

## From the Director's Desk

On behalf of the some 400 full and part-time staff at your State Fire Academy, I want to thank you for your continuing and growing support of our efforts to develop and provide services to help every Illinois Firefighter do their work. During the past year we have reviewed and updated our plans. In 1998, we developed and implemented a 5-year plan entitled Vision 2000, which focused on reaching throughout the State to deliver programs tailored to the needs of both volunteers and career firefighters, on enhancing and modernizing our training facilities, and on achieving financial stability. During 2003 we developed an updated plan entitled Vision 2010 to carry the Institute through the end of this decade. In January 2004, we shared this plan with both our statutory advisory committee members and with our field staff. They have endorsed the vision goals and have committed to helping us reach them.

We have included a description of each of the pillars in our FY03 Annual report, which is available on our web site at: <http://www.fsi.uiuc.edu/news>. Here are a few highlights:

\* **Homeland Security:** As a member of the Illinois Terrorism Task Force (ITTF) we are working with other first response disciplines to provide a common curriculum focusing on four areas (for details see the newsletter at: [http://www.fsi.uiuc.edu/Homeland\\_Security/documents/layoutfinal.pdf](http://www.fsi.uiuc.edu/Homeland_Security/documents/layoutfinal.pdf))

- \* Provide training Committee leadership.
- \* Provide common terrorism core curriculum for all Illinois first responders.
- \* Provide courses for crisis team members in incident command, unified command, HAZMAT Incident Management System and the National Incident Management System (NIMS).

\* Provide baseline training and support validation of statewide-deployable State Weapons of Mass Destruction (SWMDT) teams, Illinois Medical Emergency Response Teams (IMERT), regional HAZMAT and technical rescue teams, and law enforcement Regional Containment Teams. (RCT)

\* **Research:** We are routinely getting requests from researchers to partner to find technology solutions to first responder challenges. We hope to bring researchers and first responders together to define and prioritize your technology needs and to develop practical research programs to address them.

\* **College Degree Programs:** As you may know, the American Council on Education (ACE)

accredits more than 20 IFSI courses for college credit. In 2003, ACE accredited our Certified Firefighter II course (both resident and online versions) and our EMT-Basic courses and grandfathered the credit back several years. We are also working to seed fire prevention technology lectures into already existing courses in the College of Engineering at the University of Illinois.

\* **Programs for Firefighters:** Regardless of the additional challenges we undertake, our core focus remains training, educating and assisting firefighters. We have constructed new training simulators for rescue and fire training, and continue work to help develop regional training centers with local fire departments around the state. We look forward to our 80th Fire College

3-6 June 2004 - online registration will be available again this year. In 2004, we will be conducting pilot courses to conduct Fire Investigation modules in an intensive weekend format in the Metro East area, and a full Fire Officer Series with our new partner Southeastern Illinois College in Harrisburg.

We are also working with the Office of the State Fire Marshal and Illinois fire service leaders to restore and enhance the Cornerstone funding for FY05 and beyond. As you receive this newsletter you should be receiving the second installment of the Down and Dirty Firefighting Skills CD - on engine and pump operations, provided at no cost under a grant from the Illinois Firefighter's Association.

Our VISION 2010 effort is an attempt to look into the future and anticipate your needs and the new demands that will be placed upon you as first responders. We intend to ensure the Vision remains a living document, which grows and evolves as these needs and demands change. We intend to seek and incorporate your thoughts in this process and look forward to hearing from you.

Thank you,



Richard L. Jaehne  
Director



**See page 20  
for information on this  
summer's  
Annual Fire  
College.**

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Director  
Richard L. Jaehne

Deputy Director  
David F. Clark

Assistant Director for  
Chicago Metro  
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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***This could be your last IFSI newsletter.***

The IFSI newsletter is mailed to all fire departments in the state, IFSI field instructors and persons who have requested to be added to the mailing list. In an effort to save postage and printing costs and to be certain the newsletter reaches those who have an interest in receiving it, we are asking individuals to confirm that they want to continue to receive the newsletter. If you wish to continue receiving the newsletter, you must email or otherwise communicate your request to Terri Hopper at [hopper@uiuc.edu](mailto:hopper@uiuc.edu) or by phone at 217-244-7313. Fire Departments will continue to receive the newsletter regardless.

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Our web site has the most current class information

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

FY-03 was another year of exciting changes and growth for IFSI, and we expect 2004 to be even better. We are constantly seeking ways to better serve the firefighters of Illinois. This is our first responsibility. These efforts take many forms, from new and improved classes, increased use of technology for both instruction and administrative purposes, new on-site and mobile props, reaching out to non-fire first responders so we can work better together, and building new partnerships with a variety of people who want to help make Illinois safer. Let's look at a few of these things specifically.

Starting in mid-March we will offer Instructor-I and Management-I classes on weekends so that volunteers can more easily attend. These 40-hour certification classes will be held at IFSI in Champaign.

Similarly, certified Fire Investigation modules I, II, and III will be offered on Fridays and Saturdays this summer in the Metro-East area. This is a new trial format for delivering these modules, and we are hoping that it will work well for those in Southern Illinois who have difficulty attending weekday classes.

Various other weekend classes will be held at our Southeastern Illinois College/Harrisburg and other Regional Training Centers (RTCs).

I am quite pleased with the new "Engine/Pumping Operations" CDs, which IFSI produced for free distribution to every fire department in the state, thanks to funding from the Illinois Firefighter's Association. These are companions to the "Down & Dirty Fire Fighting Skills" CDs we produced last year. Animations illustrate how things work, and short videos show procedures. The CDs can be used by instructors to teach classes, or by individuals for self-study. I hope you appreciate as much as I do the efforts of those who assisted in producing these CDs. We intend to continue to produce additional CDs yearly.

Work has begun on the 80th Annual Fire College, which will be held June 3-6, '04. You can look forward to some new classes and additional props and facilities, plus a number of hands-on classes that are always well received. Career or volunteer, whatever your age, interest, or experience in the fire and emergency services there will be something of value for you. Please check our web site for details and registration information about Fire College. Come and bring a friend to the nation's oldest continuous fire school, and meet and interact with instructors and students

from throughout the United States.

Our catalog of on-line courses is expanding. The Certified Firefighter-II On-line continues to be popular, and we have added both HazMat Awareness and Emergency Response To Terrorism: Basic Concepts (ERT:BC) online. We will be working to add other Awareness level courses online in the future.

IFSI recently underwent the periodic review of several of our courses by the American Council On Education (ACE) for college credit. All of our courses, which were previously approved, were again accepted, plus we now have approval for 6 semester hours each for Certified Firefighter-II (retro-active for 5 years), Certified Firefighter-II Online (retro-active to the first class), and EMT-B (retro-active to the first class).

Similarly, last fall we submitted some additional courses to the National Fire Academy for "Endorsement." We received approval for Vertical Rescue-I and Fire Apparatus Engineer (FAE). Also, since they were approved by ACE, we anticipate receiving NFA "Endorsement" for Certified Firefighter-II and EMT-B. "Endorsement" qualifies courses for dual-certificates from IFSI and NFA.

We have recently constructed a large storage building for use by our Hazardous Materials Program. This will be much more efficient, because we have been renting space across town. Also, since we expanded our fleet of trailers and tow vehicles to enable us to conduct more specialized training classes on the road, we have installed two gravel parking lots for these vehicles. This makes our site more organized and safer.

During recent months IFSI has added several new full-time personnel, some of whom previously worked for us part-time. Greg Fisher, a long-time field instructor who has been overseeing the "Cornerstone" Program is now performing a variety of additional duties. Likewise, Bob Foster has now expanded beyond helping in the shop. Lynelle Looker is our new Assistant Librarian, and Jeff Courson is our first Director of Development. They are just examples of the many dedicated top qual-

# News & Notes

David F. Clark  
Deputy Director

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## News and Notes

continued

ity people who work full and part-time to help IFSI and you the firefighters of Illinois.

