

OSD RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

Date: February 2007

APPROPRIATION/ BUDGET ACTIVITY RDT&E/ Defense Wide BA# 6		PE NUMBER AND TITLE 0605104D8Z - Technical Studies, Support & Analysis						
Cost (\$ in Millions)	FY 2006 Actual	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total Program Element (PE) Cost	30.397	36.131	31.263	34.571	33.229	37.401	37.084	36.955
P421 Technical Studies, Support & Analysis	30.397	36.131	31.263	34.571	33.229	37.401	37.084	36.955

A. Mission Description and Budget Item Justification: This program is a primary source of funding for the Office of the Secretary of Defense and the Joint Staff for studies, analyses, 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, and are essential for understanding and gaining insight into the complex multifaceted international, political, technological, economic, military, and acquisition environments in which defense decisions and opportunities take place. With the persistently complex current security, threat, and economic environment, the need for objective analyses and forward looking planning for the mid and long-term is vital.

<u>B. Program Change Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)	32.549	30.339	31.735	31.878
Current BES/President's Budget (FY 2008/2009)	30.397	36.131	31.263	34.571
Total Adjustments	-2.152	5.792	-0.472	2.693
Congressional Program Reductions		-0.208		
Congressional Rescissions				
Congressional Increases		6.000		
Reprogrammings	0.245			
SBIR/STTR Transfer				
Other	-2.397		-0.472	2.693

There were congressional additions in FY 2007 for the Prompt Global Strike Study (\$5.0 million) and the Capabilities Study for IED Detection (\$1.0 million).

C. Other Program Funding Summary: Not Applicable.

D. Acquisition Strategy: Not Applicable.

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E. Performance Metrics:

FY	Strategic Goals Supported	Existing Baseline	Planned Performance Improvement / Requirement Goal	Actual Performance Improvement	Planned Performance Metric / Methods of Measurement	Actual Performance Metric / Methods of Measurement
08						

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FY 2008 BA	FY 2008 BA Assoc w/Metrics	Percent FY 2008 BA Assoc w/Metrics
\$31,263K	\$31,263K	100%

This program conducts approximately one-hundred fifty actions per fiscal year to support a wide variety of dynamic goals of the Department and is designed to encourage a collaborative research approach among the components of OSD and the Joint Staff. 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 timely importance. Most of the actions are long to intermediate-range in outlook, and the program allows high-level managers to plan and to guide their research toward their highest-priority goals and other high-level guidance such as the President's Management Agenda and the National Security Strategy of the United States of America. The research and study projects supported by this program are closely integrated with the Department's strategic goals, especially the objectives stipulated in the Quadrennial Defense Review.

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Cost (\$ in Millions)	FY 2006 Actual	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
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B. Accomplishments/Planned Program:

Accomplishment/Planned Program Title	FY 2006	FY 2007	FY 2008	FY 2009
Technical Support to OSD and the Joint Staff: FY 2006 Accomplishments	30.397	0.000	0.000	0.000

Technical Support for USD(Acquisition, Technology & Logistics):
Studies and analyses of the following areas:

Electronic warfare capabilities and investment strategies, improving fuel efficiency of weapons systems, joint safety review process improvement, security of IT systems, integrated air and missile defense, joint air dominance, global strike capabilities, conventional munitions requirements, systems and software engineering policies, the domestic software industrial base, tracking capabilities of high-value targets, support to various Defense Science Board task forces, evolving technologies and the acquisition process, explosives safety and testing processes, land attack capability requirements and optimization, fusing technology, materiel planning with alliance partners, maritime stockpile planning, unmanned combat systems investment planning, rotary wing systems capabilities and requirements, effects and assistance of regulatory requirements on DoD acquisition policies, technical and non-technical cost drivers influencing System of Systems efforts, estimating system integration costs for large-scale C4ISR systems, improvement of domestic shipbuilding capabilities, export controls and the health of the defense industrial base, effects from use of non-US component suppliers, various sector-specific industrial base assessments, reviews of defense industry mergers and acquisitions, international cooperative R&D programs, NATO policy planning, effects of force transformation on allied industrial base restructuring, industry technology transfer with small businesses, and DoD contracting with businesses owned by service-disabled veterans

Technical Support for the Director, Program Analysis & Evaluation:
Studies and analyses regarding the following areas:

