



From the Director's Desk

During the summer of 2007, IFSI achieved three important milestones.

First, with the financial support of State Farm Insurance, Carle Clinic, and the Illinois Fire Chiefs Association, along with assistance from numerous communities and fire departments, we hosted the National Fire Emergency Services and Exploring Conference, bringing together Explorers from Alaska to Florida. In particular, I would like to thank the cities and fire departments of Aurora, Champaign, Charleston, Edge-Scott FPD, Edwardsville, Frankfort FPD, Hanover Park, Murphysboro, Naperville, Park Forest, O'Fallon, Quincy, Savoy, Tinley Park, Urbana and Waukegan, as well as Arrow and Pro Ambulance and Peoria-Life Flight for their extraordinary support. See "Fish Stories" on page 8 for more details.

Second, we received notice from the US Department of Homeland Security that our Firefighter Life Safety research team had been awarded a \$900,000 grant to continue our heat stress research. The US Fire Administration and Fallen Firefighters Association National Research Agenda have identified stress-induced cardiac events as the number one cause of line-of-duty deaths. Also, slips, trips, and falls are identified as the primary source of injuries on the fireground. This grant will allow IFSI to continue interdisciplinary research with colleagues from the University of Illinois Colleges of Medicine, Applied Health Studies and Engineering. Total Fire Group and International Personnel Protection, two of the leading manufacturers of PPE, will also be involved. Our research is unique because we include real firefighters under fireground conditions. We will be asking for volunteers to participate in the study. If you are interested, please call Dr. Gavin Horn at (217) 265-6563.

Third, on 30 July 07 the Board of Trustees of the University of Illinois approved the construction of a new 24,000 sq. ft. Learning Resource and Research Center on the grounds at our current 27-acre training facility. While we have added numerous new props and low-cost support buildings over the past decade, including "Rescue City" where we train technical rescue teams, this will be the first new construction of its kind since the mid-1980s.

The project will be funded through debt service and will not impact course costs in any way. Our intent is to add additional capabilities in six areas:

- Expand our special Fire and Emergency Services Library.
- Create an Emergency Operations and Unified Command Center training facility that will permit us to conduct whole community interdisciplinary command and control training and exercises with live on-site training.
- Provide permanent research space for the Firefighter Life Safety Research Center.
- Create a conference center for larger groups with an auditorium equipped for simultaneous translation for international audiences.
- Provide very high-speed Internet connectivity and redundant power for the entire site.
- Create a Firefighter Memorial Hall that builds upon our line-of-duty-death memorial project (see page 11) which seeks to honor each fallen Illinois firefighter. We plan to offer bricks and capstones to allow firefighters, families and organizations to participate in the memorial. The hall will be part memorial, part museum and part lessons learned repository connected to the Library.

We look to complete design in 2008 and construction in 2009 and start the new decade with exciting new capabilities.

Along with the building and research projects, we are continuing to look at the many new challenges firefighters and departments face. Issues such as ethanol plants and product distribution throughout Illinois, partnerships with industry, expanded implementation of interdisciplinary incident command and operations, and statewide building codes are all issues we look to address and, as necessary, support. Your feedback is always welcome. You can e-mail me directly at Jaehne@uiuc.edu. Thank you for your continued support.



*Richard Jaehne
Director*

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Richard L. Jaehne

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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. Please include appropriate graphics or digital photos.

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Our website has the most current class information

www.fsi.uiuc.edu

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Want your own copy of the IFSI newsletter?

Ask to be added to the mailing list by email to Terri Hopper (hopper@fsi.uiuc.edu)

OR

A copy is available on our web site.

June 2007 was one of IFSI's most unique and busiest months ever. We hosted four major events in addition to our everyday training operations. Each took a great deal of effort on everyone's part, and even Mother Nature cooperated. In June, more than 2,000 people passed through the IFSI campus facility, which normally handles about 9,000 students a year.

The 83rd Annual Fire College (the oldest continuous fire school in the nation) was another success. There were a wide variety of classes offered at the IFSI training site, at abandoned buildings off campus, and at the new hotel venues nearby. I encourage you to plan now to attend next year's Fire College, scheduled for May 28-June 1, 2008.

The keynote speaker at Fire College was Col. Royal Mortenson, USMC who, after returning from combat in Iraq, was commanding officer of The Basic School which trains all Marine officers. He spoke of the importance of good leadership and proper training. A video of his speech is available on the IFSI website. As a result of discussions with Col. Mortenson, several members of the IFSI staff, along with representatives of the Chicago Fire Department, spent a week in July at Quantico with the Marines and at the FBI Academy discussing training and leadership. We gained ideas on how to better train firefighters and fire officers. These will be incorporated into future IFSI classes.

The second week in June saw the fourth year of Technical Rescue Team Validation. Ten more TRTs from around the state deployed to IFSI for multi-day round-the-clock rescue evolutions. The Illinois Terrorism Task Force and IFSI have invested heavily in equipping and training technical rescue teams to respond state-wide. Validation is a required process to prove that the teams can, in fact, deploy, perform, and self-sustain per established Department of Homeland Security (DHS) standards. Validations also strengthen interoperability and the teams' ability to



work together smoothly and efficiently. These teams are available to respond to every community in Illinois. IFSI, MABAS, and CART cooperate to conduct the validation exercises. The Illinois Emergency Medical Response Team (IMERT), Red Cross and other agencies also participate and supported the validations. That way all organizations practice working together, and find how they can better contribute at a major incident.

Next came the National Fire and Emergency Services Exploring Conference, which brought about 600 Explorers and their advisors from 24 states to IFSI. The Explorers participated in team and individual competitions, and more importantly in a number of training seminars and hands-on activities. The training was a big hit with all the attendees, and many have indicated they intend to return next year for our regular IFSI Explorer/Cadet Fire School. We certainly appreciate all the assistance provided by those Illinois fire departments and firefighters who volunteered to help judge or in other ways supported this activity. Many attendees indicated this was the best national Fire Explorer event ever. They expressed that they were very impressed with IFSI, and wished they had something like it in their states. Unfortunately, due to the national organization's rules, Cadets could not participate in the Explorer Conference. Thus, IFSI intends to hold some special activities this Fall for the Cadets, since we do not want them to be left out. Next year we will again host our usual Explorer/Cadet Fire School, which is open to both.



*David F. Clark
Deputy Director*

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Table Talk



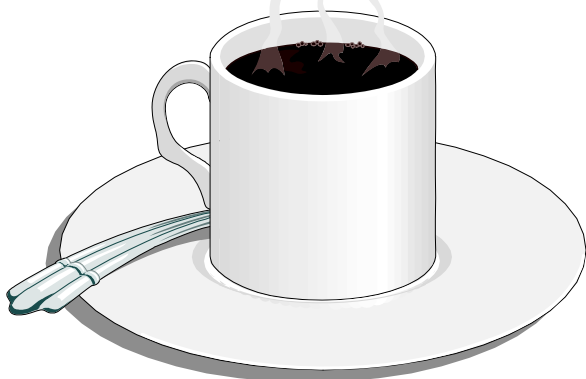
'MAC'
McCastland
Associate
Director

I would like to take a few minutes and thank the field staff for what they go through to participate in fire service training at the Illinois Fire Service Institute.

Granted each year at the Fire College, field staff meetings, newsletters, etc., the field staff is recognized for what they bring to the table. I would like to deepen that appreciation to include all that they go through to make the time to deliver superior programs for IFSI. People who have never worked the 24/48 routine at a firehouse do not really understand the amount of time you give up to get a couple of days off to instruct for us. Traded days have to be paid back, putting you back in the firehouse and away from your families for 24 to 48 hours. Furlough time is precious and is all too often used for teaching rather than being with the family.