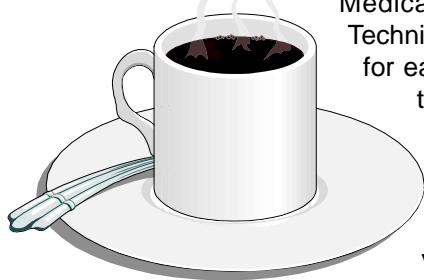
We recently received a "new" used engine from the Lockport Township Fire Department. This brings our apparatus fleet to four engines, one ladder tower, one snorkel, and one ambulance.

IFSI has been quite successful in building relationships with Engineering and other colleges on campus and beyond, and with private industry to foster research in fire and homeland security related topics. Hardly a week goes by that we are not approached by professors, grad students, and others interested in working with us on research to benefit the fire service and to make our country safer. We see this as a great opportunity for the fire service, and we are working hard to help in any way we can.

This year's budget for the "Cornerstone" Program, which enables us to provide no-cost basic training to you, was cut from \$300,000 to \$150,000. Obviously, this means we cannot provide as many free classes. It would be helpful if you would politely remind your state legislators and officials that this is money well spent, and you would like to see, and need, the funding restored and even enhanced to enable IFSI to provide more training for firefighters.

Please use our web site to update your student information in our files. We are now using driver's license numbers to track students, as we move away from social security numbers. Also, check our web site for classes near you, plus a wealth of other information.

## Table Talk



As you are aware, much activity is taking place throughout the State of Illinois in creating a system of state-wide response to a wide variety of Mutual Aid. The system being built will provide for Fire Suppression, Emergency Medical Services, HazMat and Technical Rescue Teams (TRT), for each of the regions created through the State by the Illinois Terrorism Task Force.

The fire suppression and EMS capability is provided through an expansion of the Mutual Aid Box Alarm System (MABAS), a concept that has served the Chicago Metro region well for over twenty years.

Fire Apparatus and EMS, exist throughout the State so it becomes a matter of formatting a response of existing equipment to fulfill the needs of an extra alarm incident. When the State was surveyed for technical teams, either HazMat or TRT, the pool was a little shallow. The Terrorism Task Force made a commitment to try and provide these resources to each of the regions of the State.

In the State of Illinois, Technical Rescue Teams have been identified. The Illinois Fire Service Institute has been charged with the administration and execution of the grant funds that have been ear-marked to provide train-

ing to first responders. The allocated funds are part of the Department of Homeland Defense efforts to establish adequate initial response to hostile acts that may take place in this country. It is the intention of the State to provide training, through the State Training Academy, The Illinois Fire Service Institute, to advance each of the recognized TRT teams to Level "A" status. This designation is awarded to teams that have required personnel, training and equipment, with team members trained to the highest level (technician) in the four core disciplines: Structural Collapse, Trench Rescue, Confined Space, and Vertical Rescue.

To maximize the allocated funding, tuition waivers can be requested for Technical Rescue courses approved through IFSI, in the four core subjects. To qualify, a team roster must be on file with me, as IFSI grant administrator, listing each team member, their Fire Department affiliation and training level they have attained in the core subjects. If you have any questions on this matter, give me a call at 815-834-9201 or contact me by email at [jmccastl@uiuc.edu](mailto:jmccastl@uiuc.edu).

**Stay safe, keep the faith. Give me a call, put the coffee pot on, and we'll talk.**

**"Mac" McCastland  
Assistant Director for Chicago Metro**

photo

The University of Illinois Fire Service Institute is proud to announce plans for the 80th Annual Fire College from June 3-6, 2004. This is the oldest continuous fire school in the nation, and the largest in the Midwest.

This year's theme is "Training for the 21st Century - Protecting our Communities and Ourselves." The keynote speakers will be members of the Illinois Fire Caucus, the group of legislators that are attuned to the needs of our fire service, and have put together the second caucus in the nation dedicated to meeting the needs of our country's first responders. Following their address, Dr. Denis Onieal from the National Fire Academy will update our firefighters on the status of our fire service at a national level.

As far as classes, expect to see the core courses that every firefighter needs to succeed. Recruit Fire Training, Core Competencies, Coordinated Fireground, SCBA, and Fighting Single Family Dwelling Fires will all be back. "Saving Our Own", Building Collapse Rescue, Farm Rescue, Confined Space Rescue, Trench Rescue, and Basic and Advanced Auto Extrication classes will again be offered. Myths and Realities will be offered on Thursday night. Come see how to operate a two-and-a-half line with limited manpower, why smooth bore nozzles are preferred over wide-angle fog for modern interior firefighting, and how to effectively use hand tools to your advantage.

Some of the classes that were run in the past will be modified based on your feedback from last year. Thermal Imaging Training will have access to more cameras than before, and will be offered twice. Commercial Building Operations has been expanded to be a 24-hour class. The Basic Fire Investigation class will be expanded to 24 hours, and now includes a hands-on module to get some first-hand experience with cause determination.

New this year will be a 24-hour class on the Essentials of Vertical Rescue, which is aimed to prepare rescuers to complete and assist in basic evolutions on rope. Like the other technical rescue classes offered at Fire College, this course will not meet the objectives of OSFM certification, but will train the rescuer to perform specific evolutions. Two new 24-hour programs will prepare EMTs and paramedics for working in the Hot Zone. One is aimed at preparing EMS personnel to provide patient care in a variety of technical rescue settings, and the other will focus on treat-

# 80th Annual Fire College June 3 - 6, 2004 "Training for the 21st Century -- Protecting Our Communities and Ourselves"

*Brian Brauer  
Fire Fighting  
Training Director*

ing a contaminated patient. Also new this year is a High Rise Operations class being taught by John Norman of the FDNY. Returning this Fire College will be a First In Officer Class, a 12-hour repeated class that will prepare senior firefighters and officers to get the first line into operation for an effective interior attack.

Also returning this year will be Dealing with Propane Emergencies. This Friday night session will be open to the public, and will allow firefighters with proper PPE to approach, contain, and mitigate a variety of LP scenarios, ranging from a twenty-pound cylinder to a bobtail truck, and other scenarios that have multiple hazards such as multiple fires or problems involving flame impingement. This impressive program will be funded by the Illinois Propane Education and Research Committee (IPERC).

This year will see the continuation of a few successful endeavors from the previous years. All participants will again receive a colored wristband to help us control access to our programs. These bands will again entitle you to discounts on food and beverages around Champaign-Urbana. For those taking hands-on classes, water bottles are being provided by Cabot Corporation to help keep you hydrated during your training. We will be offering lunch on-site from three vendors as we did last year, and will be expanding the menu and the schedule — we will now be serving lunch on-site on Thursday in addition to Friday and Saturday. We will also be having a vendor display room at the Chancellor Hotel and Convention Center, to allow firefighters and officers to get a feel for what products are available to help their departments.

A complete list of classes and a registration form will be available on [www.fsi.uiuc.edu](http://www.fsi.uiuc.edu) in early March. Like last year, your registration fees will be billed AFTER Fire College this year. We're also proud to announce that

**See page 20  
for information on this  
summer's  
Annual Fire  
College.**

*continued on the next page*

we are once again offering online registration to expedite the process of signing up for classes. Remember, you will be billed for any classes that you register for, even if you don't attend, unless you cancel before the deadline of May 15th.

A final change for this year is the fee structure. Based on demand from you, the firefighters that attend Fire College, we have

changed the fee structure so that you now pay only for the sessions you attend. In the past, if you attended only 12 hours (1 session) of Fire College, you paid for all 24. Effective this year, billing will be done by the session for 12-hour classes. You now only pay for the classes that you attend.

The fee per session is only \$50 (Down from \$60 last year), with a \$50 per session lab fee for hands-on classes. In the past, most of this lab fee was underwritten by a portion of the Cornerstone Grant that IFSI received from the Office of the State Fire Marshal. However, due to budget cuts at the state level this funding is not available this year to underwrite this portion of the Fire College.

**Watch the web site for registration information available in early March at [www.fsi.uiuc.edu](http://www.fsi.uiuc.edu), and we'll see you at the 80th Annual Fire College in June!**

## Library Update

*Lian Ruan  
IFSI Head  
Librarian*

Lian Ruan, IFSI Head Librarian was invited by Jesse White, Secretary of State and State Librarian, to serve on the Illinet Network Advisory Council for the Illinois State Library to represent special libraries.