Special Operations Forces manning, systems dynamic modeling of the Global War on Terrorism, tactical aviation capabilities, airborne electronic attack, impact of equipment prepositioning, strategic airlift and tanker requirements, Future Combat Systems network components, homeland defense response and consequence management capabilities, the defense health program, medical readiness, SIGINT sensor systems, space radar capabilities supporting the DoD and the intelligence community, improving the efficiency of supply chains, capabilities-based risk management, naval force structure, allied burden

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sharing, development and operation and maintenance costs for major weapons systems, unconventional warfare and counterinsurgency operations, earned value management within DoD, deployment of expeditionary forces, portfolio risks among current space programs, operations tempo resource requirements, and process improvement planning for the Quadrennial Defense Review (QDR)

Technical Support for the USD(Policy):
 Studies, analyses, and activities in the following areas:

Mid-and-long range defense planning scenarios and their effects on force planning requirements, WMD defense including defense against evolving biological and chemical threats, irregular warfare, cyber power theory and cyber defense, space policy development and national space strategy, foreign space systems capabilities, international space cooperation, countering and reducing ideological support for terrorism, use of the internet in terrorism, developing guidance for stability operations, and strategic-level simulations of areas of interest for members of Congress and high-level executive branch decision-makers

Technical Support for the USD(Personnel & Readiness):
 Studies and analyses in the following areas:

Personnel retention, civilian compensation losses by service-disabled veterans, recruiting among young adults, ameliorating stresses on families of deployed military personnel, management of wounded personnel, family relationships among newly returned personnel, modeling workforce characteristics of enlisted personnel and their impact on promotions, and medical readiness force structure

Technical Support for the ASD (Networks & Information Integration) and USD(Intelligence):
 Studies and analyses of:

Information assurance and the domestic commercial sector; information sharing capabilities in regional stability operations; networking engineering support; improving the availability of low-cost GPS receivers in the field; intelligence training and education requirements within the DoD Intelligence Components; Intelligence, Surveillance and Reconnaissance capabilities

Technical Support for the Joint Staff:
 Studies and analyses supporting unmanned aerial systems, DoD emergency preparedness, space and missile assets, unconventional warfare and counter-insurgency operations, forward-deployed force postures and expeditionary warfare, coalition battle management command and control, and capability and risk assessments within planning scenarios

Other activities:

Congressional addition for Capabilities Study for IED Detection (\$1 million in FY 2006) and NDU Technology Pilot Program (\$1 million in FY 2006)

Accomplishment/Planned Program Title	FY 2006	FY 2007	FY 2008	FY 2009
Technical Support to OSD and the Joint Staff: FY 2007 Program	0.000	36.131	0.000	0.000

Technical Support for USD(Acquisition, Technology & Logistics):
 Studies and analyses of:

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Continued studies on electronic warfare capabilities, airlift and sealift, security of IT systems and software, air and missile defense, air dominance, global strike capabilities, conventional munitions requirements, remanufacturing of defense assets, DoD use of commercial issems, systems and software engineering policies, high-value targeting, support to various Defense Science Board task forces, evolving technologies and the acquisition process, land attack capability requirements and optimization, fusing technology, materiel planning, mine countermeasures for naval platforms, the global shipbuilding environment, operational availability, aviation safety, unmanned combat systems investment planning, rotary wing systems, DoD acquisition policies and execution management, global defense market changes and their effect on domestic and allied industry, depot maintenance core requirements, logistics systems modernization policies, various sector-specific industrial base assessments, reviews of defense industry mergers and acquisitions, international cooperative R&D programs, NATO policy planning, small business investment strategy, and DoD relations with small businesses

Technical Support for the Director, Program Analysis & Evaluation:
Studies and analyses regarding the following areas:

Non-traditional military challenges and their implications for homeland defense and civil support/consequence management, building coalition capabilities and partnerships, various aspects of requirements and technologies for the Future Combat Systems, mitigating wartime stress and repair requirements on military systems and equipment, analyses of attrition among coalition forces, tactical and strategic mobility requirements and tanker fleet recapitalization, extended QDR analyses of tactical aviation forces, optimizing the force structure mix among unmanned aerial vehicles and attack/reconnaissance helicopters, investment strategies among intelligence collection capabilities and their contributions to counterterrorism and other high-value target missions, strengthening human intelligence capabilities and leveraging their effects among other ISR assets, airborne layer platforms and ground wide area network operations in major combat operations, operations research for airborne ISR platforms, improving space radar capabilities for high resolution terrain information and advanced geospatial intelligence collection, SIGINT geolocation accuracy, medical cost and readiness projections, modeling littoral combat capabilities, sea-basing requirements, software cost management and analyses, performance-base logistics, contributions of allied forces, the long-term trends and affordability of the defense program, DoD information assurance capabilities, personnel compensation and retention, catastrophic planning scenarios, joint campaign capabilities assessment, operations and support costs, weapons systems remanufacturing and depot repair costs, forecasting force and infrastructure resource requirements and integrating developing requirements into the defense program, and commodities price volatility and subsequent effects upon program costs.

