



## From the Director's Desk

It is with profound sadness and deep respect that I must inform readers that we lost two of our instructors in the last few months. On 14 June 2005 we lost Pete Lund and on 15 July 2005 we lost Bill Renaker -- both to heart attacks. We will miss Pete and Bill and the extraordinary dedication they brought to our service. I hope you will join me in remembering Pete and Bill in your thoughts and prayers. More about Pete and Bill appears on page seven of this newsletter.

Since events of 9/11, Illinois has been on the leading edge of developing real interdisciplinary, operational capabilities among local and state response organizations that can be immediately marshaled and deployed to wherever they are required in time of catastrophic emergency - whether natural or man-caused.

Illinois' fire service has come together to build HazMat and technical rescue teams. With the support and direction of the Illinois Terrorism Task Force (ITTF), IFSI has led the effort to develop and secure Department of Homeland Security (DHS) approval for 18 courses that meet both national and Illinois standards for technician, operations and command-level training for these teams. We hope to complete this DHS-approval process this Fall.

For the past year, as part of this effort, IFSI has worked with the ITTF, DHS, and nearly two dozen fire departments throughout Illinois,

to design and underwrite the costs of establishing high-end training props and regional training tool caches to support the statewide deployable technical rescue and HazMat teams. IFSI has also developed a train-the-trainer program for selected members of these teams that will qualify them to receive and help

deliver the DHS-approved training programs at these regional training centers. Each of the departments who have offered to host these props will be designated as an ITTF Regional Training Center (ITTF RTC). Look for an update on these props and other homeland security training programs in our next newsletter and on our web site.

I would like to personally recognize the efforts of State Fire Marshal JT Somer. As the senior state government fire official tasked with advising the Governor and State Legislature on Illinois Fire Service issues, JT has worked tirelessly for the Illinois fire service to address the challenging issues we face during a time of increasing service demand and constrained resources. IFSI is the Statutory State Fire Academy and an activity of the Board of Trustees of the University of Illinois. As such, IFSI does not work for the State Fire Marshal; however, IFSI does and will continue to work closely with the OSFM to develop certification training and testing programs that are compatible and harmonized. As I enter my ninth year of service as the Director of your State Fire Academy, I have learned that it is fundamentally important that the State Fire Marshal and Director of IFSI work very closely and effectively together for the good of the Illinois fire service. I know I speak for JT when I say that we are both personally committed to have the OSFM and IFSI work together on training, prevention and other issues that impact Illinois' fire service. The fire service of Illinois deserves nothing less.

Sincerely,

Richard L. Jaehne

*The collapsed building prop (top photo) and the vertical and confined space technical rescue prop are being installed at regional training centers throughout Illinois.*



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Director  
Richard L. Jaehne

Deputy Director  
David F. Clark

Associate Director  
John McCastland

The Illinois Fire Service Institute Newsletter is the official publication of the Illinois Fire Service Institute, University of Illinois Urbana-Champaign. The Newsletter is published twice a year and is solely an educational and advisory aid to the fire service and individuals working to establish and maintain a fire safe environment in Illinois.

Opinions expressed in the Illinois Fire Service Institute Newsletter are those of the authors and do not necessarily represent the official opinions of the Illinois Fire Service Institute unless otherwise noted in the article.

The Illinois Fire Service Institute will consider for publication articles or items of interest to the fire service of Illinois and encourages materials from all fire-related professions for consideration.

Persons interested in furnishing articles, should forward materials to: IFSI Newsletter, 11 Gerty Drive, Champaign, IL 61820

or E-mail information to Terri Hopper at [hopper@uiuc.edu](mailto:hopper@uiuc.edu). Please include appropriate graphics or digital photos.

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Our website has the most current class information

**[www.fsi.uiuc.edu](http://www.fsi.uiuc.edu)**

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***Watch for the 2006 Wall Calendar in late October.***

# News & Notes

2005 is proving to be a year of significant changes at IFSI. First, on a very sad note, in the weeks after Fire College heart attacks claimed the lives of Bill Renaker, Rescue Program Director, and Pete Lund, Field Instructor in the Fire Fighting and Structural Collapse Rescue Programs. Both of these men made valuable contributions to IFSI and the firefighters of Illinois, and they will be missed.

On the positive side, Mac McCastland was promoted to Associate Director, and Greg Fisher is the new Rescue Program Director.

We have added several people to serve as Regional Reps in order to provide closer contact with departments throughout the state. Ray Palczynski, will handle the Northwestern part of the state west of the Illinois river from Quincy to Rockford, Paul Segalla took over the Chicago Metro Region as well as overseeing the Fire Officer Program, Randy Schlichter will help Paul with the northern tier of counties from Rockford east, and Les

**See the Cornerstone Regional Map on page 8.**

Albert will take over in Southern Illinois. Duane Bales will continue to work Metro East, and Greg Fisher will continue with Central and East-Central Illinois. Please contact these reps if you need assistance or have a problem. Their goal is to bring IFSI closer to the fire departments across the state, and to provide better service.

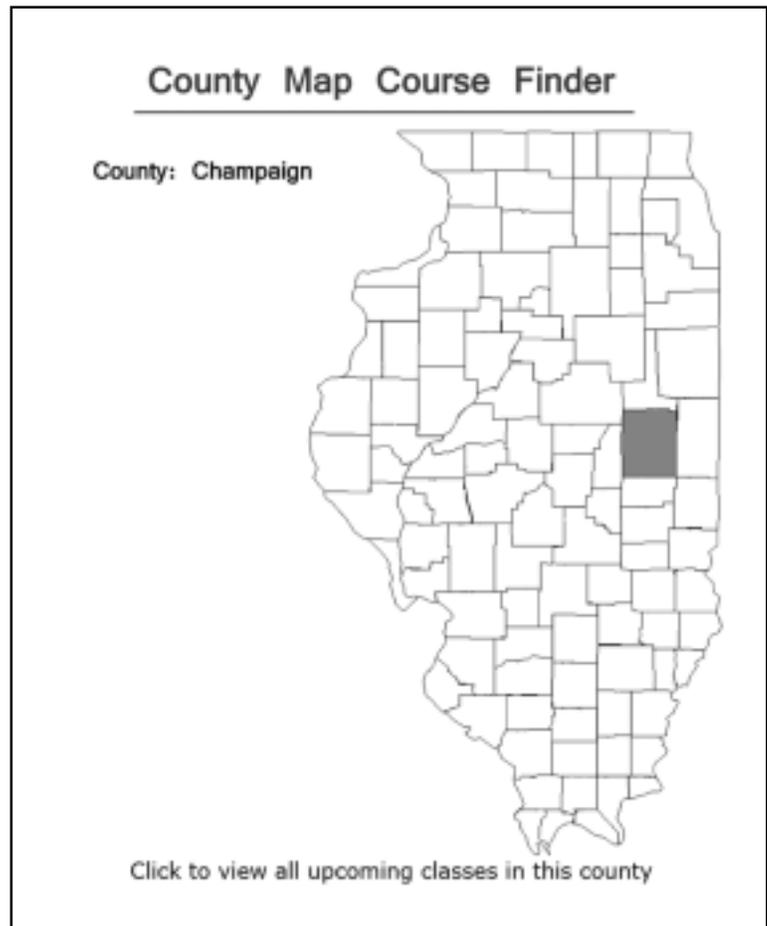
This fiscal year the funding for “Cornerstone” classes was increased, and consequently we are expanding the number and types of classes that can be delivered under this program. “Cornerstone” provides short

**Classes in your area are easy to find on the IFSI web site. This map is searchable for classes by county, simply by clicking on your county and surrounding counties. Follow the link “Search and Register” on the left side of your computer screen and click on “County Map Selection.” The sample page at right illustrates the beginning of a search for classes in Champaign County.**

classes aimed at the practical skills firefighters — from recruits to engineers, to company officers, to chiefs — need to handle the calls to which they regularly respond. It is not intended for 40-hour classroom classes. I urge you and your department to make use of the “Cornerstone” classes that are available to you at no cost right at home. IFSI also offers numerous live fire weekend classes at our training facilities. Remember, you can check our website [www.fsi.uiuc.edu](http://www.fsi.uiuc.edu) for a constantly updated map showing what classes are scheduled in each county of the state.

