



University of Illinois Fire Service Institute



“Assisting public & private Illinois fire departments through
**EDUCATION, TRAINING, CONSULTING,
MEASUREMENT and EVALUATION SERVICES**”

P.A. 81-1147



Eight Plateaus of Growth in Serving Illinois Firefighters

University of Illinois Fire Service Institute

Vision
2020

Homeland
Security

Chicago FD

Cornerstone

Heat-Stress Research

Statutory State Fire Academy

Year-Round Field Staff-Delivered Essential Skills Training

America's First Annual Fire College

1925

1950

1980

1988

1998

2001

Today

2000

FY 2010 Delivery of Training

- **1,083 classes**
- **52,379 students**
- **584,892 student instructional hours**
- **26,692 class hours**
- **310+ locations**
- **85% (994) of Illinois Fire Departments
in 100% (102) of Illinois counties**

FY2010 figures

10 – for – 1

1. Firefighter / Police Officer State certification
2. State Continuing education requirements
3. Annual national regulatory requirements; e.g., CFR 1910.120 (HAZMAT), 1910.134 (SCBA) and 1910.146 (rescue).
4. Dual certificates with IFSI and the National Fire Academy.
5. Meet interagency training requirements.
6. Meet grant performance requirements.
7. Meet National Incident Management System (NIMS) & National Response Plan (NRP) training requirements as established by Presidential Directive and the DHS.
8. Meet current National Fire Protection Association (NFPA) standards
9. College Credit Equivalency
10. Pro Board Certificate



IFSI Training Facility

Research Park



Neil Street

HAZMAT

LP Burns

Fire Station

Classrooms

Learning Resource & Research Center

Live Burn Training

Arson Investigation

H

Rope & Confined Space Rescue Training

Trench Rescue

Streetscape

Agriculture Rescue Training Area

Rescue City

RR

Emergencies

Auto Rescue

Foam Training

Windsor Road

Education Centered

Masters Degree

Executive

Strategic Policymaking

Chief Officer

Bachelor Degree

All Risk InterAgency

- Understanding other's views
- Management
- Fire Science

Officer Development

Line Officer Training

Applied / Training

Ability to do the Work

Associates Degree

Education Prep

Specialized Training

Training Centered

Advanced Firefighting & EMS

Education Training

Basic Firefighting & EMS

Learning Resource & Research Center



**Proactive
Librarianship at the
Illinois Fire Service
Institute Library**

IFSI Library: Overview

- **Organic part of the State Fire Academy on the University of Illinois campus**
- **Established as an in-house library in 1990, began serving statewide users in 1999**
- **Collection includes books, journals, audiovisual materials**
- **Also the repository for historical materials about the Illinois Fire Service and IFSI**