Most side jobs have a better economic return than what is realized through the university system - so getting rich is out of the question. So why do they do what they do? That is a very personal question - an answer known only to them. Nevertheless, I want to say thanks. They are the links to the real world that exists behind the red overhead doors.

Not much time on the soapbox for this edition, so I will strike it out. I hope you understand where I am coming from.



Stay safe
MAC

News & Notes

(continued from page 3)

The last week in June, IFSI hosted six HazMat teams for the first HazMat Team Validation. The process was similar to the TRT validations, and will continue annually. In the future, there will be even greater integration of interdisciplinary agencies and organizations to further enhance planning, preparation, and cooperation at state and local levels.

We have now caught our breath and are ready to continue to provide you with the best hands-on training in the country. See our web site www.fsi.uiuc.edu for details on what is available. Much training can be done at no-cost to you — right in your own department. All you have to do is ask. You can also call us at 800-437-5819.

We expect to distribute the new “Fireground Support & Aerial Apparatus Operations” DVD soon. This has been a major project, but will be well worth the effort and the wait.

The Board of Trustees has approved construction of the new Illinois Fire Service Institute Learning Resource & Research Center. This building, adjacent to our current building, will house an expanded library, firefighters’ memorial hall, research labs, EOC training rooms, international conference center rooms with simultaneous translation capabilities, and other support facilities. Prep work has begun, and we hope to be in the new building in about two years.

Fire departments, both rural and metropolitan, in Illinois are becoming concerned about their ability to respond to incidents stemming from the production, transportation, and use of ethanol. Fires involving ethanol cannot be handled by standard fire department foams and procedures. IFSI is working with the ethanol and foam producers, and other interested parties, to develop information papers and a training program to assist fire departments that either have a production facility in their area or face incidents outside the plants. (See the short article on page 23, and watch for more information later this Fall.)

Who You Gonna Call?

With my promotion to Assistant Director in 2006, IFSI expanded the Fire Fighting Programs Team. With this newsletter I'd like to share with whom your first contact should be for IFSI fire fighting classes, either at your department, regional training location, or on campus at IFSI.

For *on-campus* programs, including Smoke Divers, FAST, RIT Under Fire, Engine and Truck Company Operations, and the Certified Firefighter II Academy and co-requisite courses, **Tad Schroeder** is your primary contact. Tad has taken over the responsibility for delivery of these programs, and can best answer your questions regarding these classes.

For Fire Apparatus Engineer (on- or off-campus) and *on-campus* Fire Service Vehicle Operator programs, as well as Light and Fight burns, Tower Burns, and Wildland Fire Fighting programs, **Eric Goldstein** is your primary contact. The Wildland programs and Fire Apparatus Engineer programs may be hosted off-campus; please contact Eric for more information. For all programs that are not listed on the IFSI calendar, the process to request a class begins with a "Request for Training" OR "Cornerstone Request for Training" form.

If you are interested in hosting a class at your fire department or regional site, whether the course is contracted for a fee with IFSI or paid for through Cornerstone, your first contact should be your regional representative. Ray Palczynski in the West and Northwest portions of the State, Randy Schlichter in the far north suburbs, Paul Segalla for the Chicago Metropolitan Region, Les Albert for the southern Illinois area, Duane Bales for the Metro-East region, and Greg Fisher for the east and central portions of the state (See map below and on the IFSI website for more information).

For general class information, please start with the above-listed person. If I can be of service, please contact me via email at brbrauer@fsi.uiuc.edu.



*Brian R. Brauer
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Director*

*Fire Fighting
Program
Director*

For on-campus fire fighting programs:

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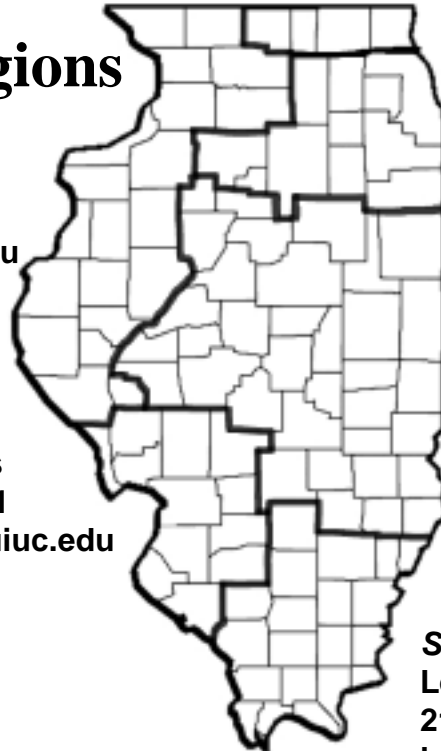
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Using IFSI Burn Facilities - a Primer

Eric Goldstein
Assistant
Fire Fighting
Program
Director

For the past several years, the utilization of the burn facility at the Illinois Fire Service Institute (IFSI) has expanded, both in the number of classes and students served. As we enter the Fall burn season, I would like to again go over the options available to departments wishing to schedule burn time at IFSI's Champaign facility.

Departments that want to send ten or fewer members or individual firefighters can attend a Light and Fight Saturday. These events provide a full day of live-fire training, with instruction provided entirely by IFSI staff. Students rotate through a variety of skill stations, which emphasize SCBA, hose movement, ladder work, and forcible entry. These stations are designed to allow students to practice and develop their Firefighter II level skills. IFSI staff develops the objectives and drills for the day.

If a department wants to bring a larger group to the IFSI burn site, they can schedule a Tower Burn. These burns allow the department use of the IFSI burn buildings, as well as IFSI apparatus, tools and appliances. Forcible entry props must be requested in advance of the date. IFSI will also provide stokers to facilitate live-fire evolutions, as well as several instructors to serve as safety and support personnel. The visiting department conducts all direct instruction for Tower Burns. A department bringing more than 35 personnel can utilize all three of the burn buildings; however,

a department with less than 35 firefighters at the Tower Burn may be asked to share the site with another group. Drills and objectives for the day are developed prior to the burn by the visiting department in conjunction with an IFSI staff member. Both parties will approve a written plan; this plan will be compliant with all NIMS guidelines.

A final option for visiting departments seeking live-fire training is a Basic Skills Burn. This is a hybrid between a Light and Fight and a Tower Burn in which the visiting department will develop a series of objectives with an IFSI staff member. IFSI will then develop, deliver and instruct a series of drills based on the department's objectives. The attendance policies for Basic Skills burns are the same as for Tower Burns (35 or more students). For Basic Skills Burns, IFSI will provide the necessary instructors and stokers to ensure efficient, safe, and productive course delivery. Light and Fights, Tower Burns and Basic Skill Burns are all covered under the Cornerstone Grant program, at no cost to the department or individual as long as they comply with the program requirements. The combination of these three on-site burn options fulfills the training needs of the broad spectrum of Illinois fire departments.

Please contact Eric Goldstein at elgoldst@fsi.uiuc.edu with your questions, or submit a "Request for Training" form to Eric to begin the process of scheduling a burn.

Fire Fighting Programs for 2008

Tad Schroeder
Assistant Fire
Fighting
Program
Director

During the past year, IFSI staff, in conjunction with instructors from around the state, worked to expand and revamp several of the 40-hour fire fighting programs. With support from the IFSI administration, fire fighting program staff have made a renewed commitment to provide support for instructors and students during upcoming classes. We will be looking to develop our staff to increase the effectiveness of our instructional delivery.

