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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Office of Secretary Of Defense **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY

0400: *Research, Development, Test & Evaluation, Defense-Wide*
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE

PE 0604250D8Z: *Advanced Innovative Technologies*

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	130.000	-	130.000	102.000	0.000	0.000	0.000	Continuing	Continuing
P250: <i>Advanced Innovative Technologies</i>	-	0.000	0.000	130.000	-	130.000	102.000	0.000	0.000	0.000	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Note

FY 2014 New Start Program.

A. Mission Description and Budget Item Justification

The Strategic Capabilities Office (SCO) was created to identify, analyze, and accelerate capabilities to counter strategic adversaries and improve the United States posture for engaging future threats. A distributed enterprise amongst Office of Secretary of Defense (OSD), Combatant Commands (COCOMs), and the Intelligence Community (IC), SCO uniquely blends technology and concepts of operations to develop a full spectrum of innovative capabilities. Those meriting acceleration are worked as joint projects with the Services to speed transition time for rapid fielding. SCO breaks up objectives from Commanders' intent into specific projects inside a strategic plan.

As part of its mission, SCO examines alternative strategies, such as: (1) explores multi-domain solutions (including cross-DoD/IC capabilities); (2) builds partnerships across national security divides; (3) analyzes cost effectiveness, risk, and performance; (4) develops prototypes to accelerate capabilities; and (5) increases the operational options available to senior leadership.

Under this new start program, SCO will develop new strategic capabilities that provides options for the Department of Defense's (DoD) operational priorities. New strategic capabilities will be composed of existing and advanced technologies and systems, with special emphasis on innovative and architecture-level concepts. The PE supports development, studies, analysis, and demonstration of integrated concepts and prototypes, analysis in support of ongoing efforts to shape and counter emerging threats, cross-Service and cross-Defense/Intelligence concepts, and red-teaming. Projects will focus on proving component and subsystem maturity prior to integration in major systems and may involve risk reduction initiatives. Specific applications and plans are available at a higher classification level.

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604250D8Z: <i>Advanced Innovative Technologies</i>
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B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	130.000	-	130.000
Total Adjustments	0.000	0.000	130.000	-	130.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Baseline Adjustment	-	-	130.000	-	130.000

Change Summary Explanation

This a FY 2014 New Start Program. The title for PE 0604250D8Z was changed from Systems 2020 Advanced Development and Prototypes to Advanced Innovative Technologies to meet the new defense strategy. Funds were realigned to meet the Department's highest priorities for accelerating capabilities to address future threats.

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Office of Secretary Of Defense										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0604250D8Z: Advanced Innovative Technologies				PROJECT P250: Advanced Innovative Technologies			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
P250: Advanced Innovative Technologies	-	0.000	0.000	130.000	-	130.000	102.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Strategic Capabilities Office (SCO) was created to identify, analyze, and accelerate capabilities to counter strategic adversaries and improve the United States posture for engaging future threats. A distributed enterprise amongst Office of Secretary of Defense (OSD), Combatant Commands (COCOMs), and the Intelligence Community (IC), SCO uniquely blends technology and concepts of operations to develop a full spectrum of innovative capabilities. Those meriting acceleration are worked as joint projects with the Services to speed transition time for rapid fielding. SCO breaks up objectives from Commanders' intent into specific projects inside a strategic plan.												
As part of its mission, SCO examines alternative strategies, such as: (1) explores multi-domain solutions (including cross-DoD/IC capabilities); (2) builds partnerships across national security divides; (3) analyzes cost effectiveness, risk, and performance; (4) develops prototypes to accelerate capabilities; and (5) increases the operational options available to senior leadership.												
Under this new start program, SCO will develop new strategic capabilities that provides options for the Department of Defense’s (DoD) operational priorities. New strategic capabilities will be composed of existing and advanced technologies and systems, with special emphasis on innovative and architecture-level concepts. The PE supports development, studies, analysis, and demonstration of integrated concepts and prototypes, analysis in support of ongoing efforts to shape and counter emerging threats, cross-Service and cross-Defense/Intelligence concepts, and red-teaming. Projects will focus on proving component and subsystem maturity prior to integration in major systems and may involve risk reduction initiatives. Specific applications and plans are available at a higher classification level.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2012	FY 2013	FY 2014	
Title: Land Based Rail Gun (LBRG)									0.000	0.000	130.000	
Description: Existing Navy Science and Technology (S&T) Railgun program leveraged into Land Based Rail Gun (LBRG) experiment. It will demonstrate a cost effective land base defense solution using prototype ground-launched Railgun projectiles. The experiment focus is on close-the-loop between sensor and the Railgun projectile. Step-by-step development by the integration of critical Railgun weapon capabilities will be initiated. LBRG will integrate the Railgun launcher, power, projectile and sensor to demonstrate capability with a series of seven flight tests. It will also verify lethality modeling and simulation through experimentation. The tests will demonstrate projectile fly-out and control; sensor tracking of projectiles, communication												

