



# DiGEST



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SUMMER 2002

## Militarily Critical Technologies List Update Now Available

DTIC now offers users two currently revised versions of the Militarily Critical Technologies List (MCTL). A public version is available on DTIC's Public STINET Web site (<http://stinet.dtic.mil>), and a restricted dissemination version is available only to registered Secure STINET users.

The MCTL has long been the official source of information regarding technology considered critical by the Department of Defense concerning the development, production, and use of U.S. military capabilities.

Major components of the MCTL describe Weapons Systems Technologies, Developing Critical Technologies, and Weapons of Mass Destruction and address in detail specific areas such as Armaments & Energetic Materials, Nuclear Weapons Effects, and Marine Systems. Each section provides easy navigation via links to the introduction, common preface, common master locator, and table of contents. A Glossary, Acronyms & Abbreviations, and Master Technology Locator are also included in each section. Related links provide easy access to the Department of Energy, Department of Health and Human Services, National Aeronautics and Space Administration, and the Department of Commerce.

Take a few moments to explore this great site and see why the MCTL is the leading edge for information on defense related critical technologies.

## DTIC 2003 Annual Conference

Plans are underway for DTIC 2003, the Annual Users Meeting and Training Conference, which will be held from March 31 - April 3, 2003 at the DoubleTree Hotel National Airport, Arlington, VA. Mark your calendar now!

In order to provide the best possible program, DTIC welcomes ideas from its customers. If you have any suggestions for interesting sessions, please contact the Conference Coordinator at (703) 767-8236/DSN 427-8236.



*Attendees listen to one of the many professional training sessions during DTIC's Annual Users Meeting and Training Conference.*

## DTIC Hosts 28th Annual User Conference

DTIC hosted DTIC 2002, the 28th edition of its Annual Users Meeting and Training Conference, from April 15-18, 2002 at the DoubleTree Hotel National Airport, Arlington, VA.

"From Information Delivery to Knowledge Management" was the theme which brought nearly 400 federal government employees, contractors, associates, contributors and DTIC personnel together for the purpose of meeting fellow users, learning about new services, and attending a number of professional seminars. Exhibitors from DTIC, Information Analysis Centers, and various other federal and private sector vendors were on hand to demonstrate their products, discuss current technology developments and inform users of the latest improvements in customer service.

As in previous years, this year's conference featured a number of distinguished speakers and offered attendees a wide variety of breakout sessions. Topics such as the *DTIC Update*, the *Warrior Knowledge*

*Network*, and *Information and the War on Terrorism* elicited a great deal of user interest. As an added benefit, a special tour of the National Cryptologic Museum provided attendees with the opportunity to learn about dramatic moments in the history of American cryptology.

The exhibit hall also enhanced the conference's overall value. Exhibitors represented were: Applied Theory, AV Washington, Carroll Publishing, CBIAC, Cognos Corp., DIALOG, East View Information Services, Elsevier Engineering, IEEE Publishing & Information, LexisNexis, The Whitlock Group, and West Group.

Exhibitors, speakers and attendees jointly contributed to making the conference a unique, memorable and worthwhile experience. DTIC takes great pleasure in extending a hearty "Thank You" to all participants, and sincerely hopes to see everyone next year for the 2003 DTIC Annual Users Meeting and Training Conference.

## DTIC Participates in GPO Meeting

DTIC had the opportunity to send a council representative to the spring meeting of the Government Printing Office's Depository Library Council to the Public Printer, which was held from April 22-24, 2002 in Mobile, AL. This 15-member council advises GPO on issues related to public access to government information products through the Federal Depository Library Program.

The meeting publicized DTIC's work to an audience that included librarians from large academic institutions, many of whom are DTIC-registered users or eligible to become users.

A brief overview of DTIC's mission was presented, along with descriptions of the products and services provided to customers. Afterward, a panel discussion with members of the U.S. Nuclear Regulatory Commission and the U.S. Geological Survey examined changes in information dissemination policies since the September 2001 terrorist attacks. It was noted that due to the increased security in the aftermath of September 11th, DTIC:

- saw a 300 percent increase in Web traffic to DefenseLINK, a site DTIC hosts for the Office of the Secretary of Defense;
- added bandwidth immediately;
- provided 24/7 on-site staffing as needed;
- expanded its Webcast capability; and
- hosted DefendAmerica, which provides up-to-date information about the war on terrorism and homeland security/defense issues ([www.defendamerica.mil](http://www.defendamerica.mil)).

In addition to the actions mentioned above, DTIC met with officials from the White House Office of Science and Technology Policy (OSTP) and the Office of the Assistant Secretary of Defense (Command, Control, Communications, and

Intelligence). Subsequently, DTIC coordinated with the Chemical and Biological Information Analysis Center and the Defense Threat Reduction Agency to identify documents related to the development or use of chemical, biological, radiological and nuclear weapons of mass destruction that are marked "Approved for Public Release." Approximately 6,600 documents were identified and temporarily withdrawn from DTIC's public Web site pending review by the appropriate Office of Classification Authority. All of the documents under review continue to be available to registered DTIC users through the following online services: Web Enabled DROLS, Secure STINET and Legacy DROLS.