Lynelle Looker, IFSI assistant librarian, has published an article for the Illinois Libraries. To access the article, go to <http://www.cyberdriveillinois.com>, Click Publications, Click Library/Literacy, Click Illinois Libraries.

In addition to Special Libraries Association's Steven I. Goldspiel Memorial Research Grant award for Lian Ruan and Professor Linda Smith, Graduate

School of Library and Information Science (GSLIS), University of Illinois at Urbana-Champaign, the Campus Research Board also awarded them a fund to support the project in October 2003. They have sent out the survey packets to 6 participating libraries to ask feedback. These libraries are: National Fire Protection Association Library; IFSTA Library;

New York State Office of Fire Prevention and Control, Academy of Fire Science Library; New York City Fire Department Library; Fire/EMS/Safety Center Library (Minnesota); and Na-

tional Memorial Institute for the Prevention of Terrorism Library. We plan to start survey data collection in January.

IFSI went international when Lian did two presentations at the Department of Information Management, Peking University (Beijing, China) in September. Her 2-hour talk was "Strategic Planning in American Special Libraries: A Case Study." She also did a joint talk with Professor Leigh Estabrook (GSLIS), entitled "Mr. Wang Chungmin's Contributions to the Library Education in China: When East Meets West, a Comparative Study." During her stay, she visited and met with three library directors: Mr. Longjing Dai and Mr. Qiang Zhu (Peking University Library), Mr. Xiaolin Zhang (Library of Chinese Academy of Sciences), and Mr. Jiangzhong Wu (Shanghai Library).

The IFSI library hosted the GSLIS Special Libraries Association Student Group for a field trip in October. The library also hosted 53 people from two Chinese delegations from the UofI's China's Executive Program in November.

The IFSI Library Materials link on the library's web site has been renamed the IFSI Library Virtual Bookshelf. Please visit the Virtual Bookshelf at:

<http://library.fsi.uiuc.edu/dbtw-wpd/newWeb/newMat.asp> or go to IFSI Library web site, <http://www.fsi.uiuc.edu>, click Library, then click Virtual Bookshelf under "What is New" (left side corner).



# New Course Under Development for Arson Investigation

One significant strength of the Fire Investigation Program conducted by the Institute has been the agency interaction fostered by the module classes. Firefighters and police officers have worked together in these class sessions to learn about each other's fields of professional practice. It has always been good to see how individuals from different agencies learn to work toward the common goal of fire and arson investigation.

From this interaction, Institute Instructors have identified the need to support additional training for police officers. Those officers who are planning on challenging the Firefighter II By-Pass exam, through the Office of the State Fire Marshal, have been "on-their-own" to study and prepare for this exam. Since the Firefighter II certification (or By-Pass) is required for police officers to obtain the Certified Arson Investigator status, Institute instructors decided to develop a workshop to assist in this effort. Last year Field Staff Instructors David Atkocaitis, Mike Wurtz and Bob Finn wrote and delivered a pilot program to assist the police officer who was planning on challenging the FF II By-Pass exam. The program consisted of one eight-hour classroom session each week for three weeks.

This format was used to allow the student time to read scheduled assignments and return to class with questions and discussion topics. While attendance to the class was small, it was discovered that 90% of the students passed the By-Pass exam on their first attempt. Instructors had heard from other police officers that had taken the exam in the past that it was not unusual to attempt the exam two or three times before successful completion.

The By-Pass Workshop was conducted again in January of 2004 to a larger registered class. Some changes to the class presentation included upgraded Power Point presentations, updated references and texts and a supplied student text for the workshop. Instructors hope that this preparatory session will help those challenging the Firefighter By-Pass exam obtain a first time success.

*Eddie Bain  
Investigation and  
Prevention  
Training Director*

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IFSI, as part of its continued efforts to make training more accessible to firefighters and other first responders, is offering Fire Investigation 1 - 3 classes in the East St. Louis Metro Area on Fridays and Saturdays this summer. Students completing Modules 1, 2 and 3 are eligible to apply for Certified Fire Investigator. To assure each student the full benefit of 40 hours of training, each training day will be a 10-hour day beginning at 7:30 a.m. There is a minimum enrollment of 35 students. The registration fee is \$200 per module.

Module 1 includes fire investigation operations, basic fire science, building construction, detection/suppression systems, fire patterns, origin determination, cause determination, motives, canine accelerant detection and a "burn cell" practical.

Module 2 covers communication, interviewing, fatal fires, insurance, evidence, electrical, legal, fire scene practical and group presentations.

Module 3 includes: explosives, financial, photography, drawings, reports, arson-for-profit, vehicle fires and vehical fire practical.

Registration information is available on the

## Summer Weekend Fire Investigation Series to be Featured in East Metro Area

IFSI web site at [www.fsi.uiuc.edu](http://www.fsi.uiuc.edu) or by calling Patty Wieland at (217) 333-8921.

Deadline for registration is April 12, 2004.

### Dates:

**Module 1: Friday & Saturday, June 11 & 12**

**Module 1: Friday & Saturday, June 25 & 26**

**Module 2: Friday & Saturday, July 9 & 10**

**Module 2: Friday & Saturday, July 23 & July 24**

**Module 3: Friday & Saturday, August 6 & 7**

**Module 3: Friday & Saturday, August 20 & 21**

# News from Web Based Training

Rich Valenta  
Coordinator

## **Web Based Training Chats**

Technology provides many advancements in E-Training. One of the most exciting is connecting with people from all parts of the globe to share information and ideas. Illinois Fire Service Institute offers a great monthly training opportunity to anyone who wishes to take a little time to create a login and password and then meet at a designated time on the web. The staff at IFSI strives to provide the most qualified individuals to host our training chat sessions. We hope you will take advantage of this training opportunity.

### **“Ask the Expert “Training Chat**

Sometimes the answers just can't be found in a textbook. That's why IFSI is offering this unique learning opportunity called Ask the Expert. Fellow firefighters, rescue personnel, instructors, and industry professionals join in a group chat tailored around a topic specific to emergency services. Find out how to solve a problem, find a piece of equipment or learn more about a hands-on approach to the hot topics of today.

Battalion Chief Don Hayde of the New York City Fire Department will be the next scheduled guest for a training chat. Battalion Chief Hayde is currently working with Special Operations Command of FDNY. He is a 27-year member of the department, where he has been assigned to Ladder and Squad Companies. Don has also offered his service to the volunteer firefighting ranks for 33 years on Long Island and serves as an IFSI instructor.

Chief Hayde will be offering a chat in March 2004. (Watch the website for specific date and time) Battalion Chief Hayde will share his knowledge on Structural Fire Attack: A systematic approach. Participants can exchange information on

- \* Initial fire attack
- \* Ventilation practices
- \* Rapid victim search

Visit the Virtual Campus of the IFSI web site for the latest Guest Chat schedule, and access information at:

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

## **RIT Under Fire: Rapid Intervention Team Operations June 14 - 18, 2004 IFSI Champaign Campus**

IFSI R.I.T. UNDER FIRE will instruct tactical and strategic rapid intervention operations using repeated “Mayday” deployments into various types of occupied structures using live fire conditions, a review of firefighter injury and fatality case studies, demonstrations and lecture material. This program is designed for the ranks of firefighter, company officer, and chief officer. The firefighter who will operate under the direction of a R.I.T. company officer will execute tactical skills such as search operations, victim extrication, and disentanglement. The company officer will direct and manage the search operation, size-up conditions, and execute the rescue.

The chief officer will manage the rescue sector and a R.I.T. sector by executing multiple search and rescue action plans and accountability.

There will be two tracks for students in the course - Company level and Chief Officer level. Enrollment in both tracks will be limited. Please submit a resume and cover letter to assist the course coordinators in making selections.

Course fee: \$600 Prerequisite: IFSI Saving Our Own skills recommended.

**To learn more, visit the IFSI web site and click on “course descriptions” on the left side.**



# Illinois Fire Service Institute Web Site

Rich Valenta  
Coordinator

With the constant flow of information and ever changing course offerings at IFSI, Director Jaehne made a commitment in the Spring of 2002 create the third generation of the IFSI Web Site. This commitment would provide a different type of web site that would provide a source for the latest IFSI information as well as an interactive means for visitors to obtain services provided by the Institute. In keeping with this commitment Web Based Training maintains the IFSI web site and is pleased to share several of the many options that we offer to you. We encourage you to visit our site often. In many cases changes take place on a daily basis.

