

DoD's Information Gateway

The Research and Engineering Portal

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What is the Department of Defense doing in research and engineering (R&E)? When will the work be completed? Why is the work being done? Who is the point of contact?

Federal employees can find answers to these and other questions in the DoD R&E Portal at <<https://rdte.osd.mil>>.



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A joint effort of the Office of the Director, Defense Research & Engineering (DDR&E) and the Defense Technical Information Center, the Portal provides single-sign-on access to current and historical DoD R&E information, including DTIC technical data resources.

Easy Access to Data

The timescale for getting the answers to operational and technical questions is getting shorter all the time. Efficient access to accurate technical information is vital to ensure that warfighters today and tomorrow have superior and affordable technology. In 2004, DDR&E initiated a request for a single Web site that offers tools to take technical data that have been and continue to be collected, and make them into knowledge that can support decision making. DTIC responded to this request by launching the R&E Portal in April 2005. The R&E Portal allows every DoD program manager, planner, researcher, acquisition professional, tester, and operator find, from their desktop computer:

- All current R&E electronic information
- R&E points of contact
- Scientific and technical news from 2,300 news sources
- AT&L links, such as Science & Technology Acquisition Workforce.

Overall, the Portal improves government-to-government as well as government-to-business communication within the DoD and the larger government communities. Portal users, who are at all organizational levels from Pentagon managers, planners, and policymakers, to bench-level researchers at DoD laboratories and other research activities, can access comprehensive technical information quickly and easily.

- Policy-makers and managers at the Pentagon have easy access to current budget information and the latest congressional developments.
- Military service and defense agency managers maintain awareness of communications from the Pentagon and of recent congressional activities that will affect their individual organizations.
- Laboratory managers access statistics and financial information of importance.
- Researchers can discover details about projects and programs related to their areas of investigation.

The R&E Portal is their solution of choice, making the R&E Portal DTIC's number one priority.

Explore R&E Portal Applications

As a working research tool, the Portal brings together 22 Web applications (quick links to databases) that support the DoD research and development (R&D) strategic planning and the congressional reporting process, including:

- Defense Science and Technology Planning (DSTP), which provides the latest DoD R&D planning documents describing key technology areas and programs

- Congressional Budget Queries Tool, which tracks and annotates congressional changes or "markups" to the Research, Development, Testing, and Evaluation (RDT&E) budget
- Defense Technology Search (DTS), which enables a single search request to retrieve information from the Portal contents as well as DTIC's vast collection of scientific and technical information.

Defense Science and Technology Planning

Want to know the DoD's strategic considerations for technology? Then visit the DSTP Web site in the R&E Portal. This R&E application outlines the defense science and technology strategy for determining appropriate technology, and the basic research plan describing DoD-sponsored fundamental research available to Portal users. Also available for viewing are the defense technology objectives that identify special-emphasis technology, and the defense technology area plan for applied research and advanced technology development. Searching for a joint perspective on technology? The DSTP allows users to access the Joint Warfighting Science and Technology Plan. There, Portal users will find applied research plans and advanced technology development plans in support of priority future joint warfighting capabilities.

Congressional Budget Query Tool

How important are congressional budget changes to the DoD? According to Deputy Secretary of Defense Gordon England, "Congressional marks are of interest throughout the defense enterprise." For this reason, the Congressional Budget Query Tool responds rapidly to changes (or "marks") proposed by Congress to the RDT&E budget. Stored in a database on the R&E Portal are the President's Budget Request data for all DoD RDT&E program elements and marks from the House Armed Services Committee, Senate Armed Services Committee, Authorization Conference, House Appropriations Committee, Senate Appropriations Committee, and the Appropriations Conference. Markups are easily queried by fiscal year, budget activity, Service or agency, and percentage of increase or decrease. The database currently includes only RDT&E accounts. It will soon include procurement and operations and maintenance accounts.