The documents in question stem from research done primarily in the 1940s, '50s and '60s and declassified in the 1970s. It is worth noting that such a review of government documents is not a change in DoD policy. In fact, staff are periodically directed to review material to determine the appropriateness of its release.

DTIC is aware of the concern (as are many in the information world) about the need to preserve government documents. Each of the panelists made it clear that the information being evaluated is not "gone" but in many cases will likely be returned to the public domain or will remain available either on secure government sites or in different formats.

The audience appreciated hearing from federal staff who did not "apologize" for removing some information from the public domain. It was noted that DTIC, the U.S. Nuclear Regulatory Commission and the U.S. Geological Survey all offered valid explanations about how information dissemination issues were being handled in the post-September 11th world.

## DTIC Review Now Available on CD-ROM

**Homeland Defense**, Volume 5, No. 4  
The DTIC Review on CD-ROM  
**AD-M201 327** Spring 2002

**Homeland Defense\***, the latest issue of *The DTIC Review* is now available on CD-ROM. This journal is available to all DTIC-registered users eligible to receive documents limited in distribution to U.S. government agencies and their contractors (Statement C). This enhanced version includes more than 100 full-text documents, an updated bibliography, and updated list of related Web sites. The full-text documents selected for the CD-ROM version reflect our nation's concern with homeland security policies, doctrine for carrying out these policies, and potential improvements to the current national homeland defense strategy.

The cost is \$25.00; eligible DTIC-registered users interested in ordering an updated copy of **Homeland Defense** on CD-ROM (AD-M201 327) should contact DTIC's Reference Services Team:

1-800-225-3842  
(703) 767-8274/DSN 427-8274  
Fax: (703) 767-9070/DSN 427-9070  
Email: [msorders@dtic.mil](mailto:msorders@dtic.mil)

\* An earlier version is available in print for \$25 (**AD-A389 848**). (Please note that this version does not contain the additional full-text documents, updated bibliography and Web site links that are included on the CD-ROM.)

The *Digest* is produced by the Defense Technical Information Center's Directorate of User Services and is intended to inform DTIC employees and customers of programs, initiatives, activities, issues, and developments in the technical information arena. Comments, views, and opinions expressed in this newsletter are those of the author(s) and do not reflect policy, views or opinions from the Defense Technical Information Center, the Defense Information Systems Agency, or the Department of Defense.

## DTIC Implements MultiSearch

As yet another customer service initiative, DTIC has implemented *DTIC MultiSearch*, a new Web-based service designed to be your portal to the Deep Web for scientific and technical information.

The Deep Web is content that resides in searchable databases and can only be accessed via a direct query to the database. Since this content is not published as static Web pages, it is not available on the "surface" Web and cannot be accessed directly through commercial and government search engines.

*DTIC MultiSearch* currently allows access to the following publicly releasable resources:

- DTIC Technical Reports
- DoD Resource Locator (the DoD's Government Information Locator Service)
- Research & Development Descriptive Summaries
- All DoD Web sites (includes public DoD Web sites: DefenseLINK, AirForceLINK, Current Focus)
- Public Internet sources
- Other federal resources (several NASA and Department of Energy databases)

Additional sources will be added in the near future. Although *DTIC MultiSearch* currently accesses publicly releasable information only, limited distribution information will be included in future updates. This service is freely available to the Department of Defense (DoD civilian employees, uniformed military service members, and members of the reserves or the Army National Guard); however, it does require registration.

To register, call us at (703) 767-8273/DSN 427-8273. The toll free number is 1-800-CAL-DTIC (225-3842). Please send questions or comments to [stinet@dtic.mil](mailto:stinet@dtic.mil).

## The Virtual Technology Expo

Studies over the past 10 years have highlighted the difficulties in transferring technology from research laboratories to development organizations. A Section 912c Requirements and Acquisition Study Working Group created by the National Defense Authorization Act for fiscal year 1998 recommended that DoD establish a process to ensure that emerging technology information is provided to the requirements community and program managers. In 1999, the Deputy Under Secretary of Defense (Science and Technology) sponsored the development of an automated tool to facilitate technology transition. In October 2000, the Virtual Technology Expo (VTE) went into production.