## ***On-line Registration***

Students can now register for selected classes online. Online registration offers a one-stop source for course information, course offerings, with a direct link for registration. An authorization pin number is needed to register on-line. Please visit our site for further information: [https://www.fsi.uiuc.edu/online\\_registration/info.cfm](https://www.fsi.uiuc.edu/online_registration/info.cfm)

## ***IFSI Survey***

In an effort to provide the best possible service to you, we offer an in-depth survey. We encourage you to fill out the survey form anytime that you feel the need to share or obtain specific information with us here at IFSI.

[https://www.fsi.uiuc.edu/ifsi\\_survey/index.cfm](https://www.fsi.uiuc.edu/ifsi_survey/index.cfm)

## ***Online Courses***

IFSI offers a variety of online courses. Many are provided at no charge to you. Virtual Campus of the IFSI web site has the information about these classes along with login access. We have courses under development so visit for the latest updates.

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

***As a quick reference you can find out the latest institute information in the NEWS section of the site. Please make sure to visit specific program sites for updates as well.***

## ***Student Information Update***

We will no longer use your social security number as your personal identification number, although we will still collect your social security number for billing purposes and reporting of training to the Office of the State Fire Marshal. Your driver's license number will become your personal identification number. The use of the driver's license is the first step in developing a national identification system for responders to emergencies. This identification system will provide an added layer of security for emergency response agencies during multi-jurisdictional incidents. Your driver's license will also serve as the identification number along with a secure password that will provide you access to our Online Student Center, which will be operational soon. With the increased demand for online services and programs, this Student Center will provide secure access for those who participate in Institute web related activities.

[http://www.fsi.uiuc.edu/news/student\\_info\\_update.cfm](http://www.fsi.uiuc.edu/news/student_info_update.cfm)

***Please take a minute to visit our web site and update your personal information.***

***Look us up  
at FDIC --  
Booth  
#5356***

# State Instructor Program

Nancy Mason  
Hazardous  
Materials and  
Terrorism  
Training Pro-  
gram Director

Within law enforcement and the fire service there are over 70,000 responders in Illinois that require training based upon their commitment to response. Each year there is a 20% or higher turnover in personnel for these occupations. The State of Illinois built the need for basic CBRNE and WMD training upon the principle that to achieve the goal of reaching these responders training would need to be delivered by means of direct delivery and to provide train-the-trainers, so local "trusted agents" could then provide a portion of the base level training.

The Illinois State Instructor program, provides responders with the means to train the basic courses at the local level by certifying instructors to teach the standardized curriculum supported by State funds. State Instructors are provided training materials and equipment and a means to professionally certify their employees, thus allowing local law enforcement, fire service and other public agencies to utilize a cost effective means to deliver training locally.

The program began under the HMEP grants and has been used by law enforcement, emergency management personnel, and the fire service of Illinois since the late 90's. The number of hours of training vary based upon the job classification of the public sector employee. Each State Instructor is versed on how they should utilize the curriculum based upon which audience they serve, thus fire instructors can teach law enforcement, law enforcement can teach fire and public works can be taught by law enforcement, fire or emergency management, which encourages interagency cooperation as instructors share resources. The program was established to provide curriculum at the baseline and operations level for local communities to deliver to their responders. Four programs currently make up the first two tiers of training:

\* **Awareness** - Contains both terrorism and hazardous materials awareness level material.

\* **Operations** - Provides responders with the practical skills to do defensive work actions at the scene of a CBRNE incident. It also qualifies the responder to respond to hazardous materials emergencies. Includes Donning and doffing chemical protective clothing, SCBA and/or respirators, basic command structure, hazard analysis, monitoring and decontamination principles.

\* **NFA Emergency Response to Terrorism Basic Concepts** - Provides responders with basic knowledge on implementing self-protective measures, scene security, and tactical considerations when dealing with terrorism.

\* **Hazardous Materials Incident Management System** - Provides responders with skills necessary to direct and coordinate all aspects of a CBRNE incident including knowledge of

and the ability to implement the incident management system, implementation of emergency response plans, the decontamination procedures, identifying potential action options, evaluation of the planned response, documentation, and final termination requirements.

\* **Clandestine Laboratories** - In development - Designed to assist local responders with basic knowledge on self-protective measures, scene security and tactical considerations when responding to laboratories associated with the development of CBRNE clandestine products. The course will provide examples of precursors that may be present at the make-shift laboratories, how to identify the difference between CRRNE labs and the stage of production of the products, state protocol on sampling and state and local resources available to the responder when if and when assistance is required. Primary audience is the baseline capability level.

Three courses used in the State Instructor program are offered online: Awareness, Awareness Refresher and Emergency Response to Terrorism: Basic Concepts.

## **Support of Student and Instructor Training**

Funding for revision and the prerequisite training necessary to use the curriculum has been co-sponsored by the Illinois Emergency Management Agency (IEMA) and the Illinois Fire Service Institute (IFSI) through grants from the Federal Emergency Management Agency and the Office of Domestic Preparedness (ODP). The instructional and student materials are packaged into training kits which contain all the necessary supplies to deliver the programs, but remain the property of the State of Illinois. In order to utilize the instructional materials, the trainers must become certified as a State of Illinois Instructor.

The curriculum is PowerPoint ready and has a student text designed to provide a complete educational package for the Fire Service. Instructors receive training on both how to deliver the presentations and also on how to complete the practicals required for Operation level courses.

State Instructors are permitted to borrow the kits located at Regional Training Sites throughout the State or by reservation from the IFSI lending library. The IFSI library provides Instructor, Student kits, video or reference materials necessary for instructors to deliver the program. There is no charge for the service and all the State Instructor will need is a local library card to gain access to the material.

State Instructors that are trained to deliver the Operations class are also approved to utilize the State Training Trailer, which contains the necessary equipment, supplies, and props to complete all the practicals required for certification. This trailer is available on a first-come first-served basis. It is reserved utilizing the Request for Training

form available from IFSI. If approved, the host department will sign an agreement to maintain the equipment while it is within their jurisdiction. A facilitator is provided to transport the trailer and to assist with the distribution of equipment while the practicals are being completed.

### **State of Illinois Instructors**

All training held under the federal grants for Hazardous Materials Emergency Response is required to meet CFR 29, 1910.120 (q). Attendance of prerequisite training, instructor development and the signing of a contractual agreement outlining the terms in which State Instructors may utilize the public resources are necessary to ensure that courses meet both federal and state regulations.

Criteria for Becoming a State Certified Instructor:

- \* Approved application that reflects successful completion of instructor development course or equivalent (a copy of Instructor I or equivalent certification required for verification)
- \* Successful completion of the course you are requested to teach
- \* Successful completion of the Train-the-Trainer Memorandum of Understanding (MOU)

### **Authority of State Instructors**

Upon completion of a Train-the-Trainer, qualified instructors will be issued an identification number, which provides authorization to teach the class and to acquire certification through one of the following agencies based upon their audience's requirement for professional certification:

- \* Illinois Fire Service Institute for firefighters
- \* Illinois Law Enforcement Training and Standards Board (ILETSB) for law enforcement
- \* Illinois Emergency Management Agency (IEMA) for all other public sector employees

### **Certifying Agencies**

IFSI, IEMA and ILETSB each have their own assigned State Instructors, thus each agency provides certification to the student who successfully completed training taught by their assigned State Instructors. IFSI, IEMA and ILETSB are also responsible for monitoring the needs and confirming qualifications of the State Instructors assigned to their agency. Fire instructors report to IFSI, who then review the State Instructor's required paperwork and prepare documentation for certification from the State and Federal Agencies.

Supplies, instructional kits and student materials are supported by the ODP funding through the lead agencies. IFSI is responsible for maintaining trailers, props, and instructional supplies for all training above the Operations level for the State Instructor Program.

Each State Instructor is required to go through an annual refresher at the level of which they are certified to teach. If they fail to meet the qualifications required of them, they will be placed on the

Inactive List and no longer allowed to teach until they meet the required criteria. Instructor refreshers are held regionally, available sites are posted on the IFSI website and instructors are required to fill out a registration form to confirm their attendance.