One example of this effort is the revision of the *RIT Under Fire* course. *RIT Under Fire* was designed originally as an outgrowth of *Saving Our Own*®, providing firefighters with the skills, techniques and live-fire experience

needed to perform effectively during a RIT activation. This course combines best practices from across the nation, and encompasses techniques developed and perfected by IFSI instructors. However, as RIT has in recent years become a topic studied and practiced profusely by departments of all sizes, IFSI felt it was time to reflect upon the role of RIT in the fire service, and how the *RIT Under Fire* class could best fulfill its obligations to the firefighters we train.

continued on the next page

Fire Fighting Programs for 2008

Using the main components developed by Rick Kolomay, Bob Hoff and Dave Clark, this program was updated and revised to incorporate many of the organizational elements being adopted through IFSI. Last May, IFSI ran a *RIT Under Fire* class with the updated curriculum. The class reached across state lines and included 20 members of the Milwaukee Fire Department. The students responded positively to the concepts espoused during the week, and came away within a renewed interest and understanding of the concepts and techniques of rapid intervention after using them under live-fire training conditions. This Fall, Milwaukee is sending down another group of firefighters for

a contract class. The regular *RIT Under Fire* course will run from October 12-16, and is filling up fast. All firefighters, regardless of their district size, call volume, or rig assignment, need to be exposed to the ideas and skills covered in *RIT Under Fire*. Nearly 25% of all firefighter fatalities every year occur during operations at a structure fire. It is only through training courses such as *RIT Under Fire* that firefighters will be equipped with the skills they need to rescue their own when the need arises.

For additional questions concerning *RIT Under Fire* or other IFSI fire fighting programs, please contact Tad Schroeder at tjschroe@fsi.uiuc.edu or (217) 333-8927.

Winter Fire School 2008

Winter Fire School (WFS) 2008 is only a few months away! I know it sounds strange to be talking about winter activities at this time of year, but I want to make everyone aware of a great weekend training opportunity that tends to get overshadowed by the holidays.

Winter Fire School 2008 is scheduled for Saturday, January 26 and Sunday, January 27, at the Hilton Garden Inn in Champaign. The WFS program provides 12 hours of high quality classroom educational opportunities.

The foundational classes for WFS 2008 are four specialized National Fire Academy (NFA) courses delivered by select NFA Instructors. These classes have been developed for departments who utilize "weekend" training programs and who can benefit greatly by the experienced instructional staff. The NFA will hand select instructors for these specific WFS 2008 classes. Registration for the NFA classes must be completed earlier than other WFS classes since NFA officials must allow for instructor travel arrangements.

Blocks of training are available in 12-hour units or the very popular 4-hour mini-classes. Attendees can choose between one 12-hour session or three 4-hour sessions.

A Saturday evening bonus class offering is also planned for 2008. A special presentation on the Station Nightclub Fire will be presented. This fire occurred in Rhode Island in February 2003 and killed 100 patrons of the club. Serious exit and combustibility issues have been identified in this fire. Almost every community has a potential situation similar to the Station Nightclub and much can be learned for the fire service through examining this tragedy. Actual fire video, computer simulations and presentational graphics will make this program a must-see event.

Save the dates now on your 2008 calendar: Saturday, January 26 and Sunday, January 27, in Champaign. Winter Fire School - it promises to be a great weekend!



*Eddie Bain
Fire Investigation
Fire Prevention
Program Director*

*Winter Fire
School Manager*

Plan Ahead!
Winter Fire School
January 26 - 27, 2008
Hilton Garden Inn, Champaign
New this year: you can register online.

Fish Stories



*Greg Fisher
Cornerstone
Program
Director*

*Rescue
Program
Director*

The 2007 National Fire and Emergency Services Exploring Conference made it into the history books with a bang. The event was like nothing else we have done at the Illinois Fire Service Institute, blending “hands-on training” with individual and team competitive events. Critiques from the participants, staff, and volunteers of 100 different organizations spanning 24 states, revealed the gathering was a tremendous success.

The event kicked off with a laser light show during opening ceremonies at Foellinger Auditorium on the University of Illinois “Quad.” Keynote addresses were delivered by Director Richard Jaehne, Illinois Fire Service Institute, Chief Patrick Kenny, Hinsdale, Illinois, and Gary Briese, Retired Executive Director of the International Association of Fire Chiefs. The evening culminated with movies, bowling, billiards, activities in the dormitory and a Fire House Cooking demonstration.

Tuesday and Wednesday found over 500 participants ranging in ages from 15 to 20 years fielding 105 teams of competitors for events like Paramedic Biking, “Make & Break,” Room Search, Spinal Immobilization and Movement, CPR, and Bunker Gear and SCBA Relay. A few of the singles competitions included hundreds of individuals competing in CPAT or physical abilities test, wild-fire shelter deployment, CPR, Incident Command, SCBA & Gear Donning, Written Exam, Hose Race and Arson Investigation. Wednesday also featured drill competition by Explorer Post Color Guards for a trophy and the honor of retiring the Colors at the closing ceremony on Thursday evening.

While young people waited for spots in the competitions, IFSI staff provided “hands on seminars.” Practical real-world fire fighting

experience was gained with vertical-confined-vehicle and structural collapse rescue, hazardous materials, water supply, EMS and LPG fire fighting training. These evolutions were well-received

as many of the activities cannot be provided at the local level in some of the states represented. Judging by the number of youth lining up to participate in the “hands-on” structural and LPG fire fighting, I am sure we will

see numerous states represented at our next Illinois Fire Service Institute Explorer - Cadet “Hands On Training” Fire School June 26 through 29, 2008.

Thursday’s activities wound up with various demonstrations featuring all aspects of the fire service in the 21st century. MABAS Division 28 was represented by four departments showcasing various skills. Champaign Fire Department’s Hazardous Materials team demonstrated stopping a leak on a chlorine rail car while Urbana Fire and Rescue’s Technical Rescue Team took

two lucky Explorers for a ride on a high line from the tower to the technical rescue prop. Savoy Fire Department responded to a multi-vehicle accident and Edge-Scott Fire Protection District attacked a highly involved mobile home fire. Aero Medical Unit landed and took Heather from the office staff on her first helicopter ride as a mock victim. The Illinois State Fire Marshal provided an Arson Canine Unit, while The National Fire Sprinkler Association and Illinois Fire Inspectors Association presented a sprinkler demonstration. IFSI’s Eddie Bain presented a very dramatic burn cell demonstration and Mark Clapp and company was kept busy with non-stop LPG fire fighting. Kyle Finley of Live Line Demo presented a tremendous demonstration on electrical safety.

As youth traveled from demonstration to demonstration they were afforded the opportunity to speak with representatives from Eastern Kentucky University, Southern Illinois University, and Oklahoma State University. All of these institutions offer bachelor degree programs in Fire and Arson, Fire Protection Engineering, or Fire Service Management.

The closing ceremony began with one of the most moving line-of-duty death tributes I have ever experienced and was entirely put together by the youth participants. Another laser light show, pictures and videos of the



“I am sure we will see numerous states represented at our next Illinois Fire Service Institute Explorer - Cadet “Hands On Training” Fire School June 26 through 29, 2008.”

week's events brought cheers and applause from different sections of the auditorium as various Explorer posts were featured competing or training at the hands on seminars.

Although each adult and youth participant was responsible for a conference fee, the event would not have happened without the generosity of numerous organizations and individuals.

Organizations that assisted monetarily or with "in-kind" donations:

State Farm Insurance
Illinois Fire Chief's Association
McGraw Hill Higher Education

Alexis Fire Equipment
Illinois Propane Education and Research Council
Eastern Illinois Electric Cooperative
Darley Fire Equipment
The Illinois Fire Inspectors Association
Oklahoma State University
Sub Aquatics & Cycle Works
The National Sprinkler Association
Fire House Decals
Campus Sportswear
University of Illinois Food Service
SBC Custom Designs
US Safety Products

The following fire departments and organizations provided staff and equipment that made this conference seamless in its presentation.