Types of Libraries & Librarians

- Reactive

- Proactive

Reactive Libraries

Libraries are traditionally reactive

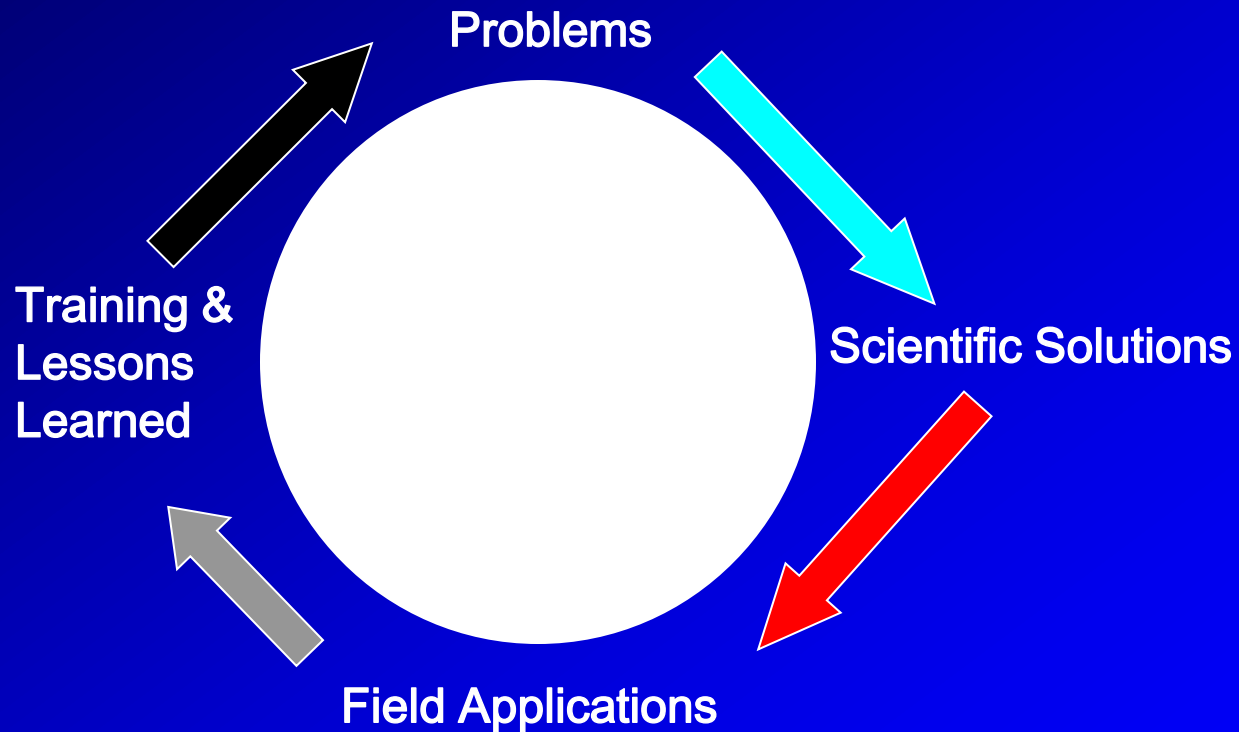
- **Users initiate action- usually by asking for information or suggesting a new service**
- **Service is provided upon request**
- **Requires extra effort on behalf of the users**

Proactive Libraries

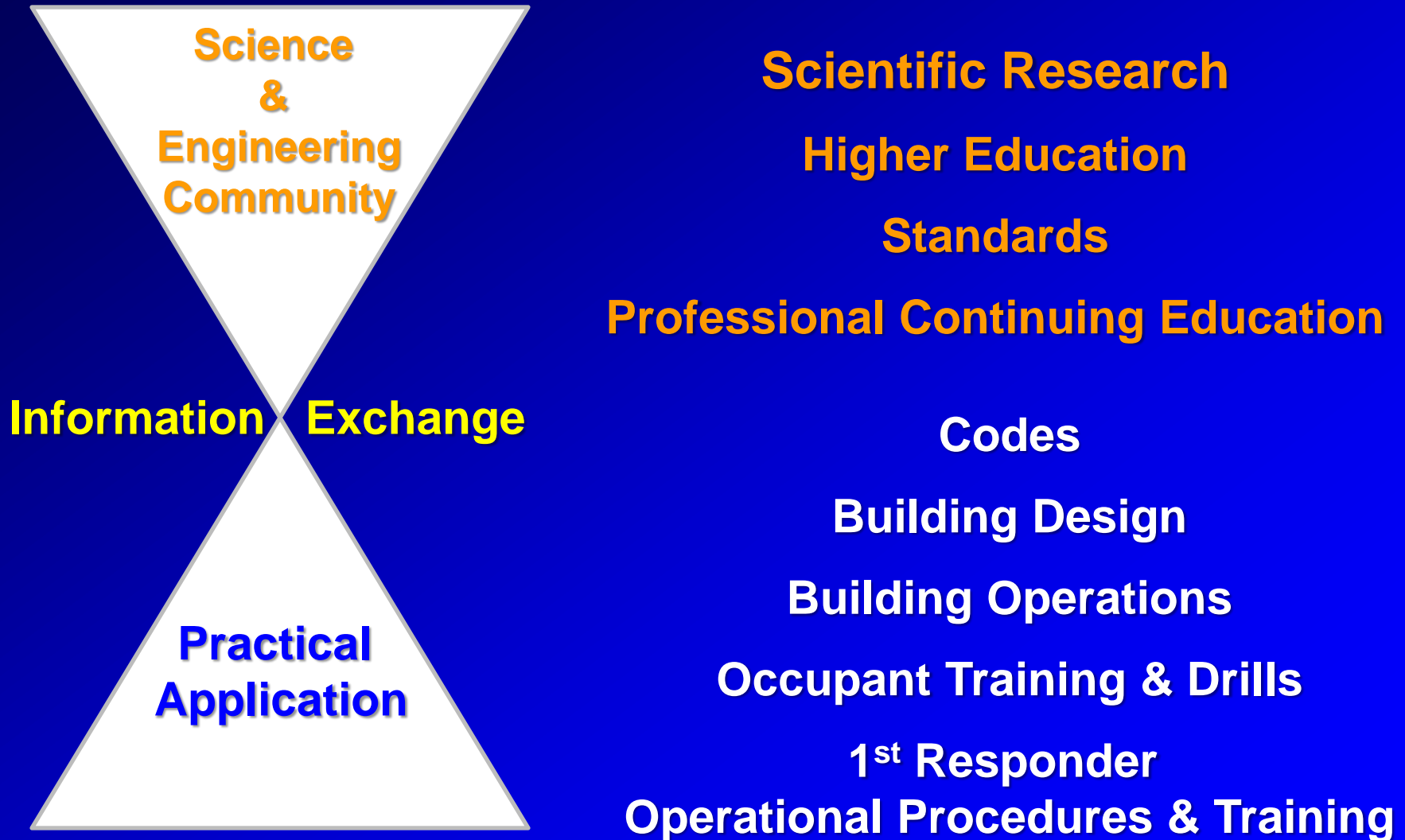
Decrease the amount of effort required for use by:

- 1) Finding new ways to facilitate access to resources**
- 2) Developing innovative tools to integrate the library into the daily tasks of users**
- 3) Anticipating user needs by monitoring interest in other library services**
- 4) Flexible in meeting user needs**

Information Requirements



Providing Critical Life Safety Response Time



Research

Military
R & D
Milestones

Life
Cycle
Costing

3

2

1

0

Operational
Fielding

Practical
Research

Public – Private
Partnerships

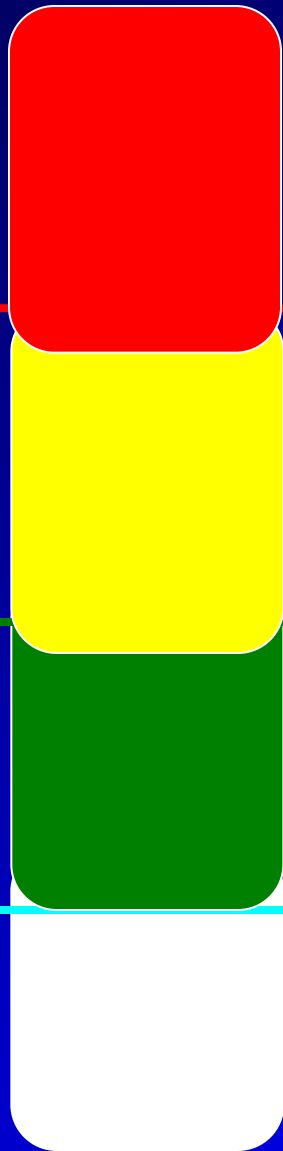
Applied
Research

Level II University

Basic
Research

Level I University

Pre-
Milestone
Zero





First Responders

**Fire
Law Enforcement
EMS
Emergency Mgt**

Interdisciplinary Researchers

**Universities
Argonne National Lab
City of Chicago**

Homeland Security Research

Public Policy

**Federal
Illinois Terrorism Task Force
State Legislature
City of Chicago
Local Communities**

Private Sector

**Research Park
Public-Private Partnerships**

Researchers

- **Need to produce sound scientific studies**
- **Information Searches**
 - **Problem statements**
 - **Prior research efforts, methodologies and results**
 - **Suggested solutions**
 - **Translations of research into applied science and operations**

First Responders

- **Translate Research into operational realities**
- **Tailored Information targeted at different audiences:**
 - Frontline responder
 - Supervisor
 - Trainer
 - Chief
 - Elected Officials
 - Public

Private Sector

- **Industry wants to develop marketable and innovative solutions**
- **Information needs:**
 - Innovations in science
 - Applied solutions
 - Responder needs and priorities
 - Lessons Learned
 - Funding sources
 - Product distinction

Public Officials

- **Want to make effective & legitimate public policy and efficient use of public resources**
- **Information needs:**
 - What problem does this solve?
 - What is the law?
 - What have other communities done?
 - What does this cost now and over time?
 - How will the public respond to this use of public resources and authority?
 - How can we obtain funding assistance?

