Engineerin	g

# **CPGS Flight Experiment 2**

	FY 2016		FY 2017			FY 2018			FY 2019			9	FY 2020							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Planning/Design																				
Fabrication/Integration																				
Test Execution																				
Post-Test Analysis/Reporting																				

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of Defense

Appropriation/Budget Activity
0400 / 5

R-1 Program Element (Number/Name)
PE 0604165D8Z / Prompt Global Strike
Capability Development

Project (Number/Name)
P166 / Alternate Re-Entry System/Warhead Engineering

## Intermediate Range Kinetic Energy Projectile (KEP) Warhead Sled Test

FY 2014 FY 2015 FY 2016 2 3 4 1 2 3 4 1 2 3 Planning/Design Fabrication & Test Execution Post-Test Analysis/Reporting

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Office of the Secretary Of		Date: February 2015	
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	,	umber/Name) ernate Re-Entry System/Warhead g

## Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Navy Flight Experiment 1	1	2014	4	2017	
Navy Flight Experiment 2	4	2017	4	2020	

Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense											
Appropriation/Budget Activity 0400 / 5			<b>am Elemen</b> 65D8Z <i>I Pro</i> Developme	mpt Global	•		(Number/Name) Test Range Development					
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P167: Test Range Development	62.446	-	-	1.000	-	1.000	2.000	1.000	1.000	1.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	_	-	-	-	-	-	-	-		

#### A. Mission Description and Budget Item Justification

This Program Element (PE) was established to develop and demonstrate technologies and applications that advance conventional prompt global strike (CPGS) warfighting capabilities. The program uses a national team with participation from the Services, Agencies, national research laboratories, and further involvement of industry. Program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of boosters, payload delivery vehicles (PDVs), non-nuclear warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events as well as DoD budgets. In FY 2016, as in previous years, funding for the individual Service initiatives will be contingent upon their abilities to execute and achieve satisfactory progress towards project goals as determined by the CPGS portfolio manager.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
Title: Test Range Development	-	-	1.000
<b>Description:</b> This sub-project will complete design, assembly and delivery of power/telemetry subsystems; assemble and integrate components to check command/control and verify range safety functions.			
FY 2014 Accomplishments: - Funding for this activity in FY 2014 has been executed out of Project Code 166 as part of the CPGS flight test programs			
FY 2015 Plans: - Funding for this activity in FY 2015 has been executed out of Project Code 166 as part of the CPGS flight test programs			
FY 2016 Plans: - Improve telemetry collection and range safety infrastructure in preparation for future flight testing of system concepts - Support test range infrastructure for long term use			
Accomplishments/Planned Programs Subtotals	_	_	1.000

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

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretar	y Of Defense	Date: February 2015
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	Project (Number/Name) P167 I Test Range Development
C. Other Program Funding Summary (\$ in Millions)		
<u>Remarks</u>		
D. Acquisition Strategy		
N/A		
E. Performance Metrics N/A		

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Office of the Secretary Of Defense  Date: February 2015											
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)								
0400 / 5	PE 0604165D8Z I Prompt Global Strike	P167 / Tes	t Range Development								
	Capability Development										

est and Evaluation (\$ in Millions)				FY 2	FY 2016 FY 2016 FY 2014 FY 2015 Base OCO				FY 2016 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
Test Range Development	Allot	Army Space and Missile Defense Command : Huntsville, AL	62.446	-		-		1.000		-		1.000	-	-	-
		Subtotal	62.446	-		-		1.000		-		1.000	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2		Cost To	Total Cost	Target Value of Contract
Project Cost Tota	ls 62.446	-	-	1.000	-	1.000	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of De	Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of Defense									
	,	- , (	umber/Name) t Range Development							

## **Test Range Development**

Support Range Safety and	FY 2016					FY:	201	7	1	FY 2	2018	В		FY 2019				FY 2020			
Telemetry Efforts	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
	1	2	3	4	3	2	3	4	1	2	3	4	1	2	3	4	1	2	3		

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Office of the Secretary Of D	Exhibit R-4A, RDT&E Schedule Details: PB 2016 Office of the Secretary Of Defense									
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	- 3 (	umber/Name) t Range Development							

## Schedule Details

	St	art	End			
Events	Quarter	Year	Quarter	Year		
Test Range Development	1	2014	4	2019		

Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense												
Appropriation/Budget Activity 0400 / 5		R-1 Progra PE 060416 Capability		mpt Global	•		Number/Name) SD CPGS Studies						
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
P168: OSD CPGS Studies	36.845	0.200	3.562	2.867	-	2.867	3.718	3.309	3.057	3.206	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			

#### A. Mission Description and Budget Item Justification

B Accomplishments/Planned Programs (\$ in Millions)

