



FLC NEWS LINK

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

T² Events

Enzymes & BioCatalysis
for Drug Discovery &
Development
San Diego, Calif.
Jan. 30-31, 2003

American Association for
the Advancement of Science
Annual Meeting and Expo
Denver, Colo.
Feb. 13-17, 2003

National Design
Engineering Show
March 3-6, 2003
Chicago, Ill.

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

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

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

Go to:
<www.federallabs.org>
for a complete
Calendar of Events

T² Fact

In 1799, Italian physicist
Alessandro Volta
combined electrolyte-
soaked discs to zinc and
copper discs and wired
them to copper and zinc
plates to create the voltaic
cell, forerunner of the
electric battery. Hence, a
unit of electrical potential
is named a Volt.

Inside

2 Fed Labs Flash

2 Lab Work

3 Tech Watch

5 FLC File

5 Regional
Roundup

Check out
NewsLink
online

www.federallabs.org

NIST Tests Structure Integrity, New Fire Quencher

Detecting Building Collapse
**National Institute of Standards and
Technology (NIST)** fire researchers are

working to design an
early warning system
for building collapses.

In May 2002 NIST,
cooperating with local
fire departments, set
fires in vacant stores in
a shopping center in
Woodbridge, Va., that
was scheduled for
demolition. Fire
engineers from NIST
and NIST grantee
Harvey Mudd College
(Claremont, Calif.)
tested the ability of
highly sensitive motion
detectors to detect pre-
collapse vibrations of
walls in the lightweight
steel frame building

during fires large enough to cause collapse
of steel deck roofs. The researchers hope
to develop a methodology for interpreting

the vibration data, which are being
analyzed at Harvey Mudd, to enable
the development of warning devices. A

permanently to provide advance
warning of unsafe structures.

More info:

**Dave Evans,
(301) 975-6897**

Quenching the Fire Quickly

The behavior of
tiny droplets of new
liquid fire
suppressants may
play a big role in
firefighting
effectiveness. The
new suppressants are
proposed to replace
halon suppressants
now being phased out
because they cause
damage to
stratospheric ozone.
The effectiveness of

a suppressant depends on many
factors. Do the droplets evaporate
quickly or cling to a hot surface? Do

See *NIST Firefighting*, page 4



*At NIST's Building and Fire Research Laboratory, firefighters test
methods and equipment while researchers study building materials,
computer-integrated construction practices, and fire safety
engineering. The work of the lab enhances building safety, standards,
and codes.*



device that uses this technology could
be attached to burning buildings by
firefighters or installed in a structure

FLC Answers the Call to Fight Fire



*Innovations in emergency response technology, like
the fire-retardant clothing worn by this raceway pit
crewman, save the lives of those saving others.*

Sparked by the deaths of
three firefighters on February
14, 1995 in Pittsburgh, Pa.,
Robert Saba, then serving as a
Business Development
Specialist with the NASA
Mid-Atlantic Technology
Application Center, initiated
the Fire Fighting Task Force
(FFTF).

The task force's mission is
to identify and use federal
laboratory, academic, and
industrial technology to
enhance firefighting safety by
creating new products and
improving existing ones.

Initially funded by the FLC and
NASA, the FFTF has expanded its
mission to include meeting the
needs of all first responders. This
expansion has been the result of
increased partnerships with federal
agencies—as well as with the
National Fire Protection
Association (NFPA), the
International Association of Fire
Chiefs (IAFC), and the Metro Fire
Chiefs—and a Memorandum of
Understanding signed in March
2001 to continue the work under the
leadership of Mr. Saba.

Now the task force is recruiting a
partnership with the **United States**

See FFTF, page 4

DC Dispatch Three Capital Issues

by **Dave Appler**
FLC Washington, DC Representative

In the past I have sent out several
items on the U.S. Patent and
Trademark Office's (PTO) proposed
overhaul and increase of the patent
fee structure. Under
discussion is that patent
fees in the last
10 years have more than



covered PTO's cost of doing business
with the extra revenue going
elsewhere. One of the issues raised is

See *DC Dispatch*, page 5

Lab in the Limelight

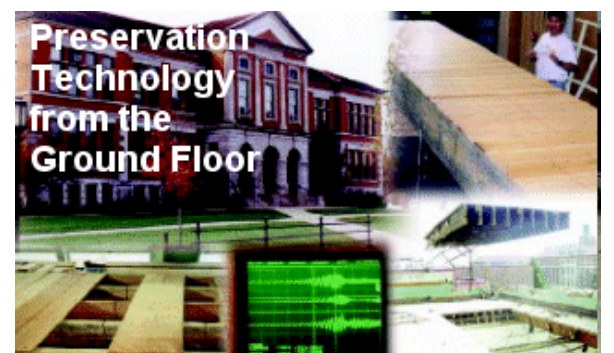
by **Mary F. Streigel**

Located on the
campus of Northwestern
State University in
Natchitoches, La., the
**National Center for
Preservation
Technology and
Training (NCPTT)** is
an office of the
National Park Service
that identifies critical
challenges to preserving
our nation's cultural
heritage and seeks
solutions through
innovative applications of science
and technology.

