

Navy v. Nature, Technology Levels the PLaying Field Page 2



Tree Tech Bites deadly Insects Page 3



KC at the bat for T² Training Page 4



NEWSLINK

Federal Laboratory Consortium for Technology Transfer
The Only Government-wide Forum for Technology Transfer

T² Events

65th UCLA Technical Management Program Los Angeles, Calif. March 23-28, 2003

Patuxent Partnership Business Dev. Symposium Solomons Island, Md. April 3, 2003

> T² Society's T² Forum IV Vienna, Austria April 23-25, 2003

2003
FLC National Meeting
Tucson, Ariz.
May 5-9, 2003

BIO 2003 Annual Convention Washington, D.C. June 22-25, 2003

Technologies for Public Safety & Critical Incident Response Expo St. Louis, Mo. Sept. 23-25, 2003

Go to: <www.federallabs.org> for a complete calendar of events

T² Fact

Zacharias Janssen of Middleburg, Holland takes popular credit for inventing the first

CDC Revolutionizes Clincal, Educational Tool

MicroScreen, a software package designed by **Dr. Roger Taylor** of the **Centers for Disease Control and Prevention**(**CDC**), captures, archives, and displays real-time images obtained from a microscope slide.

Virtual slides with two magnifications and five focal planes are created by integrating the functions of a microscope, automated stage, camera, and PC. The virtual slide can be scrolled along the X or Y axis in a

manner that mimics microscopic slide examination and has the ability to



Inventor Dr. Roger Taylor of the CDC examines a Pap smear using his MicroScreen technology. MicroScreen has revolutized how microscopic images are captured and displayed.

change magnifications or focal planes at any location. Areas of interest may

be marked for revisit and annotated to provide educational information.

Additional features include recording the path used to screen the slide, scoring or other feedback, and a comparison of the user's screening skills to expert skills.

MicroScreen technology is ideal for educational or testing products requiring virtual slides of high resolution with multiple focal planes in which the user identifies smaller areas of interest within a large view.

See MicroScreen, page 4

FLC Resourceful in Advancing T² Education

Recent issues of *FLC NewsLink* have highlighted a major project of the FLC Education and Training (E&T) Committee, *The FLC Technology Transfer Training Resources Project*.

The focus of the project is to identify and promote technology transfer training resources for the federal laboratory community.

In an effort to build and diversify the project's database, E&T Committee Chair **Lynn Murray** encourages your submissions.

The following is a sample submission format appropriate for summarizing training resources available for T² professionals through laboratories.

Introduction to the Process of
Technological Innovation - MBA-TM 610
Westminster College
Gore School of Business
Technology Management Program - M.S. in Technology
Commercialization

What is Introduction to the Process of Technological Innovation?

MBA-TM 610 is an introductory course in the Technology Management Program at Westminster

College, a semester-long evening course that centers on developing an awareness of the range, scope and complexity of issues related to the strategic management of technological innovation; developing an understanding of the contextual



Dr. Kelvin Willoughby and apprentice Mike Permenter of the FLC Technology Transfer Training Resources Project research and recruit resources to meet the training and educational needs of laboratory personel.

factors that frame the management of technology; gaining insight into the manner in which technological evolution is linked to the evolution of products; organizations, industries and institutions; and gaining an appreciation of the role of entrepreneurs and general managers in leading the process of technological innovation.

See ETAP, page 4

DC Dispatch Will 108th Do More for T2 than 107th?

by Dave Appler
FLC Washington, DC Representative

On February 13, Congress finally passed the FY03 appropriation for all

Dave Appler

government except defense, which passed last fall. Because we are approximately halfway through the fiscal year, the agencies that must start new

programs face a great challenge. In addition, both houses are still making decisions about committee assignments,

See DC Dispatch, page 4

Lab in the Limelight KC System Trains Thousands

The Electronic Learning
Management System
(eLMS) of the National
Nuclear Security
Administration's Kansas
City Plant Workforce
Learning and Development
Department has improved
the way more than 3,000 of
its associates learn.

As one of the first true e-learning systems, eLMS educa significantly improves all aspects of workforce training. Immediately upon logging in, associates find out exactly what courses they need to complete and by when.



The Kansas City Plant, one of the most unique and diverse manufacturing facilities in the world, is home to leading-edge educational technology.