The VTE is designed to advise the requirements and acquisition communities of new technology developments. It contains descriptions of technology advancements and points of contact for obtaining more detailed information. VTE users may locate information by selecting Defense Technology Areas or Joint Warfighting Capabilities, by searching the text of technology descriptions for specific criteria, or by finding the organization or point of contact for research projects. Those who would like to be notified by email of updated information may subscribe to the VTE mailing list. Members of the science and technology community are encouraged to submit descriptions of technology that will be ready for development within the next five years. Multimedia documents, presentations, pictures, diagrams, and videos may accompany the technology descriptions. The VTE Help section provides explanatory information to help participants organize the technology data for input to the VTE, whether they enter it by using the online submission form or provide it from manual or automated files.

Internet users have experienced the information overload that most Internet searches provide. The VTE goal is to stay away from these time-

consuming processes. Input to the VTE is reviewed for relevance and completeness before it is added to the database. Although information is gathered from many sources, including existing databases, it is converted to a predetermined format for rapid and easy viewing from the VTE Web site. The central repository of information gives a quick overview of project information that is relevant to the technology transition stakeholders. Within a very short time, VTE users can search for information, locate projects about which they are interested, and get a point of contact to call for more details.

The technology database is provided as a restricted service through the World Wide Web (<https://vte.dtic.mil>). A recent enhancement has simplified the registration process, using the online VTE registration form. This enhancement also opened the database to a wider variety of users and allowed additional levels of information sensitivity, since the VTE provides access to information based upon the user's authorization. The VTE is now available, upon registration, to U.S. government employees and their contractors, to industry and academia representatives with an official documented business relationship with the U.S. government, and to international partners from The Technology Cooperation Program (TTCP).

Communication is the key! With the participation of the science and technology, requirements, and acquisition communities, the VTE can expand its database of information to include many sources of technology research.

The VTE team is available to demonstrate the capabilities of the VTE. It encourages science and technology partners to use the database to implement technology transition, to share information through the database, and to provide suggestions for increasing the use of this automated tool. For additional information, send email to [vte\\_help@dtic.mil](mailto:vte_help@dtic.mil).

# Get a Better Grip on Internet Information: Use DTIC's New Handle Service!

Tired of error 404 messages? In this fast-paced information age documents may be posted on the Web one day and gone the day you really need them. DTIC's solution to your frustration is the DTIC Handle Service (<http://www.dtic.mil/dtic/handles/>). It gives new meaning to the word "handle." A handle allows for the preservation of (and access to) an electronic resource on the Web, ensuring its ongoing availability to you.

When a digital document has a handle it has been assigned a permanent identifier and is accessible by using this handle rather than its Uniform Resource Locator (URL). The URL identifies the place an object is located on the Internet and ties an Internet resource to its current network location and its local file path. A handle is a name used to identify an object. Used in conjunction with a resolution management system, you can find a digital resource over long periods of time even when it has been moved. DTIC will assign and manage handles using the Handle System® (<http://www.handle.net>), which assigns an identifier and stores information that can be updated to reflect its current location. No matter where the file is moved, you can use the handle to get to the information; the handle remains valid.

Current Web technology does not yet recognize handles. Therefore, if you put a handle by itself into a Web browser nothing will happen; the system will not know what to do with it. In handles parlance, the handle will not resolve. To solve this problem, DTIC has installed a proxy server. A proxy server understands handle protocol and transmits the handle to a proxy URL to resolve the handle. DTIC's proxy URL is <http://handle.dtic.mil>. Besides enabling resolution, DTIC's proxy server has important additional benefits. One valuable benefit for libraries (and researchers in particular) is the ability to create living bibliographies and citations that will remain accurate over time. There are a number of available guides that explain how to cite electronic resources using URLs. The same methodologies apply to handles. Handles are being increasingly used in library card catalog records. Like the call numbers of hard copy books (which do not change and, thus, can always accurately find individual books), librarians realize that the handle has similar benefits.

The heart of our Handle Service is the DTIC Handle Search page. From here, all DoD resources that have been assigned handles are available. When you don't know if a resource has a handle

**DTIC®** DEFENSE TECHNICAL INFORMATION CENTER  
*Information for the Defense Community* Home | DTIC From A to Z | Contact Us

Home Registration Submitting Information Products & Services Find A Document Ordering

Search DTIC's Site  GO

► Handle Service Home  
► Handle Search  
► Handle FAQs  
► Become a DTIC Partner  
► Related Links  
► Handle System Technology  
► Please Comment

### Handle Search Results

Your query matched 1 record(s) sorted by "Title"

<http://handle.dtic.mil/100.2/ADA289448>

**Title:** A Brief History of Laser Guided Lightning Discharge Models and Experiments.

**Corporate Author:** PHILLIPS LAB HANSCOM AFB MA

**Personal Author(s):** Kozma, Matthew A.

**Report Number(s):** PL-TR-94-2193, ERP-1153

**Publication Year:** 1994

Title



## Record Retrieved

HOME [SEARCH](#) [INFO](#) [MAP](#) [?](#)

**Document Title :** A Brief History of Laser Guided Lightning Discharge Models and Experiments.

Filename	MIME Type	Size (Bytes)
<a href="#">ADA289448.pdf</a>	application/pdf	797501

[← Previous Hit](#)

(This is hit 2 of 2.)

