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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 6:</i> <i>RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0605104D8Z / <i>Technical Studies Support and Analysis</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	85.152	23.735	24.887	23.069	-	23.069	23.040	27.267	27.288	27.199	Continuing	Continuing
P421: <i>Technical Studies</i>	85.152	23.735	24.887	23.069	-	23.069	23.040	27.267	27.288	27.199	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program is a key source of funding for the Office of the Secretary of Defense and the Joint Staff to manage studies, analysis, management, and technical support efforts to improve and support policy development, decision making, management and administration of DoD programs and activities. Studies and analyses will examine current and alternative policies, plans, operations, strategies and budgets, providing essential means for managing and responding to the shifting and complex international, political, technological, economic, military, and acquisition environments in which national security planning decisions are made. Independent analyses from subject matter experts are instrumental for senior defense planners in making informed choices regarding requirements for force planning and strategic deployment of assets taking into account technological challenges and resource constraints, and there is a strong need to incorporate the findings of operational analysis in force planning requirements and projections. With the complexities of security threats in the current geopolitical environment, the need for objective analysis and forward looking planning in the face of global conflict for the mid and long-term is vital.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	24.466	24.936	25.863	-	25.863
Current President's Budget	23.735	24.887	23.069	-	23.069
Total Adjustments	-0.731	-0.049	-2.794	-	-2.794
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	0.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.004	-			
• SBIR/STTR Transfer	-0.727	-			
• General budget reductions	-	-	-2.174	-	-2.174
• General FFRDC reduction	-	-0.049	-	-	-
• Reductions for services efficiencies	-	-	-0.438	-	-0.438
• Reductions for economic assumptions	-	-	-0.182	-	-0.182

Change Summary Explanation

Reductions are reflected for implementation of efficiencies initiatives and revised economic assumptions

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As part of the Department of Defense reform agenda, the budget estimate reflects a stable long-term trend in the number and cost of reports and studies in the near-term.

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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P421: <i>Technical Studies</i>	85.152	23.735	24.887	23.069	-	23.069	23.040	27.267	27.288	27.199	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program is a key source of funding for the Office of the Secretary of Defense and the Joint Staff to manage studies, analysis, management, and technical support efforts to improve and support policy development, decision making, management and administration of DoD programs and activities. Studies and analyses will examine current and alternative policies, plans, operations, strategies and budgets, providing essential means for managing and responding to the shifting and complex international, political, technological, economic, military, and acquisition environments in which national security planning decisions are made. Independent analyses from subject matter experts are instrumental for senior defense planners in making informed choices regarding requirements for force planning and strategic deployment of assets taking into account technological challenges and resource constraints, and there is a strong need to incorporate the findings of operational analysis in force planning requirements and projections. With the complexities of security threats in the current geopolitical environment, the need for objective analysis and forward looking planning in the face of global conflict for the mid and long-term is vital.