If you have suggestions about how we can improve our operations, please let us know.

*David F. Clark  
Deputy Director*



# Table Talk

'MAC'  
McCastland,  
Associate  
Director

Well, it's that time again to bond with the "magic machine" and create a news update for the Chicago Metro Region. A lot has taken place since the last time we talked. First and foremost is that the Chicago Metro region has been expanded, to head out west along I-80, picking up LaSalle, Bureau and Putnam counties. This is a lot of territory, but we also picked up help in administering the area. A little run down on the line-up for the northern part of the State, includes the following:

\* **Ray Palczynski** (common spelling), joined IFSI as a career service representative. He will cover, pretty much, from I-39 west to the state line — from the Wisconsin border to Quincy (now that's a lot of "turf"). Ray is a retired career firefighter, who has been on the IFSI Field Staff for a good handful of years, working HazMat and the Officer programs. Ray is also the IFSI "go-to" guy for drug lab classes. Along with a fire background Ray also is a sworn Police Officer in the State of Iowa. This combination of talent put Ray into the position of being our representative to a sub-committee of the Illinois Terrorism Task Force that is working the safety aspect of the Unified Command Program.

\* **Paul Segalla** came on board 1 August 05 in a career service position, and will assume the duties of the Chicago Metro Region Representative. Paul comes to IFSI after serving with the Downers Grove FD, Aurora FD, and most recently as Chief of Department for the Lockport Fire Protection District. Paul will take over the Fire Officer Program at IFSI, which includes the Fire Company Officer School. Paul is one of those logical thinking people with a vision of making a change — when change needs to take place. Some folks are uncomfortable with that concept, but at IFSI shaking the container is the norm.

As of this writing, we are still laying out the exact game plan for dividing the Chicago Metro Region into manageable chunks.

\* **Randy Schlichter**, was looking for a little something to get him out of the house, and I was in need of someone to work the North end of "da met." So the two "old dogs" came up with a plan, and that plan has Randy as the IFSI Representative serving the counties of Lake, McHenry, Boone and Winnebago. This area was one that was being

underserved, and Randy has hit the streets, and hit them hard. Things are alive and well in the North, thanks to the fine efforts of Randy.

So what happened to me. I got promoted and was given the task of making the training portion of the ITTF/IEMA grants happen. This not only is the TRT training that was already on the table, but includes the HazMat portion also.

Change is good, and I look forward to the challenges of the new position, and the continued support of the fine staff and co-workers that I have enjoyed in the past. We are getting ready to start the Fall 05 schedule, to continue to build the State Deployable TRT & HazMat teams that have been stood-up to date. In addition to providing the baseline training for the Teams, we are actively working to provide training, beyond the end of the federal grants that currently exist. A few examples are:

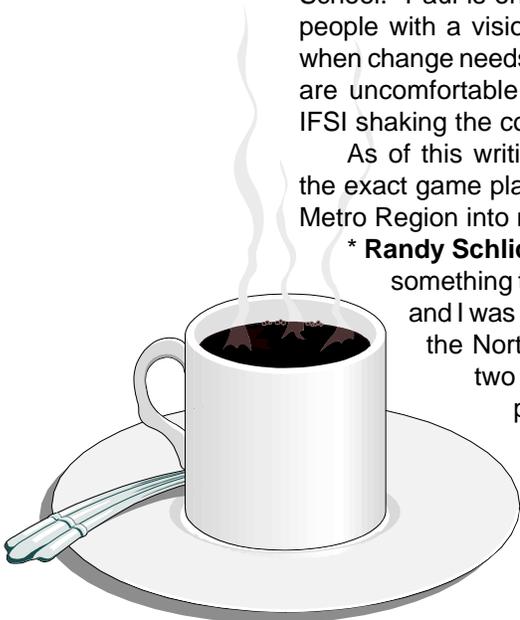
\* TRT team rosters have been authorized by the Illinois Terrorism Task Force to be increased from 30 to 40. The additional ten names are to be designated as Team (regional) Trainers. These expanded numbers should allow for the development of TRT instructors for each Homeland Security Region of the State. Special consideration will be given to those listed, to get them to participate in approved ODP (Office of Domestic Preparedness) classes, as students, in preparation to instruct back home.

\* There are several sites throughout the State that are being identified as Regional Training Sites. These will include both Tactical Training as well as HazMat.

Make no mistake the training money will dry up, so there are efforts underway to provide people, as well as places, for the troops to keep their skills honed. One such place that deserves a mention is the effort being put forth by the Southern Kane County Training Association. They are moving forward with the development of a full blown training site. (see the photos on page 21) The best part of the Southern Kane deal is that they were ahead of the curve and have been working this effort for the past several years - pre-grant funding.

Well, time to strike it out. I can be reached at 815-834-9201 or by magic machine at [jmccastl@fsi.uiuc.edu](mailto:jmccastl@fsi.uiuc.edu).

Stay safe, keep the faith, give me a call and we'll talk.



# Fire Fighting Training Programs -- an Update

Over the past few months, the fire fighting program staff and I have met to determine how we can best align our current and emerging programs to meet the needs of fire departments around the state. Please review this summary and check out the course descriptions on the IFSI website or email me for additional information.

**One-Stop Shopping for all FF Classes in Champaign.** Beginning 1 September 2005, all Champaign live-fire training will be directed through me. This includes:

## Champaign Burn Site Cornerstone-Funded Classes:

● **Champaign Light and Fight Burns.** These one-day events are intended for individual firefighters or very small groups (less than eight) from fire departments. The contents of the drills will be planned and executed by IFSI staff. Larger groups and those that have specific objectives that need to be met are asked to avoid these events and choose from the optional burn types listed below. Pre-registration via fax, online or postal mail is required, and attendance is limited to the first 100 firefighters to register. Be advised that these burns tend to be "full" about five weeks before the event, so while pre-registration is mandatory, early registration is strongly encouraged. **WALK-INS ARE NOT PERMITTED.** Tom Rushing (trushing@fsi.uiuc.edu) is the program coordinator.

● **Tower Burns.** These eight-hour events are intended for groups such as county associations, training academies and MABAS divisions that are interested in group live-burn training. 35 firefighters and three departments are the minimum for attendance. IFSI provides one staff member and several stokers to chaperone your group, while you provide instructional staff to lead the drills. These events may not be scheduled back-to-back with a Light and Fight or other Cornerstone-funded event. Groups are asked to purchase one Tower Burn for each grant-funded burn they receive in the fiscal year, beginning with their second burn. Eric Goldstein (elgoldst@fsi.uiuc.edu) is coordinating the Tower Burns.

● **NEW Basic FF Skills Burns.** This new product is for departments that need to meet live-fire training requirements as part of a firefighting training program. Unlike a tower burn, where your agency provides the instructors, this type of burn allows for some IFSI staff to supplement your staff during the delivery of live-fire training. It is intended to help accommodate the needs of departments that are conducting Basic Firefighter training, but lack the facilities to meet the live-burn requirements. These burns are intended for 20-40 firefighters from at least three departments. Brian Ball (bball@fsi.uiuc.edu) is coordinating these types of burns.

*Brian Brauer  
Fire Fighting  
Program  
Director*

*continued on  
page six*

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### **General Information for Cornerstone Classes at the Champaign Burn Site:**

- ◆ For each of the Cornerstone Burn Types above, your initial contact should be made by completing a Request For Training Form (available on the IFSI web site).
- ◆ If funding and the IFSI schedule permit, your request will be forwarded to the coordinator for each of the above program types. Please **DO NOT** contact the program coordinators directly until your initial dates have been approved.
- ◆ Requests must be made at least 30 days in advance, and will be honored on a first-come, first-served basis.
- ◆ Any facial hair that crosses the jaw line is not acceptable per OSHA for individuals using Self-Contained Breathing Apparatus. Firefighters who arrive not clean-shaven on the morning of the above burns will be denied entry to the burn site. This includes mustaches that cross the jaw line, or any beard growth. Additionally, all SCBA that are brought to IFSI for live-fire training must be in good working order, and bottles must be within current hydrostatic test date.
- ◆ For Cornerstone classes to be held outside of the Champaign Burn Site, please contact your local Cornerstone Representative (See page 8) or Greg Fisher at gfisher@fsi.uiuc.edu.