Arrow Ambulance
Aurora Fire Department
Carle Clinic Association
Champaign Fire Department & CFD IAFF Local 1260
Champaign Public Works Department
Champaign Police Department
Charleston Fire Department
Edge-Scott Fire Protection District
Edwardsville Fire Department
Frankfort Fire Protection District
Hanover Park Fire Department
Illinois Department of Natural Resources
Illini EMS
Life Flight -Peoria

Murphysboro Fire Department
Naperville Fire Department
Park Forest Fire Department
Provena - Pro Ambulance
O'Fallon Fire Department
Quincy Fire Department
Savoy Fire Department
Tinley Park Fire Department
Urbana Fire Department
Waukegan Fire Department

The appreciation felt for each of these organizations and the hundred plus volunteers and staff that made this event successful can not be expressed enough.
Thank you so much!

To get a better insight on the event, go to these websites. Once you see these you'll want to sign up, and be part of the next Explorer - Cadet Fire School -- June 26-28, 2008!

www.youtube.com and type in "Illinois Fire Institute" into the search box

www.learningforlife.org/exploring/fire

Click on BLEVE and view the activities and photos for each day.

Hazardous Materials Division Report



*Ray Palczynski
HazMat
Program
Director*

*Northwest
Regional
Representative*

As we enter the Fall season and a new school year, the hazardous materials division of the Illinois Fire Service Institute is in high gear. We have made, and are continuing to make, adjustments to staff, curriculum and equipment. These efforts are all aimed to meet the needs of our customers, the Illinois emergency first response community.

In addition to reshaping the educational delivery portion of the hazardous materials division, we have also enhanced our equipment to provide a greater ability to provide training around the state. We have added:

- An additional Operations trailer that is now in service.
- A new 5th wheel trailer for Tech A has been delivered and should be built by the end of 2007.
- A support trailer to shuttle consumable materials to a trailer at a remote site and decrease the distance the large units have to travel from class to class.

Look for additional updates and improvements to continue in the HazMat division.

First HazMat Validation Exercise

Amid all the other activities at IFSI in June was the very first Hazardous Materials Validation exercise. Six HazMat teams from throughout Illinois, each with 12 members, converged at IFSI on June 26 and 27 to take part in a number of scenarios. The teams consisted of ten responders plus two drivers - essential members of the teams, who were rested and could get the responders back safely to their home bases.

The HazMat Validation exercises mirrored the Technical Rescue Team (TRT) Validation that happened earlier in June at IFSI. The exercise even included a remote reception spot where teams registered before being deployed to the emergency site at IFSI.

While the weather was not cooperative - storms dominated the two days of exercises - we had a good exercise and were able to work around the rain. In September, we will meet to talk about the challenges we had during the first exercise and plan for adjustments for next Spring.

Greetings from the “Northwest Territory!” Fall 2007 Cornerstone Report

The past 12 months have been very busy with many new challenges and responsibilities being added to my plate. Being needed is good! At Fire College, one of my field staff commented that people have been asking where I have been. I was hoping to avoid the impression that I was somewhere else, when in reality I was behind the scenes doing what I used to be doing out on the two lanes. The added responsibilities of the hazardous materials division have taken much of my time. Some new procedures and personnel assignments are being explored to help me get back out on the road for some Cornerstone activity. I look to be out more after Labor Day.

The new budget year for Cornerstone began July 1, 2007. There are several classes already scheduled and many more in the hopper being processed. Please do not hesitate to contact me with your Cornerstone class needs.

Classes seeing an increase in requests are Ag Rescue, Grain Bin Rescue and Fire Service Vehicle Operator classroom. Some class date requests are doubling up so I ask that you be patient if you are asked to submit additional dates after your original request.

Please keep an eye open for the 2008 regional fire schools being held in your area:

- The Black Hawk School is January 5.
- Amboy Extrication Day is April 5.
- The Galesburg RTC School is August 25.
- The Great Northwest Weekend in East Dubuque is November 10 and 11, 2008.

If you have a local, association or county meeting that you would like me to attend and offer an update from the Institute, please let me know. I will make every effort to be there.

Stay Safe.

Ray Palczynski
www.fsi.uiuc.edu

Building Better Officers

Last month a contingent of senior staff from IFSI and senior officers from the Chicago Fire Department attended a unique program at the United States Marine Corps base in Quantico, Virginia. Our intentions were to witness the elements of leadership training provided to Marines and determine what can be translated to training fire officers.

This was a unique opportunity to spend time with some truly brave and proud Americans. They provided an overview of how the Marine Corps develops its officers from two distinctive paths. A non-commissioned officer enters the Corps as a recruit, goes through boot camp, and generally moves up through the ranks of sergeant by completing a structured training and experience program. A commissioned officer enters the Corps as a lieutenant and is usually fresh out of college. These officers then begin more than six months of training and education emphasizing core competencies of leadership, officership, responsibility, and accountability. A huge component of the training is on military skills including tactics, techniques, and procedures.

The program of instruction dedicates the majority of time on leadership education and assessment. The evaluation of leadership is accomplished during the mentally and physically challenging exercises. Performance, as well as potential, is measured by seasoned leaders and by fellow candidates. A leadership philosophy exists that reflects traditional strengths of the institution and the unique bond between the leader and the led. The foundation of leadership includes core values, leadership traits, and principles that are taught to every single Marine.

When the Marine Corps builds their officers, they do so with the following end results:

- Understand the significance of serving his/her country.
- Acquire a mastery of skills and tactics.
- Decide and act with boldness and determination.
- Understand that character and integrity count.
- Define honor, courage and commitment to a lifetime of doing one's duty.

The experience was extremely valuable and gave our team a huge advantage in determining what issues transcend to the fire service from our organized military strength. While there are some factors that we can never duplicate, there are many principles and objectives that we can mimic directly in the hopes of building better fire officers. Future changes in all of our officer training will reflect the time proven methodologies utilized to train those who lead in times of extreme stress and danger, as well as daily life situations that require true leadership.

Many challenges face future fire officers and IFSI is committed to provide the training and resources to allow them the opportunity to become a professional officer and leader.

For me personally, I have a newfound respect for those patriots who put service before self. They have brought glory, strength, discipline, and security to our great nation!



*Paul Segalla
Officer Program
Director*

To find out what officer classes are being offered near you, visit the IFSI web site at www.fsi.uiuc and follow the COURSES links to BROWSE CATALOG.

Visit the IFSI web site to see the line-of-duty-death memorial project

IFLODD, the Illinois Firefighter Line of Duty Deaths Digital Image Collection Database, documents the ultimate sacrifice of more than 750 Illinois firefighters over the past 150 years.

www.fsi.uiuc.edu/content/library/IFLODD/

Another Look at Hybrids



*Duane Bales
Vehicle/
Machinery
Program
Director*

*Agricultural
Program
Director*

With more and more hybrid vehicles on the road, it is critical to keep on top of the latest developments - so that you can be prepared at accident scenes. This issue covers a new angle to hybrid vehicles.