Managers can access up-to-date associate training information as well as assign additional courses. The qualification requirements can be automatically populated

See Lab in Limel ight, page 4



2 Lab Work

3 Tech Watch

3 Proven to Work

Check out FLC NewsLink online www.federallabs.org

Fed Labs Flash

Technology Transfer Notes from Within the Federal Laboratory Community

Senior Scientists Named Fellows

By Grace Janiszewski, Sensors Directorate

Two Sensors Directorate senior scientists were distinguished recently by the Institute of Electrical and Electronic Engineers (IEEE) as 2003 Fellows. Receiving one of the most prestigious honors granted by the IEEE, Dr. Brian Kent, Principal Technical Research



Dr. Brian Kent

Leader. Wright-**Patterson Air Force** Base, and Dr. Richard Soref, Research Scientist, Hanscom Air Force Base, join a very select group of electrical and electronic engineers.

Dr. Kent is the internationally

recognized expert on "low observable" radar cross section (RCS) test and evaluation technologies. He directs the planning and execution of many multimillion dollar research programs designed to significantly improve the state of the art for international government and

industrial RCS measurement facilities.

Dr. Soref invented and developed a new family of siliconbased photonic and optoelectronic components for chipand wafer-scale integration with



Dr. Richard Soref

silicon and silicon-germanium electronics. Prior to his research, the technical community was unaware of the practical integratedphotonics aspects of silicon.

Communications Breakdown

What's the difference between a muon and a gluon? How are atomic clocks related to safe airline travel? If DNA is nature's perfect identification system, does it matter that everyone has two different sets, nuclear and mitrochondrial? All good questions, all with hard-to-communicate answers.

A new report, "Communicating the Future: Best Practices for Communication of Science and Technology to the Public", summarizes the results of a public meeting held at the National **Institute of Standards and Technology** (NIST) in March 2002 with major funding from the U.S. Department of Energy Office of Science. The report includes descriptions of 48 model science and technology communications programs. It also

includes the text of presentations by noted communicators and a summary by a blue-ribbon steering committee that describes 10



"hallmarks of good science communications programs."

To receive a free copy of the printed version, provide your name and full mailing address to NIST by calling (301) 975-NIST (6478), sending an e-mail to <inquiries@nist.gov>, or faxing a request to (301) 926-1630.

Edgewood Employs Boy Scout Motto

In partnership with the Office of Personnel Management (OPM) and the Federal **Emergency Management Administration** (FEMA), the Edgewood Chemical Biological Center (ECBC) is offering seminars for federal

executives that address the unique management issues involved in response to a terrorist attack with chemical or biological weapons of mass destruction.

After the terrorist attacks of September 2001, many officials identified a knowledge gap where attacks involving chemical and biological agents were concerned. Supported by ECBC's Homeland Defense Business Unit, the seminar serves as an introduction to chemical and biological agents and their implications, including signs and symptoms, appropriate response, and the responsibilities of executiveand management-level personnel.

More info: ECBC Public Affairs Office at (410) 436-4347

New Reports

By Niel Macdonald, Federal Technology Watch

Two timely reports were released January 29 by the Technology Administration Office of Technology Policy (TA/OTP).

An 80-page report, "Fuel Cell Vehicles: Race to a New Automotive Future," offers a valuable overview of global developments in fuel-cell powered vehicles.

"The U.S. Competitive Position in Advanced Automotive Technologies," a 118-page report, describes global patenting activity in 11 categories of automotive technologies.

More info: www.ta.doc.gov/reports.htm



Lab Work

Leveling the Playing field, Navy v. Nature



Developed by the University of Hawaii, SEAMAP records large portions of the ocean floor in quick time.

Headquartered at the **John C. Stennis Space Center** in Mississippi, the Naval Meteorology and Oceanography Command (NMOC) has extensive experience transferring technologies and capabilities that assist both the warfighting mariner and the recreational sea-goer.

Its mission, according to NMOC Public Affairs, is "to collect, interpret and apply global data and information for safety at sea, strategic and tactical warfare, weapons system design, and deployment. The command provides meteorological, oceanographic, and geospatial information and services to

increase the effectiveness of our Navy in both peacetime and in war. Whether the operation is a research study in the high Arctic, a prediction of surf conditions, a flight weather brief, or a

forecasting of ice, sharing of knowledge, techniques, and equipment increases accessibility of environmental information."