*(continued to page 6)*

# Fire Fighting Training Programs - an Update

continued from  
page five

## Champaign Burn Site Hands-On Programs

● **Certified Firefighter II Academy:** The current program will remain at six weeks into 2006, with the addition of several pre-requisites. Successful completion of Hazardous Materials Awareness, Technical Rescue Awareness, NIMS, and Fire Service Vehicle Operator (classroom portions only) will be required prior to start of Academy. These pre-requisites will be available through both in-person classes the week before Academy begins and online the month prior. This change is being made to allow for more time to instruct hands-on fire fighting skills during the Academy. Priority for entry to the program will be limited to two firefighters per department, unless other arrangements are made at least three months prior to the first day of the Academy program. This is being done to both dis-

tribute the spots fairly and also support departments that have a planned need to hire larger groups of candidates.

● **NEW Basic Firefighting Practical Academy.** This new four-week program is designed to serve firefighters that have completed the IFSI Online Firefighter program. It will cover fire fighting practicals with the same intensity and environment as the six-week program, but without the classroom component. The pilot for this program will be in late Spring 2006.

● **Fire Apparatus Engineer.** Expanded regional delivery — with offerings south of Champaign in Spring 2006

● **RIT Under Fire.** Due to heavy demand, two classes are scheduled in 2006.

Please feel free to email any questions about the above programs or classes or Smoke Divers and FAST (both of these to return in 2007), Engine Company Operations, or Truck Company Operations: [brbrauer@fsi.uiuc.edu](mailto:brbrauer@fsi.uiuc.edu). Thank you for taking the time to train.

### Three ways to meet the pre-requisites for Fire Academy

1. Online awareness class: 30 days before Academy
2. In person: one week before Academy
3. Through other sources in advance of Academy

*Remember that successful firefighters do the things that unsuccessful firefighters don't — and training is a large part of success.*

## Retiring



### Glen Fisher Retires

Field Instructor Glen Fisher from Shelbyville retired in June. He was honored as the first recipient of our "Line of Duty Life Award" in recognition of his 28 years of dedicated service to IFSI and the firefighters of Illinois.

*Glen, a regular instructor at the annual Fire College wrapped up his tenure with IFSI with his retirement in June 2005.*



# Remembering

## Bill Renaker

Since 1968, Bill has served the firefighters and citizens of Illinois as a firefighter, rescuer, officer, fire service chaplain, and instructor.

He began his extraordinary career with the Fox Lake Fire Department and served for more than 30 years as firefighter and fire officer rising to Deputy Chief. He also served the Fox Lake Police as Chaplain, canine officer and Explorer post leader. In 1986 he joined the Fire Service Institute as a field staff instructor and more recently worked full time as our Technical Rescue



Program Director. Bill's extraordinary contributions to Illinois firefighters and our craft include helping to draft and update national and state technical rescue standards by serving as a member of National Fire Protection Association (NFPA) 1006 Technical Rescue Standards Committee and the Office of the Illinois State Fire Marshal technical rescue certification committees. We will miss Bill and the extraordinary dedication he brought to our



*During the 2004 Illinois State Fair, Bill takes the time to teach fairgoers how to tie an Alpine knot.*

service. I hope you will remember Bill and his family in your thoughts and prayers. The Renaker family has asked that any memorials to Bill be in the form of donations to the Fox Lake Fire Department / Rescue Squad, PO Box 26, Fox Lake, IL 60020.

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## Pete Lund

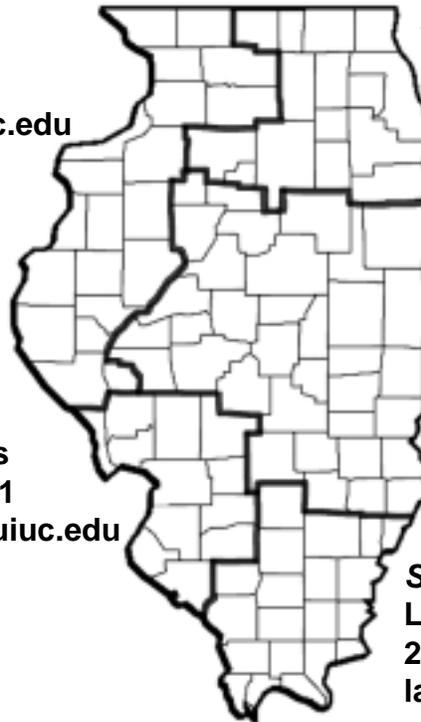
Field Instructor Pete Lund, who has taught fire and collapse rescue classes for IFSI since 1986, died of a heart attack in June while fighting a house fire with his home department of Woodmere, NY. Pete, age 54, had recently retired from FDNY where he was a Lieutenant at Rescue 2. He was also a well-known instructor throughout the country.



# Cornerstone Regions

**Northwest**  
**Ray Palczynski**  
**563/332-00819**  
**rpalczyn@fsi.uiuc.edu**

**Metro-East**  
**Duane Bales**  
**618/920-5901**  
**rbales@fsi.uiuc.edu**



**Northeast**  
**Randy Schlichter**  
**847/343-4039**  
**rschlich@fsi.uiuc.edu**

**Chicago Metro Area**  
**Paul Segalla,**  
**815/405-3000**  
**psegalla@fsi.uiuc.edu**

**Central and East Central**  
**Greg Fisher**  
**217/244-1220**  
**gafisher@fsi.uiuc.edu**

**Southern**  
**Les Albert**  
**217/714-6500**  
**lalbert@fsi.uiuc.edu**

The Cornerstone Program was initiated in 1998 with revenue from the state's annual Reimbursement Fund to underwrite the costs of basic, regional fire fighting training. Delivered by the Illinois Fire Service Institute (IFSI), the fundamental training uses the same standards that are in the certification program, but in one to two-day increments. Course costs are reimbursed to IFSI, so training is provided at no fee to the students.

Courses are scheduled locally at fire departments that offer to sponsor the training at their facilities, at regional training centers and schools, as well as at IFSI's Champaign Campus. Departments interested in sponsoring a Cornerstone Class may do so by submitting a "Request for Training" form. The sponsoring department must provide classroom and training facilities and

agree to coordinate student attendance from their own and neighboring departments.

The goal of the Cornerstone Program is to provide basic training on fire fighting at the firefighter, engineer, company officer, and chief levels and to reach fire departments that have not been able to participate in the certification program. Fire Departments who have training facilities (particularly burn facilities), or who have established Firefighter II certification programs are encouraged to act as regional sponsors for fire departments who do not have these capabilities.

IFSI Regional Representatives and Field Instructors are available to help you request the training and to answer questions about the Cornerstone Program.

## Cornerstone Program Update

### Personnel Changes

There have been lots of personnel changes within IFSI and the Cornerstone program is no exception. Demand for no-cost hands-on training delivered through the Cornerstone program has quadrupled in the seven years since the program was first implemented. To meet this growing demand Regional Representatives have been added to make certain that Illinois fire department training needs are met.

### Cornerstone Class Request Forms

To have Cornerstone classes scheduled in your area,

you must submit a "Cornerstone Request for Training" form, which can be found on the IFSI main website. Click on "Forms" on the left side of the screen. Print and copy as many as needed — a separate request is required for each class. As you look at the request form, you'll notice many classes have been added that fit the Cornerstone mission.

You can also receive a copy of the form by contacting your regional representative, visiting a MABAS division meeting or calling the IFSI office.

## **Classes Available at NO COST through the Cornerstone Program**

A complete list of classes and their descriptions can be found on the IFSI web site and on the request form.