AD Number: **ADA289448**

ProxyURL/Handle: <http://handle.dtic.mil/100.2/ADA289448>

Subject Categories: METEOROLOGY ELECTRICITY AND MAGNETISM LASERS AND MASERS

Corporate Author: PHILLIPS LAB HANSCOM AFB MA

Title: A Brief History of Laser Guided Lightning Discharge Models and Experiments.

Descriptive Note: Final rept. 23 May-27 Jun 94,

Personal Authors: Kozma, Matthew A.

Report Date: 05 JUL 1994

Pages: 25 PAGES

Report Number: PL-TR-94-2193, ERP-1153

Project Number: 6670 TASKNUMBER: GX

Monitor Acronym: XC

Monitor Series: PL/HANSCOM

or don't know what the handle is, you can check here by entering the bits of core metadata that you do know: title, corporate author, personal author, AD number, report number, and/or publication year. You will then get a results list from which you can select the desired handle. Click on the handle to retrieve the resource. This new service will play a vital role in DoD's preservation of, and access to, Internet-accessible resources for the DoD community. A sample DTIC handle search result is illustrated on the previous page; click on <http://handle.dtic.mil/100.2/ADA289448> and you will immediately access the complete text in PDF format. In addition, handles have been assigned to the full-text public release technical reports that are available in DTIC's Public STINET® service (<http://stinet.dtic.mil/>).

DTIC's STINET citations to full-text documents now have an added field: ProxyURL/Handle. It is located in the citation under the AD number at the beginning of the record. See the sample above.

Future plans include the assignment of handles to all of DTIC's electronic resources that have permanent value, including limited release materials contained in DTIC's Private STINET® service.

DTIC welcomes DoD agencies who want to use DTIC's Handle Service. We are interested in partnering with DoD organizations who wish to create handles for their resources in order to preserve their published works. No fees are involved, but organizations must comply with DTIC guidance on handle policies and procedures. For information about how to become a participant or a partner, call (703) 767-8004 or DSN 427-8004. Visit the DTIC Handle Service Web site at <http://www.dtic.mil/dtic/handles>.

Note: The Handle System is a registered trademark of the Corporation for National Research Initiatives.



## Hot Spots on the Web

In the process of searching for relevant sites to add to Current Focus, our Homeland Security Web page, we have discovered several new search engines and directories to complement DTIC databases. The adventure has been revealing.

FirstGov, the new federal government Internet portal, was one of our first stops. GSA has recently selected the Norwegian search engine FAST, also known as AlltheWeb.com as the engine to power FirstGov.gov. The engine is expected to provide more relevant and complete search results from over 51 million federal and state pages on the Internet.

FAST has the ability to limit a search to specific state governments, the federal government, or both. If you click on the Site Map, you will find the well-hidden Advanced Search template at <http://www.firstgov.gov/fgsearch/index.jsp>. Here you can limit the search to a specific domain, to terms in the title, the URL and/or the text. In addition, FAST searches for documents in various formats, including PDF, HTML, XML, plain text, PowerPoint, Excel and Word. You might even want to pay a visit to the FirstGov gateway databases Science.gov at <http://www.science.gov/> and Students.gov at <http://www.students.gov/>.

New searching algorithms have also been discovered. Some of the newer search engines are now using a technique called "clustering." Clustering enables search engines to gather results into groups around a certain theme, or in some cases provides you with related keywords that you may not have thought of, thus helping you zero in on your goal. Tara Calishain, editor of ResearchBuzz (<http://www.researchbuzz.com>), a free weekly newsletter on Internet search offerings and search engine news, describes this strategy in depth in an article entitled *Clustering with Search Engines* (<http://www.llrx.com/features/clusteringsearch.htm>).

Additionally, the full-text search engine Wisenut (<http://www.wisenut.com/preferences/preferences.html?ce=True>) offers links for related queries and clusters results from individual sites. This clustering is unique, however. Instead of the usual "more results from this site" link, Wisenut lists the exact number of pages on a site it has determined are relevant to your query.

Teoma (<http://www.teoma.com>), a search engine recently purchased by Ask Jeeves, has an interesting clustering technology. It is able to find and identify expert resources on your given subject. As an added bonus, both Wisenut and Teoma feature lists of other relevant authoritative sites and links.

Despite the aforementioned advantages, search engines should never be used as sole source. There is a plethora of other databases and resources that need to be mined continuously to round out your searching experience.