The NCPTT supports and
encourages research, technology

transfer, training and education, and
information dissemination through
partnerships, grants, and self-
supported projects.

See *Lab in Limelight*, page 4



*Working with NCPTT, researchers at Purdue
University are using historic structures, wooden test
floors, and actual historic wood floor systems to
develop new technologies for preserving wood floors
in older buildings.*

Fed Labs Flash

Technology Transfer Notes from Within the Federal Laboratory Community

ARS Hall of Fame Inductees



George Inglett

Three **Agricultural Research Service (ARS)** scientists, **George Inglett**, **K. Darwin Murrell** and **Stuart O. Nelson**, earned places in ARS's Science Hall of Fame for their outstanding contributions to agricultural research.

Inglett was honored for the R&D and patenting of

four "trim technologies": Oat-trim (a powdered fat replacement), Z-Trim, Nutrim and Soytrim. In 1999, licensed Oat-trim manufacturers produced more than 20 million pounds of the fat-replacing powder, generating an estimated \$1 billion in retail sales.

Murrell was honored for his landmark research



K. Darwin Murrell

on parasites of veterinary and medical importance—especially trichinellosis in swine—and for his innovative development and leadership of laboratory and agency-level programs.

Nelson is recognized as a world authority on dielectric properties—the characteristics of poor conductors of electricity

that determine their interaction with electromagnetic fields—of agricultural materials and measurement methods.



Stuart Nelson

Save on Taxes Deep in Space

The **Department of Energy (DOE)** will relocate the assembly, testing and shipment of special radioisotope power systems used by **NASA** and others to the **Argonne National Laboratory-West (ANL-West)** site in Idaho. These systems, including radioisotopic heat sources and thermo-electric generators that have powered all of NASA's deep space probes (i.e., the Galileo, Pioneer and Cassini spacecraft) are needed when chemical batteries or solar energy are impractical, e.g., in the exploration of the outer solar system. The transition of the assembly and test mission to ANL-West's Zero Power Physics Reactor complex is expected to be completed in late FY2004 or early FY2005.



Since the early 1980s, the program had been conducted at the DOE's Mound Site near Miamisburg, Ohio. Relocating the project will save taxpayers nearly \$34 million over 10 years in related community and transfer costs.

More info about DOE's space and defense power systems: www.nuclear.gov

TVA Energy Alternative Rewarded

Green Power Switch, the **Tennessee Valley Authority (TVA)** program that produces electricity from cleaner, greener sources, has been awarded a 2002 Federal Energy and Water Management Award.

The award from the DOE and the Federal Interagency Energy Policy Committee recognizes TVA's Green Power Switch program

for its outstanding contribution to the expansion of renewable energy.

On October 23, **Gary Harris**, Green Power Switch program manager, accepted the award on behalf of TVA in Washington, D.C. "TVA is honored to receive a Federal Energy and Water Management Award," said TVA Director Skila Harris. "The success of Green Power Switch is a result of the outstanding support it receives from distributors of TVA power and from the people of the Tennessee Valley who have made the choice to buy electricity generated from renewable sources."

More info: www.tva.com/greenpowerswitch



EPA Announces New Strategy

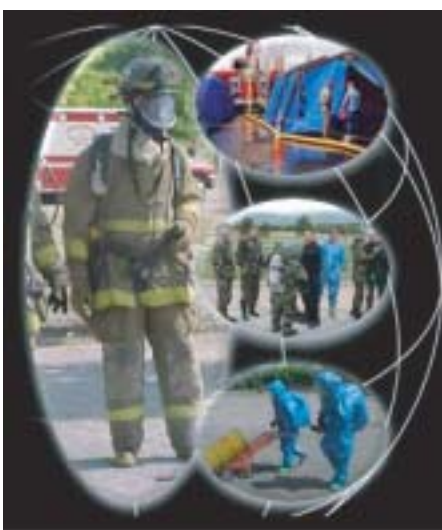
The **Environmental Protection Agency (EPA)** has announced a national Environmental Monitoring and Assessment Program (EMAP) research strategy to provide a comprehensive picture of the state of major U.S. streams and estuaries. Presently, states, tribes and regions collect water data primarily from specific point sources, which are not representative of the entire aquatic ecosystem. The strategy outlines how EPA intends to use science to better meet the monitoring and assessment needs of states, tribes and regions. The strategy is available electronically through EPA's Office of Research and Development's web site at www.epa.gov/ORD/resplans.