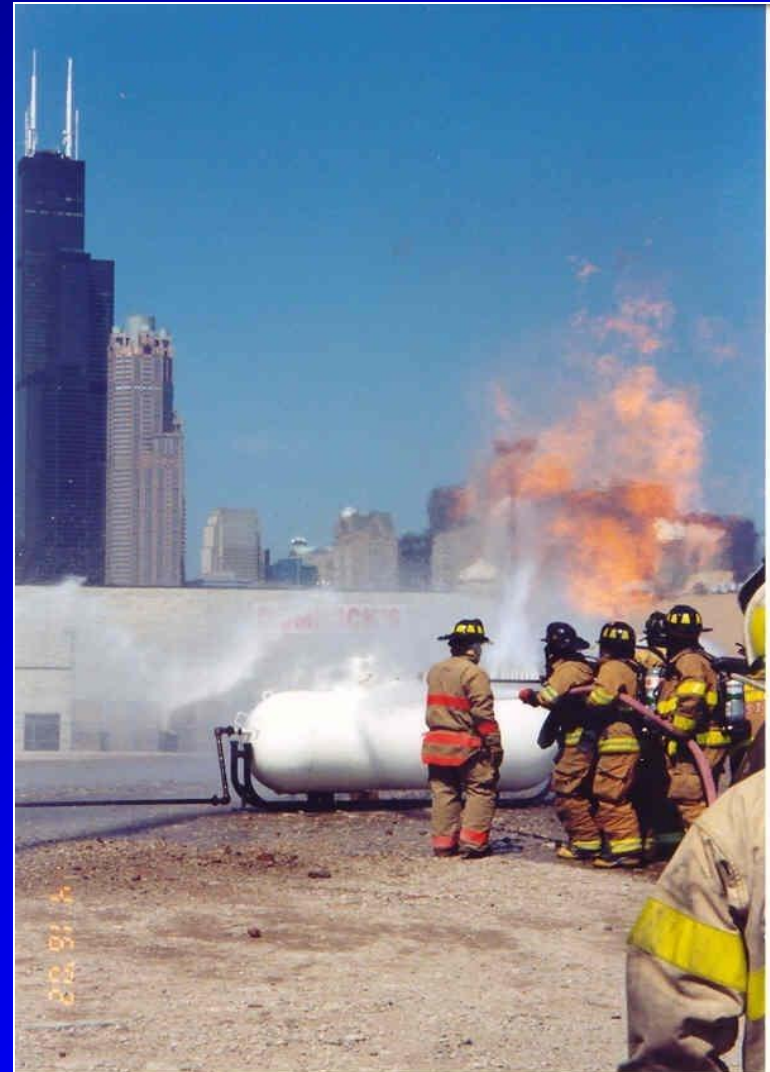


Training Programs

Hands-on Live Fire Training



Chicago Programs



Volunteer Fire Fighter Training





Training Firefighters Where they live and Work

- **Cornerstone Delivery**
 - 316
 - 664 departments
 - 7,848 students
- **Illinois Propane Education & Research Council training**
 - 66 classes
 - 325 departments
 - 1,999 students
- **Illinois Petroleum Resources Board Oil Well Fire Training**
 - 2 classes
 - 27 departments
 - 136 students
- **Illinois Dept. of Natural Resources Wildland Training.**
 - 7 classes
 - 42 departments
 - 208 students



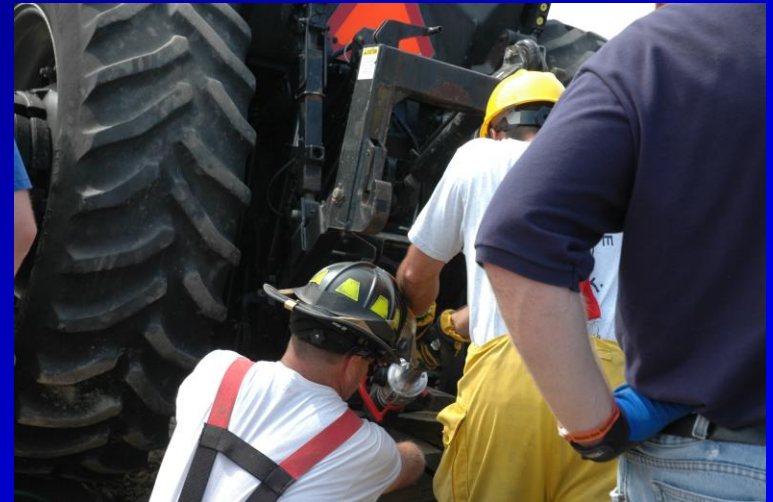


Fires on the Farm



To help firefighters do their work through training, education, information and research.