For instance, at Gary Price's daily Web log, The Virtual Acquisition Shelf & News Desk, also known as "ResourceShelf"

(<http://resourceshelf.blogspot.com/>), we discovered a new natural language searching site sponsored by none other than the Institute of Physics: Physics.org (<http://www.physics.org>). This portal to Web-based physics resources uses EasyAsk, a language software which allows queries to be entered in natural language while providing access to quality physics materials.

As you can see, the searching adventure can carry you for many virtual miles from possibilities to results. The challenge is to arrive at your destination successfully. If you have any questions or comments, contact DTIC's Current Awareness Team at (703) 767-8221, DSN 427-8221.

## Upcoming Meetings

**Internet Librarian**  
November 4-6, 2002  
Palm Springs, CA

**MLW - Military Librarians Workshop**  
December 3-5, 2002  
Richmond, VA

**Computers in Libraries**  
March 12-14, 2003  
Washington, D.C.

**DTIC 2003  
Annual Users Meeting and Training  
Conference**  
March 31 - April 3, 2003  
Arlington, VA

**SLA - Special Libraries Association**  
June 6-12, 2003  
New York, NY

## TRAINING

DTIC provides free training to registered users. To register for any of the classes listed below use the Training Course Sign-Up form located at [http://www.dtic.mil/dtic/forms/train\\_form.html](http://www.dtic.mil/dtic/forms/train_form.html). To obtain further information contact DTIC's Current Awareness Team at (703) 767-8224/DSN 427-8224 or call 1-800-CAL-DTIC (225-3842).

**Advanced Searching on the Internet**  
September 18-19  
October 16-17  
December 4-5

**DoD and Government Internet Resources**  
August 21  
October 9  
December 18

**Searching DTIC Databases**  
August 13-14  
September 10-11  
October 31 - November 1  
November 20-21  
December 11-12

# BEST SELLERS

Below are the best selling documents DTIC customers ordered specifically to support their individual organization's unique mission needs. This quarter's most popular documents consist primarily of guides, handbooks and other reference materials.

## PRINT

### AD-A223 168/NAA

Defense Systems Management College, Fort Belvoir, VA

**Systems Engineering Management Guide**  
Kockler, F.; Withers, T.; Poodiack, J.; German, M.

01 Jan 90, 296p., \$12.00

*Note: Supersedes AD-A136 020/NAA dated 1983 and AD-A192 010/NAA dated 1986.*

### AD-A389 254/NAA

Naval Justice School, Newport, RI

**A Commander's Quick Reference Manual for Legal Issues**

01 Mar 01, 163p., \$12.00

### AD-A272 275/NAA

Lawrence Livermore National Laboratory, Livermore, CA

**LLNL Explosives Handbook. Properties of Chemical Explosives and Explosive Simulants**

Dobratz, B. M.; Crawford, P. C.

31 Jan 85, 524p., \$42.00

### AD-A391 893/NAA

Defense Science Board, Washington, D.C.

**Report of the Defense Science Board Task Force on Future DoD Airborne High-Frequency Radar Needs/Resources**

01 Apr 01, 67p., \$7.00

*Note: Final technical report.*

### AD-A397 572/NAA

Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD

**Environmental Health Engine Training Munitions Health Risk Assessment No. 39-EJ-1485-00: Residential Exposure from Inhalation of Air Emissions from the M918 40mm Practice Cartridge or the M781 40mm Practice Cartridge**

Chang, Hsieng-Ye; Coakley, Stafford D.; Mobley, Joleen

15 Jun 01, 92p., \$7.00

## NONPRINT

### AD-M001 246/NAA

Assistant Secretary of the Army (Acquisition Logistics and Technology), Fort Belvoir, VA  
**Army Science and Technology Master Plan 2001: Accelerating the Pace of Transformation (CD-ROM)**

01 Jan 01, 1 CD-ROM, \$31.00

### AD-M000 704/NAA

Air University, Maxwell Air Force Base, AL  
**Air Force 2025: America's Vigilant Edge (CD-ROM)**

01 Jan 96, 1 CD-ROM, \$31.00

### AD-M001 331/NAA

Department of the Navy, Washington, D.C.  
**EBusiness Knowledge Fair 2001**

01 Oct 01, 1 CD-ROM, \$31.00

## ELECTRONIC DOCUMENT BEST SELLERS

Listed costs for electronic documents are for hardcopies. Downloads are free of charge.

### AD-A397 838/NAA

Inspector General Department of Defense, Arlington, VA

**Acquisition of the Naval Control System**

08 Jan 02, 57p., \$7.00

### AD-A394 787/NAA

Mercer Engineering Research Center, Warner Robins, GA

**Electronic Warfare (EW) Receiver and Processing Concepts Evaluation Program (RAPCEval 2)**

Bass, W. T.