### **Who Should Be Trained?**

Those included in the training provided by the Training Objectives established by the Illinois Terrorism Task Force include law enforcement, firefighters, emergency medical personnel, civilian volunteers, city and state public employees and emergency management agency personnel.

The Illinois Fire Service Institute provides training through direct delivery and support of regional training sites and mobile training units utilizing homeland security funding provided to the State of Illinois. This training is not limited to the fire service. Most courses are offered as open enrollment courses and specialized training is done for the MABAS, RCT and SWMD teams.

Regional Training is supported at the following locations statewide:

Beardstown Regional Training Site  
JoDaviess County / Galena  
Kankakee County ESDA  
Carbondale Regional Training Site  
Macomb Fire Department  
Cherry Valley Fire Protection District  
NIPSTA / Glenview  
Decatur Fire Department  
North Palos Fire Protection District  
East Moline Fire Department  
Northlake Fire Protection District  
Effingham Fire Department  
Ottawa Fire Department  
Frankfort Fire Department  
Scott Air Force Base Fire Department  
Galesburg Regional Training Site  
Southern Kane County / Aurora  
Gardner Fire Department  
Illinois Fire Service Institute, Champaign  
Gurnee Fire Department  
Tinley Park Training Site  
Peoria Fire Department

**Watch for details on a Train-the-Trainer course being offered for EMS professionals at this summer's Annual Fire College.**

# Auto Extrication Program Update

Duane Bales  
Auto Extrication  
Coordinator

Toward the end of last year, the Washington Post published an article about a fire department that had just extinguished a small fire in the floor of a vehicle. The Fire Chief heard two loud explosions that sounded like shotgun blasts. When the Chief returned to the vehicle, he found one firefighter lying unconscious in the front seat of the car and another firefighter wandering around in a daze. The vehicle's front air bags had deployed in their faces. One of the major news networks did an article on the hazards that rescue workers face at accident scenes because of the new safety devices installed on today's vehicles.



*A 2003 SUV was set afire at IFSI to document some of the hazards that firefighters might encounter when dealing with a vehicle fire on a newer model.*



Around September, Ford Motor Company is coming out with their version of the hybrid car that will be comparable with the Toyota and Honda hybrids already out. Little information is available on the Ford hybrid at this time, but more and more hybrids will be out on the roads.

When we did our last 40-hour Vehicle/Machinery Operations class, we took one of the 2003 SUVs and set it on fire, documenting some of the hazards that we observed during the fire. In addition to all the airbags that went off at various intervals during the fire, the AC lines going to the back ruptured and ignited. One of the biggest explosions occurred when the drive shaft exploded. According to a State Farm Insurance research representative, today's drive shafts are nothing but a hollow aluminum shaft which can explode when heated.

In the photo (bottom) you see the front core support of a Ford 2004 pickup truck. The mounting is made of magnesium, which means that you will see fireworks when water is applied. Magnesium was basically eliminated years ago in vehicles, but recently it is making its way back into vehicles because of its lighter weight. I have a photo of a truck being hauled on a transporter that caught fire when firefighters applied water. Needless to say, you know what happened next. We can't emphasize enough the importance of SCBAs on vehicle fires.

The State Fire Marshal Ad Hoc Committee for Vehicle/Machinery is working on the Technician level certification program. This program is slated to be ready by January 2005. In order to take the class for certification, you must have been certified in Operations. Check the IFSI website or 2004 calendar for scheduled dates for the Transition and Operations classes. If you have any questions, feel free to call me at (618) 920-5901.

# Another DUI

*Cathy Eide  
EMS Training*

In 2001 more than 49,000 people were arrested for drinking and driving in Illinois. According to State Police Director Larry G. Trent, last year 107 persons lost their lives on Illinois roadways in the month of December,

of which 43 of the deaths were alcohol related.

The National Institute of Alcohol Abuse and Alcoholism documents that in 2000 total traffic related fatalities reached 41,945 of which 31% were alcohol related.

## **Blood Alcohol Content Table**

This table shows the effects of alcohol on a normal person of a given body weight. Please do not take this table as a license to drink irresponsibly. Everyone is different, and alcohol affects each person in a slightly different way. Only you know your limits. Please drink within them.

One drink equals:

- \* 1 oz. 86 proof Liquor, or
- \* 3 oz. wine, or
- \* 12 oz. Beer

Levels of Intoxication:

- \* BAC less than .05% - Caution
- \* BAC .05 to .079% - Driving Impaired
- \* BAC .08% & up - Presumed Under the Influence

Body Weight	Number of Drinks								
	1	2	3	4	5	6	7	8	9
100	0.032	0.065	0.097	0.129	0.162	0.194	0.226	0.258	0.291
120	0.027	0.054	0.081	0.108	0.135	0.161	0.188	0.215	0.242
140	0.023	0.046	0.069	0.092	0.115	0.138	0.161	0.184	0.207
160	0.020	0.040	0.060	0.080	0.101	0.121	0.141	0.161	0.181
180	0.018	0.036	0.054	0.072	0.090	0.108	0.126	0.144	0.162
200	0.016	0.032	0.048	0.064	0.080	0.097	0.113	0.129	0.145
220	0.015	0.029	0.044	0.058	0.073	0.088	0.102	0.117	0.131
240	0.014	0.027	0.040	0.053	0.067	0.081	0.095	0.108	.0121

This table shows the effects of alcohol within one hour on a normal person of a given body weight. Please do not take this table as a license to drink irresponsibly. Everyone is different, and alcohol affects each person in a slightly different way. Only you know your limits. Please drink within them.  
(BAC Table re-printed with permission from the Illinois State Police)

## **Signs & Symptoms**

Alcohol is a central nervous system depressant. The more alcohol that enters the bloodstream the more vital body functions become depressed. At high levels blood pressure, pulse and respirations can decrease. Expect to see the following changes in vital signs in someone who has had too much to drink.

## **Vital Signs**

Common signs and symptoms of CNS effects due to acute alcohol poisoning are similar to the signs and symptoms seen in patients who are hypothermic or suffering from high altitude cerebral edema. The person's gross motor coordination has been impaired leading to falling and stumbling. The individual may become belligerent and even violent. The

***A 24-hour EMS Rescue Operations class is being offered at this year's Fire College. Visit the IFSI web site for complete information.***

*continued on next page*

## Acute Alcohol Poisoning

How alcohol affects the brain:

Part of Brain	Controls	Effects	Blood Alcohol Level
Cerebrum	advanced functions like recognition, vision, reasoning, and emotion.	lowers inhibitions, and affects judgement. As alcohol levels increase, vision, movement, and speech are impaired.	.01% -.30%
Cerebellum	coordinating movement	problems with coordination, reflexes, and balance	.15-.35%
Medulla	basic survival functions such as breathing and heartbeat	your brain's ability to control respiration and heart rate is severely diminished. Your heart rate can drop and breathing cease, causing death	as low as .30%

person may be incoherent. This “drunken behavior” it is in fact a clear indication that higher brain function is impaired. This is someone who has begun to slide down the AVPU scale. As more alcohol is absorbed into the bloodstream “drunken behavior” can have tragic consequences.

It is important to do a thorough physical exam and history before ruling out either alcohol poisoning or hypothermia, as a misdiagnosis in the field can lead to inappropriate treatment. If the person were hypothermic we would immediately begin active steps to re-warm the person. If the person were at high altitude, we would start to get them to descend immediately before they became unable to walk. Should we do anything less aggressive in our treatment of someone who has a compromised central nervous system caused by alcohol rather than by cold or high altitude? The impact of alcohol on the brain is just as potentially deadly.

Always follow your local EMS system protocols.

BLS Treatment Includes:

1. Assure ABCs.
2. Oxygen via non-rebreather mask. Consider airway adjunct and hyperventilation with 100% oxygen for markedly decreased LOC, inability to maintain a patient airway, or for GCS <8.
3. Provide supportive measures.

4. Transport to designated hospital.

5. Contact Medical Control for any questions or problems.

ALS Treatment for acute alcohol intoxication includes:

6. Assure ABCs.

7. Oxygen via non-rebreather mask. Consider intubation and hyperventilation with 100% oxygen for markedly decreased LOC, inability to maintain a patient airway, or for GCS \* 8.