An example of this *sharing* is NMOC's autonomous underwater vehicle (AUV), SEAMAP, originally developed at the University of Hawaii. This side-scan, bathymetric sonar system allows for fast low- To maintain its intended survey track, the to medium-resolution mapping of large areas. It is towed shallow so that its acoustic beams spread out, covering a wide footprint on the sea floor. This technology has provided the Naval Oceanographic



GPS mast of NMOC's SEAHORSE breaks the surface to affix coordinates.

Office (NAVOCEANO) with broad area survey capabilities in a minimum amount of time, thus saving valuable ship and personnel time.

A second transfer, the SEAHORSE AUV, was developed by Pennsylvania State University (Penn State). The SEAHORSE-class AUV operates inexpensively on over 9000 alkaline D-cell batteries. With a range of more than 300 miles and endurance of over 90 hours, it collects side-scan images of the ocean bottom, water-column temperature and salinity, ocean currents using acoustic Doppler current profilers (ADCPs), and bathymetry. It is highly modular and based on commercial off-the-shelf (COTS) technology for easy maintenance while at sea. SEAHORSE's high degree of autonomy via pre-mission programmed instructions allows for instruction changes during mission operations. This multiplies the effectiveness of the survey ship beause it can collect data on its own until the mission has been completed. NAVOCEANO and Penn State engineers continue to work closely to ensure that the vehicle meets NAVOCEANO's needs for an autonomous oceanographic survey vehicle.

For more information on SEAMAP, contact Paula Costello, 228-689-8995. For more information on SEAHORSE, contact Richard Swanson at 228-689-8095.

NEWSLINK

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Tech Watch

Federal Laboratory Technologies Ready for Transfer

Environmental Brookhaven's Waste Management

Major research emphasis has been placed on wastes generated through DOE environmental restoration activities—e.g., aqueous concentrates, sludge, soils, and secondary treatment residuals. To properly handle the waste, researchers from **Brookhaven National Laboratory (BNL)** have developed a process to successfully treat radioactive, hazardous, and mixed Hg contaminated wastes.

Sulfur Polymer Stabilization/Solidification (SPSS), developed by a BNL team led by **Paul Kalb**, uses heated sulfur-polymer cement and small amounts of additives to convert toxic liquid mercury into mercuric sulfide—a low solubility and low vapor pressure compound.

The thermoplastic mixture is melted and

poured into a mold, where it cools and solidifies.

This homogeneous, solid waste form

immobilizes the mercury so that it exceeds stringent (proposed) EPA standards for leaching. The final waste form can be disposed of as nontoxic industrial waste.

The SPSS system creates a durable waste form that meets current Nuclear Regulatory Commission and Environmental Protection Agency regulatory criteria and provides significant improvement over conventional cements. In addition to encapsulation, the materials have been tested as improved barriers to reduce migration of contaminants from leaking storage tanks and disposal sites.

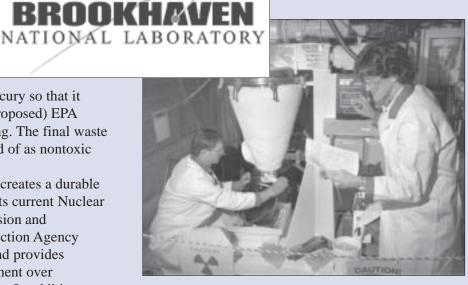
The process uses cheap raw materials to make a monolithic, nonleaching,

nondispersible waste form. Scale-up studies promise high throughput.

SPSS has been developed at BNL from proofof-principal through laboratory scale development. Performance testing, scale-up feasibility, and full-scale technology demonstration have been achieved.

This patent pending process is available exclusively or nonexclusively in all fields of use other than mining operations. Newmont Mining has licensed the process exclusively for mining and is offering sublicenses for that field of use.

More info: Michael Greene, mgreene@bnl.gov



BNL researchers work toward the development of safer and more efficient technologies for the treatment and disposal of hazardous, mixed and radioactive wastes. New processes include using thermoplastic and thermosetting polymers and sulfur cement or low temperature glasses progress from proof-of-principle.