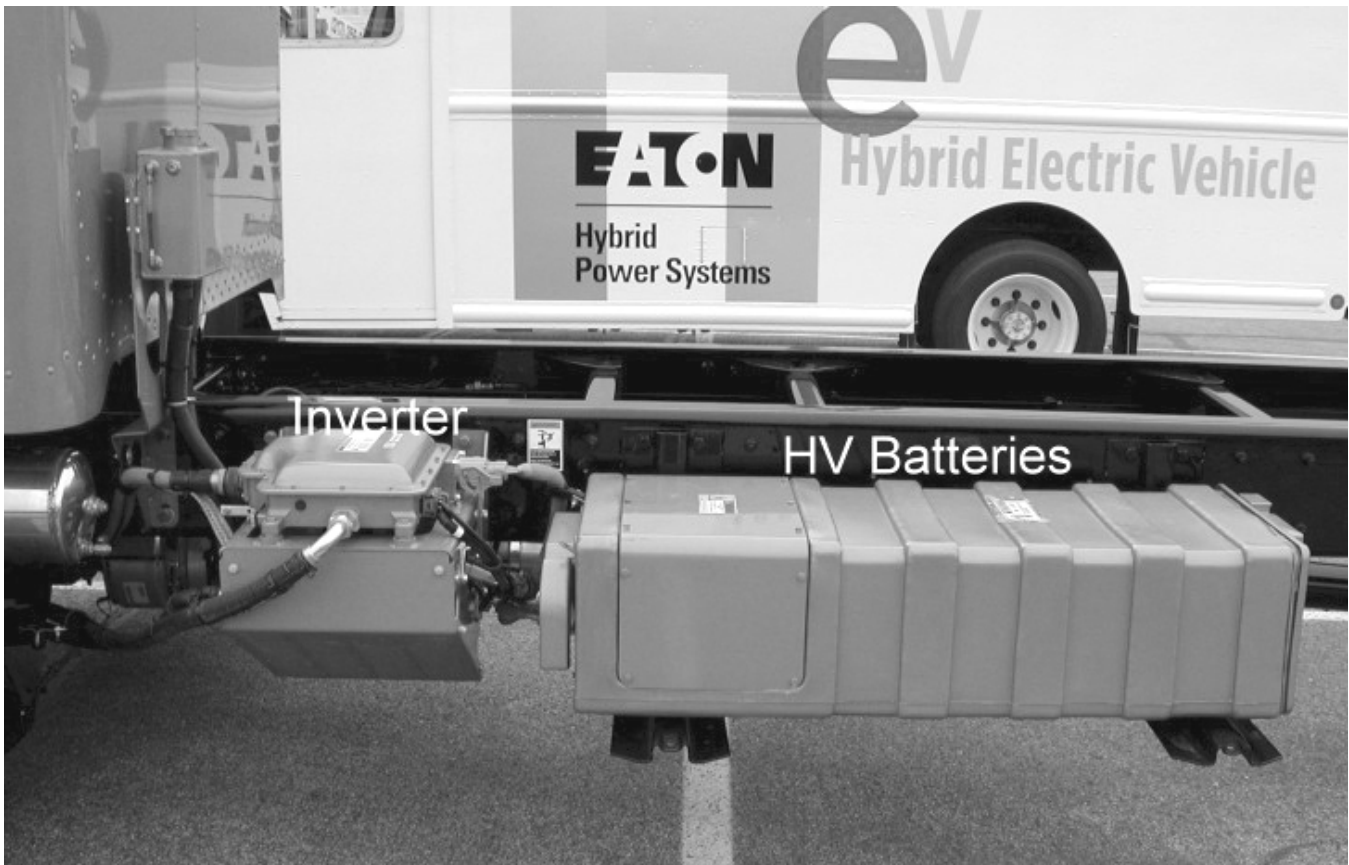
Hybrid engines are showing up in larger trucks. United Parcel Service and Federal Express are beginning to use these new generation vehicles. In the photo below, the straight-line chassis shows the fuel tank on the driver's side is replaced by a high voltage battery. To the left is the inverter box, which acts as a switch to cut off the voltage to the rest of the vehicle. This configuration is different from the EOne hybrid command vehicle shown at FDIC. On that truck, the switch is accessible through a door on the step into

the cab. On utility vehicles, the battery is located in the bed of the truck and not as susceptible to damage in an accident.

Hybrid manufacturers indicate that hybrids will be identified with signs, making it easier for firefighters and rescuers to realize that they are dealing with the technology. Historically, seeing large orange cables and connectors was a signal for hybrids. Now, General Motors is using blue cables and connectors for their Saturn Vue, Chevy Malibu and Saturn Aura. The blue color is intended to indicate a hybrid with lower voltage - between 30 and 60 volts - and not the 100 - 700 volts that are associated with other hybrids.

continued next page

*Photo courtesy
of State Farm
Insurance*





This Hurst Jaws of Life was used during the 2007 Fire College to demonstrate how to extricate a victim from a corn head.



The portable grain bin prop, donated by GSI of Assumption, Illinois, has traveled to all corners of Illinois to the 8-hour grain bin rescue class.

On the Ag Side

By the time this newsletter is out, harvest will be in full swing. What does that mean for firefighters? Farmers are trying to get their crops out and get the fields ready for planting wheat while the weather is good. Long hours in the fields can lead to carelessness. That carelessness can lead to on-farm injuries.

Will you be prepared? Now is the time to get some more training or refreshed in the eight-hour farm rescue or grain bin rescue classes. Two farmers who had been involved in a farm accident and lived to talk about it recently took an ag rescue class. Having been on the other side of an accident, they commented that the quality of the class materials was valuable and appropriate.

Anhydrous ammonia accidents happen year round because of all the meth labs out there. You can be better prepared by taking the three-hour Anhydrous Ammonia Response class. You can also get valuable grain bin rescue training through IFSI. The portable grain bin, donated by GSI, has traveled to all four corners of the state for the eight-hour class and used regularly throughout the year.

Lastly, get with your local Farm Bureau when you want to hold a class. Most of our ag classes have been held jointly with Farm Bureau, who have provided meals for participants - helping to keep the costs down for the local fire department. If you want to spend a whole weekend, we can schedule one day of farm rescue and one day of grain bin rescue. It is not recommended trying to do both in one day.

Rural Fire Department Financial Assistance Available from USDA. The U.S. Department of Agriculture (USDA) Rural Development Community Facility Programs provides grants to assist in the development of essential community facilities in rural areas and towns of up to 20,000 in population. Grant funds can be used to construct, enlarge, or improve community facilities for health care, public safety, and community and public services. This can include the purchase of fire fighting and rescue equipment required for a facility's operation. Detailed information and applications for financial assistance are available through USDA Rural Development State Offices or by visiting <http://www.rurdev.usda.gov/il/comdevel.htm>.

After the Fire, What About the Insurance?

Greg Gurney, CFI
Special Investigative Unit
State Farm Insurance

Roger Krupp, Special Investigative Unit Team Manager
State Farm Insurance
IFSI Field Staff

Fire investigators should be familiar with what insurance companies can do to help an investigation and how their investigations can interact with each other. An integral part of any fire investigation, and a primary part of any investigation of arson-for-profit, is a close examination of the insurance policy or policies that may be in effect. During the fire department's investigation, it should keep in mind how a determination may affect the insurance contract.

Preserving the scene is very important to the accurate determination of the cause of any fire. During overhaul operations, firefighters should only do what is absolutely necessary. The increased use of thermal imaging cameras (TIC) should help to reduce destructive overhaul and allow for opening up walls or ceilings only where needed. If a TIC is not available, using smaller inspection holes to search for the hidden fires is preferred -- not pulling down entire sections of walls or ceilings will greatly assist the fire investigator in reading the burn patterns. Interpreting burn patterns and inspecting areas of origin for cause are a main component of fire investigations. Do not tear it up if you do not have to. It is imperative that you are conscious of the effect destructive overall may have upon the scene for the fire investigator, whether public or private.

Firefighter's observations during their fire fighting activities are an also important part of any fire investigation. Key observations relating to the security of the building include:

- Were the doors into the structure locked, or were they closed but unlocked, or were they open?
- Did you check before you pried open any of the doors?
- Were any windows broken out for ventilation or were any windows already broken?
- Were screens in place over the windows and subsequently removed for ventilation?
- Were windows in the open or closed positions?

- Did you unlock any windows you manually opened?
- Did you hear smoke alarms sounding in the building and if so, where?
- Did you have the gas or electric shut off in the building by your department or someone from the utility company?

