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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE February 2003	
APPROPRIATION/BUDGET ACTIVITY Research, Development, Test & Evaluation, Defense-wide				R-1 ITEM NOMENCLATURE Technical Studies, Support & Analysis PE 0605104D				
COST (\$Millions)	FY 2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
Total Program Element (PE) Cost	27.400	29.000	30.204	30.686	31.200	31.825	32.315	32.954
P421 Tech Studies, Support & Analysis	27.400	29.000	30.204	30.686	31.200	31.825	32.315	32.954

A. Mission Description and Budget Item Justification

BRIEF DESCRIPTION OF ELEMENT: This program element is classified in Budget Activity 6 (Management Support) because it is the 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. Specific projects address a variety of complex issues and dynamic problems facing the Under Secretary of Defense for Acquisition, Technology & Logistics [USD(AT&L)], the Under Secretary of Defense for Policy [USD(P)], Under Secretary of Defense for Personnel and Readiness [USD(P&R)], Assistant Secretary of Defense for Command, Control, Communications and Intelligence [ASD(C3I)], Director for Program Analysis and Evaluation (DPA&E), the Joint Staff and Unified Command Commanders. Studies and analyses will examine the implications and consequences of 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 our need to better understand and cope with the threats and uncertainties facing the Nation in the current economic environment, the need for objective analyses and forward-looking planning for the mid and long-range (at acceptable near-term risk) becomes greater.

PROGRAM ACCOMPLISHMENTS AND PLANS: Details follow for each Under Secretary and Director or Chairman supported.

General Support for USD (ACQUISITION, TECHNOLOGY & LOGISTICS):

FY 2003 Accomplishments

- For SECDEF directly, developed a capabilities-based Rapid Dominance strategy in conjunction with the transformation process
- Continued integration and display of Hard & Deeply Buried Target Defeat requirements and program options
- Continued long-range precision strike assessment from an integrated global perspective to provide a comprehensive, integrated and responsive long-range strike capability and quickly overcome projected anti-access and area denial scenarios.

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- Single Integrated Space, Air , and Ground Pictures– Continued to build upon current developmental and legacy efforts to provide Full Spectrum Dominance in which we provide situational awareness for missile warnings, intelligence, surveillance, and reconnaissance., bringing together Services to leverage existing capabilities and data sharing technologies to enhance precision targeting and tracking and identification of friendly forces on the battlefield.
- Determined the common data base requirements for DoD Unmanned Aerial Vehicle (UAV) mission planning and proposed a single common mission planning architecture based on a module-based system and standard formats.
- Continued to evaluate technical, architectural, and programmatic issues in ballistic and cruise missile defense: space based sensors, radar systems, electro-optical systems, missile propulsion, missile guidance-and-control, software, lasers, algorithms, and systems engineering. In support of boost and mid-course intercept as well as terminal phase ballistic missile intercept, examine programmatic and technical issues associated with airborne and space based lasers systems and architectures.
- Initiated analytic assessment of total joint warfighting requirements, defining systems-of-systems architectures, and implementing policy for systems engineering, interoperability, and integration.
- Supported activities for analyzing the interoperability dimensions of military requirements presented in new Operational Requirements Documents and assessing whether the requirements as stated are adequate for producing a system that will achieve the needed interoperability.
- Reviewed allied/coalition partner system developments and acquisition programs to assess interoperability potential and impacts.
- Reviewed plans for Joint Warfighting Experiments (JWEs) and Joint Warfighting Capability Assessments (JWCAs) for implementation of relevant C4ISR system architectures and demonstrations of interoperability.
- Analyzed TACAIR weapon systems performance, cost, and schedule issues in support of acquisition milestone decisions and DoD planning, programming, and budgeting activities.
- Studied the effectiveness a SMART (Sports Medicine and Recondition Therapy) Center in a forward deployed operation or in a CONUS tactical unit in order to improve mission readiness of military operations through decreased medical attrition rates.
- Based on processes applied in analysis of the Family of Interoperable Operational Pictures, reviewed selected system-of-system concepts including Global Information Grid (GIG) to assess application of the Joint Technical Architecture and the extent of resulting interoperability.
- Implemented steps to review and document processes and technologies DoD-wide that serve as barriers or enablers to information, logistics, and business system interoperability.
- Conducted a study to estimate the ability of DoD laboratories to conduct VOC (Volatile Organic Compounds) biomonitoring of blood, develop internal DoD capability to analyze blood for VOC's, and assess follow-on actions required to support such analysis for future operations.
- Assessed state of markets/firms -- Tactical Aircraft (retaining future design/manufacturing capability), Helicopters, Space, Missiles and Precision Guided Munitions (PGM), UAV, Shipbuilding, and Less Traditional Supplier Industry Studies
- Assessed Acquisition Program Plans, especially Nunn McCurdy breaches on various programs, and the Joint Strike Fighter
- Ensured continuing competition in Defense Industrial Base—performed Merger & Acquisition reviews (including Northrop Grumman/Newport News, TRW, Boeing/Hughes, L3-Communications/Raytheon, AIS and Perkins)
- Analyzed foreign Defense Industry Structure, esp. foreign supplier capabilities for JSF and other programs though building a database on thirty international companies
- Studied less traditional suppliers of both critical infrastructure and weapon systems, including transformation technology leaders.