01 May 01, 182p., \$12.00

*Note: Final report 1 Apr 00 - 11 May 01*

### AD-A397 528/NAA

Inspector General Department of Defense, Arlington, VA

**Closing Overage Contracts Prior to Fielding a New DoD Contractor Payment System**

19 Dec 01, 41p., \$7.00

### AD-A345 009/NAA

Army Research Laboratory, Adelphi, MD

**Automatic Target Recognition Using a**

### Modular Neural Network

Wang, Lin-Cheng; Der, Sandor; Nasrabadi, Nasser M.

01 May 98, 41p., \$7.00

*Note: Progress report Jun 97.*

### AD-A396 772/NAA

Army Research Institute for the Behavioral and Social Sciences, Alexandria, VA

**Manned Systems Group 1987-1991. Volume 1**  
Alderman, I. N.; Narva, M.; Ditzian, J. L.; Roth, J. T.; Johnston, E.

01 Jul 01, 1,314p., \$121.00

*Note: Final report 1987-1991*

### AD-A398 908/NAA

Naval Research Laboratory, Washington, D.C.

**2000 NRL Review**

01 Jan 00, 267p., \$12.00

### AD-A350 415/NAA

National Center for Health Services Research, Rockville, MD

**Health, United States, 1998, with Socioeconomic Status and Health Chartbook**

01 Jan 98, 472p., \$42.00

### AD-A344 329/NAA

Rutherford and Appleton Labs, Chilton (United Kingdom)

**European Geophysical Society (23rd) General Assembly, Annales Geophysicae, Part 1, Society Symposia, Solid Earth Geophysics & Geodesy, Supplement 1 to Volume 16**

01 Jan 98, 420p., \$42.00

### AD-A377 883/NAA

SPIE - The International Society for Optical Engineering, Bellingham, WA

**Advanced Photonic Sensors and Applications**

Lieberman, Robert A.; Asundi, Anand K.; Asanuma, Hiroshi

01 Dec 99, 789p., \$42.00

### AD-A387 573/NAA

Institute for Defense Analyses, Alexandria, VA

**Potential Global Partners for Smaller-Scale Contingencies**

Lidy, A. M.; Cecil, M. M.; Kasten, Sara L.; Messick, Shawn E.; Packer, Samuel H.

01 Aug 00, 601p., \$42.00

*Note: Final report 1999-2000*

## Scenes from DTIC 2002, the Annual Users Meeting and Training Conference, April 15-18, 2002



*"From Information Delivery to Knowledge Management"*







# DOCUMENTS ON DISPLAY

## DIGITAL SKILLS

**AD-A399 409/NAA**

**Corporate Author:** Army Research Institute for the Behavioral and Social Sciences, Alexandria, VA

**Title:** *Training for Adaptability and Transfer on Digital Systems*

**Personal Authors:** Schaab, Brooke B.; Dressel, J. D.

**Report Date:** 01 Dec 01 **Cost:** \$7.00 90p.

**Descriptors:** \*digital systems, \*Army personnel, \*Army training, \*performance (human), Army research, skills, training devices, teaching methods, enlisted personnel, active duty.

**Identifier:** PE62785A

**Abstract:** Today's soldiers are being trained to use digital systems to enhance duty performance. This research compared training digital skills to entry-level, enlisted soldiers by the conventional method to training by a constructivist method. The constructivist method actively engages soldiers by using realistic vignettes as training tools to acquire and integrate knowledge of the digital system and the military job.

After seven days of training, soldiers trained by both methods were asked to complete (1) a practical exercise requiring application of their training in an unfamiliar vignette and (2) the current schoolhouse exam. No difference was found between the conventional training methods and the constructivist method on the current schoolhouse exam. Soldiers trained using the constructivist method were more successful in applying their training to solve unfamiliar problems and reported lower levels of workload. The constructivist training method was shown to improve soldiers' adaptation and application of their training to unfamiliar situations.

**AD-A395 401/NAA**

**Corporate Author:** Army Research Institute for the Behavioral and Social Sciences, Alexandria, VA

**Title:** *Training Challenges for Digitization*

**Personal Author:** Moses, Franklin L.

**Report Date:** 01 Jun 01 **Cost:** \$7.00 34p.

**Descriptors:** \*digital systems, \*Army training, military requirements, skills, Army per-

sonnel, battlefields, management personnel, military modernization, computer aided instruction, training management.

**Identifiers:** digitization, PE622785

**Abstract:** This report outlines challenges about how best to train computer-based digital skills for future battlefield operations. It explains the foundation of Army needs, the state of current knowledge, suggests research to address the most pressing needs, and the potential benefits to the Army. Five training challenges for digitization are identified and discussed: (1) Determine digital task training requirements; (2) Train adaptability; (3) Prepare digitally-linked teams; (4) Assess skill levels of digital soldiers; and (5) Strategies for training on demand. The report's purpose is to communicate with training managers and leaders who have to make informed decisions about how to support training for the Objective Force and the future Army.

