

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE February 2002		
APPROPRIATION/BUDGET ACTIVITY Research, Development, Test & Evaluation, Defense-wide				R-1 ITEM NOMENCLATURE Technical Studies, Support & Analysis PE 0605104D					
Cost (In Millions)	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	Cost to Complete	Total Cost
Total Program Element (PE) Cost	30.315	27.400	30.023	30.641	31.290	31.898	32.609	Continuing	Continuing
P421 Tech Studies, Support & Analysis	30.315	27.400	30.023	30.641	31.290	31.898	32.609		

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.

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PROGRAM ACCOMPLISHMENTS AND PLANS:

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

FY 2001 Accomplishments

- Expanded past research examining the differences in how the Services allocate Housing O&M costs. Results could lead to DoD policy using best practices, to reduce O&M costs.
- Completed the threat and risk mitigation identification, describe the requirements for assured logistics communication, and identify the relationship between varying levels of risk and degree of assurance required
- Implement analytical applications to support QDR issue examination and recommendations; a facilitated forum to assist up to 50 mid-level to senior DoD logistics professionals in framing logistics strategy options for 2010-2020; Draft Logistics Operations and business area QDR Report; Final Logistics Operations and Business Area QDR Report
- Conduct the Competitive Sourcing/A-76 Peer Review--reengineer/improve the competitive sourcing process, benchmark current practices, expand for strategic sourcing and create standardized documents. Provide outreach recommendations to stakeholders.
- Pursue the USD(AT&L) & DepSecDef goal to eliminate inadequate military housing by 2010. Compare construction of similar housing with private sector to determine if costs/processes differ.
- During the QDR, implement a model to improve long-term (i.e., over 18-20 years) planning of defense acquisitions -- particularly portfolio affordability, stability, and schedule
- Technical support to manage and foster interoperability for the acquisition of U.S. military and coalition warfighting capability.
- Support the framework for interoperability shortfalls to develop priorities for interoperability objectives and employ them within USD (AT&L) acquisition management activities (e.g., DAES reviews, DAB).
- Plan and initiate 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.
- Based on international trends in information technologies, characterize alternative acquisition policies within U.S. and allied/coalition countries as they might affect success in acquiring and integrating systems for joint and coalition interoperability.
- Review joint architecture development activities in support of USD (AT&L) participation the Architecture Steering Group, Architecture Control Council, and other CIO interfaces with Services and DoD agencies.
- Continue analysis in support of laboratory improvement initiatives mandated by Congress or DoD.
- Support development of Simulation Based Acquisition (SBA) within the Defense Department.

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- Support 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.
- Review allied/coalition partner system developments and acquisition programs to assess interoperability potential and impacts.
- Continue AT&L dedicated support to U.S. program integration for system developments in fulfillment of NATO objectives embodied in the Defense Capabilities Initiative.
- Review plans for Joint Warfighting Experiments (JWEs) and Joint Warfighting Capability Assessments (JWCAs) for implementation of relevant C4ISR system architectures and demonstrations of interoperability.
- Based on processes applied in analysis of the Family of Interoperable Operational Pictures, review selected system-of-system concepts including Global Information Grid (GIG) to assess application of the Joint Technical Architecture and the extent of resulting 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.
- Prepare Congressionally mandated Joint Warfighting S&T Plan and companion S&T planning documents.
- Continue research on planning manufacturing with industry in cooperation with the National Center for Advanced Technologies.
- Provide technical and engineering assistance on assigned Departmental directed Science & Technology initiatives
- Perform an analysis to recommend an improved process for logistics business areas participation in the 2001 QDR leading to a credible revised defense plan
- Update Logistics Strategic Plan based on DRID 54 results, develop and maintain a DoD logistics management initiatives database that supports the strategic plan to include Services/DLA logistics initiatives input data and PPBS data specific to these initiatives
- Implement a project management plan that will serve as the framework for these diverse efforts, and outputs will include specific recommendations for policy and resource action, as well as cooperative efforts with both Defense and industry
- Implement approaches identifying the actions necessary to move forward with workforce restructuring and remove impediments
- Analyze 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.
- Complete independent evaluation of the requirement for future Base Realignment and Closure Rounds
- Update a relational database for decision making to improve facility management and streamline the infrastructure