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- Planned and initiated reviews of DoD-wide systems engineering, integration, and testing activities related to system-of-system acquisitions, to evaluate and compare the success of alternative technical and management approaches for accomplishing interoperability objectives.
- Supported Defense Science Board task forces on--Acquisition of National Security Space Programs, Enduring Freedom Lessons Learned, Unexploded Ordnance, Vulnerability Assessment, Defense Against Terrorist Use of Nuclear Weapons Against US, Exploiting Technology for Transformation, Down Vaccine Selection Process (Smallpox), Interference Capabilities, Sea Basing, Joint Experimentation, DoD Roles and Missions in Homeland Security, Enabling Joint Forces Capabilities, Managing Foreign Intelligence by Focusing on Ends Vice Means, Future Conventional & Nuclear Strategic Strike Capabilities, ,Special Operations employment and intelligence in the War on Terrorism, and B-52 Re-Engining
- Per Congressional direction, evaluated weapon systems requirements and acquisition issues, and to submit master planning documents for key defense mission areas: Conventional Munitions (data collection annually, report submitted every other year), Anti-armor Munitions, and Electronic Warfare
- Created a database to support installation resource management worldwide.
- CAMIS--Finalized and implemented a web-based, on-line system to capture A-76 data savings, validate the data, and finalize DOD Cost Comparison Handbook
- Developed tools to measure the ability of DoD Fire and Emergency Services to respond to weapons of mass destruction events and recommend means to improve their effectiveness.
- Analyzed 70 newly completed military construction buildings to determine systemic design and construction deficiencies that should have been corrected in design estimate costs to abate the hazards during occupancy. Will write a report cooperatively with industry to fix the problems.
- Developed an inventory of operational ranges and munitions response properties; assessed the cost for remedial action to remove unexploded ordnance contamination from operational ranges; and provide an assessment of available technologies and outline a technology roadmap to lower overall program cost.
- Conducted ESOH (Environmental Safety, Operations, and Health) risk analysis on beryllium in rocket propellant to estimate the magnitude of worker exposure.
- Identified the impacts of alternative utilities on Facilities sustainment costs
- Developed outreach tools for Installations and Ranges including stakeholder dialogue in support of the sustainable range initiative.
- Conducted a comprehensive peer review of the SAFER (Safety Assessment for Explosive Risk) model – a probabilistic explosives safety risk assessment model).
- Conducted FY 2004 S&T strategic planning activities. Prepare Congressionally mandated Joint Warfighting S&T Plan and prepare updates of the companion S&T planning documents.
- Continued analysis in support of laboratory improvement initiatives mandated by Congress or DoD.
- The Small Business Innovation Research (SBIR) Program Reauthorization Act of 2000 (PL 106-554) requires the Department of Defense to cooperatively support the National Academy of Sciences (NAS) comprehensive study of how the SBIR Program has stimulated technological innovation and used small businesses to meet federal research and development needs.

FY 2004 Program

- Refine the Nuclear Posture Review incorporating new TRIAD strike force requirements and acquisition approach/programming consistent with the Defense Planning Guidance and the President's direction for Global Strike.