## KNOWLEDGE MANAGEMENT

**AD-A396 509/NAA**

**Corporate Author:** Naval Postgraduate School, Monterey, CA

**Title:** *Using Knowledge Management to Innovate U.S. Coast Guard Command Center Processes*

**Personal Author:** Navarro, Randall J.

**Report Date:** 01 Jun 01 **Cost:** \$7.00 91p.

**Descriptors:** \*satellite communications, \*search and rescue, \*Coast Guard, \*warning systems, \*knowledge management, information systems, theses, response, systems analysis.

**Identifiers:** SARSAT (Search and Rescue Satellite-Aided Tracking)

**Abstract:** The U.S. Coast Guard (USCG) responds to thousands of alerts received each year from the Search and Rescue Satellite-Aided Tracking (SARSAT) system. Each alert requires an efficient and effective response to assist a potential mariner in distress. This thesis provides an in-depth analysis of the process employed by USCG command centers in responding to SARSAT alerts.

The purpose of this analysis is to identify alternatives that can improve the knowledge work performed in the process. This thesis builds on recent work that focuses on knowl-

edge management and system design from three integrated perspectives: (1) reengineering, (2) expert systems knowledge acquisition and representation, and (3) information systems analysis and design. The integrated framework covers the gamut of design considerations from the enterprise process at large, through alternative classes of knowledge in the middle, and on to specific systems in detail. The SARSAT response process is examined using this integrated framework and identifies five technological and organizational alternatives that offer significant potential to improve the overall performance of the process.

**AD-A389 476/NAA**

**Corporate Author:** Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio

**Title:** *Development of a Decision Framework for Knowledge Management Projects*

**Personal Author:** Bower, William D.

**Report Date:** 20 Mar 01 **Cost:** \$12.00 204p.

**Descriptors:** \*resources, \*Air Force planning, \*project management, Department of Defense, military strategy, organizations, strategy, literature surveys, accuracy, universities, delphi techniques, national defense.

**Identifiers:** \*knowledge management

**Abstract:** Air Force resources are being committed to fund, implement, and support organizational knowledge management initiatives without any overarching Air Force knowledge vision or knowledge strategy to guide these efforts. The purpose of this research is to provide a framework model and framework implementation process that can be used to guide the identification, selection, and eventual implementation of Air Force knowledge management projects.

An initial literature review was conducted and the findings were used to develop a framework model to guide the identification and selection of appropriate knowledge management initiatives that are consistent with organizational strategy and strategic objectives. Next, a Delphi study was conducted to evaluate the proposed framework and associated framework implementation methodology using four criteria: completeness, comprehensiveness, accuracy, and usefulness. The

Delphi committee consisted of representatives from the Department of Defense, Army, Navy, Air Force, and National Defense University. The findings of the Delphi committee support the use of the proposed framework model as an appropriate method for guiding the identification and selection of knowledge management initiatives within the Air Force that are focused on supporting Air Force strategy and strategic objectives.

## BIOMETRY

**AD-A391 898/NAA**

**Corporate Author:** Rand Arroyo Center, Santa Monica, CA

**Title:** *Super Bowl Surveillance: Facing Up to Biometrics*

**Personal Author:** Woodward, John D. Jr.

**Report Date:** 01 May 01 **Cost:** \$7.00 16p.

**Descriptors:** \*recognition, \*biometry, law enforcement, countermeasures, intrusion, face (anatomy).

**Identifiers:** facial recognition, privacy rights

**Abstract:** Biometric facial recognition can provide significant benefits to society. At the same time, the rapid growth and improvement in the technology could threaten individual privacy rights.

The concern with balancing the privacy of the citizen against the government interest occurs with almost all law enforcement techniques, however, and we should not let the fear of potential but inchoate threats to privacy, such as super surveillance, deter us from using facial recognition where it can produce positive benefits. Biometric facial recognition is by no means a perfect technology, and much technical work has to be done before it becomes a truly viable tool to counter terrorism and crime. But the technology is getting better and there is no denying its tremendous potential.

In the meantime, we, as a society, have time to decide how we want to use this new technology. By implementing reasonable safeguards, we can harness its power to maximize its benefits while minimizing the intrusion on individual privacy.

**AD-A395 001/NAA**

**Corporate Author:** Rand Corporation, Santa Monica, CA

**Title:** *RAND Arroyo Center Research Brief: Can Biometrics Help the Army Solve an Identity Crisis?*

**Report Date:** 01 Jan 01 **Cost:** \$7.00 4p.

**Descriptors:** \*military requirements, \*information systems, \*research facilities, \*biometry, databases, weapons, peacetime, communities, physical properties, data storage systems, Army.