### **Requesting A Cornerstone Class**

The following guidelines for completing the "Request for Training" form will expedite the process and help you get the classes and instructors you want.

*"Instructor(s) Requested"* Getting the requested instructor is dependent on their qualifications and availability. A faster turnaround time will occur when you contact the instructor directly and indicate that you have prearranged the class date.

*Fill in the blanks.* Complete as much information as possible. E-mail addresses and phone numbers where personnel actually answer the phone are essential for rapid response.

*Date choices.* Fill in class 1st, 2nd and 3rd choice dates behind the numbers 1, 2 and 3. TO BE ARRANGED is not an acceptable choice. Please insure the date(s) chosen reflect(s) the greatest possible attendance for these classes.

*Check only one class in a given box.* Use multiple forms for multiple classes.

*Circle* the number of hours you wish to hold the class. Write a note at the bottom if there are special circumstances, such as other locations for various class sessions.

Mail or fax the completed form to the Illinois Fire Service Institute.

### **Receiving a Cornerstone Class**

Upon receipt of your request, the form is logged and forwarded to your Regional Representative. An instructor will be arranged and the dates set. Once details are confirmed, a Memorandum of Agreement (MOA) is mailed to the contact person listed on the form. Make certain that the address listed is one that is checked often. Classes will not be delivered unless there is a signed Memorandum of Agreement returned and on file (preferably) 30 days prior to the class.

### **Changing A Cornerstone Class**

If a date change needs to occur, a number of things must be done to keep the class.

1. If the date must change affecting the remainder of the schedule, notification of the new date(s) must be made immediately to IFSI to update the file.

2. If the class has inadequate attendance for the first session, the instructor may conduct the first segment or postpone the class. New dates must be established for a postponed class within 30 days or it will be cancelled. The process to schedule the class will commence with a new request.

3. Departments that do not meet the minimum attendance requirements may opt to continue the class or pay for the entire class delivery. Departments unable to cover the entire cost of the class can request that the cost of the class be pro-rated. Call me for more information.

### **Registration Requirements for Cornerstone Classes**

Registration for Cornerstone classes require completing the standard registration form, including all signatures. Light and Fight classes require that the registration form be mailed or faxed to IFSI by Tuesday prior to the class. Students who sign up but fail to attend Cornerstone classes with enrollment limits may be charged \$50.00. Cancellation should be in writing or by fax. An initial e-mail to Greg Fisher (gafisher@fsi.uiuc.edu) or Kristi Berbaum (kberbaum@fsi.uiuc.edu) will help as well.

Classes in the field require the COMPLETED registration form be collected and coordinated by the host department OR hand carried on the first day of the class.

Recording attendance is the responsibility of the host department and the instructor. All courses 12 hours or more receive a Certificate of Attendance provided participation exceeds 90% of the class. Students missing more than 10% of the class are encouraged to check the IFSI website for similar class offerings. Attendance at another location and completing the missing subject matter will earn a certificate if completed within a calendar year.

I hope this helps you understand the procedure to obtain great "hands on" training at no cost (other than the commitment of time and talent). Do not hesitate to contact me or call at gafisher@fsi.uiuc.edu or 217-244-1220.

*Greg Fisher  
Cornerstone  
Program  
Director*

## *Fish Stories #2*

*Greg Fisher  
Rescue  
Program  
Director*

In the last newsletter I paid tribute to Ed Enright and the “Line of Duty Life” he portrayed in over thirty years as a labor of love with the Chicago Fire Department.

This time, there are several in the Fire Service Institute Family that require accolades and tributes. I would like to share and add my tribute to those who have already been recognized in this issue — Bill Renaker and Glen Fisher.

As the Rescue Program Director, Bill Renaker personified the mentoring process that line officers, instructors and others in leadership positions should internalize. Not a day went by that Bill couldn't be seen answering questions or steering students to use their God-given talents to solve technical or personal problems on their own — helping them define a situation and thus seeing the route to fix it. He always had time for anyone looking to talk, often without regard to time for himself. Bill taught others to trust one's training, know the equipment, and introduced many to new worlds in caving and rappelling. My sons experienced their first camping, caving and rappelling experience with Bill in the lead — something they will never forget especially since they were only five and seven years old at the time. The experience allowed us to do something challenging and showed that cave rescue was illustrative of any man-made confined space problem. We all learned something — from cold, wet, dark, HazMat (guano), lack of anchors and a need to carry in provisions — just about any problem one could think of.

Bill Renaker made learning fun. By the number of young people that were present at his memorial in Fox Lake and the fire service representation, it is apparent that he enjoyed teaching high school and firefighters in his second career with the Institute.

Bill will be missed on a personal and professional level. Knowing Bill as a friend, instructor, mentor, and spiritual person...his place with his Maker is assured.

As I have taught or assisted in Essentials classes and Live Burn Training over the past 26 years through IFSI, FDIC, and other venues, a question is repeated at almost every

class. It is not a question about some war story from a fire (used only as a teaching aid) that gets bigger every time I tell it. It's not a question about a landmark fire or incident from the days when we used to have fires prior to active fire inspection or prevention bureaus. It's not even a question about a new technology, a state-of-the-art procedures, or the latest addition to the line-up of Cornerstone classes.

No, the question is always: “Are you related to Glen Fisher?”

For the record, I am not his son, (or as Forrest would say “we are not relations”), although I am young enough to be. I must say that I would be very proud to be related to him. Glen's recent retirement from the Illinois Fire Service Institute Field Staff roster will leave a giant hole in the staff both geographically and professionally. Anyone living south of I- 80 and involved in the fire service for any part of the last 30 years ran across Glen Fisher. Perhaps they heard about Glen leading a crew into a room and contents fire and calmly pointing out the benefits of placing water in an elevated area as quickly as possible. It might have been Glen smiling at the other members of the class as he stands drenched from an errant stream placement. In more than one occasion, it might have been Glen talking to local news media at a training session or trying to get Roger Lunt's attention during an interview to make sure he had his helmet oriented in the right direction. In any case, Glen has been there for thousands of firefighters in the last three decades. He has saved countless dollars in property damage and human life by making fire training a worthwhile evening or weekend activity for people already stretched to the limit for time. His students benefited from his enjoyment with passing on the trade.

Glen, as the first recipient of IFSI's “Line of Duty Life Award,” will be a hard act to follow. He will be missed as the Cornerstone Program brings training to departments all over Illinois. Thank you Glen for what you have done for the firefighters of Illinois.

# Technician Certification Program Initiated with Pilot Class

The pilot class of the Vehicle/Machinery Technician certification program was successfully completed the first week of August at Illinois Fire Service Institute's training ground in Champaign. Participants — mostly instructors from throughout the fire service — were invited by the Office of the State Fire Marshal to participate and evaluate the new Technician level program.

The week was sunny, hot and humid with a spot of rain finally falling on Friday morning. The 39 participants departed Friday afternoon feeling that IFSI has a good and worthwhile program to offer. Our program will be similar to the same schedule that we used during the pilot. Each day, some time was spent in the classroom with the rest of the day on the training ground which covered buses, machinery, large vehicles and a landing zone. Everything

from basic hand tools, electric, air and hydraulic tools, stabilization devices and cutting torches were used. On Friday, the final practical test was given and featured a major accident involving several kinds of vehicles and equipment. An Incident Command system was established, radios were issued to command staff, engines responded, the scene was secured and the extrication process began. An ARCH helicopter arrived at a staged landing zone and picked up one patient — all the while the helicopter stayed hot. In about two hours the practical test was completed.

The Vehicle/Machinery Technician class will be available starting Spring 2006 to anyone who has the Vehicle/Machinery Operations prerequisite. Watch the IFSI web site or 2006 calendar for dates when the class will be offered.