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- Finalize Facilities Strategic Plan and Base Structure Report and develop tools to manage facility inventory.
- Finalize UAV programs to assess progress on areas specified in SECDEF UAV vision letter; identify program strengths and weaknesses to include technical, programmatic, and fiscal considerations; recommend policy, funding, or process changes to improve the management and execution of these programs.
- Continue the Section 5002, Federal Acquisition Streamlining Act of 1994 required effort to review incentives and personnel actions available to SecDef to encourage excellence in acquisition management , via a balance score card process at pilot sites
- Provide follow-on analysis and execution of Future Workforce 2005 Taskforce initiatives.
- Examine methods and procedures for efficient implementation of facilities management in field organizations, and develop/publish simple guidelines for distinguishing between sustainment, restoration and modernization expenses.
- Re-examine Target Replacement Life for each of the 400 facilities analysis categories to support development of PA&E-sponsored facilities aging model.
- Develop a comprehensive utilities and energy management strategy to manage energy (not infrastructure), and privatize utilities, simultaneously with DOD's efforts to procure energy competitively and conserve energy.
- Administer the Renewable Energy Feasibility Study & Implementation Program; Supports Sec 204 of EO 13123 (Jun 99) to expand the use of renewable energy and meet the goal of tripling renewable energy capacity by 2010.

FY2002 Program

- Assess the effectiveness and cost of alternative mixes of naval surface combatant forces in the 2010 to 2020 time period
- Assess the threat of hostile nation C4ISR capabilities against US forces and US counter-measure capabilities to preclude or inhibit the threat nation's capability to execute that scenario
- Continue USD (AT&L) dedicated support to the Shared Tactical Ground Picture (STGP) in support of coalition warfighter operations at the tactical level to enable sharing of underlying existing data.
- Analyze weapon systems performance, cost, and schedule issues in support of acquisition milestone decisions and DoD planning, programming, and budgeting activities.
- Congressional direction--Evaluate weapon systems requirements and acquisition issues, and to submit master planning documents for key defense mission areas.
- Conduct ongoing technical analyses on specific and highly specialized Electronic Warfare (EW) systems and technology issues
- Prepare the Congressionally-mandated annual DoD Electronic Warfare Plan.
- Continue analytical support to establish U.S. positions for ammunition stockpile guidance at the NATO SPG meetings.

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- Technical support to manage and foster interoperability for the acquisition of U.S. military and coalition warfighting capability.
- Evaluate technical and architectural issues in cruise and ballistic missile theater defense including analysis of radar and electro-optical systems, missile propulsion, missile guidance-and-control, software, lasers, algorithms, and systems engineering.
- Assess architectures for cruise missile defense of North America including attribution, early warning and area defense.
- Develop a common architecture for all DoD Unmanned Aerial Vehicle (UAV) mission planning applications among the services.
- Evaluate migration of current DoD UAV mission planning systems to this common architecture and prioritize development of common modules for new UAV systems.
- Conduct a comprehensive study of missile inventory life including its determinants and prediction, its role in driving replacement program, and the highly complex set of approaches in design, development, test, production, test, deployment, storage, etc., that affect missile life. All phases of the missile life cycle will be assessed for possible improvements.
- Conduct an independent follow-on review and analyses for the Congressionally-mandated Anti-Tank Weapons Master Plan
- Produce cost estimates, time estimating relationships, independent schedule assessments, and analyses of technology trends and transition plans relating tot tactical aircraft major acquisition programs in preparation for milestone reviews to aid in Defense Acquisition Board decisions.
- Perform a study, as required in the Defense Planning Guidance, on the threat, requirements, capability options, resources, and R&D for Hard & Deeply Buried Target Defeat.
- Support the framework for interoperability shortfalls to develop priorities for interoperability objectives and employ them within USD(AT&L) acquisition management activities (e.g., DAES reviews, DAB).
- Plan and initiate 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.
- Based on international trends in information technologies, characterize alternative acquisition policies within U.S. and allied/coalition countries as they might affect success in acquiring and integrating systems for joint and coalition interoperability.
- Review joint architecture development activities in support of USD(AT&L) participation the Architecture Steering Group, Architecture Control Council, and other CIO interfaces with Services and DoD agencies.
- Continue analysis in support of laboratory improvement initiatives mandated by Congress or DoD.
- Continue research on planning manufacturing with industry in cooperation with the National Center for Advanced Technologies.
- Provide technical and engineering assistance on assigned Departmental directed S&T initiatives.
- Support development of Simulation Based Acquisition (SBA) within the Defense Department.