8. Initiate IV of lactated Ringer's TKO.

9. Attach cardiac monitor and pulse oximeter.

10. Determine serum glucose level with Glucometer or DextroStix.

o If glucose < 80 mg/dl, administer 25 gms 50% Dextrose IV.

o If glucose > 80 mg/dl and < 250 mg/dl, go to step #6.

o If glucose > 250 mg/dl, go to Hyperglycemia Protocol.

11. If history suspicious for alcoholism, administer 100 mg thiamine IV OR IM.

12. If history of drug abuse, and patient has constricted pupils or respiratory depression, administer Narcan 1.0-2.0 mg IV.

13. If history of possible Benzodiazepine usage, administer 0.3 mg of Flumazenil (Romazicon) IVP over 30 seconds. Repeat as needed to a maximum dose of 1.0 mg.

14. Provide supportive measures.

15. Transport to designated hospital.

16. Contact Medical Control for any questions or problems.

*Resources:*

- 1) Illinois State Police
- 2) Illinois Secretary of State DUI Fact Book

- 3) The National Institutes of Health; National Institute on Alcohol Abuse and Alcoholism
- 4) National Highway Traffic Safety Administration; Department of Transportation; National Standard Curriculum.
- 5) Centers for Disease Control
- 6) American Academy of Family Physicians

Vitals	Early Signs	Late Signs
AVPU	Alert; possibly confused and/or combative	Decreasing to V = response to Verbal stimulation, P = response to Painful stimulation, the U = Unconscious
Respiratory Rate	Normal	Decreases
Pulse	Normal	Decreases
Blood Pressure	Normal	Decreases
Temperature	Normal	Normal
Skin	Red, flushed from vasodilation (evident in lightly pigmented people only)	Pale, cool, clammy

## Basic and Advanced Disaster Life Support Classes to be Offered March 24 - 27, 2004

The Illinois Terrorism Task Force has approved the Basic and Advanced Disaster Life Support (BDLS & ADLS) class being co-sponsored by IFSI and Region 6 POD. The 3-day course is being offered for \$600 with an additional \$100 fee for Instructor Coordinator training. An additional Train-the-Trainer fourth day is available to those who are recommended by course instructors. Members of Illinois' IMERT, SWMD and RMERT specialty teams and recommended participants from POD hos-

pitals may take the course for a reduced amount of \$300 for all four days. The reduced fee is intended to help offset the total cost being incurred by Region 6. All participants must have a sponsoring organization. Those not recommended will be invoiced the full course fee of \$600.

For complete information, contact Cathey Eide, EMS Training Coordinator at 217-333-4215 or by email at [ceide@uiuc.edu](mailto:ceide@uiuc.edu).

**Look us up  
at FDIC --  
Booth  
#5356**

# The Illinois Fire Service Institute Scholarship Committee

*H. Stott*

One of the characteristics of the Institute is not just the technical training in fire service subjects, but also the presence of a committee that helps provided the opportunity for firefighters to receive that training.

The IFSI Scholarship Committee was loosely organized in 1990 to provide a mechanism for fundraising. The intent was to collect money to assist field staff instructors so that they could attend classes, seminars and schools at little or no expense. In the past 13 years, the committee transitioned to the point where they now fund 4 scholarships that are matched and distributed by the Illinois Fire Chief's Association, Research and Education Foundation. Currently, \$500 scholarships are matched by the Chief's Association to create a total scholarship of \$1000.

One scholarship is named after former IFSI director Gerry Monigold. Another is named for the late Dean Mercer, a former IFSI instructor. Recently the committee approved an additional scholarship named for IFSI field instructor, Andrew Fredericks of the FDNY, who lost his life on September 11, 2001.

A significant component of the committee's fundraising capability is the voluntary annual contribution made by IFSI field instructors. It is requested that each instructor make a contribution equivalent to two hours of instructor's salary, generally \$50. Along with the fundraising item sales, these contributions have created a current endowment of approximately \$65,000. Sales of IFSI window stickers at Institute classes has been the most recent activity for the committee's ongoing fundraising efforts.

In addition to the scholarships given through the Illinois Fire Chief's Association, the committee also provides a mechanism for IFSI instructors to receive grants to conduct research projects, attend seminars or conferences, or to underwrite special projects.

To obtain further information on the Institute's Scholarship Committee and how to contribute, contact Marcia Miller, Director of Budget and Resource Planning at 217-333-3800.

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## EMS Classes Approved for CEUs

The following classes have been approved by the Illinois Department of Public Health (IDPH) for continuing education credits for 2004.

### **EMS**

Auto Extrication for EMS  
Confined Space/Trench Rescue Awareness for EMS  
Fire Fighter Rescue Awareness for EMS  
Fire Ground Operations for EMS  
EMS HazMat Operations  
Ice Rescue Awareness for EMS  
Incident Command for EMS

### **Rescue**

Auto Extrication I  
Auto Extrication Technician II  
Confined Space Rescue Awareness  
Confined Space Rescue  
Confined Space/Trench Rescue Awareness  
Grain Bin Awareness  
Grain Bin Rescue

Ice Rescue  
Structural Collapse Awareness  
Structural Collapse Operations  
Structural Collapse Technician  
Technical Rescue Awareness  
Trench Rescue  
Vertical Rescue I, II and III

### **HAZMAT**

Emergency Response to Terrorism (ERT):  
Basic Concepts  
ERT: Tactical Considerations:  
Company Officer  
Hazardous Materials  
Emergency Medical Services  
ERT: Strategic Considerations:Command  
Haz Mat Awareness  
First Responder Operations Awareness (24)  
First Responder Operations  
Technician A  
Technician B  
Incident Command for Hazardous Materials



# IFSI Offers a New Course for the Rope Rescue Technician

The Illinois Fire Service Institute has developed a course to train rope rescuers at the technician level. The objectives of the course were derived from the NFPA 1006 Standard for Rescue Technician Professional Qualifications, the NFPA 1670 Standard on Operations and Training for Technical Rescue Incidents (technician level), the OSFM Rope Rescue - Week Two, and IFSI's past programs of Week One, Week Two and Week Three. More than 90% of the course is designed to be practical skills development. Objectives include rappelling, pick-offs, line transfers, movement of the litter basket in a wide variety of configurations and environments, high lines for rescuers using an English reeves system, high lines for litter basket transfer and climbing rope. Skills will be developed and practiced in both wet and dry conditions. Rescue scenarios will be practiced in low light conditions, requiring the use of headlamps.

Due to the time required for the objectives to be completed and the number of skills to be covered, the course will be two weeks in length. The first course will be offered the weeks of March 22 and 29. The second course will be offered the weeks of May 3 and 10. Students may register online or by using the standard IFSI registration form. The OSFM certification for Rope One (Ropes and Rigging) is a prerequisite for this course.

Personal protection equipment for the course includes harnesses, ascenders, helmets and headlamps and will be provided. The course is designed to provide advanced rope skills needed by the state's new regional technical rescue teams.

*Bill Renaker  
Technical  
Rescue Training  
Program  
Director*



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## March - April Rescue Classes

### **March 1 - 5**

Structural Collapse Operations  
Confined Space Rescue Operations

### **March 8 - 12**

Vertical Rescue Operations  
Trench Rescue Operations

### **March 15 - 19**

Vertical Rescue Technician (week 1)

### **March 22 - April 2**

Vertical Rescue Technician (week 2)

### **April 2 - 4**

Structural Collapse Rescue Operations  
(held at Frankfort Training Center)

### **April 5 - 9**

Confined Space Rescue Operations

### **April 12 - 16**

Trench Rescue Technician  
Structural Collapse Rescue Technician

### **April 17**

Large Truck Extrication

### **April 18**

Bus Extrication

### **April 19 - 20**

Vehicle/Machinery Transition

***Complete class descriptions and schedule can be found on the IFSI web site at:***

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

# Aerial Checklists

J.R. Rutledge  
Distance  
Learning  
Educator

*"The magical Number Seven plus or minus 2: Some limits on our capacity for memory for processing the information."*

George A. Miller  
The Psychological Review, 1956, vol.  
63, pp. 81-97

Anyone involved in training should remember the number seven, plus or minus 2. Frankly, if you are anything like me, expect the worst and stick to five. In other words, don't try to give me more than five things to remember at a time. Break your procedures down to chunks of information and master those. Then move on to more. It's a formula we've used with Smoke Divers for years and it still works today.