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- Continue the Combat Identification Architecture Study to improve the accuracy of the characterization of detected objects in the joint battlespace, minimize fratricide, and improve operational effectiveness
- Analyze OCONUS encroachment issues affecting overseas training and readiness activities and how OCONUS encroachment issues should be addressed as part of DoD's broader Sustainable Ranges Initiative.
- Assess the potential combat effectiveness of alternative tactical aircraft forces
- Study development, implementation, and investment strategy of advanced electronic countermeasure capabilities
- Develop methods to improve Unmanned Aerial Vehicle survivability
- Identify and analyze the roles of Unmanned Aerial and Ground Vehicles and identified methods to integrate both types of systems.
- Analyze and identify appropriate air-worthiness and air safety standards for Unmanned Aerial Vehicles (UAVs)
- Study the effects of small and handheld UAVs on manned aircraft, and identify ways to better integrate the battlespace.
- Perform studies of system engineering practices to identify methods to optimize network centric warfare systems of systems C4ISR and weapons platforms integration.
- Continue Hard & Deeply Buried Targets technical analysis
- Perform in-depth industrial analyses of the sub-tier supplier base for the tactical missile and precision guided munitions (PGM) industry including market analysis, evaluation of industrial health and capacity, and recommended DoD actions
- Study the design and production processes used on Navy ships, to enhance innovation and reduce construction costs, ensure that new ships incorporate advanced design features and are built using the best production techniques
- Examine the long-term DoD acquisition model for advanced semiconductor devices used in military and intelligence applications (recommended by FY03 Appropriations Conference Report)
- Study effects of changes in production rates of ACAT1 systems to increase cost effectiveness and reduce cycle times.
- Develop an integrated warfare architecture to ensure that proper amounts of appropriate munitions are procured and to identify capability gaps regarding current or potential target sets.
- Continue to evaluate technical, architectural, and programmatic issues in ballistic and cruise missile defense: space based sensors, radar systems, electro-optical systems, missile propulsion, missile guidance-and-control, software, lasers, algorithms, and systems engineering.
- Forecast impact of US force transformation on European defense industry and force structure
- Develop strategies to foster defense industrial base transformation among our Allies.
- Create an architecture to integrate capabilities of precision engagement systems
- For Combat Systems Interoperability, conduct a Single Integrated Ground Picture study in support of the Single Air Picture Initiative and Family of Interoperable Operating Pictures (FIOP) initiative
- Conduct detailed engineering-level vulnerability analysis of Space-based and terrestrial WMD control systems; Long-range, space-based and air-breathing, ISR/Targeting and control systems; land-based OTH surveillance and targeting mechanisms; and dynamically targetable, long-range, cruise and ballistic missile weapons.
- Develop models, methods and metrics to measure DoD software intensive systems (SIS) acquisition performance and improve acquisition processes (implement program requirements in Section 804 of the FY 2003 Defense Appropriations Act, Improvement of Software Acquisition Processes).