Sensors RADMAPS

To meet the need for a system to accurately detect and map radioactive contaminated areas, the **Savanah River Technology Center** (**SRTC**) developed RADMAPS, a portable system for detecting, locating, and

characterizing nuclear materials.

The portable field unit records gamma or neutron radiation spectra, location, and sample date and time, using an



A global positioning system is combined with radiation, heat, and chemical measuring technology.

imbedded global positioning system (GPS).

RADMAPS integrates several off-the-shelf technologies with computer software developed at SRTC.

Using commercially available digital maps, satellite or aerial photos, site plans or other custom graphics, RADMAPS shows the operator the radiation type, location, and intensity.

The technology's principal application is in mapping contaminated areas both in the United Staes and worldwide.

The software eliminates costly, error-prone manual data entry. It is easy enough for a novice investigator to use with only brief training, while the data it provides is precise and reliable.

More info: Al Boni (803) 725-2628, albert.boni@srs.gov

Proven to Work

Alaskan Cedar Bites Back at Ticks, Fleas, and Mosquitoes

To control disease vectors, the use of natural botanical extracts has been a focus of research at the Centers for Disease Control and Prevention's Division of Vector-Borne Infectious Diseases (DVBID).

Marc Dolan, Nick
Panella, and Gary
Maupin, scientists at
DVBID, in conjunction
with Joe Karchesy of
Oregon State University
(OSU), recently developed,
tested, and patented a class
of natural products for pest
control and described
methods for their use.

DVBID scientists obtained natural plant extracts from OSU and screened them against ticks, fleas, and mosquitoes.

Laboratory bioassays were conducted to determine the biological activity of 15 natural products isolated from the essential oil of Alaska yellow cedar heartwood. This chemical group of sesquiterpenes, many of which were

Newly Discovered Compound from Alaska Cedar

Nick Panella and Marc Dolan of the CDC

DVBID conduct bottle bioassays on adult mosquitoes. Their work has led to a newly

valencene derivatives, was demonstrated to be very effective against nymphal blacklegged ticks, adult Oriental rat fleas, and mosquitoes.

discovered compound that has shown to be

effective in pest control.

The effectiveness of these natural compounds resulted in lethal concentration values comparable to synthetic insecticides, such as carbaryl and permethrin. In addition, many of the compounds were effective up to 6 weeks after treatment.

The ability of these natural products to induce vector mortality is encouraging and may represent an

> alternative to using synthetic pesticides to control disease vectors. Ongoing research includes

making these compounds water soluble for controlling mosquito larvae, delivery systems, the mechanism of toxicity, and repellant qualities.

The DVBID serves as a national and international reference center for vectorborne viral and bacterial diseases. DVBID's primary

mission is define disease etiology, ecology, and pathogenesis in order to develop improved methods and strategies for disease diagnosis, surveillance, prevention and control.

OH

More info: Marc Dolan, (970) 221-6482, mcd4@cdc.gov

MicroScreen from page 1

Examples include scanning a cytology smear for abnormal cells, locating parasites in a smear, or identifying morphological changes on a tissue specimen.

This technology can be used on any microscopic media, including fluorescent applications. Methods for Web delivery are in development.

The inventors have applied this software to develop a prototype system, CytoViewTM, for computer-based cytology proficiency testing. Studies indicate comparability between computer-based and microscopic images.

More info: www.cdc.gov/od/ads/techtran/



Lab in the Limelight from page 1

with e-mail reminders going to both associates and managers.

techtran.htm FLC

Additionally, associates can take control of their own development with simple online enrollment features.

The enrollment numbers speak well of the system's success.

By Jan. 10, 3,381 computers accessed the eLMS system, a number that actually equates to even more people due to computer sharing.

Between July 5, 2002 and January 10, 2003, 4,490 enrollments were accepted through eLMS. During that same period, 3,589 associates accessed one or more online courses.

"eLMS will enable associates to get the justin-time training they need," said **Lynn Allen**, manager of Workforce Learning and Development. "It will support self-development and be a true one-stop shop for learning."

As an additional benefit, eLMS accommodates different learning styles with multimedia modules that foster self-paced learning. Cost savings will be realized through the reduction of work hours lost to offsite training.