Lab Work

Protecting the Protectors

The **National Protection Center (NPC)** is a joint agency that sponsors and executes research, development, test and evaluation, and promotes commercialization of advanced/multi-threat protective clothing and equipment for military personnel and civilians who work in high risk occupations or conduct missions in extreme environments.



Its founding members, **National Aeronautics & Space Administration (NASA) Ames Research Center** and **National Institute of Justice (NIJ)**, create partnerships with other federal and state agencies, users, industry and academia to identify, consolidate and leverage requirements, projects, capabilities and resources. The NPC's focus is on "the most valuable and fragile operating platform of all, **the human being**."

Headquartered at the Natick Soldier Center at the U.S. Army Soldier and Biological Chemical Command in Natick, Mass., much of NPC's research and development takes place at the Edgewood Chemical Biological Center (ECBC) at the Aberdeen Proving Ground in Aberdeen, Md.

Scientists at ECBC perfect technologies related to body armor, wearable cooling systems, environmental protection strategies, medical status monitoring, and wearable sensors. One example is the Automated Decision Aid System for Hazardous Incidents (ADASHI), a unique, portable, computer-based system that improves the decision-making speed and skills of both military and civilian commanders.

The ECBC also operates and maintains a Surface Spectroscopy and Electron Microscopy Laboratory (known as MicroLand) for biological research and forensics.

MicroLand has the capability to determine the elements of materials in bulk or in particular patches and is a valuable resource for product development. For example, if there is a problem with mask lenses being scratched, scientists and technicians can determine the source of the problem and possible solutions. MicroLand is also instrumental in the development of methodologies and in the analysis of unknowns. Most companies that manufacture products can benefit from work performed at MicroLand. Scientists and technicians can examine virtually any product or material (such as asbestos, the size and shape of food particles, paint and pigments) to ascertain the ability of a substance to coat, frozen dairy products to study the composition of cheese or milk, or sampling for industrial standards.

The NPC works with the International Association of Firefighters, the Memorial Institute for the Prevention of Terrorism, the Centers for Disease Control, the National Fire Protection Agency, and many more. They encourage anyone interested in technology transfer opportunities to contact them.

More info: 508-233-5571, <http://npc.sbcom.army.mil>

"Technology from the battlefield to the streets of our nation...Protecting those who protect us." - The NPC

FLC

NewsLink

FLC Management Support Office
950 North Kings Highway
Suite 208
Cherry Hill, NJ 08034
Phone: (856) 667-7727
Fax: (856) 667-8009

Published by the
*Federal Laboratory Consortium
for Technology Transfer*

Online subscriptions:
flcnews@utrsmail.com

Submit articles online to
Tom Grayson
www.federallabs.org/nl/submit

NewsLink is published eight times a year by the *Federal Laboratory Consortium for Technology Transfer (FLC)* and the FLC Marketing and Public Relations Committee.

Opinions or views expressed in *NewsLink* are those of the contributors and do not necessarily reflect those of the FLC, its officers, or its representatives.

Tech Watch

Federal Laboratory Technologies Ready for Transfer

Transportation

Auto Alternative

The DOE's Idaho National Engineering and Environmental Laboratory (INEEL) is

working with automotive industry leaders and private industry to develop a low-floor, 18-32 passenger vehicle that uses alternative fuel and complies with the Americans with Disabilities Act.

In the first phase of the project, scheduled to be completed early next year, program partners develop a low-floor shuttle bus prototype with a natural gas power train. Eventually, the vehicle will be manufactured with several drive trains to allow fuel flex.

The vehicle has the low-floor built into the passenger area built low to the ground for easy entry. These is also an entry ramp that can be extended for passengers in wheelchairs.



The bus, designed to use alternative energy sources for better fuel efficiency and low emissions, has original 1930 styling.

INEEL's partners include ASG Renaissance, Ruby Mountain/Greater Yellowstone Clean Cities Coalition, Arboc Ltd., the DOE, Federal Transit Authority, American Association of State Highway Transportation Officers, and the National Park Service.

The goals for this collaborative effort are to protect the environment and increase national security by reducing our dependence on foreign sources of energy. Market analyses indicate that this year-round transit vehicle will have broad uses municipally and individually.

More info: Teri Ehresman, 208-526-7785, ehr@inel.gov; www.inel.gov



Assistive Technology

Sandia Sets Sights on Sight

Enabling blind people to see is the goal—and miracle project—for the technical team from Sandia National Laboratory (SNL), four other national labs, a private company, and two universities. The idea, funded by a \$9-million, three-year grant from the DOE's Office of Biological and Environmental Research, is to create 1,000 points of light through 1,000 tiny microelectromechanical systems (MEMS) electrodes.