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- Support 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.
- Review allied/coalition partner system developments and acquisition programs to assess interoperability potential and impacts.
- Continue AT&L dedicated support to U.S. program integration for system developments in fulfillment of NATO objectives embodied in the Defense Capabilities Initiative.
- Review plans for Joint Warfighting Experiments (JWEs) and Joint Warfighting Capability Assessments (JWCAs) for implementation of relevant C4ISR system architectures and demonstrations of interoperability.
- Based on processes applied in analysis of the Family of Interoperable Operational Pictures, review selected system-of-system concepts including Global Information Grid (GIG) to assess application of the Joint Technical Architecture and the extent of resulting 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.
- Provide technical support for Acquisition Council, M&S based acquisition executive steering board.
- Prepare annual update of the Congressionally mandated Joint Warfighting Science and Technology Plan and the companion science and technology planning documents.
- Continue to reengineer logistics processes based on CALS technologies
- Continue to employ CALS in developing architectures to govern the modernization of integrated supply chain information systems
- Further definition of COE requirements and procedures, logistics enterprise action planning and information management policy in support of Global Combat Support System (GCSS), development of appropriate performance metrics and continued executive responsibilities for the conduct of the Logistics Information Board and subordinate Service and Agency activities
- Provide in-depth to the vision for DoD logistics in the Logistics Strategic Plan
- Develop supply chain strategies for applying commercial practices in the DoD logistics and operational environment and providing data access through “shared” data, and effective, direct support of the joint warfighter.
- Develop policies for process integration across functional and organizational boundaries.
- Identify opportunities for sharing supply chain “lessons-learned” among Component organizations.
- Continue the Section 5002, Federal Acquisition Streamlining Act of 1994 required effort to review incentives and personnel actions available to SecDef to encourage excellence in acquisition management, via a balance score card process at pilot sites.
- Provide follow-on analysis and execution of Future Workforce 2005 Taskforce initiatives.

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FY2003/2004 Plan

- Implement capabilities roadmap and investment strategy that were identified in the 2002 Combat Identification Architecture Study. Plan and initiate reviews to insure Architecture Study is being implemented.
- Provide technical support for the International Cooperative Opportunity Group (ICOG) initiative for Interoperable Tactical Communications.
- Total Ownership Cost Reduction: Conduct technical analyses supporting the Reduction of Total Ownership Cost (R-TOC) initiative, which seeks to reduce cost in the sustainment segment of the life cycle of weapon systems.
- Conventional Munitions Analytical Support: Provide an assessment of DoD conventional munitions posture including preparation of the Conventional Munitions Master Plan (CMMP) biennially for submission to the Congress.
- NATO Ammunition Stockpile Planning Guidance (SPG): Provide analytical support for the establishment of U.S. positions for ammunition stockpile guidance at NATO stockpile guidance meetings
- DoD Electronic Warfare (EW) Analyses: Conduct ongoing technical analyses on specific and highly specialized Electronic Warfare (EW) systems and technology issues
- Prepare the Congressionally-mandated annual DoD Electronic Warfare Plan.
- CMD /BMD Syst Engrng & Tech Assistance: Conduct a study to evaluate technical and architectural issues in cruise missile and ballistic missile theater defense including analysis of radar systems, electro-optical systems, missile propulsion, missile guidance-and-control, software, lasers, algorithms, and systems engineering.
- Cruise Missile Defense of North America: Continue a macro-study assessing architectures for cruise missile defense of North America including attribution, early warning and area defense.
- TacAir Warfare Programs Tech/Schedule Risk Assessment: Produce cost estimates, time estimating relationships, independent schedule assessments, and analyses of technology trends and transition plans relating tot tactical aircraft major acquisition programs in preparation for milestone reviews to aid in Defense Acquisition Board decisions

Support for USD (POLICY)**FY 2001 Accomplishments:**

- 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
- Concluded a study of Taiwanese air defense systems
- Conducted a series of defense assessments of the Baltics, and studied US Overseas Force Posture Options

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- Conducted studies on Chinese perspectives and strategy in the Asia Pacific Region
- Conducted a series of assessments of the possible impact of the use of weapons of mass destruction on CENTCOM's ability to conduct operations in southwest Asia.
- Initiated assessments of defense/military capabilities of Albania, Macedonia, Croatia, and the Republics of Slovakia and Slovenia.
- Initiated a study on enhancing security cooperation with Mediterranean Allies
- Conducted a study of International Search & Rescue as a Means of Theater Engagement
- Initiated a study of US/Taiwan Armed Forces Interoperability
- Initiated a study of the Kargil conflict to better understand India-Pakistani relations
- Assessed DoD nuclear planning efforts to determine how well the employment guidance has been fulfilled; provided analysis and support for the most recent version for the Policy Guidance for the Employment of Nuclear Weapons; and reviewed nuclear weapons allocation planning and assessed the results of each plan.
- Provided detailed computer modeling support for independent assessments of national missile defense, theater missile defense, and shared early warning.
- Continued to support work on the analysis of Military Operations in Urban Terrain
- Provided support to an AT&L led study on hard and deeply buried target defeat for the Congress
- Conducted a study on deterring Iraq
- Initiated study of defense assessments of the Czech Republic, Hungary, and Poland, Bulgaria
- Conducted a study of Pre-Conflict Force Employment Options
- Conducted the worldwide combating conference
- Conducted a study on Interagency Crisis Action Planning Performed Under PDD 56
- Conducted a study of Greater Efficiency in Humanitarian Assistance Operations
- Initiated a study on the Alternate Joint Communications Center (with C3I and JS)