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- Assess the survivability and effectiveness of operational mobility options contributing to Dominant Maneuver on the battlefield, and identified capability gaps where investments could be made to enhance future dominant maneuver capability.
- Conduct a capabilities assessment of joint solutions to meet anti-access and asymmetric threats in littoral areas.
- Analyze TACAIR weapon systems performance, cost, and schedule issues in support of acquisition milestone decisions and DoD planning, programming, and budgeting activities.
- Respond to Congressional direction to evaluate weapon systems requirements and acquisition issues, and to submit master planning documents for key defense mission areas:
Conventional Munitions Master Plan (data collection annually, report submitted every other year), Anti-armor Munitions Master Plan, DoD Electronic Warfare Plan
- Study feasibility of transitioning DoD fuel facilities infrastructure to private sector
- Continue analytic effort to assess total joint warfighting requirements, define systems-of-systems architectures, set and implement policy for systems engineering, interoperability, and integration.
- Provide executive oversight of the multi-service Family of Interoperable Operational Pictures (FIOP) effort to further develop concepts for integrating Single Integrated Air, Ground, Maritime, Space, and Special Operations Pictures, Common Operational Picture and Common Tactical Picture to develop 80% solutions for the FIOP overarching initiative.
- Provide executive oversight of the Department's Precision Engagement initiatives implemented as a result of the Summer 2001 Defense Science Board study on Precision Targeting and subsequent USD(AT&L) tasking.
- Technical support for Defense Science Board Task Forces on several critical issues
- Provide executive oversight of the Blue Force Tracking (BFT) initiative, ensuring multi-service participation and inclusion of technologies from the BFT Advanced Concepts and Technology Demonstration (ACTD).
- Review allied/coalition partner system developments and acquisition programs to assess interoperability potential and impacts.
- Review plans for Joint Warfighting Experiments (JWEs) and Joint Warfighting Capability Assessments (JWCAs) for implementation of relevant C4ISR system architectures and demonstrations of interoperability.
- Implement steps to review and document processes and technologies DoD-wide that serve as barriers or enablers to information, logistics, and business system interoperability continued with emphasis on exploitation of E-Biz technologies and support for demonstrators/early adaptors for key DoD programs, such as support for the MDASG.
- Ensure convergence on DEPSECDEF directed Legacy C2 transformation for 2008 target
- Support US JTRS evolution to encourage coalition, international, commercial industry integration for interoperable C2 systems
- Continue support for National and Allied Coalition efforts for interoperable tactical communications (JTRS/Bowman, ICOG Interoperable Tactical Communications Task Force, to include support for development of US direct interoperability with the UK Bowman radio systems
- Continue support for US-UK Interoperability Commission with emphasis on weapons systems visibility, collaboration and "arrive on site first day integration" war fighting capabilities with emphasis on development of agreed network interfaces, data sharing arrangements, and tactical user operations conventions for military planning through strike functions
- Continue Quick Win efforts with NATO and coalition partners for sharing underlying tactical information through "Core Capability Demonstrators" based on Quick Win data sharing, enabling communications architectures, mobile targeting and enhanced Blue Force tracking

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- Analyze and overcome economic and legal issues hindering privatization of DoD utility systems.
- Ongoing Technical and economic analysis to support Merger & Acquisition reviews
- Assess track record of divestitures used to remedy anti-competitive structures resulting from mergers between defense suppliers
- Forecast vulnerabilities in the supply chains on which DoD relies for weapon systems
- Promote secure, integrated global industrial base. Identify and minimize impediments to transatlantic linkages; use metrics to evaluate and monitor cooperation. Continue to monitor footprint of foreign defense firms in the U.S.
- Prepare annual update of the Congressionally mandated Joint Warfighting Science and Technology Plan and the companion science and technology planning documents.

Technical Support for the Director, Program Analysis & Evaluation

FY 2003 Accomplishments:

- Analyzed of digitization's operational effectiveness expanded to address how program delay can remain executable with delayed resourcing; analysis will inform Program Reviews for FY 02-07 and the QDR, and provide alternative, executable courses of action for the Army as digitization evolves in the near term.
- Developed alternative force structures consistent with QDR 2001 and reviewed Army process for determining force structure requirements for TAA09.
- Continued development of a critical management indicators, tools, and techniques for incorporation into the DPP materials used to provide DoD senior leadership with an overview of the long term trends, "health", and affordability of the defense program..
- Reviewed ongoing issues arising from integration of key technologies in RAH-66 Comanche helicopter, Crusader artillery program, and the Beyond Line-of-Sight (BLOS) missile.
- Examined survivability, lethality, and range of individual platforms identified as potential LRI aircraft in context of future threat scenarios to show how platform alternatives influence the effectiveness of the entire force.
- Reviewed army force and manpower issues that arise as part of PPBs Program Reviews.
- Reviewed radar technologies to meet future shipboard air defense needs.
- Development of tool for comparing performances of alternative systems, weapon configuration, and force levels.
- Provided expert analytical critique and assistance for developing mathematical/engineering tools needed to examine selected TACAIR analyses and studies to include aircraft en-game maneuver, aircraft attrition, stealth utility, laser performance, weapons effects, and aircraft CER development.
- Provided ground forces movement model as basis for ISR in TACAIR air-to-ground campaign models.
- Assessed operational effectiveness of air-launched weapons performance from a Joint or DoD perspective (Operation Enduring Freedom) to aid in future weapons systems decisions.