*Duane Bales  
Vehicle  
Extrication  
Coordinator*

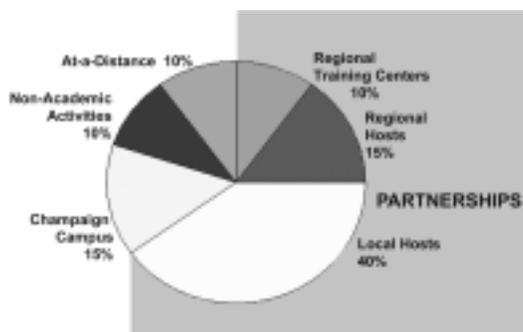


# IFSI Delivering Training in the Field

Most training delivered by the Illinois Fire Service Institute (IFSI) is done in the field - away from the Champaign Campus - in locations close to the firefighters who do the work. This training is delivered at regional or individual sites, either with formal agreements or through occasional, less formal or contractual arrangements.

## Types of training centers

Originally five Regional Training Centers (RTC) were established around Illinois to serve firefighters. That number has now grown to more than 20 with IFSI establishing relationships with local training groups and fire departments. None of the RTCs are wholly controlled by IFSI, but operate with partnerships that provide classes, training props and instructors. These RTCs utilize a variety of props and



structures, including vertical rescue structures, collapsed rescue props and burn buildings. Many of the regional sites are in the process of being expanded and enhanced with additional structures that will provide the necessary environments for training within the Illinois Terrorism Task Force's long-range plans.

Less formal arrangements are made with regional hosts with IFSI providing the instructors and training. Generally, these are sponsored by local departments that have limited facilities and that invite neighboring departments to participate. Often times these classes fall under the Cornerstone Program. A regional host could potentially elevate their arrangement with IFSI as the regional host develops more

facilities.

A third category of training centers is that of a local host - a single department that contracts for training with IFSI. This training is generally a one-time contract that uses IFSI's class curriculum and instructors and represents the single largest category of regional training (40%). Essentials classes are usually delivered with local hosts.

IFSI delivers just 15% of its total training at the Champaign, Ill. training grounds. Facilities in Champaign are extensive, specialized and serve as models for Regional Training Centers.

## Other training in the field

The Illinois Fire Service Institute also serves its constituents with "at-a-distance" training and resources. These resources include the compact disk series of training videos developed in partnership with the Illinois Firefighter's Association. Through these CDs, departments are able to utilize IFSI training expertise in a local setting. The IFSI library is another resource that is accessible via the web and through lending agreements with local libraries. Online courses round out the offering for distance learning and make it possible for firefighters and other first responders to get training in a time-flexible environment. Together these three resources comprise 10% of IFSI's training delivery.

## Outreach as part of IFSI's resources

IFSI reaches out to firefighters and first responders by participating in state and national conferences and meetings. IFSI's participation in the Illinois Terrorism Task Force assures firefighters will receive training appropriate and relevant for homeland security and domestic preparedness.

***This full-color panoramic photo of the 2005 Annual Fire College is available for \$25. The unframed photo measures six foot wide. To order your copy, contact Brian Brauer at [brbrauer@fsi.uiuc.edu](mailto:brbrauer@fsi.uiuc.edu).***



# Polaris Industries Loans Rangers to IFSI

One new and exciting initiative has been the long-term loan of two Polaris Rangers to the Illinois Fire Service Institute (IFSI). Mr. Jim Kenyon, Polaris' District Sales Manager, in conjunction with Mr. Jan Rintamaki, Corporate Marketing Manager agreed to work with IFSI to supply two Polaris Rangers for a six-month trial period beginning with the 2005 Annual Fire College and continuing into the Fall of 2005. At that time the arrangement will be evaluated and future endeavors will be discussed.

We extend a special "Thank You" to the Polaris Corporation who provided this unique opportunity to increase support for IFSI. We would also like to thank Mr. Sam Selle at Sportland Motorsports, Urbana, Illinois (the local Polaris Dealer) for working with IFSI and Polaris in helping to make this possible. Without their insight and assistance this arrange-

ment could not have been possible. With a contribution like this, IFSI will be better able to fulfill the commitment of the Institute and in turn help to achieve the mission and ultimately the vision of the Institute.

Thank you to all of our donors and alumni who have given generously to the Illinois Fire Service Institute over the past year. Whether a cash donation or a gift-in-kind, IFSI greatly appreciates each and every gift.

For information on how you can help or if you have questions about a future or past donation, please contact: Jeffrey A. Courson, Director of Development at 217-333-8923 or by email at [jcourson@fsi.uiuc.edu](mailto:jcourson@fsi.uiuc.edu).

*Jeffrey A. Courson,  
Director of  
Development*



**IFSI recognizes those businesses and organizations who support our mission of helping firefighters do their work through training, education, information and research.**



**Four Bugle Level (\$1,000 - \$4,999)**

Cabot Corporation  
Campus Sportswear, Inc.  
Carle Foundation Hospital  
Globe Manufacturing Company  
Illinois Concrete Company, Inc.  
W. S. Darley & Company



**Two Bugle Level (\$100 - \$499)**

Akron-Princeville Fire Department  
Bob Brogan Construction, Inc.  
Illinois Police & Fire Motorcycle Association  
Meijer  
Starved Rock Outfitters, Ltd.



**Three Bugle Level (\$500 - \$999)**

Prinsco, Inc.



**One Bugle Level (\$25 - \$99)**

Battery Specialists + Golf Cars  
Larsen Forensics, Inc.  
Lincolmland Agri-Energy, LLC  
Meijer  
Polaris Industries Inc.  
Sealtite Sealing & Blackstop Service



# All Hazards Incident Management Class

*Joe Gasparich  
Homeland  
Security  
Program  
Director*

Illinois Fire Service Institute (IFSI), working with MABAS, sponsored the All Hazards Incident Management Team Class June 20-26 at IFSI. The class was designed to emphasize the various positions in the Incident Command System (ICS) with special emphasis placed on the development of the incident action plan. Instructors for the class were chosen by the staff at the National Fire Academy and represented a wide array of talents and diverse backgrounds. Students came from fire, law enforcement and emergency management backgrounds and were chosen from locations that represented large population centers and rural areas throughout Illinois.

The class is part of a process to establish an Incident Management Assistance Team (IMAT) program in Illinois. The Crisis and

Response committee of the Illinois Terrorism Task Force has been chosen to review the IMAT process and forward their recommendations to the full task force.

In addition to the seven-day class that was featured in June, IFSI has scheduled additional offerings of the Introduction to Command and General Staff Course for the month of November. The first class will be held in the Champaign area from October 31 to November 4 and the second class will be located in the Chicago area during the last week of November.

These courses will enhance the capability of students to implement the ICS system and then support the system through the enhancement of individual positions within the system and the development of a viable action plan.

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## E-Learning — Computer-Based Training

*Rich Valenta  
E-Learning  
Program  
Director*

With this newsletter we are happy to roll out several new computer-based training products for you. First, as part of the Down & Dirty Fire Fighting Skills Training CD-ROM series, the Illinois Fire Service Institute, in partnership with the Illinois Firefighter's Association is pleased to announce that the next CD package will be mailed to every fire department in Illinois this Fall. "Rural Water and Tender Operations" is the companion CD to "Engine and Pump Operations" that was released in July 2004. "Rural Water and Tender Operations" concentrates on water supply considerations and rural water delivery methods. In addition, it contains video of training evolutions that you can view to assist in training personnel within your department. With the addition of this CD

package, all fire departments will have the training materials needed to develop sound apparatus and water supply practices and competent skilled operators.

University of Illinois Fire Service Institute has entered into an agreement with the University of Florida to offer a Fire and Emergency Services Bachelors Degree online to the firefighters in Illinois at the Florida in-state tuition rate. IFSI is also working to help

you attain your higher educational goal by offering courses that are approved by the American Council on Education for college credit. In many cases you can use IFSI courses to receive college credit that may apply to a degree. This partnership with the University of Florida is just the first of several options that we will make available to you to earn your degree. Visit IFSI's Virtual Campus to learn more about this program and future degree program offerings.

IFSI Virtual Campus [http://www.fsi.uiuc.edu/virtual\\_campus/ufIFSIDegree.cfm](http://www.fsi.uiuc.edu/virtual_campus/ufIFSIDegree.cfm)

In addition to these two new offerings the ELearning staff is in the process of working on several programs to assist in your fire education. Keep an eye to the IFSI Virtual Campus for more information on the following courses and training aids.