FY 2002 Program

- Identify and assess geo-political changes which affect Defense planning
- Develop procedures to establish a Joint Presence Policy
- Analyze issues related to the department's role in homeland security.
- Conduct studies and analyses on issues related to terrorism and strategies for combating terrorism

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- Conduct a study of postwar operations against weapons of mass destruction
- Develop a methodology for assessing risks associated with defense strategy, force structure, and program developed as a result of the 2001 Quadrennial Defense Review
- Continue to develop and revise existing plans to consider the chemical-biological threat, in particular in CENTCOM and EUCOM
- Continue to conduct regionally-focused studies on critical issues of concern to the department.
- 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
- Continue Continuity of Operations Planning (COOP) to develop a robust and viable program
- Conduct the Interagency Terrorism Response Awareness Program (I-TRAP) (ongoing)
- Continued to support work on the analysis of Military Operations in Urban Terrain
- Provide technical and analytical support and independent research to the Defense Policy Board
- Develop strategies to respond to emerging issues in missile proliferation
- Assess implementation of nuclear employment policy guidance
- Assess critical policy issues involved with national and theater ballistic missile defense
- Conduct a study on improving Standards and Readiness for Chemical and Biological Defense
- Conduct expert analyses of smallpox research
- Conduct a study on updating Ukraine's National Security Strategy
- Provide administrative and technical support to the overseas travel clearance program
- Initiate the development of a business plan for the USDP
- Obtain expert support for reforming the PPBS system and preparing the Defense Planning Guidance Scenario Appendix
- Obtain administrative, research, analytical and data base automation support for the National Disclosure Policy Secretariat
- Continue with the Alternate Joint Communications Center Capabilities Study
- Continue to provide analytical, technical, and administrative support to the DoD Combating Terrorism Conference
- Conduct a study of enhancing DoD crisis action planning for Noncombatant Evacuation Operations
- Study the effectiveness of training and equipping programs for peace operations
- Study the roles of special operations forces role in defense intervention
- Conduct an assessment of worldwide alignment of special operations force assets
- Study improved situational awareness of crisis decision-makers by integrating of global geographic information systems

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- Study political-military decision-making processes in the Arab States of the Gulf
- Study enhancing distance learning education
- Study the impact of African oil on U.S. national security interests
- Conduct workshops on the future of sub-Saharan Africa
- Continue the study of international search and rescue as a means of theater engagement
- Develop a database of weapons of mass destruction in Central Asia
- Conduct a study on shifting the biological defense paradigm
- Conduct analyses concerning issues flowing from the Quadrennial Defense Review

FY2003/2004 Plan

- Continue to develop and revise existing plans to take into account the chemical-biological threat, in particular in CENTCOM and EUCOM
- Continue to conduct regionally-focused studies on critical issues of concern to the department
- 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.
- Continue to study the political military dimensions of developing a national missile defense
- Provide detailed computer modeling support for independent assessments of national missile defense and nuclear employment policy.
- Continue Continuity of Operations Planning (COOP) analyses and support.
- Conduct the Interagency Terrorism Response Awareness Program (I-TRAP) (ongoing)
- Continue to support work on the analysis of Military Operations in Urban Terrain
- Develop strategies to respond to emerging issues in missile proliferation
- Continue to provide technical and analytical support and independent research to the Defense Policy Board
- Continue analyses on transforming the force

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Support for the USD (Personnel & Readiness)