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- Examined the effectiveness of MLRS forces and fire support alternatives.
- Assessed the effectiveness of alternative force mixes for long-range interdiction and air superiority missions.
- Supported defense analysis professional forum.
- Continued development of a "should cost" model to establish an estimate of requirements for the defense health program and to illuminate decisions on a program that commands an increasing proportion and amount of the DoD topline.
- Estimated the cost of military manpower to make effective force shaping decisions.
- Supported development of metrics to gauge the sufficiency of military service and major defense agency funding for O&M.
- Improved cost estimating relationships for Ballistic Missile Defense systems in preparation for major milestone reviews.
- Provided research on new tools for estimating costs of new development programs in key product sectors.
- Analyzed current program and budget data structures and processes to identify opportunities to integrate and streamline programming and budging data requirements and collection mechanisms.
- Improved the quality, timeliness, and cost effectiveness of DoD software cost estimating with development of a parsimonious set of historical resources and cost-driver data, and data collection consistent with principles of acquisition streamlining.
- Developed approach and comprehensive process to estimate the life-cycle cost of the next generation unmanned air vehicles (UAVs) and uninhabited combat air vehicles (UCAVs).
- Developed metrics to evaluate the effectiveness and efficiency of Defense Working Capital Funds (DWCF) activities.
- Improved PA&E's ability to evaluate program assumptions in areas related to software. Improve ability to evaluate costs and benefits of software development programs and strategies.
- Provided increased understanding of different options for rapid precision global strike.
- Assessed transformation progress requested by the DepSecDef to provide insight on ISR requirements needed for strike goals.
- Provided senior leaders with key analyses to aid in resource allocation decisions and enhance defense planners ability to make most effective use of scarce collective defense resources.
- Analyzed aerial refueling tanker requirements in support of air mobility operations.
- Analyzed U.S. involvement in smaller-scale contingencies and issues related to U.S. military involved in these operations -- assessment of impact of projected level of global engagement on US force structure, PERSTEMPO and OPTEMPO, and ability to fight and win MTWs.
- Continued to build analytic foundation for examining opportunities and challenges arising from operations with non-US military organization in future smaller scale contingencies (SSCs).
- Analyzed alternatives for structuring future airlift capabilities.
- Supported Verification & Validation of simulation model for assessments of strategic lift issues, including modernization decisions in the program /budget review, and analyses of warfighting scenarios tied to the new defense strategy.
- Continue development of a critical management indicators, tools, and techniques for incorporation into the DPP materials used to provide DoD senior leadership with an overview of the long term trends, "health", and affordability of the defense program.
- Continue development of tool for comparing performances of alternative systems, weapon configuration, and force levels.

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- Provide expert analytical critique and assistance for developing mathematical/engineering tools needed to examine selected TACAIR analyses and studies to include aircraft end-game maneuver, aircraft attrition, stealth utility, laser performance, weapons effects, and aircraft CER development.
- Provide ground forces movement model as basis for ISR in TACAIR air-to-ground campaign models.
- Assessment of air-launched weapons performance from a Joint or DoD perspective to aid in future weapons systems decisions.
- Support defense analysis professional forum.
- Support in conducting symposium in support of sound integration and planning of DoD Economic activities among OSD, the military services, and defense agencies.
- Develop a "should cost" model to establish an estimate of requirements for the defense health program and to illuminate decisions on a program that commands an increasing proportion and amount of the DoD topline.
- Estimate the cost of military manpower to make effective force shaping decisions.
- Development of metrics that can be used to gauge the sufficiency of military service and major defense agency funding for O&M.
- Improves cost estimating relationships for Ballistic Missile Defense systems in preparation for major milestone reviews.
- Provide research on new tools for estimating costs of new development programs in key product sectors.
- Analysis of the current and budget data structures and processes to identify opportunities to integrate and streamline programming and budgeting data requirements and collection mechanisms.
- Analysis of cost and performance of various Full Service Contracting arrangements in comparison to traditional, organic support.
- Analysis of DoD's use of electricity and natural gas, the associated costs, and use of tools to lower costs.
- Develop approach and comprehensive process to estimate the life-cycle cost of the next generation unmanned air vehicles (UAVs) and uninhabited combat air vehicles (UCAVs).
- Improve PA&E's ability to evaluate program assumptions in areas related to software; evaluate costs and benefits of software development programs and strategies.
- Provide analysis for cost-effective allocation of resources among space, missile defense, and reconnaissance systems.
- Provide senior leaders with key analyses to aid in resource allocation decisions and enhance defense planners ability to make most effective use of scarce collective defense resources.
- Analysis of aerial refueling tanker requirements in support of air mobility operations.
- Analysis of US involvement in smaller-scale contingencies -- assessment of impact of projected level of global engagement on US force structure, PERSTEMPO and OPTEMPO, and ability to fight and win MTWs.