In the fire service we often fall back on the age old excuse that it is an emergency. The implication is that because our job involves some risk and a great deal of responsibility we are exempt from the rule of seven. Sorry, that just isn't true. Experienced firefighters know that and airline pilots certainly do. But, don't believe me! Try this drill/test!

Dig out a copy of your aerial devices operator's manual. I don't mean the one covered in training class, or the published SOP, but the one sent to the department from the manufacturer when your department took delivery of the aerial. Most of these manuals quickly go into a file drawer someplace and reappear in one form or another as Aerial SOP on how to place the rig into service. Comparison of the manufacturer's procedure and the SOP may vary, but only at risk and liability. Take a half hour and write down the manufacturer's procedure step by step in sequence labeled 1, 2, three . . . as a sequence should be labeled. Be sure to leave some room on the right another column marked correct/incorrect. Have one check for each operator you are going to test and be sure to have a spot for the name. If you elect to time the evolution, create a spot to write the total time elapsed.

Now, armed with several of your checklists, a traffic cone and stopwatch, head out to an open area of your station parking lot or training area and drop a traffic cone on the ground. Ask your driver/operators to stand off a about 100 feet, then at your signal, drive up and stop by the cone and place the ladder or tower up in the air. You can start the stopwatch when they stop and again when the ladder/aerial starts out of the bed. Remember, your primary task is the correct sequence so it is very important for you to note the steps in the procedure the driver/operator uses as being either correct or incorrect when performing the task. Be honest in your evaluation. Remember, this is not the time to re-teach the procedure. This is designed to be a test. The truth may hurt but it is

sometimes the best way for us to improve. Naturally, common sense should prevail and any unsafe procedures should be stopped immediately.

Is the published procedure being followed by everyone? Are there unsafe events taking place? Do some operators seem to do it faster than others?

If your department is like any of the ones I've tested you get a wide variety of methods and times. We'd expect performance to increase with departments who use these rigs daily but this is not often the case.

Don't be too quick to bring out the faults to your operator/drivers. Remember, if they aren't doing it right perhaps they weren't taught correctly. Most people don't come to work each day hoping to screw up and make mistakes. Look deeper into the problem. Before finding fault with them, take a look at their training and see if there is something you did not do. Often the answer to many training problems is looking back at you in the mirror.

The problem is probably related to that magic number seven mentioned earlier. The sequence to erect an aerial ladder just might be a bit long for someone to remember. Sure if you do it every day you'd think they would get it right, wouldn't you? But, hey why do you think airline pilots still use checklists. Because they know they might forget. What makes firefighters think they won't forget, especially when things are getting hectic.

Remember an old fighter pilot saying,  
*"You don't rise to the occasion  
you default to your level of training."*

How can we safely put up ladders and aerial devices before we have an accident? First, make sure you adhere to the manufacturer's recommended procedures. Sure, Captain Bigbody of the Know It All Fire Department will blow you off on this one and claim he puts it up daily on one outrigger. Well just picture yourself in court on the witness stand explaining how you did that.

Second, create a ladder/aerial device checklist. This aids in putting up a ladder or aerial safely and correctly each and every time.

Here are some guides and caveats in creating your checklist along with an example.

- \* Design for single operator (Drivers/operators should perform entire procedure by themselves to ensure completion of all items)
- \* Break your checklist down into areas of work (Cab, Side/Rear Panel, Outriggers, Operator's Station etc.)
- \* Print actual switch position text (When positioned correctly) (See sample)
- \* Place in strategic place (Where it can be seen and used)
- \* Weather and Waterproof exterior checklists
- \* Print checklist using large readable fonts
- \* Leave plenty of white space for easy read-

ing

\* Ensure they are maintained (Sunlight fades)  
Now, repeat your drill/test using your checklist.  
You probably won't set any speed records, but  
in the heat of battle we want it done safely.

As you adapt the checklist for your fire department you may want to gather some times for each driver/operator. You'd be surprised what a colorful bar chart can do to your drivers/operators performance when they are put up for everyone to see. Using competitive times can help foster some

healthy competition if desired. Just be sure to create heavy time penalties for safety or other concerns you might have. That way the emphasis of the test/drill always stays with safety not time.

One thing for sure, you and your driver/operators will learn something. Perhaps there are some other areas within your department where a checklist can enhance your procedures.

If you want a sample checklist Evaluation form e-mail me at [jackrutledge@mindspring.com](mailto:jackrutledge@mindspring.com) and I'll attaché a copy for you to modify. Good luck and if you have any comments, suggestions or need some details please call me at 770-631-8824.

### Ladder Check List

Used to ensure aerial ladder is set up correctly. Laminated and placed in strategic location, depending on ladder set-up procedure.

#### CAB

- |                             |                |
|-----------------------------|----------------|
| 1. Front Tires .....        | Straighten     |
| 2. Brakes .....             | Set            |
| 3. Shift Lever .....        | <b>NEUTRAL</b> |
| 4. Tower Master Switch..... | <b>ON</b>      |
| 5. Tower PTO Switch.....    | <b>ON</b>      |
| 6. Proceed to Side Panel    |                |



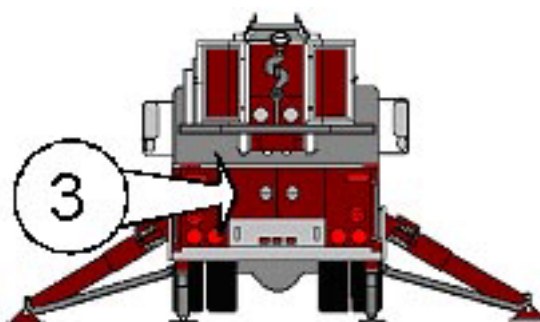
#### Side Panel - 1

- |                               |          |
|-------------------------------|----------|
| 1. Front Tires .....          | Check    |
| 2. Red Lift Control Knob..... | Pull Out |
| 3. Engineer's Platform .....  | Pull Out |
| 4. Proceed to Rear            |          |



#### Rear Panel

- |                          |                                       |
|--------------------------|---------------------------------------|
| 1. Outrigger Pads.....   | Set                                   |
| 2. Idle Switch .....     | <b>FAST</b>                           |
| 3. Outriggers .....      | Extend R & L<br>Together              |
| 4. Outriggers .....      | Lower and Level<br>+ or -<br>5 Degees |
| 5. Outrigger Lights..... | Check illuminated                     |
| 6. Safety Pins .....     | Insert                                |
| 7. Idle Switch .....     | <b>IDLE</b>                           |
| 8. Rear Panel Door.....  | Close                                 |
| 9. Proceed to Side Panel |                                       |



#### Side Panel

- |                             |   |
|-----------------------------|---|
| 1. Engineers Platform ..... | Mount with Both Feet                    |
| 2. Idle Switch .....        | <b>Idle</b>                             |
| 3. Ladder Lift Control..... | Raise<br>Lift ladder<br>Slowly from bed |
| 4. Idle Switch .....        | <b>FAST</b>                             |
| 5. End of Procedure         |   |



# Summer Fire College June 3 - 6, 2004 Champaign, Illinois

## “Training for the 21st Century - Protecting our Communities and Ourselves”

### **Schedule**

#### **Wednesday, June 2**

Registration 6:30 p.m. - 8:00 p.m.  
Library open 8:30 a.m. - 9:00 p.m.

#### **Thursday, June 3**

Registration 6:30 a.m. - 9:15 a.m. and  
11:00 a.m. - 5:00 p.m.  
Orientation 8:30 a.m.  
Assembly 9:15 a.m.

*Keynote Address by members of the Illinois Fire Caucus, Dr. Denis Onieal & Hal Bruno (unconfirmed at press time)*

Lunch 11:00 a.m.  
Classes 1:00 p.m. - 5:00 p.m.  
Vendor Displays 7:00 a.m. - 7:00 p.m.  
*General Session “Myths and Reality”*  
7:00 p.m.  
Library open 8:30 a.m. - 9:00 p.m.