These electrodes will be placed on the retinas of those blinded by diseases, e.g., age-related macular degeneration and retinitis pigmentosa. These diseases damage the rods and cones in the eye that normally convert light to electrical impulses, but leave intact the neural paths to the brain that transport electrical signals.

Eventually, the input from rods and cones ceases, but 70 to 90 percent of the nerve structures set up to receive those inputs remain intact. The aim is to allow visually disabled people to read, move around objects in the house, and do basic household chores. The images will come a little slowly and appear yellow because, instead of millions of pixels, they'll see approximately 1,000.

A tiny camera and a radio-frequency transmitter will be lodged in the frame of a patient's glasses to transmit information and power to modules placed within the eyeball. The modules will be linked to retinal nerves that will send electrical impulses to the brain for processing. The SNL approach is to

attach a MEMS chip onto the retina. Cone and rod sizes, as well as nerve connections, are in the micron range—a difficult but achievable realm for scientists used to working with micromachines.

A long-term project that started at Johns Hopkins University (JHU), the work includes Oak Ridge, Argonne, Lawrence Livermore, and Los Alamos laboratories, in addition to SNL. According to JHU's lead project doctor/researcher, Mark Humayun, M.D., at these labs "there is a



GOT YOU IN MY SIGHTS — A prototype of the MEMS-based array that eventually may be inserted onto the retina of a blind patient. The design is by Murat Okandan.

considerable amount of advanced technology literally on the shelf or already being used for defense purposes that we could use to help solve blindness and greatly propel forward the entire field of medicine." **Second Sight** of Santa Clarita, Calif., will commercially produce the finished system. **North Carolina State University** leads the development of the in-situ medical electronics. **More info:** Neal Singer, 505-845-7078, nsinger@sandia.gov

Proven to Work

Air Force, DARPA, and UCSB Have "Small" Imaginations

A new instrument that will allow researchers to simultaneously measure the motion of fluid inside microfluidic devices at thousands of points of light has recently been developed by **Dr. Carl Meinhart** at the **University of California-Santa Barbara**.

The device, a micron-resolution particle image velocimetry (micro-PIV) instrument, will enable scientists to better understand the basic physics of fluid motion at the micro-scale. It also will lead to improvements in the design of microfluidic devices.



*Dr. Carl Meinhart
Micro-PIV developer*

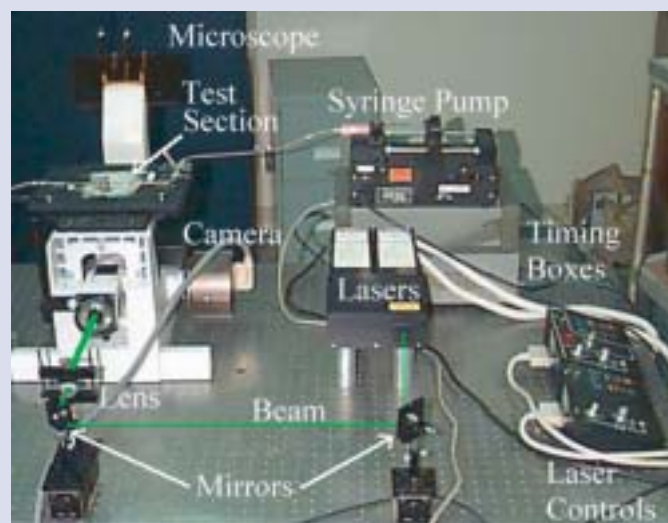
The research was jointly funded by the **Air Force Office of Scientific Research** and the **Defense Advanced Research Projects Agency (DARPA)** under the MEMS for Flow Control Program. (MEMS is an acronym for microelectromechanical system.)

While microfluidic devices are being used increasingly in commercial, medical and military applications, it has been difficult for scientists to measure the details of fluid motion inside these devices, whose small scale makes

direct measurements inside of them with probes almost impossible. However, many complex fluid-surface interactions are not understood at the micro-scale, inhibiting the development and commercialization of microfluidic devices.

Micro-PIV works by measuring the displacements of small fluorescent particles in the flow. By tracking the displacement of these particles during a short time interval using two pulses of a laser beam, the fluid velocities in the device can be determined. Innovations in the imaging system, data processing, and seed particles were required to develop the micro-PIV system.

Microfluidic devices are currently being developed for use in biomedical diagnostics, biotechnology sensors, and a variety of aerospace applications. An improved understanding of the details of fluid mechanics at the micro-scale, made possible with micro-PIV, may lead to more



The micro-PIV system (photo courtesy of Mike Gray, mechanical engineering graduate student, University of California, Santa Barbara)

efficient mixing and response times in biological and chemical detection devices, more efficient and repeatable micro-thrusters for nanosatellite stationkeeping, more efficient heat exchangers for cooling electronic components, and a variety of other applications. Micro-PIV provides a

revolutionary tool for measuring the fluid motion inside these devices, and the understanding required to optimize these devices.