FY2004 Program

- Assess the operational effectiveness of the KC-767A aircraft in the aerial refueling role in comparison with the KC-135R.
- Identify the near-term and potential long-term missions that should be conducted by Unmanned Combat Air Vehicles.
- Identify intelligence collection needs and define a corresponding integrated air and space architecture for 2008-2018 time period.
- Analyze KC-767 pricing, in consideration of DoD lease and buy alternatives for recapitalizing the aerial refueling tanker fleet.
- Analyze the impact of the projected level of global engagement on US force structure on PERSTEMPO and OPTEMPO.
- Analyze cost and force capability implications of current and future defense programs.

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- Examine issues identified in lessons learned small-scale contingency studies to explore alternative force structures
- Improve quality, timeliness, and cost effectiveness of DoD software cost estimating with development of a parsimonious set of historical resources and cost-driver data, and data collection consistent with principles of acquisition streamlining.
- Determine aerial refueling investments to optimize force closure/minimize risk, for deployment scenarios in new defense strategy.
- Examine enhancements to force capability and survivability of space systems.
- Analyze C4ISR persistence surveillance and rapid strike capabilities.
- Assess military forces capabilities to better exploit information technology.
- Continue provision of mathematical and scientific support for selected TACAIR analyses and studies.
- Continue the development of enhanced cost estimating tools to support military aircraft development and production.
- Develop improved methodologies for estimating weapon system development costs by the use of simulation techniques.
- Analyze US forces capabilities to display and sustain forces in an access-denial environment.
- Develop a comprehensive process to estimate the life-cycle cost of the next generation unmanned aerial vehicle systems.

Technical Support for the Under Secretary of Defense (POLICY)

FY 2003 Accomplishments:

- Conducted studies dealing with the war on terrorism and regionally-focused efforts; e.g. NATO, Asian security dynamics, South Asian regional issues, Russia, and China, Central Asia and the Middle East
- Continued to collect, analyze, and update statistics on a wide range of macroeconomic and defense indicators used for responsibility-sharing comparisons among NATO nations, Japan and the Republic of Korea (with PA&E)
- Conducted the Interagency Terrorism Response Awareness Program (I-TRAP)
- Continued to support work on the analysis of Military Operations in Urban Terrain
- Analyzed the role of Special Operations Forces in the new global security environment
- Assessed implementation of nuclear employment policy guidance
- Provided administrative, research, analytical and data base automation support for the National Disclosure Policy Secretariat
- Conducted studies dealing with the problems associated with the proliferation of weapons of mass destruction
- Initiated a study on Global Posture in Support of U.S. Defense Strategy

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- Conducted studies on countering the threat from weapons of mass destruction.
- Continued Continuity of Operations Planning (COOP) analyses and support.
- Developed strategies to respond to emerging issues in missile proliferation
- Concluded analyses of future insurgency threats.

FY 2004 Program

- Develop high-level understanding of the new/changing nature of deterrence in the post-Sept 11, WMD-proliferant security environment, providing a clear analysis of the nature, implications, and interrelationships of retaliation, preemption, and protection in this new era and in the context of the National Security Strategy.
- Provide framework for linking the new Security Cooperation Guidance process to resource allocation decisions for security assistance and other security cooperation areas.
- Conduct a study to define the steps necessary to enhance U.S.-Taiwan interoperability.
- Conduct various studies and research dealing with homeland defense
- Conduct analyses on overseas presence and posture
- Continue analyses on ways to “swiftly defeat” an adversary should deterrence fail
- Conduct analyses dealing with the nuclear posture review
- Conduct studies and analyses dealing with deterring and responding to terrorism
- Continue studies on transforming the force
- Continue to conduct regionally-focused studies on critical issues of concern to the department at the time
- Continue to collect, analyze, and update statistics on a wide range of macroeconomic and defense indicators used for responsibility-sharing comparisons among NATO nations, Japan and the Republic of Korea
- Assess implementation of nuclear employment policy guidance.
- Detailed computer modeling support for independent assessments of national missile defense and nuclear employment policy.
- Provide support to the Defense Policy Board for various studies and analyses.