Technical Support for the USD(Policy):
Studies, analyses, and activities in the following areas:

Mid-and-long range defense planning scenarios and their effects on force planning requirements, WMD defense including defense against evolving biological and chemical threats, strategic weapons employment policy, irregular warfare, countering the threat of WMD proliferation through international partnership cooperation efforts and the Proliferation Security Initiative, space policy development and national space strategy, reducing the terrorist threat through cultural understanding and societal analyses of unstable countries, and strategic-level simulations of areas of interest for members of Congress and high-level executive branch decision-makers

Technical Support for the USD(Personnel & Readiness):
Studies and analyses in the following areas:

Effects of compensation on personnel retention, career management of linguists, recruiting among young adults, ameliorating stresses on families of deployed military personnel, management of wounded personnel, family relationships among newly returned personnel, assessing comparative rates of sexual assault with military and civilian populations, modeling workforce characteristics of enlisted personnel and their impact on promotions, and medical readiness force structure

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Technical Support for the ASD (Networks & Information Integration) and USD(Intelligence):
Studies and analyses of:

Command and control in coalition operations, developing net-centric enterprise communication capabilities, developing standards for joint data exchange, DoD information assurance, improving mobility of communications systems, improving information integration between the DoD and the Intelligence Community, strengthening Defense HUMINT, battlespace awareness, intelligence collection and ballistic missile defense, the effects of commercially available imagery, nuclear detection system architecture, optimizing weather satellite development to support imagery collection, and improving security standards and counterintelligence capabilities

Technical Support for the Joint Staff:

Studies and analyses supporting identification of strategic ways and means to dissuade potential adversaries from acquiring or proliferating WMD, risk management of information sharing, global broadcast service coverage, and deterrence of terrorist interaction with narcotics-based non-state entities

Other activities:

Congressional increases for Capabilities Study for IED Detection (\$1.0 million in FY 2007) and Prompt Global Strike Study (\$5.0 million in FY 2007)

Accomplishment/Planned Program Title	FY 2006	FY 2007	FY 2008	FY 2009
Technical Support to OSD and the Joint Staff: FY 2008 Plans	0.000	0.000	31.263	0.000

Technical Support for USD(Acquisition, Technology & Logistics):
Studies and analyses of:

Continued studies on electronic warfare capabilities, airlift and sealift, security of IT systems, air and missile defense, air dominance, global strike capabilities, conventional munitions requirements, systems and software engineering policies, high-value targeting, support to various Defense Science Board task forces, evolving technologies and the acquisition process, land attack capability requirements and optimization, fusing technology, materiel planning, mine countermeasures for naval platforms, the global shipbuilding environment, aviation safety, unmanned combat systems investment planning, rotary wing systems, DoD acquisition policies, global defense market changes and their effect on domestic and allied industry, depot maintenance core requirements, logistics systems modernization policies, various sector-specific industrial base assessments, reviews of defense industry mergers and acquisitions, international cooperative R&D programs, NATO policy planning, small business investment strategy, and DoD relations with small businesses

Technical Support for the Director, Program Analysis & Evaluation:

Studies and analyses regarding the following areas:

Non-traditional military challenges and their implications for homeland defense and civil support/consequence management, identifying requirements for the next Quadrennial Defense Review, capabilities-based planning, the long-term trends and affordability of the defense program, force structure and manpower issues, alternative systems and weapon configurations, C4ISR capabilities and evaluations, software cost estimation, operations and support costs of weapons systems, evaluation and planning for stability operations, modeling and simulation master planning, cost estimation and joint requirements

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evaluation among weapons platforms shared among allies, operational availability of assets, and multi-service force deployment baseline planning

Technical Support for the USD(Policy):
 Studies, analyses, and activities in the following areas with an emphasis upon planning for the 2010 QDR:

