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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Office of the Secretary Of Defense										Date: May 2017		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)					PE 0603289D8Z / Advanced Innovative Analysis and Concepts							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	48.760	48.873	57.020	37.674	-	37.674	37.513	37.925	38.762	39.892	Continuing	Continuing
P329: Advanced Innovative Analysis and Concepts	48.760	48.873	57.020	37.674	-	37.674	37.513	37.925	38.762	39.892	Continuing	Continuing

Note

In FY 2018 funds from PE 0603289D8Z / Advanced Innovative Analysis and Concepts is being transferred to PE 0603291D8Z Advanced Innovative Analysis & Concepts - Management Headquarters Activities (MHA), and 4GTN: PE 0903289D8Z / Operation & Maintenance which are not new programs.

A. Mission Description and Budget Item Justification

The Strategic Capabilities Office (SCO) identifies, analyzes, and accelerates the development, demonstration, and transition of selected capabilities to shape and counter emerging threats, and to improve U.S. security posture. In a partnership endeavor across the Office of the Secretary of Defense (OSD), Joint Staff, Combatant Commands (CCMDs), the Services, the Intelligence Community (IC), and other U.S. Government agencies, SCO combines capability innovation with concepts of operation and information management to develop novel, high-leverage approaches to address pressing national security challenges. SCO conducts projects on accelerated timelines, at any classification or access level.

The Advanced Innovative Analysis and Concepts Program Element 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 focus on proving component and subsystem maturity prior to integration in major systems, and may involve risk reduction initiatives. Due to the nature of these projects, specific applications and detailed plans are available at a higher classification level.

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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603289D8Z / <i>Advanced Innovative Analysis and Concepts</i>
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B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	50.030	57.020	56.870	0.000	56.870
Current President's Budget	48.873	57.020	37.674	0.000	37.674
Total Adjustments	-1.157	0.000	-19.196	0.000	-19.196
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.157	-			
• Transfer of funds to PE 0603291D8Z	0.000	0.000	-15.000	0.000	-15.000
Advanced Innovative Analysis & Concepts - MHA. This is not a new program.					
• Transfer of funds to 4GTN: PE 0903289D8Z / Operation & Maintenance. This is not a new program.	-	-	-4.196	0.000	-4.196

Change Summary Explanation

In FY 2018 funds from PE 0603289D8Z / Advanced Innovative Analysis and Concepts is being transferred to PE 0603291D8Z Advanced Innovative Analysis & Concepts - MHA, and 4GTN: PE 0903289D8Z / Operation & Maintenance which are not new programs.

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense										Date: May 2017		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603289D8Z / <i>Advanced Innovative Analysis and Concepts</i>				Project (Number/Name) P329 / <i>Advanced Innovative Analysis and Concepts</i>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
P329: <i>Advanced Innovative Analysis and Concepts</i>	48.760	48.873	57.020	37.674	-	37.674	37.513	37.925	38.762	39.892	Continuing	Continuing

Note

In FY18 funds from PE 0603289D8Z / Advanced Innovative Analysis and Concepts is being transferred to PE 0603291D8Z Advanced Innovative Analysis & Concepts - MHA, and 4GTN: PE 0903289D8Z / Operation & Maintenance which are not new programs.

A. Mission Description and Budget Item Justification

The Strategic Capabilities Office (SCO) conducts analysis in support of ongoing efforts to shape and counter emerging threats, with special emphasis on: innovative and architecture-level concepts, cross-Service and cross-Defense/Intelligence concepts, red-teaming, and on a case-by-case basis, research and development projects to demonstrate concept. SCO identifies, analyzes, and accelerates the development, demonstration, and transition of selected capabilities to shape and counter emerging threats, and to improve U.S. security posture. In a partnership endeavor across the Office of the Secretary of Defense (OSD), Joint Staff, Combatant Commands (CCMDs), the Services, the Intelligence Community (IC), and other U.S. Government agencies, SCO combines capability innovation with concepts of operation and information management to develop novel, high-leverage approaches to address pressing national security challenges. SCO conducts projects on accelerated timelines, at any classification or access level.