Technical Support for the Assistant Secretary of Defense (C3I)

FY 2003 Accomplishments

- Combat Identification Investment Strategy and Architecture Study
- Computer Network Defense (CND) Network Architecture to meet mission needs and protect in shared risk environment
- Developed Airborne SIGINT Modernization Architectural Plan and Road Map
- Reviewed information operations/information warfare policies and implement improved strategies
- Evaluate warfighting requirements, plans, programs, budgets, and investment programs for acquisition of C4ISR systems

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- Analyzed Defensive Information Warfare Capabilities
- Supported Space Systems Acquisition and review

FY 2004 Program

- Analyze the impact of technology on managing need-to-know in the 21st century and the consequences for the warfighter.
- Develop a new commercial strategy for DOD that defines the most cost efficient and effective manner to procure commercial satellite communications.
- Develop a migration strategy for DoD RADAR systems that are expected to be adversely impacted by future commercial communication systems.
- Examine the potential of including the use of Joint Tactical Radio Systems (JTRS) Software Communications Architecture across other frequencies as well as increasing the flexibility and adaptability of the JTRS systems by including common IFs, waveform definitions, and policy waivers processes.
- Study which collection systems and which weapons and targeting support products should be improved to enhance the accuracy of Precision Guided Munitions.
- Analyze the ability of the emerging Wideband Networking Waveform (WNW) and MUOS to meet Integrated Broadcast Service (IBS) dissemination requirements and identified IBS content management requirements that duplicate support already provided by other communications services.
- Support the Navigation Warfare (Navwar) program regarding information assurance of GPS systems.
- Support development of Spectrum management strategy and analysis, radio frequency spectrum strategic planning

Technical Support for the Under Secretary of Defense (Personnel & Readiness)

FY 2003 Accomplishments:

- Developed a Strategic Human Resources Plan, covering both military and civilian members of the Department of Defense, and began developing metrics to track performance based on Plan objectives. Plan was approved by the Senior Executive Committee.
- Developed a Social Compact strategic plan, covering quality of life programs in the Department of Defense, and began developing metrics to track performance based on Social Compact objectives.
- Concluded the 9th Quadrennial Review of Military Compensation and published summary report and background papers.
- Continued modeling and analytic support for the Department's recruiting and retention programs for both active duty and Reserve Component personnel.
- Concluded an analysis of optimum policy tools and recruiting approaches to attract recruits from among college-bound youth or youth with some college.
- Concluded the Congressionally-mandated test and evaluation of the privatization of selected aspects of recruiting.
- Began evaluating the extent to which competition for recruits among the four military Services drives up the cost of recruiting.
- Estimated economic value of the military health care benefit and compared it to health care benefits provided in the private sector.
- Began updating DoD's comprehensive summary of the compensation system for military members (last updated in 1996).
- Continued exploring innovative ways to combine active / reserve forces, including homeland defense and anti-terrorism missions.
- Continued to assess most cost-effective ways to recruit/train/ retain military personnel in both the active and reserve forces.
- Concluded the development of performance metrics for the Department's Strategic Plan for Human Resources and for the Social Compact plan for support of military members and their families. Continued systematic monitoring and evaluation of performance based on the objectives and priorities in both plans.

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- Evaluated more flexible approaches to the recruitment, retention, and management of civilian personnel.
- Analyzed private sector best practices with respect to recruiting and managing high quality civilians
- Continued to examine the role of the reserve components in all Department activities, including homeland defense and anti-terrorism campaigns.
- Assessed the quality of life programs of the Department.
- Evaluated the implementation of the Tricare for Life benefit mandated by Congress.
- Determined the value of in-kind and deferred benefits for active duty members and their families.
- Began the development of a robust internet-based tool for surveying active and reserve military members and their families.