**Abstract:** The Army is having an identity crisis, and it affects both its wartime and peacetime operations. Simply put, the Army needs to ensure that the right people and only the right people can get access to its information systems, its weapons, and its many databases that serve the Army community. Biometrics - that is, physical characteristics or personal traits that can be measured quickly may offer a solution. But using biometrics raises some knotty legal, ethical, and sociological issues - for example, how to safeguard biometric information so it cannot be used for other, possibly nefarious, purposes. The Army has been studying these issues and has been considering the feasibility of establishing a biometric research center that could serve as a central data repository and carry out test and evaluation.

## PUBLIC KEY INFRASTRUCTURE

**AD-A391 663/NAA**

**Corporate Author:** Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) Washington, D.C.

**Title:** *Public Key Infrastructure Implementation Plan for the Department of the Navy*

**Report Date:** 29 Nov 00 **Cost:** \$7.00 21p.

**Descriptors:** \*cryptography, \*identification systems, \*electronic security, \*secure communications, \*computer access control, \*information security, requirements, Department of Defense, Marine Corps, Navy, wide area networks.

**Identifiers:** IATAC collection, PKI (Public Key Infrastructure), smart cards, CAC (Common Access Card), information assurance

**Abstract:** This PKI implementation plan for the Department of the Navy provides a roadmap for Navy and Marine Corps planners and managers to carry out the DoD PKI policy and addresses the general activities and objectives associated with implementation of the Navy and Marine Corps portions of the Class 3, Class 4 (FORTEZZA), and Target Class 4 DoD PKIs. This implementation plan is consistent with the 6 May 1999 "DoD

Public Key Infrastructure" memorandum released by the Deputy Secretary of Defense, as modified by the DoD Chief Information Officer on 12 August 2000, as well as the 29 October 1999 DoD PKI implementation plan. Chief of Naval Operations N643 and Headquarters, Marine Corps C4 will promulgate detailed implementation guidance within their respective chains-of-command as necessary to accomplish the specific activities and objectives outlined in this plan.

**AD-A393 226/NAA**

**Corporate Author:** Naval Postgraduate School, Monterey, CA

**Title:** *Requirements for the Deployment of Public Key Infrastructure (PKI) in the USMC Tactical Environment*

**Personal Author:** Stocks, Alan R.

**Report Date:** 01 Jun 01 **Cost:** \$7.00 80p.

**Descriptors:** \*military forces (United States), \*tactical warfare, \*infrastructure, \*computer access control, \*information security, deployment, Marine Corps, recovery, cryptography, interoperability, materials, theses, operation, bandwidth.

**Identifiers:** NMCI (Navy Marine Corps Internet), PKI (Public Key Infrastructure)

**Abstract:** Marine forces are expeditionary in nature yet require the full range of Public Key Infrastructure (PKI) services at deployed sites with limited bandwidth and access to their respective registration authority. The development of a PKI solution for the tactical arena is a fluid and complex challenge that needs to be answered in order to ensure the best support of tactically deployed forces. Deployed Marine forces will need the capability to issue and re-issue certificates, perform certificate revocation, and perform key recovery within the command element of the deployed unit.

Since the current United States Marine Corps (USMC) PKI was not designed with the tactical environment in mind, the full extent of PKI deficiencies for field operation is unknown. This thesis begins by describing public key cryptography, the implementation and objectives of a USMC PKI, and the components necessary to operate a PKI. Next, tactical issues that have been identified as areas of concern along with their proposed solutions are presented. Supporting material describes design issues, such as scalability and interoperability, and technical challenges, such as certificate revocation lists, key escrow and management of tokens.

## MATRIS Update

Over the past few months the staff at DTIC's San Diego-based MATRIS Office has been working to completely redesign and update two Web sites: Military Assistance Program Central, and Personnel and Readiness.

For a number of years the Office of Family Policy (OFP) has been maintaining a site on MATRIS servers for family center professionals. The site was password activated and difficulties were experienced insofar as communication was concerned. This was due in large part to personnel turnover and a lack of knowledge about the site. OFP made the decision that since much of the information was only of interest to Family Center personnel, it did not have any inherent proprietary sensitive elements.

With content information coming from the OFP, a significant amount of effort was put into the conversion of the limited access Intranet to an Internet product that

is primarily a "desk guide" for Family Center personnel. The guide provides a significant amount of information for active duty military personnel who are relocating, seeking information on schooling, etc. The page can be reviewed at <http://dtica.dtic.mil/mapcentral/>.

In addition, the Military Personnel Policy Directorate of Force Management Policy wanted to update their portion of the Personnel and Readiness Web site. As administrations and staffs change, there are many new things being done in all parts of DoD. The staff at Military Personnel Policy believed it was time to have the site reflect current ideas and projects. The efforts are well worth looking into; there is a simpler, more current way to obtain information on Basic Housing Allowances, per diem, military pay issues, and so forth. The site is located at the following URL: [http://dticaw.dtic.mil/prhome/das\\_mpp.html](http://dticaw.dtic.mil/prhome/das_mpp.html).

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