Recent market research surveys indicate that by 2003 worldwide sales for microfluidic devices will be \$3.8 billion, or about 40 percent of the total MEMS market. Worldwide sales are expected to grow at an annual rate of 25-35 percent as researchers learn the value of micro-PIVs in biotechnology, computer hardware, and aerospace applications.

More info: Dr. Thomas Beutner, 703-588-6961, www.afosr.af.mil

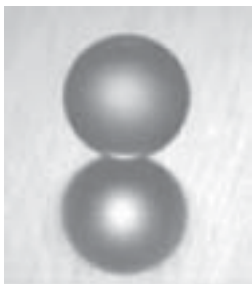
Nist Firefighting from page 1

they spread, shrink, splash, or levitate? Liquid droplet interactions with surfaces have been studied for more than 100 years, but the complicated fluid mechanics process is still not well understood. Moreover, few studies have addressed what happens to water droplets containing fire-suppressing additives.

NIST researchers are studying the collision dynamics of single droplets, about 2.7 mm in diameter, as they strike a heated stainless steel surface. In one set of experiments, the behavior of pure water was compared to that of a solution with salt-containing additives.

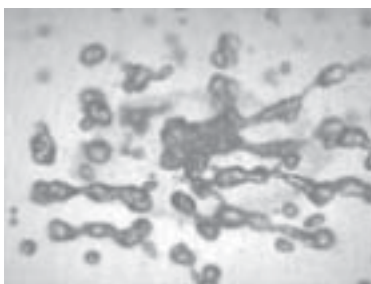
The researchers recorded what happened to the droplets at different impact energies and at different surface temperatures using a high-speed digital camera.

The findings for both water and additive-containing droplets show that the disk-shaped liquid



How fire suppressant droplets react to surfaces is a major factor of how long and how well a suppressant extinguishes a fire.

film formed on the surface after impact grew in diameter at higher impact velocity, possibly providing increased surface cooling. The presence of the



additive influenced the collision dynamics greatly at low impact energy, but less so as the velocity increased. This suggests that for high-velocity impact,

knowing the evolution of liquid film diameter for water impact may be sufficient to determine the amount of surface cooling.

These findings are important in fire suppression because droplets impinging on surfaces from sprinklers and pressure nozzles are expected to have relatively higher impact energies.

More info: Samuel Manzello, 301-975-6891

Lab in the Limelight from page 1

In an effort to preserve America's heritage, the NCPTT develops preservation technologies for identifying, evaluating, conserving, and interpreting prehistoric cultural resources. The staff trains historic preservation professionals, transfers new technologies to preservation activists, promotes heritage education in schools, and educates federal managers about the stewardship of America's cultural resources.



Dr. Mary Streigel, Environmental and Materials Research Program Director

Partnerships

NCPTT promotes and encourages partnerships to leverage its resources and best meet the needs of the national preservation community. NCPTT maintains a broad partnership base that includes other offices of the National Park Service; federal agencies; state and tribal historic preservation offices; universities; private corporations; and local,

state, national and international nonprofit organizations.

The center's Applied Research and Technology Transfer Program has teamed with Real Time Thermal Imaging, the New Orleans Mosquito and Termite Control Board, and Dow Agro Sciences, Inc., to use thermal imaging as a tool for locating subterranean termite nests in historic buildings.

Through a partnership with **E.I. du Pont de Nemours and Company**, NCPTT's Environmental and Materials Research Program is testing potential treatments for acid rain on stone.

Environmental and Materials Research Program

NCPTT operates an in-house research facility to study the effects of air pollution on materials.

The Environmental Exposure facility includes a custom designed and built recirculating wind tunnel for controlled exposure of materials to air pollutants such as sulfur dioxide or nitrogen oxides. This chamber allows careful control monitoring of temperature, humidity, wind speed, turbulence, pollution concentration, and aging.

Using a Leica DMRX optical microscope fitted with conventional and digital photographic capabilities, researchers are able to get closeup visuals for microscopic examination of materials.

With all this work, NCPTT has taken the lead in using modern technology to preserve yesterday for tomorrow.

More info: ncptt@ncptt.nps.gov



This sculpture on Sanssouci Palace in Potsdam, Germany, shows the effects of air pollution.

FFTF from page 1

Fire Administration (USFA). In partnership with the **Public Safety Technology Center (PSTC)** of the **Center for Technology Commercialization, Inc. (CTC)**, Mr. Saba presented the USFA with the FFTF white paper in July of this year.