Agriculture Rescue





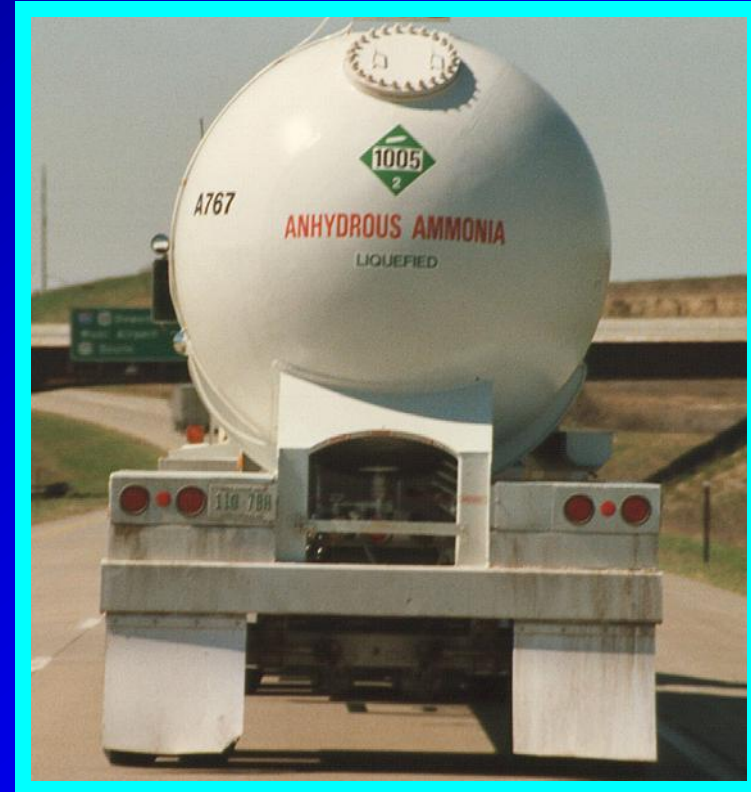
Grain Bin Rescue



To help firefighters do their work through training, education, information and research.



Understanding Anhydrous Ammonia Emergencies



To help firefighters do their work through training, education, information and research.



Ethanol & Renewable Alternative Fuels Emergency Response Training & Resources

To help firefighters do their work through training, education, information and research.



Ethanol Production Plant Awareness Emergency Planning & Response Course



To help firefighters do their work through training, education, information and research.

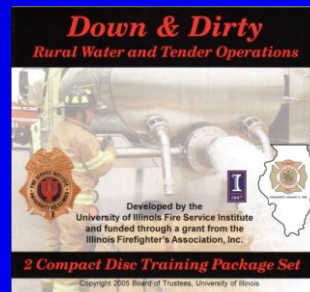
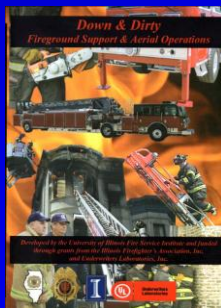


LEARNING AT A DISTANCE

New Online Training
Opportunities:

Fire Apparatus Engineer
(FAE)

AFG Grant Writing



To help firefighters do their work through training, education, information and research.