### Web-Delivered Courses

- Fire Service Vehicle Operators Online
- Cause and Origin Online
- Firefighter Rehabilitation Online

### Down and Dirty CD-Rom / DVD Training Package (upcoming)

- Fireground Support and Aerial Operations

**Work toward your Bachelors Degree through a partnership with IFSI and University of Florida.**

# IFSI Online Courses offer Flexibility to fit your Schedule and meet Training Requirements

With the changes that have taken place within the emergency service post 9-11 there have been many training requirements placed on agencies and personnel.

The Illinois Fire Service Institute (IFSI) has worked very hard to develop and provide courses that fulfill local, state, and federal training needs and requirements. In addition, to meet the scheduling and demands that are part of our daily lives, IFSI has developed different delivery methods to meet your training needs. In particular, IFSI offers four distance-learning courses that are geared to help fulfill basic training requirements while offering a quality education with flexibility. Following is a brief description of these courses. Distance learning may be just the mechanism you need to help in attaining these courses.

## **Firefighter II Online**

To date close to 350 firefighters have participated in this course. The overwhelming comment I hear is that "I could not have completed my Firefighter II Certification if not for the flexibility of this course." However, flexibility does not mean easy. Students cover 23 subject areas and are required to complete weekly reading and homework assignments, participate in live chat sessions with their instructor, complete online quizzes, in addition to the successful completion of their practicals and state certification exams.

## **Hazardous Materials Awareness Online**

Every emergency responder should have this minimum level of HazMat training. Hazardous Materials Awareness is a requirement for Firefighter II Certification and is a prerequisite for all future and advanced hazardous materials courses.

Students learn first response issues such as understanding hazardous substances and recognizing the presence of hazardous substances, in addition to learning the role and limitations of the first responder. Course includes readings, student activities, self-study quizzes and a final exam. This course is offered free of charge.

## **Technical Rescue Awareness Online**

Tech Rescue Awareness (TRA) is also a prerequisite for all future rescue classes and the minimum level of rescue training that emergency responders should have. In the near future TRA will also be a requirement for Firefighter II Certification. There are eight core rescue competencies covered in this course. They include: Understanding General Standards, Structural Collapse, Rope Rescue, Trench Rescue, Confined Space Incidents, Water Rescue, Vehicle and Machinery, and Wilderness Search and Rescue. Students are provided readings, view multi-media presentations, complete practice quizzes and pass a final exam. A discussion board is used so students can post questions and share information with other students. This course is offered free of charge.

## **Emergency Response to Terrorism: Basic Concepts**

This program is designed to help responders recognize and understand acts of domestic and international terrorism. This course is also a prerequisite for future hazardous materials courses and is essential for all emergency response personnel. This program is designed to help responders understand incidents involving explosives, chemicals, radiological and etiological hazards. Plus, students learn to understand their role in mass casualty disasters and how incident command is implemented during terrorism incidents. Course components include readings and online self-study quizzes, then concludes with a final exam. This course also provides a discussion board for contact with other students. This course is free of charge.

*Rich Valenta  
E-Learning  
Program  
Director*

***For further information on these courses, visit the IFSI virtual campus***

***[http://www.fsi.uiuc.edu/virtual\\_campus/index.cfm](http://www.fsi.uiuc.edu/virtual_campus/index.cfm)***

***or contact: Rich Valenta ([rvalenta@fsi.uiuc.edu](mailto:rvalenta@fsi.uiuc.edu))***

# Library Updates & Highlights

Lian Ruan  
Head Librarian

**Reference Services:** Diane Richardson, IFSI Reference and User Training Librarian, and her team answered 3,744 requests in fiscal year 2005, compared to 2,180 in FY 2004. There were 3,728 headcounts who visited the library and 1,009 visitors who used the computer lab. Diane also completed 15 library orientations and 20 user training workshops.

**Lincoln Trail Libraries System** increased their delivery schedule to IFSI due to dramatically increased circulation volume. Their pick-up truck comes several times every week for interlibrary loan items, so you can get your requested items at local libraries on time and at no cost.

**Technical Services:** Elizabeth Morris, IFSI Technical Services Librarian, and her team added 1,742 items (compared to 990 in FY 2004) to the library collection, including 224 new purchases.

We hosted the first Annual Book Sale during Fire College. \$178 was added to the University Foundation's Library account.

**Grant Projects:** Head Librarian Lian Ruan and Professor Linda C. Smith submitted the full grant report entitled "A survey to support 'Evidence-Based Practice' in Special Libraries Serving Fire Service Personnel and Researchers in Public Safety and Homeland Security Areas," to the Special Libraries Association in January 2005.

Ruan also completed the Public Outreach project, entitled "Putting Professional Development into Practice," which was funded in whole with federal funds from the National Library of Medicine, National Institutes of Health.

**Research:** Ruan's article on "Strategic Planning in American Special Libraries: a Case Study" appeared in Library Construction journal in China.

**Leadership:** Ruan participated in the Illinois Library Association's Diversity Committee meetings for annual conference planning. Ruan was an invited panel speaker at the Symposium on "The Role of Information Services in Emergency Preparedness Planning" at the 2005 Medical Library Association Annual Meeting at San Antonio, Tex. on May 14.

The **Annual IFSI Library Committee** meeting was held at IFSI on April 25. It was the first time for the committee to have a teleconference meeting. Director Jaehne delivered a welcome speech and talked about the upcoming new library building. Lian Ruan, Head Librarian, made the library update presentation. A discussion about the library services followed.

## Some of the New Titles Added to IFSI Library

### Books

- Awareness Level Training for Hazardous Materials, 2nd ed. (IFSTA)
- Command Safety: The IC's Role in Protecting Firefighters
- Fire Hose Practices, 8th ed. (IFSTA)
- Fire in the United States: 1992-2001
- Fire Officer: Principles and Practice
- Human Behavior Study: Cook County Administration Building Fire
- Introduction to Fire Origin and Cause (IFSTA)
- Real Resumes for Firefighting Jobs
- Smoke Your Firefighter Interview
- Straight Talk about Stress: a Guide for Emergency Responders
- The Company Officer (& student workbook)
- User's Manual for NFPA 921: Guide for Fire and Explosion Investigations

### Videos

- Agricultural Equipment Operator Safety Series
- American Heat (January - June)
- BP-Amoco Explosion: Texas City, Texas, March 23, 2005 (DVD)
- Chicagoland Fire Highlights (2004, DVD)
- College Dormitory Room Fires
- Fire Behavior in Commercial Buildings (DVD)
- Firefighting in Chicago, vol. 1 & 2, circa 1965 Investigative Reports: Urban Search and Rescue (A&E)
- Pulse: Emergency Medical Update (January - June)
- Size Up and Risk Management (DVD)
- You Are the EMT (10-video series)

**For loan information, please contact the Library at 1-800-437-5819**

# Research Update

In the not too distant future, you will be checking out of your local grocery store without having to wait in line and stare at the weekly tabloids ... just push your cart through a checkout portal and a dollar sign will instantly tell you how much you owe. In the future, spending money will be faster and easier than you ever imagined ... though you will have to get your updates on the Lockness Monster or "Brad and Jen" elsewhere.

So, you may ask, "What does this have to do with firefighters and especially firefighter research?" Well, the same technology that is being developed for inventory control and monitoring at your local Wal-Mart is also being researched by a multi-disciplinary team at the University of Illinois to help you stay safe and healthy while you are searching a burning building or attempting a rescue from a collapsed structure.

In July, the University of Illinois Office of the Vice Chancellor for Research awarded a Critical Research Initiative (CRI) grant to Professors Nitin Vaidya, Narendra Ahuja, Jennifer Bernhard, Sanjay Patel of the Electrical and Computer Engineering Department, Volodymyr Kindratenko of the National Center for Supercomputing Applications (NCSA) and Richard Jaehne and Gavin Horn of the Illinois Fire Service Institute for a project entitled "Next Generation RFID Systems: People and Object Tracking for Homeland Security Applications."