Headquartered in Westborough, Mass., the PSTC is an innovative technology consulting company that partners with the public safety community to enhance cooperation among police, fire, and emergency management professionals on all levels through technical partnerships. PSTC scouts and assesses technology, performs

technical research, assesses industry and market needs and applications, and facilitates the licensing and commercialization of technologies.

The PSTC's white paper proposes that the USFA become a "key element of the collaborative effort by supporting the consulting time of Mr. Saba in the identification and development of new technologies for the fire service."

With the necessary support, the FFTF plans to stimulate communication among first responders and developers of first responder equipment. It is believed that will match user needs with innovators' research and development. To that

Is Your Lab Part of the Federal Gallery?

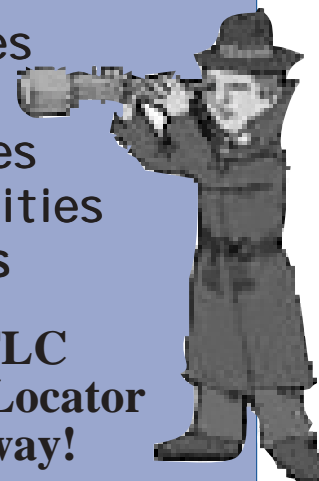
Technology Transfer Conference & Expo invites federal labs to showcase their technologies as part of the **National Design Engineering Show**. A 20% discount for federal labs... but a deadline looms, so don't wait!

McCormick Place
Chicago, Ill., March 3-6, 2003

Contact Mike Driscoll at:
MDriscoll@reedexpo.com

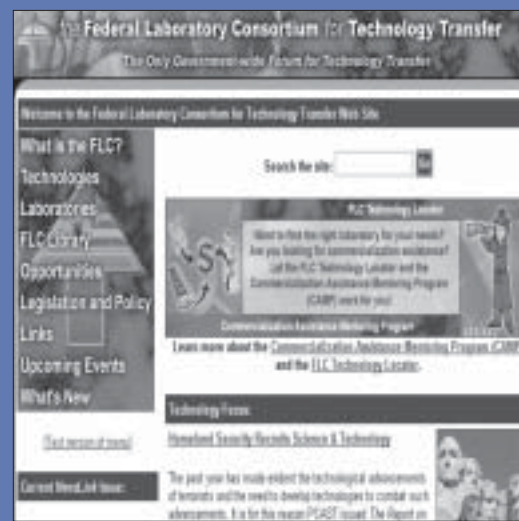
What Are YOU Looking For?

- Laboratories
- Capabilities
- Technologies
- T² Opportunities
- T² Solutions



Let the FLC Technology Locator lead the way!

Sam Samuelian
856-677-7277
ssamuelian@utrsmail.com



www.federallabs.org

end, innovations will be developed, evaluated, and implemented in a way that maximizes first responder and homeland defense technologies.

The FFTF believes that completion of these objectives requires the identification of related technologies under development in federal labs and the private sector.

Mr. Saba also believes that adding the USFA to the vast FFTF partnership web will have a multiplying effect on how well first responders provide public safety, secure the homeland, counter terrorism, and protect themselves. **FLC**

T² Training Resource Developing Fast

by Joan Miller

During the first phase of the Training Resources Project, a master list of laboratories and organizations active in technology transfer within the federal government was systematically compiled and entered into a searchable database. These contacts will be used during the next phase as data on available training resources is gathered.

Recently, the team has begun the process of gathering information to populate the database with current information about the T² training resources used at research facilities around the country. In this phase, data will be entered into the database based on a standard set of criteria that has been developed. The data elements include: Subject Resource, Relevant Personnel, Delivery Mode, Format, Cost, Contact Hours, Credit Available, Duration, Eligibility, and Service Details.

The *Subject Resource* category is a text field of no more than one paragraph that summarizes the purpose of the training resource. Its elements will be built as the training resources are entered. The *Relevant Personnel* category is also a text field that charts for whom the resource is geared. It is an attempt to assess the different training needs of various laboratory personnel. Examples of the elements in this category include Legal, Scientist, Marketing, ORTA, Lab Director, Public Relations, and Engineer.

Delivery Mode is a text field for understanding how the training resource is to be delivered, i.e., online, classroom. The *Format*



Dr. Kelvin Willoughby and ETAP apprentice Mike Permenter have launched a master list of laboratories active in technology transfer. The list will be a valuable asset in meeting the T² training needs of laboratory personnel.

field is used to assess the method in which the class is to be taught, i.e., whether it is a lecture given by someone or a more interactive case study approach. The *Credit Available* field is designed to ascertain the type of credit/certificate granted for the training. The *Cost* field defines the cost associated with the resource from the perspective of those using it, i.e., free, charge, free if eligible (specifically, certain people can use the resource for free while others have to pay).