Homeland Security



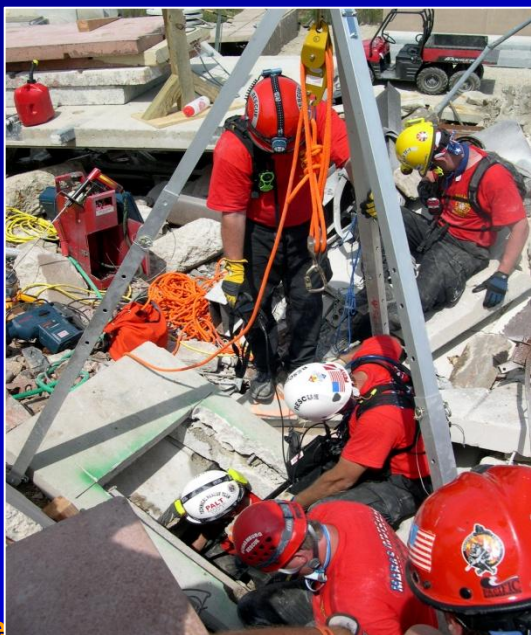
Disaster Response Continuum



Statewide
WMD
Response

- ✓ **Technical Rescue Awareness** (direct delivery & online)
- ✓ **Rope Rescue Operations**
- ✓ **Rope Rescue Technician**
- ✓ **Confined Space Rescue Operations**
- ✓ **Confined Space Rescue Technician**
- ✓ **Trench Rescue Operations**
- ✓ **Trench Rescue Technician**
- ✓ **Structural Collapse Operations**
- ✓ **Structural Collapse Technician**
- ✓ **HAZMAT Awareness** (direct delivery & online)
- ✓ **HAZMAT Operations**
- ✓ **HAZMAT Technician A**
- ✓ **HAZMAT Technician B**
- ✓ **HAZMAT ICS**
- ✓ **Unified Command**
- **MST Team Leaders Course**

Technical Rescue



Trench Rescue



High Line Rescue

Structural Collapse

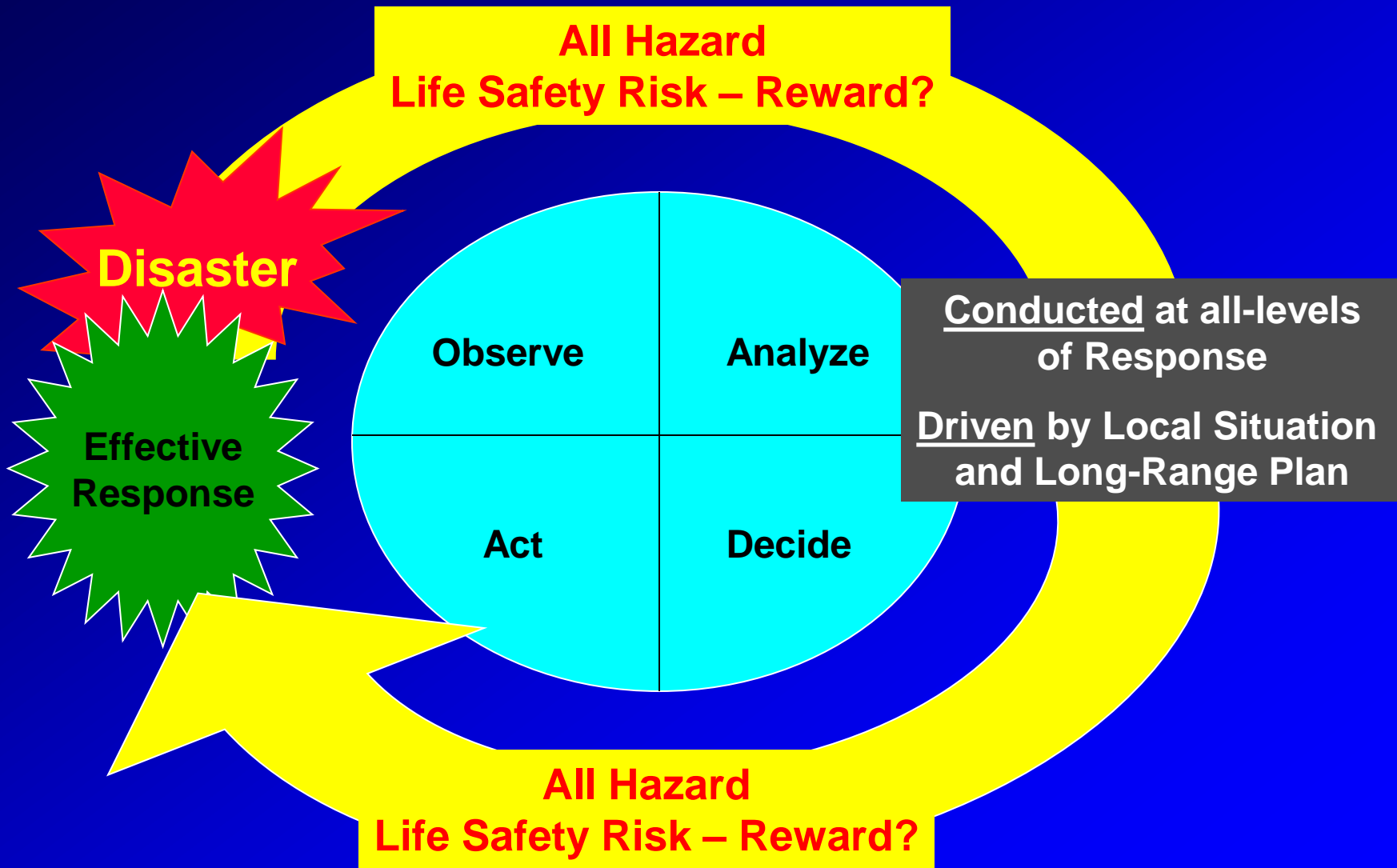


Rope Rescue

Hazardous Materials



Decision - Response



Incident Management (Assistance) Teams (IMAT)