Radio Frequency Identification (RFID) technology generally consists of a series of relatively inexpensive tags (some are on the order of \$0.10!) that receive a signal from a reader (closer to \$100-1000) using "radio waves." Once the tags are signaled by a reader, they respond with a signal of their own, which can be used to determine personnel location, and possibly other critical information such as temperature, pressure, or any number of physiological indicators (heart rate, core temp, etc) depending on the sensors incorporated with the tags. Some of these tags can even function without their own battery; "wak-

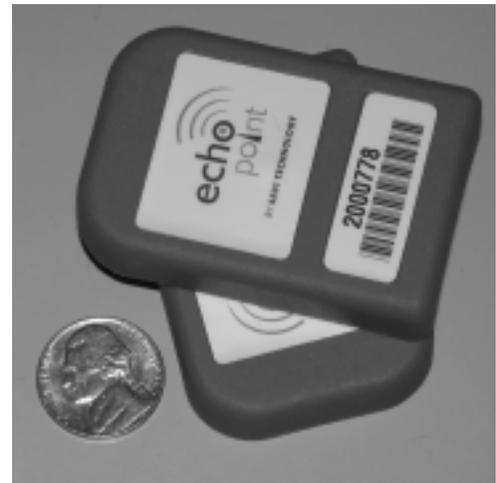
ing up" and receiving power from the waves that signal them. As the communication protocol uses radio waves, it is possible to track people and objects through solid walls!

A few members of the CRI team have proven that RFID technology is capable of tracking a large number of people attending an indoor conference with their Intellibadge project. They have now accepted the challenge of employing similar technologies with new insights for the rugged environments encountered by first responders. Significant challenges must be overcome because this new application will typically not enjoy a fixed RFID infrastructure (such as a checkout portal), the environment will be much more hostile. There will potentially be many more objects and people being tracked with the consequences of losing a single object being more critical. There will be significant economic constraints for a system to be widely

useful in the Fire Service. To answer these problems, the UIUC team is not looking to simply employ commercial off-the-shelf components, but to develop new concepts specifically for this application. In a couple of years, we hope to have the system ready to be tested during one of the IFSI Academies and then demonstrated at Fire College.

We always look forward to hearing from you if you have any questions, comments, inputs or advice. Thank you all for your support in getting the Research Program off the ground. We hope this project is just the beginning of the programs that will help you do your job in the most effective and safe manner. Best of luck to you all!

by Gavin Horn  
Research  
Program  
Manager



*These tags are similar to the RFID tags that will be used in this research project.*

# The Methamphetamine Problem: What's it to the Fire Service?

*Ray Palczynski  
Associate Fire  
Education  
Specialist,  
Northwest  
Regional  
Representative*

Some of you may have heard about it, some maybe not. It's quite likely that either way it is closer to you than you think and it is a big problem! Illinois, as well as our neighboring states to the west, is fertile ground for methamphetamine labs. These labs and their operators have no cultural, ethnic, socioeconomic or geographical boundaries or commonalities. Labs where the drug is manufactured can be secluded in remote areas or found driving past your home in a compact car. Your white-collar coworker can be involved just as easily as the stereotypical "biker" type. The high is said to be the best of any drug and recovery from this drug addiction is not successful.

So why share this with the fire service community? Who do you suppose will be the first one called when someone becomes sick or injured due to drug-producing activities? Who will have the best opportunity to stumble into a lab setting while performing some non-related service activity? Who also stands to become injured if they are not aware of their surroundings when providing emergency services? The answer to all of the above is members of the fire and EMS services.

The Illinois Fire Service Institute is participating at the state level to help educate emergency first responders about the inherent hazards associated with the production of methamphetamine. Representatives from state, county, and local law enforcement agencies, along with the Office of the State Fire Marshal, the Illinois Law Enforcement Training & Standards Board, as well as the U.S. Department of Justice, are making efforts to update the awareness level course so it better meets the needs of all emergency responders. Our current training will be updated and aligned with what all responding entities need to be aware of and to operate safely and effectively in a coordinated attack on the meth problem in Illinois.

If you have had awareness training in the past, look for a new and updated presentation available sometime in early 2006. It will be well worth your time to attend and update your knowledge. The methamphetamine epidemic has the potential to cause great harm to our members no matter where they are located. Your location, whether it is urban, suburban or rural does not make you immune from the effects of methamphetamine and the hazards associated with its production and use. Please look for and attend a methamphetamine awareness class. If there is not one close to you, host your own. Classes are available under the Cornerstone Program. As always when hosting a Cornerstone Program class, invite your neighbors!

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## Photos from the Galesburg Fire School, August 20 - 21



*Ray Palczynski (upper left) explains to school participants how IFSI is working to bring training to the field through the Cornerstone Program.*



*The Galesburg Regional Training Center was among the first to get the vertical rescue training prop.*



*Students learn firefighter rescue techniques at this hands-on class.*

# Female Firefighters Training Weekend: October 8 & 9

## “I Got All My Sisters With Me”

For the second year IFSI will be sponsoring a training weekend focused on providing quality training for female firefighters. This idea originated over two years ago when the IFSI Scholarship Committee provided financial support to assist me in traveling to the Women in the Fire Service Conference in Denver, Col. At that time I was interested in pursuing an additional training arena for IFSI participation. What I came away with was a determination to not only utilize IFSI resources in providing training opportunities for women, but also an understanding of how important networking is for female firefighters.

In my 13 years in the fire service I have certainly witnessed great changes in the firehouse and on the training ground. More women are entering the fire service today and there are more women attending IFSI classes. However, in visiting with female firefighters, it's apparent that many of them are either the only female in their department or part of a select few. And while it is impressive to see the number of women growing in the fire service, we must realize that there are still many women who are isolated by themselves. Some would say that is the path we (women) choose when we enter a male-dominated profession. Okay, that's true. Now let's move along with that idea and realize the value of providing networking opportunities for women who are "out there" on their own.

In the two training sessions IFSI has conducted for female firefighters in the last year (October, 2004 in Champaign, and February, 2005 in Frankfort), women commented extensively on how important it is to them to meet and network with other female firefighters. Some women commented on how they felt rejuvenated and more determined than ever to return to their departments and keep working hard. The training sessions were not only productive from a learning standpoint, but the sense of purpose that women walk away with is truly impressive. Even the IFSI male instructors appreciated the opportunity to be involved in the program, and gained insight into how important these training sessions are for female firefighters. The word has spread far and wide, with female firefighters from out-of-state interested in attending the program in October.

The program for October 2005 is shaping to be an exciting weekend. Six classes will be offered: Essentials of Vertical Rescue, Basic Auto Extrication, Truck Company Operations, Engine Company Operations, First-In Officer, Down & Dirty Hydraulics. Each class will be 12 hours, eight hours on Saturday, and four hours on Sunday. IFSI instructors along with female firefighters from around the state will work together to provide quality training opportunities for women of all skill levels.

A dinner banquet is scheduled for Saturday night, featuring Mayor Laurel Prussing, the first female mayor elected in Urbana. Banquet attendees will also have plenty of opportunities to network and a DJ will entertain us after the dinner. Abbott Laboratories, through a generous donation, is sponsoring the dinner banquet to be held at the Holiday Inn in Urbana.

New to this year's program will be daycare services at the Holiday Inn. Moms will be able to bring their kids with them and have quality daycare provided for a small fee. In addition, we have received sponsorship donations from 5 Alarm/MSA, and Meijer to assist us in providing lunch on Saturday and beverages throughout the weekend.

IFSI continues to be on the forefront of fire service issues, and I am personally very proud to be a part of this organization. The staff at IFSI are determined to provide quality training to all firefighters, regardless of gender.

For more information on the training weekend, check the IFSI website, or contact Cheryl Horvath at [cnhorvath@fsi.uiuc.edu](mailto:cnhorvath@fsi.uiuc.edu).