The *Duration* field analyzes the frequency of the resource. For example, is it given in one block of time or is it spread out over weeks or months? The *Contact Hour* field provides some idea of the total length of the resource and relates to granting of CEUs. An *Eligibility* field tries to capture exactly who is able to use the

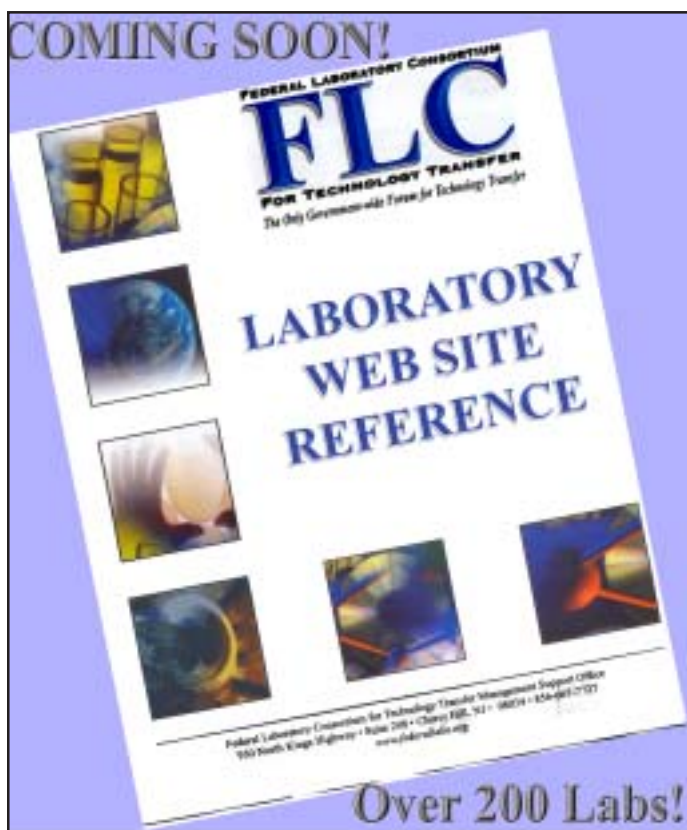
resource; i.e. whether the resource is open to everyone or only available to the providing organization's employees. The *Service Details* field assesses the regularity of the resource; i.e. whether it is an ongoing resource (on-line), offered only once yearly, or some other time configuration.

Key to the success of the project is feedback on the proposed terminology of the database. Using terminology that is common among the federal laboratories and agencies will increase the utility of the project.

Candidate training resources are also needed to populate and test the database. Please contact Mike Permenter at <mpermenter@westminstercollege.edu> with information about training resources. The T² Training Resources Project members can be contacted by e-mail as follows:

- Dr. Steve Boardman, FLC MSO Training Coordinator, <sboardman@utrsmail.com>
- Lynn Murray, E&T Committee Chair, <murrayl@volpe.dot.gov>
- Joan Miller, ETAP Mentor/Consultant, <aprilsnow9@juno.com>
- Dr. Kelvin Willoughby, Westminster College faculty, kwilloughby@westminstercollege.edu
- Kevin Michael Permenter, ETAP Apprentice <mpermenter@westminstercollege.edu>

Your continuing support is appreciated and will help us be inclusive in our development of the training resource base. Please feel free to contact any of us with your input and comments.



DC Dispatch from page 1

how much of the new fee structure is going to places other than PTO. In a letter of concern to the Office of Management and Budget, the 21st Century Intellectual Property Coalition emphasized its support for modernization efforts at the PTO, but objected to using a large PTO fee increase to fund other government programs. This coalition currently comprises 77 companies and 22 associations, including Hewlett Packard, IBM Intel, and Microsoft.

An article in the *Daily Briefing*, the e-mail newsletter of *Government Executive* magazine, discussed the DOD's 2005 Base Realignment and Closure (BRAC). It described an interview with Raymond Dubois, Deputy Undersecretary

of Defense for Installations and Environment, citing that the 2005 BRAC will create a new round of multimission/multiservice (i.e., multimilitary service) bases. Previous BRACs had minimal impact on DOD labs and T&E facilities. That probably won't be the case this time around. The article can be found at <www.govexec.com/dailyfed/1102/112002g1.htm>.

For the past 15 months, homeland security has been a top priority, and it is certain to remain of great concern for the foreseeable future. On November 25, President George W. Bush established the new Department of Homeland Security.

The legislation and accompanying House Committee Report are available on the FLC web site in the Legislation and Policy section.

One of the next major milestones for the president is to transmit to the appropriate committees of Congress a reorganization plan regarding the following:

- The transfer of agencies, personnel, assets, and obligations to the department pursuant to this Act.
- Any consolidation, reorganization, or streamlining of agencies transferred to the department pursuant to this Act.

In coming weeks, I will highlight some of the salient points in the legislation with regard to R&D and technology transfer. **FLC**

ETC...