Federal, Worldwide
Unified Command
Augmentation

Significant
National WMD
Incident

Type 1

Statewide Deployable
Unified Command
Augmentation

Significant
State WMD
Incident

Type 2

Regional Deployable
Unified Command
Augmentation

Significant
Regional
Incident

Disaster Assistance

Type 3

Local
Unified
Command

Significant
Local
Incident

Type 4

Local
Incident
Command

Routine
Local
Incident

Disaster Locations

Type 5 / Other)

Incident Management Teams (IMT)

Command

Liaison

Public Information

Safety

Operations

Planning

Logistics

**Finance &
Administration**

Intelligence

Communications

Research

Firefighter Life Safety
Fire Protection Engineering

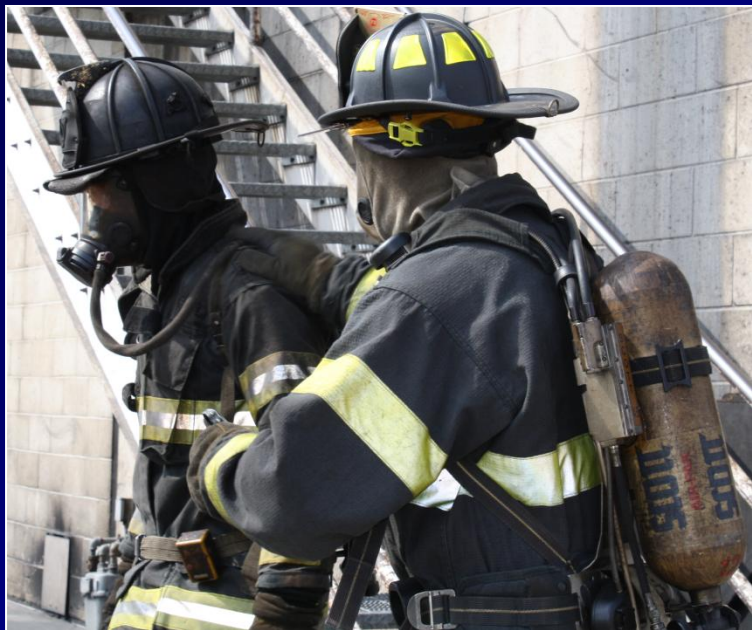


**Firefighter Fatalities
and Injuries**
The Role of Heat Stress and PPE