Defense Technology Search

Search across multiple libraries and get back current DoD technical data using the DTS. This tool enables a single search request to retrieve information from the Portal contents as well as DTIC's vast collection of scientific and technical information. In addition to DTIC's historical and ongoing research documentation collections (technical reports, research summaries, and independent research and development), other collections are available, including biological research data, DoD budget data, the DoD Information Analysis Centers' Total Electronic Migration System (TEMS), and e-Gov (electronic govern-

ment) data. Users can also conduct a DoD-wide search of all public DoD Web sites, as well as federated resources such as Science.gov and FirstGov.gov, the U.S. government's official Web portal.

Upload e-Gov Data

The Portal is also the means by which the DoD satisfies the reporting requirements of the Electronic Government Act of 2002. One of the key Portal mechanisms is for the military services and defense agencies to upload e-Gov reporting data, allowing the Department to submit the information in a consistent, accountable manner. John Young Jr., the current DDR&E, supports this effort, since he envisions e-Gov data reuse as having the ability "to establish return on investment for taxpayer investment and to give project contact points for use in possible collaborative efforts." To that end, the DoD e-Gov database on the Portal provides a centralized location for information about DoD research and development. The library contains consolidated data from inputs submitted by the DoD Services and agencies in response to each annual data call. The current library contains more than 16,000 records on DoD R&E efforts. Information in the library includes responsible and performing organizations and individuals, descriptive information (objective, approach, and progress), associated program elements and their funding, and metrics.

Supporting the Warfighter

The Portal continues to transform data in its next phase of development. A planned e-mail notification system will inform users when new R&E information (reports, data, and news) has been added to the Portal. In addition, business intelligence tools will allow its 12,000 registered users to establish relationships or patterns, design and generate reports from data sources, and discover business performance management strategies for using resources effectively. With its current 22 Web applications and planned new features, the R&E Portal facilitates all levels of the defense research community as well as other government agencies and private- and academic-sector organizations. Essentially, the centralized, single-sign-on R&E Portal reduces time and effort by providing a wide variety of the latest R&D information. The DoD R&E Portal provides easy access to R&E information and ensures that new technologies get into the hands of the warfighter as quickly as possible.

Access to the R&E Portal is controlled by the DTIC registration process and is limited to federal employees and federal contractors. Go to <<https://register.dtic.mil/DTIC>> for registration information; for more information about the R&E Portal, contact rdte_help@dtic.mil.

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sure progress towards milestones in terms of capability of the investment to meet specified requirements and quality.

Contractual Performance-Based Progress and Incentives

DoD customers should use performance-based acquisition management by including requirements and award fee incentives for performance-based management and reporting in their contracts, beginning with the solicitation. Then the program manager can link award fees to achieving desired program outcomes. Earned value will provide insight that is based on technical performance if the contractor is required to link discrete work packages to milestones for key technical and management deliverables. A sample of those deliverables follows:

- Success criteria for major technical reviews
- TPM planned values and measurement milestones
- Master schedule that identifies all systems engineering products, such as the technical baselines and requirements traceability matrices; identifies TPM planned value milestones; and is linked to the identified success criteria
- Product metrics reports.

The Air Force Space and Missile Systems Center, Air Force Space Command, published and uses a comprehensive Technical Operating Report (TOR) that specifies contractual requirements for the conduct of a complete, integrated SE effort. The requirements are defined in terms of the required SE products and the required attributes of those products. For example, it states that "the Contractor SHALL monitor the progress against all planning" and prepare documented assessments that include TPMs and "metrics and selected technical parameters for tracking that are critical indicators of technical progress and achievement." The TOR is used to prepare the requests for proposal and for evaluating the contractor's SE products once on contract.

The TOR is an excellent document for defining and monitoring the contractor's SE efforts. I recommend that the contractually required TPMs and metrics be used for award fee determination. The TOR is available at <www.PB-EV.com> within PBEV Resources. If a program manager specifies contractual requirements for the conduct of a complete, integrated SE effort, then award fees may be used to focus contractor efforts on meeting or exceeding cost, schedule, and performance requirements.

The author welcomes comments and questions. Contact him at paul.solomon@pb-ev.com.