FY 2001 Accomplishments

- Began broad-based initiative to develop Strategic Human Resources Plan, which will cover both military and DoD civilians
- Continued contractor support on compensation issues being examined by the 9th Quadrennial Review of Military Compensation.
- Continued modeling and analytic support for the Department's recruiting and retention programs for both active duty and Reserve Component personnel.
- Concluded and synthesized analyses of the cost-effectiveness of the Military Health System, including Tricare, and its effect on recruiting, retention, and the quality of life of service members.
- Continued the Congressionally-mandated test and evaluation of the privatization of selected aspects of recruiting.
- Monitored quality of life, equal opportunity, and diversity of the force, and modeled their effects on recruitment and retention, especially on high-demand or expensive-to-train skills and specialties.
- Evaluated alternative models of delivery of child care services by the Department.
- Evaluated a demonstration of a new concept of a recruiting station, a station that is located in a shopping mall and takes maximum advantage of walk-in traffic and of new and exciting ways to appeal to the youth of today.
- Initiated a major new effort to design new and more effective ways to manage the Department's civilian workforce, to deal with the short-term issue of a rapidly-aging workforce and the longer-term issues of how best to attract and retain high quality civilians with appropriate skills and experience.
- Concluded analysis of optimum policy tools/recruiting approaches to attract recruits from youth college-bound /with some college.

FY 2002 Program

- Perform a comprehensive review of active and reserve mix, organization, priority missions and associated resources to optimize the use of Reserve components in the defense of the United States, in small-scale contingencies, and in major combat operations
- Continue the development and implementation of the Strategic Plan for Human Resources, a comprehensive approach to recruiting, retaining, and managing the military and civilian personnel of the Department.
- Develop and evaluate changes in the military and civilian compensation systems that will be required to achieve the Department's Strategic Plan for Human Resources.
- Conclude the Congressionally-mandated test and evaluation of the privatization of selected aspects of recruiting.
- Conclude the effort to design new and more effective ways to manage the Department's civilian workforce.

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- Close-out contractor support on compensation issues being examined by the 9th Quadrennial Review of Military Compensation, and publish final report.
- Evaluate the extent to which competition for recruits among the four military Services drives up the cost of recruiting.
- Provide continuing assessment of the military compensation system and its effect on motivating, retaining, and shaping the force.
- Evaluate the economic value of military health care benefits and compare it to health care benefits provided in the private sector.
- Update the Department's comprehensive summary of the compensation system for military members (last updated in 1996).
- Continue to explore innovative ways to combine active and reserve forces when carrying out all missions of the Department, including the missions of homeland defense and ant-terrorism.
- Continue to assess most cost-effective ways to recruit, train, and retain uniformed military personnel (active and reserve forces)
- Monitor and assess the equal opportunity climate in the Department, and develop alternate approaches to improving that climate
- Examine support provided to the reserve components by active duty personnel.
- Respond to congressional mandates and directives.

FY 2003/2004 Plan

- FFRDC support to extend a panel of private citizens assessing responses to domestic terrorism (the Gilmore Panel)--mandated by Congress, NDAA 2002.
- Conclude the implementation of the Department's Strategic Plan for Human Resources.
- Continue to explore and evaluate more flexible approaches to the management of civilian personnel.
- Examine the role of reserve components in all Department activities, including homeland defense/anti-terrorism campaigns.
- Assess the quality of life programs of the Department.
- Evaluate the implementation of the Tricare for Life benefit mandated by Congress.
- Continue to monitor and evaluate recruiting and retention of both military and civilian personnel
- Continue to assess the cost-effectiveness of the military health care system.
- Develop and evaluate any changes in the military compensation system necessary to support DoD's human resources plan.
- Continue to assess the need for child care within the Department, and most cost-effective means of providing quality child care
- Analyze equal opportunity data provided by the Services
- Analyze the extent and impact of sexual harassment within the Department.
- Respond to congressional mandates and directives

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General Support to Director, Program Analysis & Evaluation

FY 2001 Accomplishments:

1. Major Defense Issues:

- Analyzed digitization's operational effectiveness, accounting for program delay and delayed resorting; informed Program Reviews for FY 02-07 and the QDR, and provided alternative, executable options for Army as digitization evolves near term.
- Developed a methodology for assessing a major issue regarding the Army in the QDR.
- Continued development of critical management indicators, tools, and techniques for incorporation into DPP materials used to provide DoD senior leadership with an overview of long-term trends, "health", and affordability of the defense program.
- Researched aircraft characteristics and performance data to support studies of air superiority force structure alternatives.
- 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 radar technologies to meet future shipboard air defense needs. Developed transition plan for implementing acquisition for next generation radars. Analyzed radar configurations of ship classes, alternatives to shipboard radars, and adequacy of the Navy's acquisition plans for next-generation shipboard air defense radars.
- Provided 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.
- Assessed Army's update to the Analysis of Alternatives for the Comanche helicopter addressing issues in the areas of low observability and the achievement of weight goals; reviewed potential cost tradeoffs between component materials alternatives.
- Created guidance to the services for comprehensive Analyses of Alternatives to support the DAB acquisition Milestones
- Supported defense analysis professional forum.
- Supported symposium for DoD cost research activities among OSD, the military services, and defense agencies.
- Re-estimated translator vectors to improve accuracy of Defense Employment and Purchases Projection System (DEPPS) projections of DoD spending.
- Developed recommendations for fee-for-service funding arrangements for the Armed Forces Institute of Pathology.
- Developed updated predictive Personnel Inventory Cost and Compensation Model (PICCM) model to advance assessment of programming decisions concerning future military manpower gains, losses, demographics and costs.
- Analyzed aerial refueling tanker requirements in support of air mobility operations.