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

	FY 2015	FY 2016	FY 2017
Title: Technical Studies and Analyses Support for the Office of the Secretary of Defense	23.735	24.887	23.069
FY 2015 Accomplishments: Technical Support for the USD(Acquisition, Technology & Logistics): Studies and analyses of: Joint warfighting capability and technology planning, strategic and conventional platform mission assurance, weapons system reliability, autonomous systems, aviation propulsion sustainability, space and airborne portfolio architectures, countering strategic threats, industrial base capabilities assessments and sustainment of design capabilities, cyber operational requirements, defense manufacturing technology, acquisition policy effectiveness, global defense industry trends, technologies for evolving mission requirements, allied defense and logistics capabilities, DoD installations planning, software sustainment infrastructure, electronic warfare, NATO policy planning, international armaments cooperation, identifying acquisition program risk, support to several Defense Science Board task forces on various evolving technological and policy issues, small business investment and acquisition strategy, and sustaining small business research and development capabilities			
Technical Support for the Director, Cost Assessment and Program Evaluation: Studies and analyses regarding the following areas:			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>Strategic tradeoffs and risk management, maintaining force readiness, contingency planning, personnel force models, nuclear readiness, assessments in support of scenario analyses, cyber posture, naval warfare requirements, effectiveness of fighter aircraft service life extension programs, technical studies and analyses to support independent cost estimates and economic research, mobility capabilities, comparative analyses of alternative strategic and conventional weapons systems configurations and force levels, and continuation of development of critical management instruments for measuring the long-term trends, strength and affordability of the defense program</p> <p>Technical Support for the USD(Policy): Studies, analyses, and activities in the following areas:</p> <p>Regional and strategic defense posture, cyber domain awareness, international defense policy planning, deterrence and counterproliferation requirements, NATO requirements planning, space and cyber strategic guidance planning, and strategic-level simulations of areas of interest for legislative and executive branch decision-makers</p> <p>Technical Support for the USD(Personnel & Readiness): Studies and analyses in the following areas:</p> <p>Active and reserve recruiting and retention issues, compensation and legacy costs, incentives for critical positions, optimizing civilian transitions for military personnel, maintaining officer candidate sources, forecasting the impacts of and the development of mitigation strategies for potential force drawdowns, education benefit efficiency, reserve component readiness and sustainability, maintaining a drug-free force, and total force cost analyses</p> <p>Technical Support for the Joint Staff conducting joint research with OSD:</p> <p>Studies and analyses with OSD addressing force architecture, operational scenarios, personnel recovery, cyber capabilities, training requirements, infrastructure requirements, countering anti-access environments, force programming planning and basing requirements</p> <p>FY 2016 Plans: Technical Support for the USD(Acquisition, Technology & Logistics): Studies and analyses of:</p> <p>Joint warfighting command and control, strategic and conventional system technologies, naval force structure planning, cyber risk assessments, weapons of mass destruction force protection capabilities, vertical lift force sustainment, strategic deterrence</p>			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
<p>capabilities, industrial base capabilities assessments, cyber operational requirements, defense manufacturing technology, acquisition policy effectiveness, global defense industry trends, technologies for evolving mission requirements, allied defense capabilities, strategic basing requirements, logistics supply chain and energy requirements, NATO policy planning, munitions safety, identifying acquisition program risk, and support to Defense Science Board task forces on various evolving technological and warfare issues.</p> <p>Technical Support for the Director, Cost Assessment and Program Evaluation: Studies and analyses regarding the following areas:</p> <p>Requirements regarding investment and resource planning such as strategic tradeoffs and risk management, maintaining force readiness, personnel force models, assessments in support of scenario analyses, special operations and force support requirements, technical studies and analyses to support independent cost estimates and economic research, comparative analyses of alternative strategic and conventional weapons systems configurations and force levels, and continuation of development of critical management instruments for measuring the long-term trends, strength and affordability of the defense program</p> <p>Technical Support for the USD(Policy): Studies, analyses, and activities in the following areas:</p> <p>Requirements regarding geopolitical posture and policy such as regional and strategic defense policy planning, catastrophe response planning, deterrence and counterproliferation requirements, scenario-based escalation dynamics analyses, strengthening security assistance mechanisms, international defense trade and industrial relationships, NATO requirements planning, technological and cyber effects on strategic requirements, information operations capabilities, strategic force modernization options, preserving capabilities for stability operations, countering emerging terrorist development, and strategic-level simulations of areas of interest for legislative and executive branch decision-makers</p> <p>Technical Support for the USD(Personnel & Readiness): Studies and analyses in the following areas:</p> <p>Requirements for sustaining and planning for the force of the future such as active and reserve recruiting and retention issues, compensation analyses, improving strategic readiness, improvements to training capabilities, harnessing advances in modeling and simulation in force planning and development, reserve component readiness and sustainability, military family and educational issues, gender and equal opportunity, and strategies for managing the Total Force portfolio</p>				