Issues and problem areas concerning the Global War on Terrorism, WMD defense including defense against evolving biological and chemical threats, strategic weapons employment policy, irregular warfare, countering the threat of WMD proliferation through international partnership cooperation efforts and the Proliferation Security Initiative, development of defense planning scenarios and improving the contingency planning system, reducing the terrorist threat through cultural understanding and societal analyses of unstable countries, and strategic-level simulations of areas of interest for members of Congress and high-level executive branch decision-makers

Technical Support for the USD(Personnel & Readiness):
 Studies and analyses in the following areas:

Effects of monetary and non-monetary incentives on personnel retention, effects of the National Security Personnel System, long-term impact of personnel deployments on retention, civilian personnel management and retention, hardships among military families, civilian education and professional development, and management of reserve components

Technical Support for the ASD (Networks & Information Integration) and USD(Intelligence):
 Studies and analyses of:

Net-centric tactical wireless issues; command and control in coalition operations; developing net-centric enterprise communication capabilities; developing standards for joint data exchange; DoD information assurance; improving mobility of communications systems; DoD security systems and policies; government-wide authentication systems; and Intelligence, Surveillance and Reconnaissance capabilities

Technical Support for the Joint Staff:
 Studies and analyses supporting strategic theater plans and engagement objectives, stability operations, homeland defense consequence management, various assessments relating to the Global War on Terrorism, and upcoming studies directed by the Program Decision Memorandum and Strategic Planning Guidance

Accomplishment/Planned Program Title	FY 2006	FY 2007	FY 2008	FY 2009
Technical Support to OSD and the Joint Staff: FY 2009 Plans	0.000	0.000	0.000	34.571

Technical Support for USD(Acquisition, Technology & Logistics):
 Studies and analyses of:

Continued studies on electronic warfare capabilities, airlift and sealift, security of IT systems, air and missile defense, air dominance, global strike capabilities, conventional munitions requirements, systems and software engineering policies, high-value targeting, evolving technologies and the acquisition process, land attack capability requirements and optimization, fusing technology, materiel planning, mine countermeasures for naval platforms, the global shipbuilding environment, aviation safety, unmanned combat systems investment planning, rotary wing systems, DoD acquisition policies, global defense market changes and their effect on domestic and allied industry, depot maintenance core requirements, logistics systems modernization policies, various sector-specific industrial base assessments, reviews of

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defense industry mergers and acquisitions, international cooperative R&D programs, NATO policy planning, small business investment strategy, and DoD relations with small businesses

Technical Support for the Director, Program Analysis & Evaluation:
Studies and analyses regarding the following areas:

Non-traditional military challenges and their implications for homeland defense and civil support/consequence management, detailed force planning and cost-effectiveness planning supporting the next Quadrennial Defense Review, capabilities-based planning, the long-term trends and affordability of the defense program, force structure and manpower issues, alternative systems and weapon configurations, C4ISR capabilities and evaluations, software cost estimation, operations and support costs of weapons systems, evaluation and planning for stability operations, modeling and simulation master planning, cost estimation and joint requirements evaluation among weapons platforms shared among allies, operational availability of assets, and multi-service force deployment baseline planning

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Studies, analyses, and activities in the following areas with an emphasis upon planning for the 2010 QDR:

Issues and problem areas concerning the Global War on Terrorism, WMD defense including defense against evolving biological and chemical threats, strategic weapons employment policy, irregular warfare, countering the threat of WMD proliferation through international partnership cooperation efforts and the Proliferation Security Initiative, development of defense planning scenarios and improving the contingency planning system, reducing the terrorist threat through cultural understanding and societal analyses of unstable countries, and strategic-level simulations of areas of interest for members of Congress and high-level executive branch decision-makers

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Studies and analyses in the following areas:

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Studies and analyses of:

Net-centric tactical wireless issues; command and control in coalition operations; developing net-centric enterprise communication capabilities; developing standards for joint data exchange; DoD information assurance; improving mobility of communications systems; DoD security systems and policies; government-wide authentication systems; and Intelligence, Surveillance and Reconnaissance capabilities

Technical Support for the Joint Staff:

Studies and analyses supporting maritime domain awareness, stability operations, pandemic consequence management, various assessments relating to the Global War on Terrorism, and upcoming studies directed by the Program Decision Memorandum and Strategic Planning Guidance

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C. Other Program Funding Summary: Not Applicable.

D. Acquisition Strategy: Not Applicable.

E. Major Performers Not Applicable.