These observations will be important for any fire investigation in determining the possible causes of a fire and whether the fire has been intentionally set. These observations also provide key information with any fire resulting in serious injury or death.

After a fire, the fire department investigator is asked to determine the origin and cause of the fire. An insurance company may hire private origin and cause investigators or engineering experts to examine the scene. It is a benefit to all if they can see the evidence in place at the scene. Fire departments should recognize the insurance experts as an asset to their investigations.

If the fire is determined to be intentional, the fire department's investigation may lead to the conviction of a person for the Crime of Arson (720 ILCS 5/20-1). The insurance company may be able to provide valuable information regarding the fire. In addition, an insurance company may request information from the fire department investigator that may be helpful in determining if coverage exists for an insurance claim.

Arson-for-profit is a particularly heinous crime in that an individual is putting fire fighting personnel and the public's lives at risk for their own monetary gain. In both the criminal and civil litigation arenas, an intentionally set fire is very hard to prove. There is rarely direct evidence of an intentionally set fire. Most of the evidence used in these cases is circumstantial. As a result, the arrest and conviction rates for arson are low. The NFPA estimates 2% of intentionally set fires lead to convictions. The sharing of information can enable both the public and private interests to conduct their investigations more thoroughly and efficiently.

If the fire department investigator determines the fire was undetermined or accidental, their involvement with an insurance company is just as important as when the fire was

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determined to be intentional. Subrogation is the right of the insurance company, upon paying the insured's loss, to take over all of his legal rights against responsible third parties. If an insurance company makes a payment, it is obligated to attempt to collect that money back from the person or companies responsible for the damages.

A fire department needs to be aware that even though it has completed a scene investigation, others may have an interest in preserving evidence. If the evidence, for example an appliance, is the suspected cause of the fire, and is not in any immediate danger of being further damaged, leave it alone. If you take the evidence, you may become responsible for several years of maintaining a chain of custody for the evidence. If the evidence is lost, your department may become civilly liable. Civil suits may take years to resolve. Be careful not to open up your department to a charge of spoliation.

Governmental agencies frequently have the information that the insurer has not or cannot obtain and, conversely, the insurance company has information useful to the government agency that the government may have difficulty obtaining. The investigator should know the proper procedures and regulations governing the sharing of information. In Illinois, the Property Fire Loss Act (214 ILCS 145) provides the information for public fire investigators to obtain information from insurance files. It also allows, but does not require, the public investigator to share information with the insurance company. Both parties must conduct independent, separate investigations. The sharing of information permitted by the statute can enable both to conduct their investigations more systematically and professionally.

These views and opinions are those of the authors and do not necessarily reflect the views, policies or procedures of State Farm Insurance or any of its affiliated companies.

Fire Service Women of Illinois October Training Weekend

Fire Service Women of Illinois, in conjunction with the Illinois Fire Service Institute (IFSI), will be sponsoring their fourth training weekend. This weekend is full of hands-on and classroom sessions set on the IFSI Campus. Five classes are being offered to appeal to women in the fire service. This weekend also allows you to train with many other women in the state who fight fire and work in the EMS field.

Fire Service Women of Illinois NFP is a not-for-profit organization. Our focus is two-fold — help support the career growth of Illinois female fire fighting professionals and support training that will lead to the confidence they need to become the best firefighters they can be. By advancing the education, networking and professionalism among the women of the fire service, we are helping to shape the future of fire fighting.

More information on the training, and our organization can be found on these websites:

<http://www.fswi.org/>

or

<http://www.fsi.uiuc.edu/>

Five 12-hour classes (each with a hands-on component):

“A Strong Foundation Builds a Better Firefighter”

“Fireground Tactics -- You have some basic skills and some experience -- now what?”

“Work Smarter, Not Harder”

“Could you Perform Triage at an MCI?” (CEUs for EMS offered)

Registration deadline extended to September 28. The low registration fee of \$125 includes a t-shirt, lunch and dinner at IFSI on Saturday. A block of rooms has been reserved at the Holiday Inn Hotel and Conference Center. Call 217-328-7900 for reservations and mention IFSI.

MARK YOUR CALENDAR
October 13 - 14, 2007
IFSI Champaign Campus

National Incident Management System (NIMS) Compliance for the Fire Service



*Joe Gasparich
National
Incident
Management
System (NIMS)
Program
Director*

Chances are pretty good that you and your fire department have been moving at break-neck speed the past few years to achieve something that was unheard of just a few years ago - "NIMS Compliance." WHY, HOW, and above all WHO should be involved in this. The standard line has been the ability to accept/ receive (or past acceptance/receipt of) federal dollars for your department.

What guidance have you received on the topic of NIMS compliance, or more importantly, what rumors and misguided statements have you heard regarding NIMS compliance?

You may or may not know that in each state an agency or department has been tasked with determining criteria for the state's NIMS compliance activities. The department

or agency has also been responsible for determining which jurisdictions have achieved NIMS compliance in each state. In Illinois, that department or agency is the Illinois Emergency Management Agency (IEMA).

The task of determining NIMS compliance activities for the state of Illinois has been no small venture and IEMA has relied heavily on other departments and agencies (including IFSI) to help them determine what courses, activities and other criteria should be used to establish NIMS compliance. For example, your locally-elected officials might have had their first "taste" of NIMS compliance through interaction with the Illinois Municipal League or your public works supervisors may have heard about NIMS compliance through a speaker at a conference or seminar.

The issue for local fire departments (once these other disciplines have contacted you) then becomes - "what do we do - or what are you doing to become NIMS compliant." That is where the ability to get and share useful information may have evaporated.

If you are still having trouble obtaining useful information on NIMS compliance, here is a link to the state of Illinois NIMS implementation plan.

<http://www.iml.org/dbs/nims/>

The link will take you to the Illinois Municipal League's website and then to the actual document where NIMS compliance for the state of Illinois is spelled out for you. While local jurisdictions still have to decide who needs certain types of training, the document will help you in this process.

Hope that this helps - just a way of helping us all to do our jobs better!

The ICS 300 course is part of the requirements that many supervisors must meet for their jurisdiction to be considered NIMS-compliant. A list of the requirements for Federal Fiscal Year 2007 can be found on the Illinois Municipal League website at:

<http://www.iml.org/dbs/nims/>

Local response agencies can find a listing of the ICS 300 Course offerings at:

<http://www.state.il.us/iema/training/Calender.asp>

The NFA Command and General Staff Classes can be found on the IFSI website at:

<http://www.fsi.uiuc.edu/>

then follow these links:

- Courses
- Browse Catalog
- Homeleand Security

Visit the IFSI web site for the most up-to-date schedule of Homeland Security classes.

Does Online Learning Really Work?

There isn't a week go by that I don't get a phone question like this. "Can I really learn fire fighting from an online course?" My unequivocal answer is YES! I go on to explain that all online courses developed by IFSI follow the same instructional design as the classroom courses. The only difference is that we must create learning mechanisms to allow student interaction with instructors. In addition, the online courses are designed with up to seven instructional elements (depending on course) that help ensure the student will have a successful learning outcome.

Here's a snapshot of those elements:

Course or Subject Objectives: Objectives provide the student with a blueprint of what they can expect to learn from the course. Most objectives include text or a combination of text and images that pop up in a separate web page. The objective pages are also great test study aids.

Reading Materials: All online courses have reading materials provided to the student in the web classroom. Students can read the materials online or download a printable version for study away from the commuter. In some cases, students will utilize a traditional textbook.

Audio Lectures: With the popularity of iTunes and MP3 players, we have started creating audio lectures for online courses. Audio lectures bring the experience of the instructor closer to the student and provide more in-depth instruction and clarity of reading materials. Audio lectures are also downloadable for later listening.

Discussion Forums: These are an offline method for students to connect with their instructor and other students. Moderated by the instructor for learning content, current incidents and student questions, the forums bring students together simulating a classroom atmosphere.