The Advanced Innovative Analysis and Concepts Program Element 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 focus on proving component and subsystem maturity prior to integration in major systems, and may involve risk reduction initiatives. Due to the nature of these projects, specific applications and detailed plans are available at a higher classification level.

B. Accomplishments/Planned Programs (\$ in Millions)

Title: Alternate Strike	FY 2016	FY 2017	FY 2018
Description: The Alternate Strike program integrates existing weapons, launch platforms, and command and control structures in novel ways to quickly provide Combatant Commanders with critical multi-mission capabilities. This project will demonstrate the feasibility and utility of launching existing/modified weapons from existing launch platforms. This project will retire risks associated with cross platform integration to enable transition of new weapon/system combinations to Service partners. The FY2016 effort performed preliminary weapon/launch platform integration studies. The Alternate Strike project transitions from the Advanced Innovative Analysis and Concepts Program Element (PE) 0603289D8Z to the Advanced Innovative Technologies (PE) 0604250D8Z in FY 2017. Due to the nature of these projects, specific applications and detailed plans are available at a higher classification level.	6.274	-	-
FY 2016 Accomplishments:			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
<ul style="list-style-type: none"> Assessed Size, Weight, Area, and Power (SWAP) and environmental factors for new concepts and refined concepts based on assessments. Conducted preliminary design of required platform or weapon modifications. Initialized interface design for weapons/platform integration. Developed and assessed concepts of operation for new concepts. Finalized program plans for FY2017 – FY2020 development and demonstration. 					
<p>Title: Command and Control of the Information Environment</p> <p>Description: The Command and Control of the Information Environment (C2IE) project provides Combatant Commands, Services, Agencies, and Department of Defense leadership the ability to detect, monitor, understand, and act in the information environment. The C2IE project leverages commercial and other existing software tools to enable dynamic understanding of the information environment. C2IE will improve the warfighters ability to sense, understand, and visualize the information environment, and collaboratively plan and execute responses. Due to the nature of this project, specific applications and detailed plans are available at a higher classification level.</p> <p>The Command and Control of the Information Environment project transitions from the Advanced Innovative Analysis and Concepts Program Element (PE) 0603289D8Z to the Advanced Innovative Technologies (PE) 0604250D8Z in FY 2017.</p> <p>FY 2016 Accomplishments:</p> <ul style="list-style-type: none"> Developed a System Engineering Plan (SEP) and integrated all C2IE component capabilities. Finalized data and network architectures and deployed C2IE software on multiple platforms. Established a test and evaluation platform and lab for C2IE. Provided an integrated set of analytic and visualization tools. Conducted two capability demonstrations, and three additional familiarization engagements for various Combatant Commanders (CCMDs). 			10.000	-	-
<p>Title: Contender</p> <p>Description: SCO will develop and demonstrate an operational prototype that will extend the range of the current MK48 torpedo for use in expanded mission sets. The prototype will include modular payloads, communications, and advanced propulsion concepts. The Contender project transitioned to the Advanced Innovative Technologies Program Element (PE) 0604250D8Z in FY 2017.</p> <p>FY 2016 Accomplishments:</p> <ul style="list-style-type: none"> Performed component level analyses and integrated design review. 			2.624	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017
<ul style="list-style-type: none"> Established program management and performance teams. Developed Integrated Master Schedule (IMS) with stakeholder approval. Performed trade space analysis for all required subsystems. 			
Title: High-Fidelity Analysis and Concept Generation Description: The Strategic Capabilities Office (SCO) conducts analysis to identify and accelerate the development, demonstration, and transition of potentially game-changing capabilities to shape and counter emerging threats and improve U.S. security posture. All innovative concepts developed within SCO must first undergo a phase of thorough analysis before moving forward to become a project. Due to the nature of these projects, specific applications and detailed plans are available at a higher classification level. FY 2016 Accomplishments: SCO investigated and analyzed multiple game-changing applications of repurposed DoD technology to produce 14 separate issue papers to present for the Fall 2016 program reviews. Of those 14 issues, 11 were added to the FY 2018 PB, and will transition to the 0604250D8Z program element in FY 2018. These programs are Avatar, Breaker, Ghost Fleet, Hornet's Nest, LiTE Saber, Maven, Motley Crew, Sea Dragon, Serenity, StormSystem, and Vanguard. FY 2017 Plans: SCO will investigate opportunities to accelerate the fielding of capabilities to the warfighter in multiple mission areas; among them are autonomy, deep learning, logistics, and resilient communications. Additionally, SCO will expand its use of campaign level modeling and simulation to assess the relative value of new warfighting concepts and develop initial tactics, techniques, and procedures (TTP) for their employment. FY 2018 Plans: Continue to innovate in partnership with Services Program Offices and CCMDs to identify game-changing uses of existing systems and technologies.		17.077	57.020
Title: Sea Stalker Description: SCO will leverage existing low-cost, persistent maritime platforms to offer Combatant Commanders (CCMDs) deterrence options during a crisis. The Sea Stalker project seeks to retire the risk of platform and payload integration to provide an immediate, flexible capability. Due to the nature of the project, specific applications and detailed plans are available at a higher classification level. The Sea Stalker project transitioned to the Advanced Innovative Technologies Program Element (PE) 0604250D8Z in FY 2017. FY 2016 Accomplishments: <ul style="list-style-type: none"> Developed integrated plan for platform/payload concept. 		4.672	-