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
<p>Technical Support for the Joint Staff conducting joint research with OSD:</p> <p>Joint Studies and analyses with OSD based upon operational lessons learned, mobility capabilities, supply chain requirements, training requirements, cyber assurance, homeland defense, force programming planning, and basing requirements</p> <p>FY 2017 Plans: Technical Support for the USD(Acquisition, Technology & Logistics): Studies and analyses of:</p> <p>Technical areas such as joint warfighting capability and technology planning, strategic and conventional system technologies, counter WMD defense capabilities, space portfolio architectures, industrial base capabilities assessments, cyber operational requirements, defense manufacturing technology, acquisition policy effectiveness, global defense industry trends, technologies for evolving mission requirements, allied defense capabilities, strategic basing requirements, DoD installations planning, logistics supply chain and energy requirements, NATO policy planning, treaty compliance requirements, identifying acquisition program risk, support to Defense Science Board task forces on various evolving technological and warfare issues, small business investment and acquisition strategy, the effectiveness of the Small Business Innovation Research (SBIR) program, and DoD contracting policies toward small businesses</p> <p>Technical Support for the Director, Cost Assessment and Program Evaluation: Studies and analyses regarding the following areas:</p> <p>Requirements regarding investment and resource planning such as strategic tradeoffs and risk management, maintaining force readiness, personnel force models, assessments in support of scenario analyses, special operations and force support requirements, technical studies and analyses to support independent cost estimates and economic research, comparative analyses of alternative strategic and conventional weapons systems configurations and force levels, and continuation of development of critical management instruments for measuring the long-term trends, strength and affordability of the defense program</p> <p>Technical Support for the USD(Policy): Studies, analyses, and activities in the following areas:</p> <p>Requirements regarding national security geopolitical posture and policies such as regional and strategic defense strategy, international defense policy planning, strategic force requirements, homeland defense and humanitarian response capabilities, deterrence and counterproliferation requirements, international defense trade and industrial relationships, NATO requirements</p>				

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>planning, technological and other external effects on strategic requirements, space and cyber strategic guidance planning, contingency and stability operations, countering emerging terrorist threats, and strategic-level simulations of areas of interest for legislative and executive branch decision-makers</p> <p>Technical Support for the USD(Personnel & Readiness): Studies and analyses in the following areas:</p> <p>Requirements regarding sustainment and planning for the force of the future such as active and reserve recruiting and retention issues, compensation analyses, identifying critical personnel requirements, reserve component readiness and sustainability, military family and educational issues, gender and equal opportunity, and strategies for managing the Total Force portfolio</p> <p>Technical Support for the Joint Staff conducting joint research with OSD:</p> <p>Joint Studies and analyses with OSD based upon operations research, command and control, mobility capabilities, supply chain requirements, training requirements, homeland defense, force programming planning, and basing requirements</p>			
Accomplishments/Planned Programs Subtotals	23.735	24.887	23.069

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

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

FY 2017 BA: \$23.069 FY 2017 BA Assoc w/Metrics: \$23.069 Percent FY 2017 BA Assoc w/Metrics: 100%

This program conducts approximately seventy-five actions per fiscal year to support a wide variety of national security goals of the Department and is designed to encourage a collaborative research approach among the components of OSD and the Joint Staff. The research and study projects supported by this program are closely integrated with the strategic goals of the Department of Defense. The focus of studies varies across a wide spectrum including weapons systems cost analysis, strengthening and leveraging alliances, human resource and military personnel management, examination of innovative technologies, application of technology to operational doctrine, and many other issues of emerging importance. Most of the actions are long to intermediate-range in outlook, and the program allows

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organizational leaders to plan and guide their research toward meeting their highest-priority goals and other high-level guidance such as executive branch performance management objectives, the Quadrennial Defense Review, the President's National Security Strategy, and the National Military Strategy of the United States of America.

In following the program efficiencies guidance of the Secretary of Defense, the scope of studies and analyses has been limited as necessary in order to focus upon issues of the highest strategic importance to the Department of Defense while continuing to make every effort to support requirements for the Office of the Secretary of Defense developing from legislative direction.