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- Determined opportunities to increase savings / reduce costs associated with energy use and environmental cleanup associated with BRAC closures.
- Developed 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 top line.
- Analyzed repair process problems that contribute to degradation of aircraft readiness.
- Developed relationships for O&M funding based on key parameters that can be used 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 necessary data to address policy issues related to the magnitude, sources, and characteristics of weapon systems cost growth and schedule growth.
- Provided an innovative view of how the DoD cost community estimates aircraft production support labor costs.
- Developed methodologies for assessing program progress, and estimating lifecycle cost and risk of integrated and/or confederated systems of software-intensive systems
- Collected, analyzed, and exploited latest available information to develop databases and methods for estimating development and production costs of next generation tactical aircraft.
- Estimated cost of F-22, JSF, and other military aircraft, the results of which are required for the MSII independent cost estimate for the JSF program scheduled for early FY 2001.
- Improved 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.
- 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 U.S. involvement in smaller-scale contingencies and issues related to U.S. military in these operations; assessed impact of projected level of global engagement on U.S. force structure, PERSTEMPO/OPTEMPO, and ability to fight and win MTWs.
- Built an analytic foundation for examining opportunities and challenges arising from operations with non-U.S. military organization in future smaller scale contingencies (SSCs).
- Established measures of effectiveness and assessment methods, and identify synergies to ensure consistent management throughout DoD's Regional Centers for Security Studies.
- Shared an analytical methodology with selected foreign governments that will produce a resource-constrained, multi-year defense program that supports the national security strategy and can be converted into a defense budget that can be justified to Parliament.

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2. Joint Efforts (Primarily QDR):

- Analyzed long-term planning scenarios through the exercise of three models, JICM, ITEM, and TACWAR to support the QDR and other decision making processes.
- Improved the capability to address QDR and follow-on issues relating to regional conflicts-both traditional MTWs and longer-range threats with the Joint Integrated Contingency Model (JICM).
- Built an analytic foundation for examining smaller scale contingencies (SSCs) with emphasis on how best to balance the requirements of MTWs and SSCs within the strategy of shape, respond, and prepare.
- Developed analytic foundation for examination of SSCs with special emphasis on incorporating international organizations (IOs) and non-governmental civilian organizations (NGOs) capabilities and concepts of operations into DoD's SSC programmatic analysis.
- Assessed key features of contemporary defense logistics management framework and environment; identified associated potential major defense logistics challenges; developed 21st Century logistics support concepts that meet projected needs.

3. Development of Tools and Databases:

- Provided for various initiatives to improve the analytic structure of the FYDP necessary to facilitate credible FYDP-based analyses of force and infrastructure resources and to enhance value to DoD decision makers.
- Developed statistical methods that will model the relationship between customer funding (as contained in the FYDP), and the resulting purchases from working capital funds over the program period.
- Continued development and enhancement to model which will aid in understanding the dynamics of the Managed Care Support contracts, predicted health care costs and the contractor's reimbursement under the contract, support the budgeting process, and performed what-if scenarios.
- Provided research on new tools for estimating costs of new development programs in key product sectors.
- Provided new estimating relationships for future Navy ship acquisition programs.
- Supported symposium on sound integration and planning of DoD economic research activities among OSD, the military services, and defense agencies.
- Provided a parametric estimate based on historical aircraft propulsion components and the limited experience from current technology to help in developing reasonable and defensible cost estimates.
- Improved the Department's suite of joint mobility and campaign models and simulations. Performed detailed comparison of the mobility functionality of JWARS with MIDAS, the proposed replacement model

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- Provided expert up-to-date research and consultative services on information technology and information assurance.
- Improved PA&E's ability to evaluate program assumptions in areas related to software. Improved ability to evaluate costs and benefits of software development programs and strategies.