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
<ul style="list-style-type: none"> Conducted proof-of-concept demonstration of maritime platforms in an operationally relevant scenario. Finalized payload mission analysis. Performed feasibility tests to quantify the capability to counter strategic threats. 					
Title: Strike-X Description: The Strike-X project leverages existing strike capabilities and develops alternative Concepts of Employment (CONEMP) and Tactics, Techniques, and Procedures (TTP) to deliver near-term innovative strike capabilities to Combatant Commanders. Due to the nature of this project, specific applications and detailed plans are available at a higher classification level. The Strike-X project transitions from the Advanced Innovative Analysis and Concepts Program Element (PE) 0603289D8Z to the Advanced Innovative Technologies (PE) 0604250D8Z in FY 2017. FY 2016 Accomplishments: <ul style="list-style-type: none"> Conducted preliminary design and systems engineering activities in support of system architecture, hardware design, and platform integration requirements. Studied Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, and Facilities (DOTMLPF) implications for Strike-X. Initiated modeling and simulation efforts to better inform Concept of Operations (CONOPS) development. Developed operationally-relevant proof-of-principle demonstration plans to anchor modeling and simulation performance results. 			6.000	-	-
Title: Third Eye Description: Third Eye is a data architecture that leverages existing and emerging sensors to provide real-time tracking and targeting for multi-Service strike weapons. The project will enhance tracking against hard targets in denied environments and maintain ability to securely communicate with these sensors in real-time. Due to the classified nature of this project, specific applications and detailed plans are available at a higher classification level. The Third Eye project will transition to the Advanced Innovative Technologies Program Element (PE) 0604250D8Z in FY 2017. FY 2016 Accomplishments: <ul style="list-style-type: none"> Completed an integrated plan for platform/payload concept. Provided innovative technology prototype analysis. Provided analysis of sensor fusion, track maintenance and reporting performance prior to Clutch Shot Limited Objective Experiments (LOEs). Provided on-site analytic support and post-experiment performance analysis for Clutch Shot LOEs. Provided analysis of format conversions from tracks generated by disparate sensors. 			2.226	-	-
Accomplishments/Planned Programs Subtotals			48.873	57.020	37.674

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<p><u>C. Other Program Funding Summary (\$ in Millions)</u> N/A</p> <p><u>Remarks</u></p> <p><u>D. Acquisition Strategy</u> N/A</p> <p><u>E. Performance Metrics</u> Performance metrics are specific to each Advanced Innovative Analysis and Concepts effort and include measures identified in the management approach, Statement of Work (SOW), and Period of Performance (POP). In addition, completions and successes are monitored against schedules and deliverables stated in the initiative's management approach. Due to the nature of these projects, specific applications and detailed plans are available at a higher classification level</p>		