UNIVERSITY OF ILLINOIS
FIRE SERVICE INSTITUTE
FIREFIGHTER LIFE SAFETY
RESEARCH CENTER



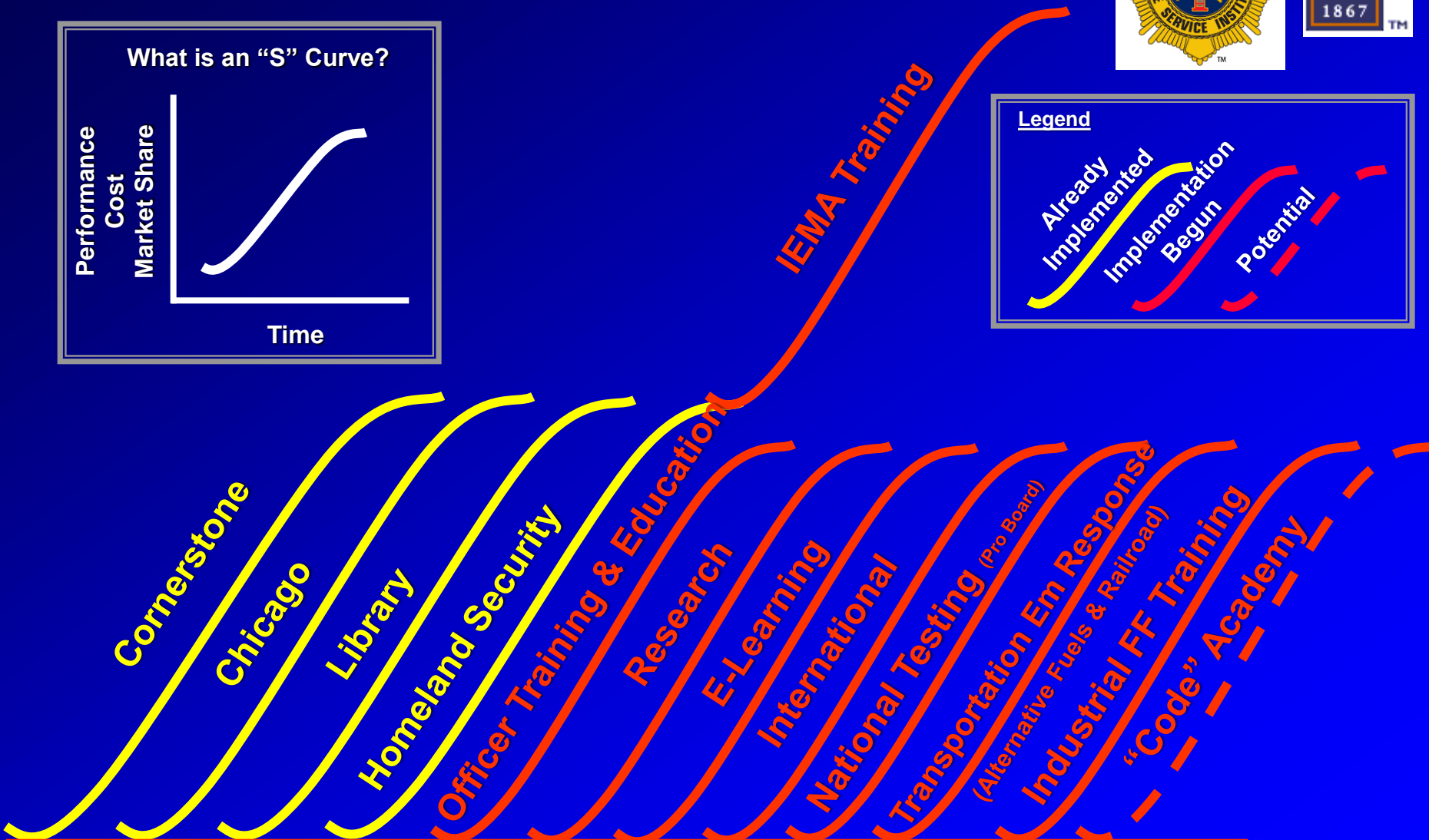
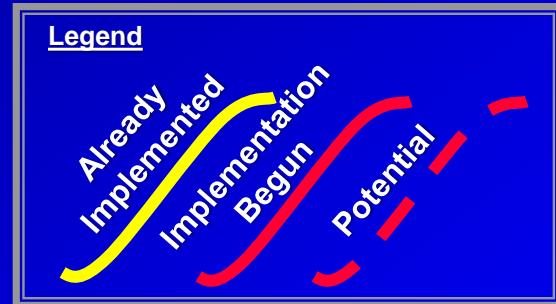
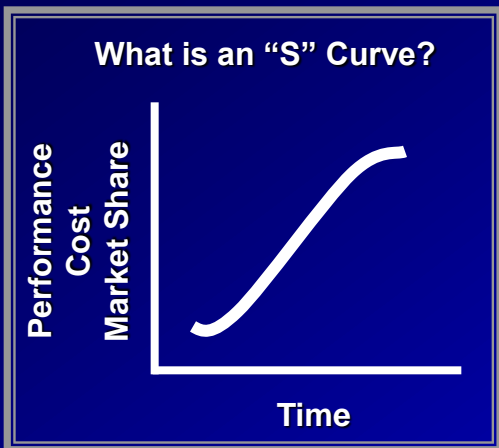


International Partnerships

International Programs

- Hong Kong Fire Services Department
- Indian – Federal Disaster Response System & Gujarat State Emergency Management
- Tsinghua University Center for Public Safety Research
- Beijing & Tianjin City and Province Emergency Managers
- Dalian City (China) Emergency Management
- Dalian University of Technology
- Chinese Librarians
- China Ropeway Association
- Nanjing University of Science & Technology...

IFSI "S" Curves



Hands-on Live Fire, Rescue, HAZMAT & Incident Command Training

Conference Center