FY 2002 Program:

- Develop metrics to assess the DoD transformation of forces/strategies/resources management.
- Develop plans for improving the Department's PPBS -Planning Programming & Budgeting System .
- Examine complex issues identified in the Joint Airborne Electronic Attack Analysis of Alternatives.
- Assess operational effectiveness of air-launched weapon performance in Operation Enduring Freedom.
- Examine, analyze and evaluate the risks and implications of defense strategies that support national objectives to include an assessment of threat environment that focuses on the impacts of asymmetric threats; DoD's roles, responsibilities, and requirements for homeland defense; alternate postures of engagement; and the unique demands of smaller scale contingencies.
- Explore transformation strategies and implementation plans for new operational concepts and new organizational arrangements that exploit new technologies.
- Look to more adaptive force structures that will address the emerging threat while simultaneously addressing the long standing issues of tempo, readiness, and infrastructure.
- Examine investment strategies accounting for interrelationship between re-capitalization, transformation, force structure spending.
- Conduct analyses of the modernization program to strike a balance between modernizing platforms and modernizing weapons.
- Explore strategies that maintain nuclear deterrence and stability in the changing security environment.
- Continue to build and refine analytical tools that can better address current and emerging issues facing the department. These tools include cost analysis and research tools, effectiveness analysis tools, and the PPBS.
- Develop cost analysis and research tools to address the costs of the military medical delivery system and will improve our ability to understand and project DoD infrastructure and requirements.
- Develop effectiveness analysis tools and conduct studies to provide independent estimates of the cost and operational effectiveness of planned weapon systems.
- Continue support for FYDP Improvement initiative, the Automated Program Planning System, and the PPBS automated tool kit.

FY 2003/2004 Plan:

- Analyze the impact of the projected level of global engagement on US force structure on PERSTEMPO and OPTEMPO.

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- Analyze cost and force capability implications of current and future defense programs.
- Examine issues identified in previous lessons learned small-scale contingency studies to explore alternative force structures in support of SSCs.
- Assess allies' progress toward implementing the Defense Capabilities Initiative.
- Determine aerial refueling investments necessary to optimize force closure and minimize risk while supporting the range of deployment scenarios in the new defense strategy.
- Evaluate technical issues related to concepts and designs for satellite, reconnaissance, theater missile defense, and national missile defense systems.
- 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.
- Improve cost estimating techniques by the analysis of historical cost data of aircraft propulsion components.
- Develop a comprehensive process to estimate the life-cycle cost of the next generation unmanned aerial vehicle systems.

General Support for ASD (C3I)

FY 2001 Accomplishments:

- Supported the Information Superiority Investment Strategy (ISIS) through investment strategy recommendations for information superiority programs and capabilities in support of the PPBS and QDR.
- Reviewed the evolving Defense Integrated Vulnerability Assessment (DIVA) process and protocols to ensure they are comprehensive and consistent given the range of force protection, CIP and IA concerns.
- Developed a network operations Capstone Requirements Document for submission to the JROC which was critical to establishing NETOPS requirements within the formal requirements generation system.
- Developed methodology to assess information interoperability processes and ensure compliance with C4ISR Architecture
- Conducted analysis to explore impacts of C4ISR system capabilities on strike mission effectiveness and assess program tradeoffs.

FY 2002 Program:

- Initiate a study of new spectrum efficient technologies that will ensure DoD's continued access to spectrum to conduct operations.
- Support the development of draft regulatory framework with FAA to enable UAV integration into the national airspace.
- Develop mid- and long-range strategies for national strategic C3 systems as an entity.

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- Study the development of risk management methodologies and tools necessary to specifically address infrastructure protection of our national defense.

FY 2003 Plan:

- Continue to review information operations/information warfare policies and implement improved strategies.
- Continue to evaluate warfighting requirements, plans, programs, budgets, and investment programs for acquisition of C4ISR
- Analyze defensive IW capabilities.
- Support space systems acquisition and review.