*Cheryl Horvath  
IFSI Field Staff  
Company Officer,  
Urbana Fire  
Rescue Services*



**Also watch for details on the February 18, 2006 Female Firefighter Training Weekend in Frankfort, Illinois.**

# Funding Opportunities for The Fire Service

Nancy Mason  
CBRNE  
Program  
Director

Fire departments — like every other community public service — have struggled to generate funds to support their daily operations. Many communities look for ways to streamline their obligations, sometimes impacting a fire department's budget. In recent years, fire departments have begun to seek public sector grants to assist with funding daily operations. The difficulty associated with grant writing is that fire departments are not accustomed to soliciting outside funding and grant-writing is not within the resume of most chief officers.

If fire departments are to successfully compete for funding with other branches of city government, they will need to be prepared to take on yet another role — grant management. Many large communities already have individuals within their city management that can assist the department with their effort. On the state level, organizations such as the Illinois Terrorism Task Force (ITTF), Mutual Aid Box Alarm System (MABAS), Illinois Fire Service Institute (IFSI), and Illinois Emergency Management Agency (IEMA) have taken a leadership role to assist the Fire Service as a whole, providing overall administrative leadership on grant funding coming directly to our state through federal programs.

Many opportunities have come from working together to achieve common goals. Special Operations Teams in Technical Rescue and Hazardous Materials are examples of how cooperative relationships can take advantage of common funding sources.

How can individual departments connect to funding opportunities? The answer is to identify personnel within your organization that have the grant-writing skills and knowledge on how to find sources of funding. Federal Emergency Management Agency, Center for Disease Control, National Fire Academy and other state and federal sites have grant opportunities listed on their web sites. Don't be afraid to look at your department's need in an "out of the box" manner - pool your talent with allied organizations and go for funding for joint efforts.

*A few examples of no-cost resources:*

- Danville Fire Department recently received a grant of \$40,000 from the Federal Emergency Management Agency to purchase portable computers for their firefighters.
- The American Medical Association and the National Library of Medicine recently released a Wireless Information System for Emergency Responders (WISER) that can be accessed at no-cost by fire departments. WISER is response software that accesses the Hazardous Substance Data Bank covering basic physical, hazardous materials, medical, and environmental properties and patient symptoms.
- [http://cdp.dhs.gov/web\\_sites.htm](http://cdp.dhs.gov/web_sites.htm), lists an unlimited number of sites that can offer you assistance with response information, grant and training resources.
- The Illinois Fire Service Institute can assist with providing research through the use of our library services. Individual consulting with program staff is useful for departments as they are gathering facts and figures to provide needs assessment documentation for grant narratives.
- MABAS provides services to members through a one-on-one program in which individual chiefs will work with newly forming or existing MABAS Chief Officers on issues impacting their department.

Members of the Fire Service within Illinois are fortunate to have the support of so many agencies, yet the responsibility for utilizing the services still remains with the individual departments. The task of taking on yet one more responsibility within the Fire Service may appear overwhelming for most members, but the future of funding will depend upon our ability to adapt to the ever-changing face of emergency services.



**Photos from the 2005  
Explorer Fire School  
July 28 - 31, 2005**



**Training Props at the  
Southern Kane County  
Regional Training Center**



# Basic Chemistry for the First-In Crews

Contributed  
by Greg Lauf  
IFSI Field Staff

Responding to day-to-day emergency incidents can sometimes turn into scenes involving release of hazardous materials. Recognition of these scenes may not always be obvious. Occupancy and location signs such as industrial, commercial or transportation can give clues as to what types and quantities of hazardous materials may be involved. Once the scene has been isolated, the next step is to try to identify the product or products involved. Communication with property owners, law enforcement and eyewitnesses involved can aid in identification. Basic resources such as the Emergency Response Guidebook (ERG) can give important basic information including health and fire precautions and evacuation distances, but are not always chemically specific. Another key component of HazMat determination is basic chemistry of the material that is released.



Photo courtesy of the Spring Valley Fire Department.

Another key component of HazMat determination is basic chemistry of the material that is released.

If the chemical is known, the basic chemistry of the product must be understood. One of the first steps is to determine whether the material is a solid, liquid or gas. By determining the state of matter, the path of exposure can be predicted, monitoring protocol can be established and the proper PPE can be selected. A solid that is spilled will usually stay where it was spilled, with only weather factors, such as wind and rain, affecting the spread. Liquids tend to follow the contour of the land and take on the shape of their containers. Gases want to disperse or mix with the air and will be affected by wind currents. Gases are the most mobile of the states of matter.

With solids, chemical properties of solubility, bulk density and melting point will help to determine if weather factors will affect the spread. A chemical that is soluble in water — the universal solvent — will dissolve when exposed to rain. Simply covering the material may allow for isolation until the material can be removed. The bulk density is dependent on weight and is expressed in pounds per cubic feet. For instance, a material such as flour, with a low bulk density, will be easily spread

by a light wind. A material such as sand that has a high bulk density will not. Finally, the melting point is the temperature at which a solid will become a liquid. Those substances with low melting points may be solids in the winter, but liquids in the summer, such as water.

For liquid spills, land contour may allow the material to run and pool at low places. Chemical properties like solubility, specific gravity, vapor pressure and pH can aid in determining how to mitigate the problem. Solubility, as expressed in percent (%), is the amount of the material that can be dissolved in water. Specific gravity will determine if the material will sink or float in water. A liquid with a specific gravity of less than one will float on water, such as gasoline. Vapor pressure relates to how much vapor will be given off by the liquid from the surface. The larger the surface area of the spill — the greater the potential for vapors to be given off before the spill is mitigated. The pH of a liquid -- its corrosivity — determines whether the material is an acid or base, important to know since corrosive vapors can wreak havoc on sensitive electronic instruments.

Vapor density and flammable range are useful for characterization of spills involving gases. The vapor density of gases is similar to the specific gravity of liquids — only the comparison is air. Gases with a vapor density greater than one will sink, where gases with a vapor density of less than one will rise. Flammable ranges are used to characterize the vapors given off from a flammable liquid or a gas. The flammable range is defined as the difference between the upper and lower flammability limits. If the concentration is too lean to burn, it is below the lower limit. If the concentration is too rich to burn, it is above the upper explosive limit.

The chemical characteristics of pH and flammability can be measured on the scene with the appropriate instruments. Other properties such as vapor density, specific gravity and boiling point can be found in resource material such as the NIOSH pocket guide.

Knowing what material you are dealing with and understanding some of the basic chemical properties will enable the first-in engine or responders to make a more informed decision as to initial isolation and personal protection.

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# 2006 Winter Fire School

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As I write this article the central Illinois summer sun is blazing down on parched ground and the thermometer is reaching 100 degrees — not really the time most of you are thinking about Winter Fire School. But before you can believe it Winter Fire School 2006 will be here and the registration process underway.

Winter Fire School is scheduled for February 4th and 5th, 2006 at the Holiday Inn Hotel and Convention Center in Urbana, Ill. Mark your calendars now and watch the IFSI web site for details that will be posted in the early winter.

As in the past, the 2006 program will include single 12-hour classes and multiple four-hour “short course” classes. New for the 2006 program are classes that provide “Hands On” training sessions. Since the February weather is usually severe, the “Hands On” sessions will be conducted at the main IFSI site inside training facilities. These sessions will not be live fire burns but will be a departure from the standard classroom lecture presentations. The fi-

nal decision on which classes will be provided has not been made but they will include some combination of activities that require the student to participate in a physical manner. Participation in these sessions will be limited so if you are interested in this type of class register as soon as information is made available.

Winter Fire School staff and instructors strive to provide training that supports the needs of participating departments. We also work very hard to keep the direct costs at an affordable level. It is expected that the “Hands On” sessions will cost a little more because additional instructors are required to keep the student to instructor ratio at an acceptable and safe level. While the final decision on these costs has not been made I don’t expect the increase to be significant.

Winter Fire School is also a great time for a family “get away” weekend. The Holiday Inn pool and activity area provides great family fun and the Urbana-Champaign area offers additional indoor activities. Mark your calendars and watch for upcoming details. I look forward to seeing you.



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