Off-the-shelf learning content, accessed through eLMS; allows associates to select learning materials, guides them to content that meets their level of knowledge, teaches what they need to know to perform more effectively in their particular activity, and empowers them to track their progress.

Students also praise the fluidity of the system; it allows users to complete courses with a minimal amount of interruption.

By replacing the groundbreaking Quality Training System (QTS) of 1998, eLMS demonstrates Kansas City Plant's continuing advances in advancing education.

More info: Wess Hudelson, Senior Media Specialist, (816) 997-5071, www.kcp.com

DC Dispatch from page 1

something usually completed by mid-January, not mid-February. In subsequent issues of *FLC NewsLink*, I will provide information on congressional leaders whose committees will affect or oversee federal R&D. I will also alert readers when committee leaders have announced legislative agendas of interest to the labs and track important legislation as it works its way through the system.

If FLC members hear of any bills of particular interest, please let me know.

Reflecting upon the past year, I was wondering what legislation I had perhaps overlooked as I came up to speed. Apparently, there just was not much technology legislation passed. During the two years of the 107th Session of Congress, only 17 of the more than 700 bills relating to the technology community became law. After removing items dealing with such issues as stock options, tax policy, and the like, only three bills of interest to the federal R&D/technology transfer community (other than agency authorization bills) passed. The conclusion of others was that Congress had taken its time to assess the impact of past legislation in lieu of undertaking many new initiatives.

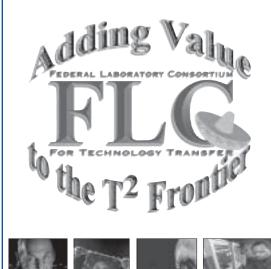
We shall see if this situation continues in this Congress. For the next several years, however, you can expect homeland security to remain a hot topic.

Write to Dave: dappler@flcdc.cnchost.com



May 5-9, 2003

Tucson, Arizona





Join the Exploration! www.federallabs.org

ETAP from page 1

MBA-TM 610 embodies sound principles of adult education and learning, incorporating question and answer sessions, lectures, small group activities, case studies, exercises drawn from real-world problems, opportunities to apply new knowledge and to interact within peer groups, and small class sizes to ensure appropriate levels of interaction with the instructor.

Who Should Take MBA-TM 610?

The course is designed for technology management professionals, including those responsible for licensing and business development, as well as those individuals who simply want to learn more about the process of technological innovation.

Students will usually have more then three years' experience in technology-related management field.

Both regular students of Westminster College and others can attend. However, only those enrolled in the Technology Management Program at Westminster are eligible for degree credit.

This course is compatible with most CEU programs.

There is a charge associated with the course. To find out more about the program, students are encouraged to visit the institution's web site at <www.westminstercollege.edu>.

Critique

Introduction to the Process of Technological Innovation is a class on the cutting edge of business theory. The class is based on the observation that innovation is centrally important to the success of any technology firm. This class is an exciting blend of technical inquiry and abstract thought, and challenges commonly held precepts of business management. Professor Kelvin Willoughby weaves a beautiful tapestry of technology management ideas and has the uncanny ability to make intellectual connections with a delightful sense of humor. He employs the innovative method of peer evaluation, which serves to keep you on your toes and provides a deep sense of interaction between you and fellow classmates. The use of case studies allows one to gain an understanding of the complexities of managing a technology firm.

-Kevin Permenter, Research Officer and Student, Westminster College

The FLC E&T Committee encourages members of the federal laboratory community to take advantage of this opportunity to contribute to the development of this powerful tool.

Send information about training and education opportunities to **Kevin M. Permenter**, FLC Technology Transfer Training Resources Project, Gore School of Business, Westminster College, 1840 South 1300 East, Salt Lake City, UT 84105. **FLC**

Inside the FLC

Highlights from the Southeast Region T² Awards

Oak Ridge **National** Laboratory won two Southeast Region Excellence in Technology Transfer

5



Awards. Pictured here (l-r) are **Dr. Tom** Karnowski ("Automatic Image Retrieval for Semiconductor Yield Improvement"), Larry **Dickens**, Technology Commercialization Manager and Southeast Regional Deputy Coordinator, and Dr. Ted Bessman ("Carbon Composite Bipolar Plate: Lightweight Electrodes for Fuel Cells").