FY 2004 Program

- Develop model of long-term operations and support costs and identify major cost-drivers.
- Adjust the Strategic Plan for Human Resources and the Social Compact plan for family support in light of new presence and deployment policies developed as part of the transformation of the armed forces.
- Explore ways of linking the policies and metrics in the Strategic Plan and the Social Compact to the budget process.
- Re-assess compensation and benefit levels in the armed forces in light of new presence and deployment policies.
- Continue to monitor and analyze trends in performance metrics collected as part of the Human Resources Strategic Plan.
- Analyze patterns and consequences of perstempo policies implemented after the Congressional mandate for new data systems and management actions for perstempo in October 2000. Analyze patterns and effects of high deployment pay, if the waiver suspending its implementation has been lifted.
- Implement improved and more flexible tools for the management of the civilian workforce.
- Monitor/ evaluate recruiting /retention of both military and civilian personnel to meet the Department's need for quality people.
- Evaluate the cost-effectiveness and quality of care provided in the Military Health System (MHS) under the new Managed Care Support Contracts and National Mail Order Pharmacy Contract and other MHS initiatives.
- Perform feasibility study of establishing variable market-type pricing within the commissary system.
- Evaluate the feasibility of selling private label products within the commissary system.
- Continue to monitor and evaluate equal opportunity and sexual harassment policies and their effectiveness.
- Analyze impact of various quality of life programs on recruiting and retention of active and reserve military members.
- Investigate the possibility of contracting out selected quality of life and other programs.
- Evaluate the extent to which active and reserve forces have become a seamless whole in contingency and other operations.
- Use recently-completed database on military billets in the Fourth Estate (OSD and Defense Agencies) to evaluate the number and distribution of existing billets, and prioritize requirements for military personnel in these agencies and activities.
- Respond to congressional mandates and directives.

Technical Support for the Joint Staff

FY 2003 Accomplishments:

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE February 2003
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
Research, Development, Test & Evaluation, Defense-wide	Technical Studies, Support & Analysis PE 0605104D8Z	

- Studied planning, preparation, and execution of actions for the development of a Joint Operational Framework and Joint Task Force operational capability
- Studied evolution and deployment of C4ISR capabilities that will provide revolutionary/asymmetric advantages to Joint Warfighting forces.
- Coalition Wide Area Network (CWAN) Generic Design and Accreditation Process Study developed a generic CWAN design with alternative solution sets, and approved rules and procedure for gaining security approval of the multi-national CWAN.
- Current Force Analysis Logistics Study. Determined the capability of our current forces, supported with current resources, to successfully execute the National Military Strategy with current Postures of Engagements in potential near term scenarios.
- Analyzed DoD/Service guidance regarding HERO (Hazard of Electromagnetic Radiation to Ordnance) to identify disconnects between the Service-specific programs and the resultant impacts on Joint operations, with recommendations for improvement.
- Warfighter Mission Information Management Study. Documented a process for the Joint Staff to implement the National Security Space Architect Information Management Architecture.
- Assessed alternatives for a reliable, shared, single-source, and worldwide database on key infrastructure to include fuel handling, port and airfield capabilities, road, and rail infrastructure and access to water.
- Studied improved use of Joint Demand Assigned Multiple Access (DAMA) migration / implementation.
- Advance Targeting Schema study that will ensure a smooth transition of the federated targeting community automation solutions from a purely fixed target capability to one capable of facilitating counter terrorism and information operations targeting.

FY 2004 Program:

- Develop a plan for transitioning non-essential USSOCOM missions to other forces and agencies.
- Study non-fixed wing aviation plans through 2020, examining new demands created by the changes in defense strategy, gaps in capability, ability to maintain a satisfactory average fleet age, and opportunities for additional commonality, interoperability, and technology insertion.
- "Quick-turnaround" assessments directed by Chairman of the Joint Chiefs of Staff
- Continue responsive wargaming, analysis and assessment capabilities to support future CJCS requirements.

	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>
<u>B. Program Change Summary</u>				
Previous President's Budget	33.805	30.023	30.641	31.290
Appropriated Value	27.805	30.023		
Adjust to Appropriated Value/President's Budget				
Congressional Undistributed Reductions, Inflation Savings, Gov't-Wide Rescission, and Below Threshold Reprogramming	(.405)	(1.023)		
Current Budget Submit/President's Budget Funding:	27.400	29.000	30.204	30.686

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Research, Development, Test & Evaluation, Defense-wide	Technical Studies, Support & Analysis PE 0605104D8Z	

Schedule: N/A

Technical: N/A

C. Other Program Funding Summary Cost N/A

D. Schedule Profile N/A

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