This Program Element (PE) was established to develop and demonstrate technologies and applications that advance conventional prompt global strike (CPGS) warfighting capabilities. The program uses a national team with participation from the Services, Agencies, national research laboratories, and further involvement of industry. Program emphasis is on demonstrating component and subsystem technology maturity with risk reduction initiatives highlighted by flight tests. The program funds the design, development, and experimentation of boosters, payload delivery vehicles (PDVs), non-nuclear warheads, thermal protection systems, guidance systems, test range modernization, and mission planning and enabling capabilities. To support these development activities, the program procures modeling and simulation capabilities, ground testing, command and control interfaces, test range support, and launch system infrastructure. Additionally, expert resources address strategic policy and treaty issues. Program timing will be driven by the outcome of flight and ground test events as well as DoD budgets. In FY 2016, as in previous years, funding for the individual Service initiatives will be contingent upon their abilities to execute and achieve satisfactory progress towards project goals as determined by the CPGS portfolio manager.

B. Accomplishments/Flatmed Flograms (\$\psi\ m\	F1 2014	F1 2015	F1 2010
Title: OSD CPGS Studies	0.200	3.562	2.867
<b>Description:</b> This sub-project supports emergent CPGS study efforts. In addition, it supports the application of the Prompt Global Strike Analysis of Alternatives (AoA) results and any AoA updates; requirements development; CPGS basing alternatives; analysis and defining of mission enabling technologies; and measures to avoid conventional missile launch ambiguity with nuclear weapon systems. Finally, it supports administrative activities associated with the management and execution of this Program Element.			
FY 2014 Accomplishments:  - Conducted mid-term demonstrations in support of AHW Flight Test 2 to include operational overlay  - Conducted command, control, and operational overlay exercises in parallel with CPGS flight tests  - Continued senior steering group panel review and strategic messaging activities			
FY 2015 Plans:  - Conduct cost assessment studies for future system development  - Conduct booster system integration studies  - Conduct lethality and warhead fuzing studies  - Continue thermal and aerodynamic modeling and simulation  - Continue senior steering group panel review and strategic messaging activities			
- Continue thermal and aerodynamic modeling and simulation - Continue senior steering group panel review and strategic messaging activities			

EV 2014 EV 2015

EV 2016

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the	,	Date: February 2015				
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	Project (Number/Name) P168 / OSD CPGS Studies				
B. Accomplishments/Planned Programs (\$ in Millions)  - Continue program management reviews, ground test status and plantegrated product teams	anning summits, and administrative support of ground t	est	FY 2014	FY 2015	FY 2016	
FY 2016 Plans:  - Continue cost assessment studies for future system development  - Continue lethality and warhead fuzing studies  - Continue thermal and aerodynamic modeling and simulation  - Continue senior steering group panel review and strategic messag  - Conduct command, control, and operational overlay exercises in p  - Continue program management reviews, ground test status and pl integrated product teams	est					
	Accomplishments/Planned Programs Su	btotals	0.200	3.562	2.86	

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

N/A

Remarks

## D. Acquisition Strategy

N/A

#### E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Office of the Secretary Of Defense

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

Project (Number/Name)

PE 0604165D8Z I Prompt Global Strike Capability Development

P168 / OSD CPGS Studies

Support (\$ in Million	ns)			FY 2	2014	FY 2	2015	FY 2 Ba			2016 CO	FY 2016 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	Total Cost	Target Value of Contract
CPGS Studies	Allot	Navy Strategic Systems Program : Washington, DC	36.845	0.200		3.562		2.867		-		2.867	-	-	-
		Subtotal	36.845	0.200		3.562		2.867		-		2.867	-	-	-
		[													Townst

	Prior			FY 2016	FY 2016	FY 2016	Cost To	Total	Target Value of
	Years	FY 2014	FY 2015	Base	осо	Total	Complete	Cost	Contract
Project Cost Totals	36.845	0.200	3.562	2.867	-	2.867	-	-	-

<u>Remarks</u>

0400 / 5

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of DefenseDate: February 2015Appropriation/Budget ActivityR-1 Program Element (Number/Name)<br/>PE 0604165D8Z / Prompt Global Strike<br/>Capability DevelopmentProject (Number/Name)<br/>P168 / OSD CPGS Studies

## **CPGS Studies**

Project Management, Studies, Analyses,		FY 2016					FY 2017				FY 2018			FY 2019				FY 2020			
Operational Assessments and Acquisition Planning	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Office of the Secretary Of D	Date: February 2015		
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604165D8Z I Prompt Global Strike Capability Development	- , (	umber/Name) D CPGS Studies

## Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Acquisition Planning	1	2016	4	2019	
Operational Assessment	1	2016	4	2020	