Real-Time Chat Sessions: These keyboard chat sessions are scheduled so that the student can interact directly with the instructor and other students in real-time. Chats allow for the sharing of ideas, past experiences, and provide a sense of community for students.

Multi-Media Presentations: These presentations are essential when teaching online

courses that have a large amount of technical hands-on content. This essential content is the "must learns" and in many cases "must perform" components of some online courses.

Student Assignments and Quizzes/Tests: Students are provided, and in several cases required to submit, homework assignments to their instructor. Assignments are geared to challenge the student to investigate procedures, skills or knowledge - drawing upon their local fire department and fellow firefighters. Students benefit by increasing their on-the-ground knowledge of their department SOPs, equipment and the like. Quizzes and tests are given as evaluative tools and measures. They also serve to prepare the student for state exams.

What About the Practicals?

In cases where students are required to demonstrate skills, a practical package will be provided. Students can participate in practicals at IFSI's Champaign campus, Regional Training Centers or at their local department. Keep in mind, that for students seeking state certification, the practicals must be proctored by a state-certified instructor in accordance with OSFM requirements.

E-Learning online courses are as comprehensive as the classes delivered at IFSI training sites. Students are provided with a variety of learning mechanisms to support the learning materials. We realize that instructor interactivity is important, so students have the ability to be in contact with their instructor in many ways on a daily basis. Finally, remember it is the collective responsibility of the fire department and IFSI in the learning process. Students are encouraged to work closely with their fire department when taking an online course. Together we provide the support that makes E-Learning successful!!



*Rich Valenta
E-Learning
Program
Director*

IFSI offers six online classes:

- Certified Firefighter II
- HazMat Awareness
- Emergency Response to Terrorism: Basic Concepts
- Technical Rescue Awareness
- Fire Service Vehicle Operator
- Fire Origin and Cause Awareness

Go to www.fsi.uiuc.edu to learn start times.

IFSI Receives DHS FP&S Grant



*Gavin Horn
Research
Program
Manager*

The Illinois Fire Service Institute has received a grant from the Department of Homeland Security's Assistance to Firefighters Fire Prevention and Safety program. The award of \$899,269 will fund research to find improved means of reducing heart attacks in firefighters - the leading cause of line-of-duty deaths - and slip, trip and fall injuries - the leading sources of line-of-duty injuries.

This project will provide a better understanding of the effect of fire fighting on the cardiovascular system, as well as the biomechanics of movement (balance and gait). In addition, the study will investigate the ability of novel personal protective equipment (PPE) concepts to counteract the deleterious effects of fire fighting activities on the cardiovascular system and biomechanics. Finally, the research team will test several predictive measures that may one day provide firefighters with an improved measure of their cardiovascular health and risk for heart attacks.

The "Cardiovascular and Biomechanical Responses to Fire Fighting and PPE" research project is designed to investigate the relationships between cardiovascular function, biome-

chanics and the design of personal protective equipment. Results of this research and recommendations will be distributed broadly throughout the fire service, with the intention to help decrease fatalities and injuries and improve firefighter safety and performance. **Researchers will recruit 120 firefighters to participate in fire fighting drills at the Illinois Fire Service Institute while collecting cardiovascular and biomechanical data** (see below). The project is expected to last one year.

The University of Illinois at Urbana-Champaign-based research team brings together the Illinois Fire Service Institute, the Departments of Kinesiology and Community Health, Psychology, Mechanical Science and Engineering, and the College of Medicine, plus two industrial partners, Total Fire Group and International Personnel Protection. Together, this team will develop and investigate personal protective equipment designs that will offer practical and effective solutions. Drs. Gavin Horn and Denise Smith will lead the research.

For more information about the research project, contact Gavin Horn at 217-265-6563.

Volunteers needed

Are you prepared to help your fellow firefighters by participating in this important research project?

Research participants needed.

This research project, "Cardiovascular and Biomechanical Responses to Fire Fighting and PPE," will investigate cardiovascular risk factors in relationship to fire fighting activities, plus will measure biomechanical responses related to those activities. Both activities will be evaluated by the influence of PPE.

The results of this research will be distributed throughout the fire service so that this information will be used to help decrease firefighter line-of-duty deaths and injuries.

Who is needed to participate?

This project is designed to engage 120 firefighters in the research. Each selected firefighter will receive \$100 for their participa-

tion. To be eligible to participate, you must meet the following criteria:

- Be a male firefighter and have received an up-to-date medical clearance from your department.
- Be between the ages of 18 and 50.
- Available to participate in the study between late September and late December.

Contact Gavin Horn at 217-265-6563 for more details.

Library Updates & Highlights

Illinois Firefighter Line of Duty Deaths (IFLODD) Grant Project: Head Librarian Lian Ruan, Archivist Adam Groves, and a project student team worked diligently on the LSTA (Library Services and Technology Act) grant project entitled "In Memory of our Heroes: Developing a Digital Image Collection of Illinois Firefighter Line of Duty Deaths (IFLODD)." As of July 2007, the IFLODD database contains records for 733 fallen firefighters and features 97 historical images contributed by a variety of Illinois fire organizations. Project staff will continue to enrich the database by adding summaries of LODD incidents, additional images, audio recordings and transcripts from oral history interviews. To view the IFLODD database, please visit <http://www.fsi.uiuc.edu/content/library/IFLODD/>. If you can contribute any information about fallen Illinois firefighters to the database, please contact Adam Groves at agroves@fsi.uiuc.edu, or 217-265-6107.

Information Use and Needs of IFSI Field Instructors Survey Project: With approval from Director Jaehne and the Research Review Board of the University of Illinois at Urbana-Champaign, Lian Ruan, Principal Investigator, is conducting a research project entitled "Information Use and Needs of Field Staff Instructors of Illinois Fire Service Institute." Five hundred field staff instructors throughout the state have been invited to participate in the project. The purpose of this study is to understand the IFSI field staff instructors' information needs and uses, and information seeking behavior. Through the study, we hope to conceptualize the type of information environment that best supports their activities and helps clarify the IFSI Library's priorities for the development of environments that are responsive to the context of their work. To fill out the online survey and know more about the project, please visit <http://www.fsi.uiuc.edu/content/library/instructors/>. If you need a hard copy of the survey, please contact Lian Ruan at lruan@fsi.uiuc.edu, or 217 265-6107.

2007 Chinese Librarians Summer Program: In partnership with Chinese University and college libraries, Lian Ruan organized the third annual Chinese Librarians Summer Program. Twelve librarians participated in the three-week study on campus and five more

librarians joined the group to visit cities and libraries across the United States. Director Jaehne presented a keynote address on special library management, while Executive Director Jesse Delia, UIUC International Research Relations, delivered a welcome speech. Associate Provost Dr. William Brustein also joined the welcome reception. The program was well received by all participants.



Lian Ruan
Head Librarian

Featured Titles Added to the IFSI Library:

- American Heat: Wildland Fire Investigation (VHS and CD-ROM) - Trinity Workplace Learning.
 - Basic Life Support: Healthcare and Professional Rescuers, 2007 (Book) - National Safety Council.
 - Brannigan's Building Construction for the Fire Service, 2007 (Book) - McGraw-Hill Higher Education.
 - Fire and Emergency Services Company Officer, 4th ed., 2007 (Book) - Fire Protection Publications, Oklahoma State University.
 - First Responder: Skills in Action, 2008 (Book) - National Safety Council.
 - Hazardous Materials Air Monitoring and Detection Devices, 2007 (Book) - Thomson/Delmar Learning.
 - Homeland Security and Emergency Medical Response, 2008 (Book) - McGraw-Hill Higher Education.
 - Introduction to Fire Protection, 2007 (Book) - Thomson/Delmar Learning.
 - Ladder Company Fireground Operations, 2008 (Book) - Jones and Bartlett Publishers.
 - Large Animal Rescue Video, 2003 (VHS) - USRider Leg-Up Fund.
 - Legal Considerations for Fire and Emergency Services, 2007 (Book) - Thomson/Delmar Learning.
 - Pulse: Surviving the EMS Profession (VHS and CD-ROM) - Trinity Workplace Learning.
- For lending information, please contact the Library (fsi@library.uiuc.edu or 1-800-437-5819).