Technical Support for the Joint Staff

FY 2001 Accomplishments:

- Assess Joint Interoperability & GIG Architecture Compliance Study provided in depth analysis & specific recommendations for action on key selected architectural & interoperability issues. These reports will become basis for J6 position on issues as they come before the JROC, MCEB and CIO Executive Boards.
- CINC Theater Engagement Planning (TEP), to develop a streamlined and simplified process for Joint Engagement Planning
- Information Support (IS) for UCP 03 -- Process provided recommendations on how to best organize the unified commands and Combat Support Agencies to execute current and projected "Information Support" missions.
- Warfighter Information Flow Analysis--identified, described, and prioritized current and near term limitations in information awareness, access, and interoperability, and delivery across the GIG from the CINC/JTF perspective. Also proposed changes to doctrine and capability implementation approaches to yield near-term improvements to information flow and dissemination
- Senior NCO Joint Professional Military Education study to include three phases: Planning, Execution, and Implementation on how to get Joint Training to NCOs.
- Future Imagery Architecture (FIA) ERA Collection and Exploitation Requirements Assessment Tool. This study produced a methodology to determine future Imagery Analyst manning requirement for the Unified Commands.
- Reserve Component (RC) JPME. This study went towards the development of a web-based tool for measuring requirements associated with RC JPME Distributed Learning.
- Reviewed the use of the EHF SATCOM system and identified impediments to the efficient use of the system.
- Logistics Directorate Focused Logistics Wargame (FLOW) Support for wargame development, documentation, modeling and database building, and training.

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- Focused Logistics Wargame 2001 supported critical J4 requirements for modeling/database integration, and postgame archiving
- Network Operations (NETOPS) Architecture Assessment Study--for closer coupling/ integration of functions within the telecommunications network, information assurance, and information dissemination management.

FY 2002 Program:

- Future Imagery Architecture (FIA) Analyst Allocation will conduct a cost benefit analyses for General Defense Intelligence Program POM build for Imagery analysts allocation to Commands and Service Centers.
- Global Command and Control System Operational Requirements Analysis to provide detailed analysis and documentation of GCCS baseline operational capabilities.
- Joint Vision 2020 Implementation Master Plan (JIMP) to provide Executive Agents with Multinational and Interagency 21st Century Challenges.
- Strategic Analysis of Afghanistan and its Neighbors to provide a grand strategy overview of Afghanistan and its neighbors.
- Enhanced Joint Lessons Learned Information Management Study to develop Joint Lessons Learned Architecture and framework for information acquisition, storage, and retrieval to support organizations information/data users.
- Reserve Component Employment to provide foundation analysis for RC employment under a new defense strategy to support OSD, CINC, and Service decisions on policy, force employment, and force apportionment.
- Common Aero Vehicle (CAV) Utility for Conventional Deterrence and Global Precision Attack to determine the military utility of conventional precision strike from space transiting systems.
- Munitions Certification to evaluate services munitions certifications/explosives safety programs/ DOD Policies.
- Logistics Simulation for Current Force Analysis (CFA) to improve Joint Logistics Assessments generated for the CFA 2002.
- Joint Deployment and Theater Distribution Pillar (FLOW03) for CINC input to the development and analysis cycle of FLOW03.
- Information Superiority Transformation Strategy Assessment to develop an Information Superiority Transformation Strategy
- Joint Development Process Owner and Global Distribution Owner Integration to provide smart integration of Joint Deployment and Global Distribution to achieve “same in peace as war” process.
- Analysis of Narrowband Terminal Requirements to revise Demand Assigned Multiple Access Implementation Plan.
- Warfighter Information Dissemination Management to analyze information flow and dissemination capabilities of the GIG.
- Warfighter Mission Information Management Analysis to help “operationalize” Mission Information Management.
- Operationalizing Knowledge Centric Warfare to help operationalize Knowledge Management.

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FY 2003 Plan:

- “Quick-turnaround” assessments directed by Chairman of the Joint Chiefs of Staff
- JV2020 implementation--careful analysis in organization dynamics and structuring.
- Develop and maintain joint doctrine for the employment of the Armed Forces.
- Continue to provide responsive wargaming, analysis and assessment capabilities to support future Chairman of the Joint Chiefs of Staff requirements
- Assess Joint Warfighting Capabilities
- Continue to use collaborative analysis process to exploit Service expertise in the Services and to help in the assessment of complex joint issues.

	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>Total Cost</u>
<u>B. Program Change Summary</u>				
FY 2001 Previous President's Budget	30.597	33.613	29.304	Continuing
FY 2002 Amended Budget	30.315	33.805	NA	Continuing
Appropriated Value	30.597	27.805		Continuing
Adjust to Appropriated Value/President's Budget	(.282)	(.405)		Continuing
Congressional Undistributed Reductions, Inflation Savings, Gov't-Wide Rescission, and Below Threshold Reprogramming				
FY 2003 Current Budget Submit/President's Budget	30.315	27.400	30.023	Continuing

Funding:

Schedule: N/A

Technical: N/A

C. Other Program Funding Summary Cost N/A**D. Schedule Profile** N/A