Life-Saving Labs

Our cover page article, *FLC Answers the Call to Fight Fire*, reported on the development of the Fire Fighting Task Force (FFTF) and its place within the technology transfer (T²) community.

Funded by the Mid-Atlantic Region of the FLC, NASA's Northeast Regional Technology Transfer Center, the CTC (Centers for Technology Commercialization) in Westborough, Mass., and the Office of Law Enforcement Technology Commercialization (OLETC) in Wheeling, W.Va., the FFTF focuses on five core firefighting issues:

- Hands-free communication in high noise environment
- Enhancing visibility through dense smoke
- Tracking/monitoring personnel
- Next-generation first responder apparatus
- Wildland fires.

To discuss the task force's T² activities, needs and plans, *NewsLink* met with FFTF coordinator Robert Saba and conducted the following Q/A session.

NewsLink (NL): What federal laboratories have been active in working toward meeting the technological needs of firefighters?

Robert Saba (RS): Without naming the specific ones, as they are many and all over, DOD, NASA, DOE, NIOSH, NIST, and other federal labs had been contacted by our FFTF and requested to offer technology solutions and help based on the end-user needs defined above.

NL: What do you see as the FLC's role in the FFTF, and do you see this role expanding in the future?

RS: I see the FLC's role as most important and significant as a tremendous resource for addressing the FFTF end-user firefighting community technology needs and requirements through dual-use application of pertinent technologies. Through the normal licensing technology transfer process, these technologies could be transferred to the private sector. With the appropriate bridge, R&D efforts could be adapted to serve the firefighting community's needs and requirements. This role should be further expanded in the future.

NL: The FFTF is very active in promoting its cause. Can you discuss its part in the Metro Fire Chiefs Conference held this past April in Hawaii?

RS: Over the last 4 or 5 years, the FFTF has been asked to be on the program of the Metro Fire Chiefs Conferences to update everyone in attendance about new technological developments that help the fire service. Usually this involves doing demos with the local fire department and then spending 20 to 30 minutes discussing the results and the status



Working with the FFTF, Robert Saba believes the FLC can play a large role in the transfer of firefighting technologies to aid communication, visibility, and personnel tracking.

of future activities. The concentration is on the priority items established by the end-user firefighting community.

Specifically in Hawaii, the FFTF, in cooperation with the Honolulu Fire Department, spent the day before the FFTF presentation to the Metro Chiefs doing demos on the helmet- and/or head-mounted skull bone-activated communication device (a Navy licensed technology) and the Night Vision Electronics & Sensors Directorate/Sage Technologies infrared focal plane array (IRFPA) helmet- and face mask-mounted device to see through dense, heavy smoke.

Most importantly, the FLC has a Memorandum of Understanding (MOU) with the National Fire Protection Association/International Association of Fire Chiefs/Metro Fire Chiefs, which was signed in April 2001 for a two-year period. Under that MOU, it was agreed to keep them posted of all developments and technologies that address firefighting community requirements.

NL: The demo at the Pittsburgh Bureau of Fire with Body Media demonstrates the requisite close connection required between the innovators and the life-savers. How often does the FFTF bring these two entities together, and are there plans to increase such activity?

RS: As often as the FFTF comes across companies who possess technology that the FFTF determines fits within the end-user needs/requirements established by the FFTF with the firefighting community.

Another company in Pittsburgh is Bridge Semiconductor. They have technology in the IRFPA area for use in enhanced visibility devices to see through dense, heavy smoke. Claims are that the cost of the IRFPA would be reduced considerably, thus making enhanced visibility devices more affordable and more likely to be bought and used by the fire service. If more technologies hit the marketplace and get into the hands of firefighters, more lives would no doubt be saved.

NL: What is the current political environment surrounding the work and plans of the FFTF?

RS: My feeling is that after September 11 and the emphasis on new technology to cope with and address potential terrorist attacks, as well as the establishment of a Homeland Security Department, the FFTF work and efforts should be enhanced and be more in demand.

"If more technologies would hit the marketplace and get into the hands of the firefighters, more lives would no doubt be saved."

- FFTF Coordinator Robert Saba

www.federallabs.org

Tom Grayson
FLC Marketing & Public Relations
950 North Kings Highway, Suite 208
Cherry Hill, NJ 08034
856-667-7727
tgrayson@utsmall.com

Need to update your mailing information? Send an e-mail to:

**Cherry Hill, NJ 08034
Suite 208
950 North Kings Highway**

*for Technology Transfer
Published monthly by the Federal Laboratory Consortium*

The Only Government-wide Forum for Technology Transfer

FLC NEWSLINK

PRSR STD
U.S. POSTAGE
PAID
PERMIT #117
SOUTHEASTERN PA
19399