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Building Corporate Relations

This past Spring and early Summer were exciting times at IFSI.

We have met with many companies and have developed several new partnerships that are helping the Institute to grow and fulfill its mission of helping firefighters do their work through training, education, information and research.

The 2007 Fire College and 2007 National Fire and Emergency Services Exploring Conference, which were both held in Champaign, were opportunities for past, as well as new, "Friends of IFSI" to provide both monetary support as well as equipment as gifts-in-kind donations.

Further, outside of Fire College and the Explorer Conference, sponsorships and donations have been provided by many other companies this past quarter to insure the continuation of our firefighter training and research programs.

We would like to again thank the following companies for their continued support this past quarter.

- State Farm Insurance
- Illinois Fire Chiefs Association
- Alexis Fire Equipment
- Illinois Fire Inspectors Association
- WS Darley & Co.
- Illinois Society of Fire Service Instructors
- Sub Aquatics
- MES Global
- Northern Illinois Chapter of the National Fire Sprinklers Association
- FGM Architects-Engineers
- SB Custom Designs, Inc.
- harVestco, LLC
- Cooper B-Line
- Firehaus Bar & Grill
- Growmark
- GSI Group
- Hurst
- Illinois Public Risk Fund
- McGraw Hill Companies

The University of Illinois Fire Service Institute is classified as a 501(c)3 tax-exempt non-profit organization by the Internal Revenue Service. As such, all monetary gifts or "gifts-in-kind" may be tax deductible for income tax purposes. Many of our sponsors and donors have found this to be yet another advantage when

helping the Institute fulfill its mission. One hundred percent of all donations made to IFSI go to IFSI programs.

The continuation of our mission is further exemplified by the new building we now have permission to build: the *Illinois Fire Service Institute Learning Resource and Research Center*.

This new facility will be built adjacent to the current headquarters in Champaign. Once completed, it will house an expanded library, an Illinois firefighter memorial hall, laboratory space, and an EOC training area. This expansion will allow IFSI to continue its cross-campus translational research in a variety of areas critical to enhancing the health, safety and security of firefighters.

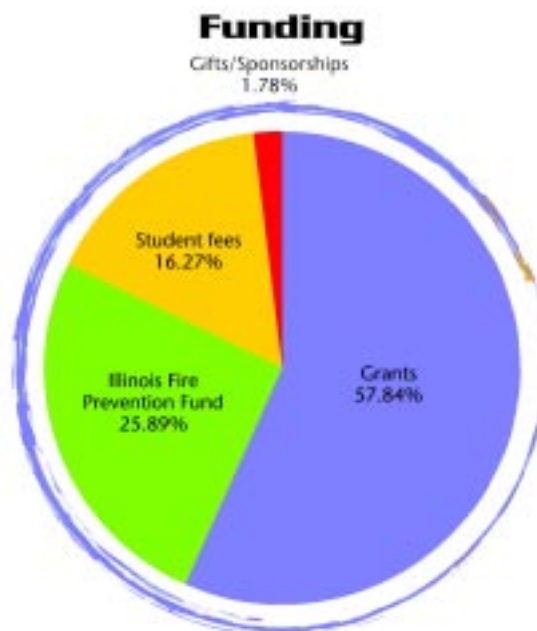
The Center will be a focal point for our corporate partners to work with IFSI on collaborative research that will improve products for the marketplace. We will be taking research from the laboratory directly to the fire training field.

This is an innovative project that is requiring the help of our colleagues within the University of Illinois, the State of Illinois, Illinois firefighter organizations and our corporate partners.

If you would like to learn more about the Center or ways you can be a part of the exciting changes at the Institute, please contact Dennis D. Spice, Director of Corporate Relations at 217-359-0671 or by email at: dspice@fsi.uiuc.edu.



*Dennis Spice
Director of
Corporate
Relations*



June was a busy month at IFSI



IFSI hosted the first HazMat validation exercise on June 26 - 27.



Explorers from 24 states competed at the National Fire & Emergency Services Exploring Conference from June 18 - 22. This group traveled from California.



IFSI hosted the fourth Technical Rescue Team (TRT) Validation exercises on June 6 - 9.



More than 1,000 firefighters participated in the 83rd Annual Fire College during the first week in June.



Ethanol (E-85) and Fire

Alternative fuels, including ethanol E-85, and alternative fuel vehicles are becoming matters of concern for the fire service. The fire service is affected in various ways, including the uncertainty of responding to vehicle accidents and fires where multiple fuel sources, known or unknown are present. More and more Illinois communities have or are contemplating local ethanol production facilities, and potentially every community faces the transportation of E-85 by truck or rail, and its use in vehicles on the roads.

I will briefly touch on some considerations regarding ethanol (E-85), since that is currently the primary alternative fuel being discussed in Illinois, but this is not an "all you need to know" article. Unfortunately, thus far, the discussions taking place in the news and in local communities regarding ethanol as an alternative fuel only deal with two main issues: one side speaks of how the economy will be helped and how much money the farmers can make by selling more corn, and the other raises concerns about the environment and the strain on local water supplies. Nobody in these discussions is talking about public safety and fire department needs and concerns. IFSI, OSFM, and the Illinois Fire Services Association (which includes all the major fire service organizations in Illinois) are working to formulate a rational fire service response to this new challenge. That will be made public in the future, but at this time I want to let you know they are working on it, and specifically that IFSI is working with the Renewable Fuels Association and others to formulate a training program to help you. We expect this training program to be available this fall. As with all fuels there are hazards, but the production, transporta-

tion, and use of ethanol can be done relatively safely, if proper precautions are taken. Likewise if something happens, fire departments can handle the incident if they are properly equipped and trained. As a thumbnail sketch, note that:

- Alcohol (which is basically what ethanol is) has been produced for many years.
- Ethanol burns with a nearly invisible flame.
- Water streams will not extinguish an ethanol fire.
- Most fire department foams will not extinguish an ethanol fire.
- Only Alcohol Resistant foams will extinguish an ethanol fire.

Handling an ethanol fire requires large amounts of Alcohol Resistant foam, an adequate water supply to produce the foam, and adequate eductors, pumps, and nozzles to apply the foam. Most fire departments currently do not have adequate resources to deal with ethanol incidents. If your community is considering an ethanol production facility, the fire department should become involved in the discussions in time to ensure that the plant is designed with adequate fixed fire protection systems, the roads to the facility are adequate to handle the heavy truck traffic to minimize accidents (ethanol is shipped by truck and rail, not pipeline), adequate foam and water are available on site (note, many petroleum refineries have 16 inch water mains and thousands of gallons of foam concentrate), and that the local fire department is provided with adequate equipment and training to handle both on-site and off-site incidents. IFSI can help with training. We will be producing information papers and offering classes this Fall.



*David F. Clark
Deputy Director*



**It's not too early to plan
ahead for
Winter Fire School**

**January 26 -27, 2008
Hilton Garden Inn,
Champaign**

Coming your way



The 2008 calendar will be in mailboxes by mid-October. Watch for your department's copy and begin planning your 2008 training schedule.



The "Down & Dirty Fireground Support and Aerial Operations" DVD will be distributed free to every Illinois fire department by the end of 2007.



**Illinois Fire Service Institute
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