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0604250D8Z: <i>Advanced Innovative Technologies</i>	PROJECT P250: <i>Advanced Innovative Technologies</i>
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013
from sensor to projectile, integrated guidance, navigation and control (GNC). FY 2015 experiment culminates in a track and a command link event from a 20 Mega Joule (MJ) Railgun located at Wallops Island test range.			
<i>FY 2014 Plans:</i> <ul style="list-style-type: none"> • Initiate development of prototype projectiles. • Initiate procurement of 20MJ Railgun launcher system (power and energy, launcher, cables, test stand, and launcher/power controls). • Initiate development of close-loop-control for testing of prototype projectiles. • Initiate launcher testing of prototype projectile. • Initiate design and fabrication of high power prototype gun mount system. • Initiate integration of Railgun System; power, gun, projectile and sensor. 			
Accomplishments/Planned Programs Subtotals		0.000	0.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			
E. Performance Metrics			
TBD			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Office of Secretary Of Defense												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)						PE 0604250D8Z: Advanced Innovative Technologies				P250: Advanced Innovative Technologies					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware	Option/CPFF	TBD1:TBD1	-	-		-		30.000	Oct 2014	-		30.000	Continuing	Continuing	Continuing
Primary Hardware	C/CPFF	TBD2:TBD2	-	-		-		33.750	Oct 2014	-		33.750	Continuing	Continuing	Continuing
Primary Hardware	WR	NSWCDD:Dahlgren, VA	-	-		-		6.050	Oct 2014	-		6.050	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWCDD:Dahlgren, VA	-	-		-		4.300	Oct 2014	-		4.300	Continuing	Continuing	Continuing
Primary Hardware	Option/IDIQ	DMEA Tasks:TBD3	-	-		-		42.550	Oct 2014	-		42.550	Continuing	Continuing	Continuing
Primary Hardware	WR	NASA:Wallops Island, VA	-	-		-		1.800	Oct 2014	-		1.800	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		118.450		0.000		118.450			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	WR	NAVSEA:Washington, DC	-	-		-		1.500	Oct 2014	-		1.500	Continuing	Continuing	Continuing
Independent Analysis	Option/IDIQ	JHU/APL:Laurel, MD	-	-		-		1.400	Oct 2014	-		1.400	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		2.900		0.000		2.900			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test and Evaluation	WR	NSWCDD:Dahlgren, VA	-	-		-		8.650	Oct 2014	-		8.650	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		8.650		0.000		8.650			

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	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		130.000		0.000		130.000			
Remarks N/A													

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Office of Secretary Of Defense										DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					PROJECT			
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i>					PE 0604250D8Z: <i>Advanced Innovative Technologies</i>					P250: <i>Advanced Innovative Technologies</i>			
BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>													

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Major Milestones: LBRG Increment 1: Airframe Flight																												
Major Milestones: LBRG Increment 1: Install Tracker Hardware and Track Projectile																												
Major Milestones: LBRG Increment 1: Guidance and Control Demonstration																												
Major Milestones: LBRG Increment 1: Payload Dispense																												
Major Milestones: LBRG Increment 2: Install Railgun Test System at Wallops Range																												
Major Milestones: LBRG Increment 2: Track Maneuvering Projectile																												
Major Milestones: LBRG Increment 2: Command Projectile Maneuvers																												
Major Milestones: LBRG Increment 3: Railgun Prototype PDR																												
Major Milestones: LBRG Increment 3: Railgun Prototype CDR																												
Test and Evaluation: Decision to Proceed with Railgun Prototype Experimental Testing																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Office of Secretary Of Defense **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604250D8Z: <i>Advanced Innovative Technologies</i>	PROJECT P250: <i>Advanced Innovative Technologies</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Major Milestones: LBRG Increment 1: Airframe Flight	2	2014	2	2014
Major Milestones: LBRG Increment 1: Install Tracker Hardware and Track Projectile	3	2014	3	2014
Major Milestones: LBRG Increment 1: Guidance and Control Demonstration	3	2014	3	2014
Major Milestones: LBRG Increment 1: Payload Dispense	4	2014	4	2014
Major Milestones: LBRG Increment 2: Install Railgun Test System at Wallops Range	2	2015	2	2015
Major Milestones: LBRG Increment 2: Track Maneuvering Projectile	3	2015	3	2015
Major Milestones: LBRG Increment 2: Command Projectile Maneuvers	4	2015	4	2015
Major Milestones: LBRG Increment 3: Railgun Prototype PDR	4	2014	4	2014
Major Milestones: LBRG Increment 3: Railgun Prototype CDR	4	2015	4	2015
Test and Evaluation: Decision to Proceed with Railgun Prototype Experimental Testing	4	2015	4	2015

Note

N/A