Southeast Regional Coordinator Kelly McGuire presents Dr. Peter Cotty of **Agricultural Research** Service, Mid-South Area, Food and Feed Safety Research Unit, with the South-

east Region's 2002 Excellence in Technology Transfer Award for development of a technology entitled "Commercial Scale Biological Control of Aflatoxin Contamination."

Pam Bookman of NASA's Kennedy Space Center accepts the Technology Transfer Project of the Year Award for her technology, "Personal Cabin Pressure Monitor and Altitude Warning System."





Russ Metler of the **Centers for Disease Control and Prevention** accepts the Laboratory Representative of the Year Award. Also pictured is Dr. Andrew Watkins, Director of the CDC's Technology Transfer Office.

Awarding T² Excellence

As we count down to the 2003 FLC national meeting, FLC NewsLink will highlight the winners of the 2003 FLC Awards for Excellence in Technology Transfer





Dr. Tara McHugh and Dr. Charles Huxsoll, from the Agricultural Research Service (ARS) Western Regional Research Center in Albany, Calif., have conducted cutting-edge research, which has underpinned the development of a new industry to manufacture 100% fruit and vegetable products. These new products can be made from fruits or vegetables that are too small or have cosmetic imperfections,

Dr. Kenneth Tobin, Thomas Karnowski, Regina Ferrell, Shaun Gleason, W. Bruce Jatko, and Bobby Whitus of Oak Ridge National Laboratory (ORNL), along with Applied |

and thus cannot be sold as fresh produce.



Materials, Inc. team members Amos Dor, Barry Wong, and Yifa Gavra, developed the capability for a flexible content-based image retrieval technology and software system called Automated Image Retrieval (AIR). This technology provides the only method available to the semiconductor industry today to control and improve device yield by using the existing image repository in the semiconductor wafer fabrication environment.



Naval Research Laboratory (NRL) physicist Jeffrey Bowles won for his work on the Optical Real-Time Adaptive Spectral Identification System (ORASIS), a software application for the analysis and compression of hyperspectral images based on a patented algorithm developed by researchers at NRL. Hyperspectral images are composite images composed of multiple pictures of a "scene" taken at different wavelengths. Examples of scenes include

a view of the earth's surface taken from an aircraft or satellite, a medical image recorded using a fiber optic probe, or images of industrial processes that can be used for automation or quality control. The main advantages of ORASIS is its real-time capability, ease of use, and superior detection, making it particularly suited for use in applications such as search and rescue.

Jeffrey Danneels, Rudolph Matallucci, Teresa Torres, Betty Biringer, William Paulas, Rick Ramirez, Joe Madrid, and Mark Allen of Sandia National Laboratories (SNL) have developed and licensed multiple risk assessment methodologies (RAM) for use in protecting our

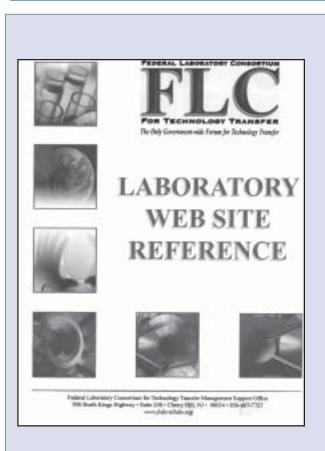


nation's infrastructure from potential terrorist threats. To date, SNL has developed RAM systems for dams (RAM-D), transmission systems (RAM-T), and water utilities (RAM-W). Each methodology helps to identify risks and vulnerabilities, and then designs technology solutions to effectively manage the situation.

Nautical charts are a fundamental tool of marine navigation. Hundreds of critical changes occur every week; however, updated editions took up to 38 weeks to be printed, making charts

dangerously out-of-date when published. To remedy this, Technical Director David Enabit, Oceanographer Richard Sillcox, Cartographer Norman Smith, Computer Analyst Barbara Gray, and General Engineer Thomas Loeper of the National Oceanic and Atmospheric Administration (NOAA) developed large-format, full-color, variable data, on-demand printing technology. The technology prints charts only when ordered, and from digital files that NOAA