#### **Friday, June 4**

Registration 7:30 a.m. - 5:00 p.m.  
Classes 8:00 a.m. - 5:00 p.m.  
Vendor Displays 8:00 a.m. - 7:00 p.m.  
*Propane Fire Fighting and Open House*  
7:30 p.m.  
Library open 8:30 a.m. - 9:00 p.m.

#### **Saturday, June 5**

Registration 6:30 a.m. - 10:00 a.m.  
Classes 8:00 a.m. - 5:00 p.m.  
Vendor Displays 8:00 a.m. - 5:00 p.m.

#### **Sunday, June 6**

Classes 8:00 a.m. - Noon

### **FIREFIGHTING CLASSES**

Entry Level Recruit Training  
“Saving our Own”: Techniques for Firefighter Rescues  
Commercial Building Operations  
Firefighting Core Competencies  
Coordinated Fire Ground Operations  
Self-Contained Breathing Apparatus (SCBA)  
Fighting Single-Family Dwelling Fires  
Thermal Imaging Camera Training

### **DRIVER/OPERATOR CLASSES**

Emergency Vehicles Operations Train-the-Trainer  
Pumper Operations  
Tanker Operations

### **OFFICER CLASSES**

Firefighter Initial Fire Investigation  
The Fire Scene Officer  
First-In Officer  
Public Information Officer  
High Rise Operations

### **RESCUE CLASSES**

Technical Rescue Awareness  
Basic Auto Extrication  
Advanced Auto Extrication  
Building Collapse Rescue  
Essentials of Vertical Rescue  
Confined Space Rescue  
Trench Rescue  
Farm Extrication & Rescue

### **EMS CLASSES**

Hazardous Materials Operations for EMS Providers  
EMS Rescue Operations

### **TERRORISM CLASS**

Emergency Response To Terrorism: Basic Concepts

## **NFA CLASSES**

NFA: Emergency Response to Terrorism: Strategic Considerations for Command Officers

NFA: Managing in a Changing Environment

NFA: Methods of Enhancing Safety Education

NFA: Fire Prevention for First Responders and Small Departments

NFA: Introduction to Wildland/Urban Interface Firefighting for the Structural Company Officer

## **Fire College Registration Fee**

Early registration fee (post-marked on or before April 30, 2004) \$50.00 per 12-hour session

Late or on-site registration (postmarked after April 30, 2004) \$100.00 per 12-hour session

## **Lab Fees**

Some classes require an additional lab fee of \$50.00 for each 12-hour session.

## **Payment of Fees**

All registrations will be billed upon completion of Fire College. Do not include payment with registration form.

## **Cancellation Policy**

Failure to cancel registration prior to 5:00 p.m. CDT, May 15, 2003 will result in full fees being billed after conclusion of Fire College. After May 15, 2003, cancellations will only be accepted under emergency situations. Students will be required to sign the registration form acknowledging cancellation policy.

Notification of cancellations can be made via U.S. mail, e-mail, telephone, or fax to:

\* Phone: (217) 244-7131

\* E-mail: [hopper@uiuc.edu](mailto:hopper@uiuc.edu)

\* FAX: (217) 244-6790

## **On-Site Check-In and Registration**

Each person participating in Fire College activities must check in at the registration desk at the Chancellor Hotel to pick up their registration identification, attendance tickets, and class assignments.

\* Each registrant must complete a separate registration form.

\* You must show a photo ID at the registration desk in order to receive your registration packet.

\* No pick up of multiple registrations by one person will be allowed.

\* Registration identification will be provided to each individual.

\* Failure to check in at the registration desk will prevent you from participating.

\* If you have not registered in advance, you may register on-site at Fire College registration desk.

\* All classes not filled in pre-registration will be filled at on-site registration on a first-come/first-served basis.

\* On-site check-in and registration takes place on the lower level at the Chancellor Hotel and Convention Center, 1501 S. Neil Street, Champaign.

***Visit the IFSI web site after March 1, 2004 to learn complete details.  
Registration materials will be mailed in early March.***

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

## Special Thanks

Students at the University of Illinois Fire Service Institute (IFSI) benefit greatly from the many in-kind donations of hardware and services. As state budgets shrink, IFSI is

grateful for the support we receive from manufacturers, distributors, organizations and individuals in providing funding, equipment and time to provide the finest fire service training.

### ***Our most recent supporters***

Cabot Corporation  
Champaign Fire Department

Lockport Township Fire Department  
Rescue 42

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### ***Our long-standing supporters***

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Environmental Safety Group	Industrial Scientific Corporation	Transport Towing
Equipment Management Co.	Marathon Refinery	Turtle Plastics
Federal Drug Enforcement Agency	Medtronic Physio Control	Union Pacific Railroad
Federal EPA		University of Illinois
Franzen Construction		University of Illinois Extension/
Gateway Rescue Equipment		Continuing Education Agricultural
Genesis American		Safety
GlasMaster		University of Illinois Veterinarian
		Med. Research Farms

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## Development Office -- Open for Business

Jeff Courson, who joined IFSI in October as Development Officer, is looking for your suggestions on whom he might contact for potential in-kind or financial support of IFSI. Jeff will also be introducing the Illinois Fire Ser-

vice Institute Fund at this year's Fire College. The Fund is being developed to recognize and involve alumni of the Institute. Anyone interested in arranging a visit to IFSI's facilities should contact Jeff to arrange a tour.

# New Training Props

*This new prop debuted at last year's Fire College. Fashioned after a similar model at Texas A & M Emergency Services Institute, the structure was designed and constructed to train firefighters and first responders on the skills in collapsed building rescue. The prop simulates what firefighters might encounter in a multi-story collapsed office building. Complete with broken computer terminals and office chairs, the 30-foot high structure forces firefighters to consider obstacles as they investigate unstable confined spaces.*



*A new expanded liquid propane (LP) burn pad is now available for training evolutions at IFSI. The equipment, which includes an LP bobtail delivery truck, gas grill, storage tanks, and flange fire props, was made available to IFSI through a grant from the Illinois Propane Education and Research Council (IPERC). The site for the LP Burn Pad, located at IFSI's Champaign campus, is designed to train and prepare firefighters on how to deal with fires resulting from propane tank leaks and punctures. The prop also provides firefighters the opportunity to learn how to extinguish fires from residential and agricultural propane tanks, such as those used to fuel corn dryers.*

**Get a first-hand look at this new prop at the Friday evening Open House during Fire College.**

*A new multi-story prop goes into service at this year's Annual Fire College. The prop will be used for a variety of rescue training classes, including Vertical Rescue, Rope Rescue and "Saving Our Own." An ingenious use of materials -- anchoring sealand containers together -- was used to create the prop.*



**Want to know more? IFSI is exhibiting at FDIC, April 29 - May 1, 2004. Look for us at Booth #5356.**

# New Down & Dirty Training CD Available Soon

In keeping with IFSI's commitment to make training available to every firefighter in Illinois, a new Down & Dirty CD is being released. Down & Dirty Fire Fighting Training Skills Package: Engine and Pump Operations is second in a series of CDs developed by IFSI and funded by the Illinois Firefighter's Association. The CD package is being mailed early in 2004 at no charge to every fire department in Illinois.

The 2-CD set provides instruction in pump theory, pump and panel components, hydrant

types and connections. The video portion of the CD illustrates pumping techniques for single-line, dual-line, and master streams among others. Viewers will also learn about pump maintenance and driver safety.

While the first CD, "Down & Dirty Fire Fighting Skills" was best suited for instructor-led training, with an outline and video to support training, "Engine and Pump Operations" can easily be used for self-paced and individual training. The new format also provides for instructor-led content.

The CD was developed entirely in-house by IFSI staff to provide this cost-effective method of reaching every firefighter in Illinois. It is being delivered as part of IFSI's web-based training program. Recipients of the CD are encouraged to register their CD on IFSI's web site at [www.fsi.uiuc.edu](http://www.fsi.uiuc.edu). Registration assures that updates are available and provides feedback to IFSI on the package.



**Illinois Fire Service Institute**  
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