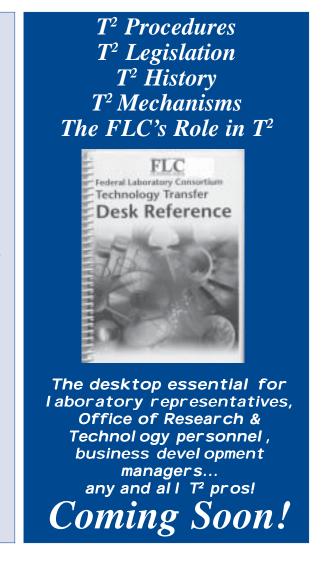
updates daily. They also developed electronic commerce software for chart ordering, which controls the automatic assembly and printing of charts from the up-to-date digital files whenever a chart is ordered.



The FLC Laboratory Web Site Reference

This lightweight, quick reference guide to federal laboratory web sites puts you at the front door of science and technology

Contact the FLC MSO to reserve your copy 856-667-7727 or www.federallabs.org



ETC...

E&T a Major Focus of FLC National Meeting

Believing that a foundation of T² knowledge breeds T² success, Program Chair Norma Cammarata and Education and Training (E&T) Chair Lynn Murray have teamed to incorporate a full day of training plus educational



Lynn Murray E&T Chair

plenary sessions at the FLC's 2003 national meeting. From fundamentals to advanced training, T² professionals can earn CEUs while learning more about legislation, marketing, laboratory responsibilities, potential barriers and solutions, and the scope of federal laboratory resources.

It all starts on Monday, May 5, with T^2 on the Horizon - FLC T² Fundamentals. Ideal for newcomers to the T^2 field or as a refresher course for T² veterans, this course provides a thorough foundation in the background, concepts and

practical knowledge required to transfer federally funded technologies from the laboratory to the marketplace. FLC subject-area experts will describe the nuts and bolts of the T² process they practice every day and provide practical insights into how to "do" technology transfer.

The course includes overviews of the FLC and T2, Cooperative Research and Development Agreements, intellectural property (IP) issues, and T² marketing.

For those well-versed in the field of T², Tuesday's lineup will increase their expertise with IP Management and Licensing - Advanced Training.

A team of seasoned Licensing Executives Society (LES) professionals offers a day-long advanced training session for federal T² specialists and anyone looking to improve their patent and licensing skills. The presenters include **Jesse Erlich**, patent attorney and FLC IP expert; Emmett Murtha, past president of the LES; and **Sam Khoury**, a leading expert on IP valuation. **Ann Freudendahl**, former federal lab licensing specialist at Lawrence Livermore and Sandia National laboratories and acting Director of Licensing at Arizona State University, will moderate. Topics include IP and government

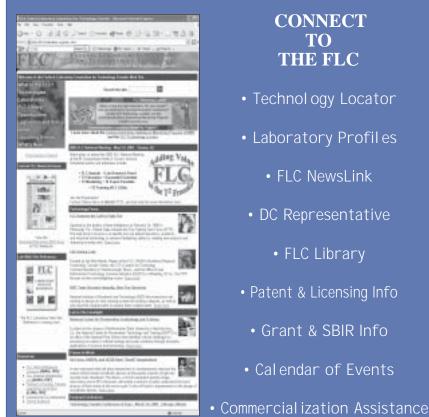


Norma Cammarata Program Chair

rights, due diligence/IP valuation, assessing opportunities for licensing IP, the anatomy of a license, and negotiating.

To learn more about the meeting, visit the FLC web site at <www.federallabs.org>, or contact Sherry Nacci at 856-667-7727 or <snacci@utrsmail.com>.

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U.S.-Japan Tech Team Expands

A program developed to enhance the transfer of research and capabilities between the U.S. and Japan continues to foster technical progress.



Lab in the Limel ight

Rocky Mountain Oilfield Testing Center serves up testing and evaluation assistance to industry and academia.



FLC 2003 National Meeting

Learn more about how you can be part of the FLC 2003 national meeting, "Adding Value to the T2 Frontier," in Tucson, Arizona, May 5-9.



Technol ogy Locator

Locate federal laboratories ready to transfer their technologies to the marketplace and find laboratories ready for collaborative R&D.

FLC Laboratory Profile

Is your lab profile current? Update your profile today! Contact the FLC Webmaster Currently flcadmin@utrsmail.com

Our Goal

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