

This Month's "Working Fire"...

Volume 96-2: February 1996
Approx. Program Length: 58:00

FIRELINE

Plane Crash Fullerton, CA

Approx. Length: 13:00

This incident was escalated to a second alarm while first responders were en route. A private plane clipped a palm tree and slammed into an apartment complex, killing four. Chief concerns were personnel safety and evacuation. But the plane's leaking fuel added to the fire and the structural integrity was shaky at best. Fullerton used mutual aid from the Orange County HURFF team and recommends you recognize the resources available to you for such a response. Discussion Topic: Determine any specialized needs you would have at an incident such as this. For more information on this incident, contact: Batt. Chief Michael Parker, Fullerton Fire Dept., 312 East Commonwealth Ave., Fullerton, CA 92632. Or call: (714) 738-6500.

Abandoned Warehouse Blaze Calumet City, IL

Approx. Length: 6:56

Firefighters in this Chicago suburb faced thick, black smoke at this warehouse fire on the northeast side of town. Cross-training on incident command helped all responding mutual aid work with common terminology and technique to protect exposures and mitigate the incident. Discussion Topic: Discuss the importance of remaining in contact with aerial apparatus personnel during a response such as this. For more information on this incident, contact: Capt. Joseph Skelton, Calumet City Fire Dept., 684 Wentworth, Calumet City, IL 60409. Or call: (708) 891-8145.

HANDS-ON

Firefighter Safety & Survival Part I: Fatality & Injury Causes and Statistics

Approx. Length: 8:50

Assistant Chief Ken Hines begins his multi-part series on firefighter safety and survival with a look at national statistics on firefighter fatalities and injuries for 1994. This segment gives a good foundation and reminder about why we need safety policies. We'd like your feedback throughout this series. Please contact us at (800) 516-3473. You can also contact Asst. Chief Hines at: 3700 Bray Ct., Columbia, MO 65203.

NOTE: Chief Hines will be correlating the Enhanced Training Section of the print material for this series as it progresses.

This Month's "Working Fire"

Motorsports Safety Part IV: Specialized Equipment

Approx. Length: 10:46

In this fourth part of our series from the Charlotte Motor Speedway, Nancy Higgins looks at the specialized equipment necessary for responding to wrecks involving specialized NASCAR vehicles. This equipment is top of the line, but information is also shared on what you can do at your "Saturday Night" tracks to make your response safer. For more information on motorsports safety, contact: Norrie Baird, Emergency Service Coordinator, Charlotte Motor Speedway, P.O. Box 600, Concord, NC 28026. Or call: (704) 455-3211.

FIRE MEDICS

Internal Pacemakers

Approx. Length: 7:43

Responding to a patient with a pacemaker can be tricky if you don't know what to look for on an EKG strip. This month we'll show you various strips and point out what you need to recognize for appropriate treatment. Remember, follow your state and local protocols when treating any patient with a pacemaker. Next month we'll give a quick overview on external pacing. For more information on internal pacing, talk to a pacemaker manufacturer. Or you can also contact: Byron Dozier, EMS Supervisor, Chesterfield Fire Protection District, 15405 Olive Boulevard, Chesterfield, MO 63017. Or call: (314) 532-4571.

UP TO CODE

CFSI Update

Approx. Length: 3:58

With the beginning of 1996 here, it's a good time to revisit the Congressional Fire Services Institute to find out what is and will be happening on Capitol Hill in this election year. Undoubtedly, the recent budget crisis and election year politicking will impact the Fire Service as a whole. For more information on how you can get involved with legislative issues, contact: Congressional Fire Services Institute, 900 2nd St., NE, Suite 303, Washington D.C. 20002. Or call: (202) 371-1277.

We look forward to seeing you all at this year's FDIC in Indianapolis, February 23rd through the 25th. We'll be in Booth #349, and for you VFIS subscribers, we'll also be in Booth #1350. Come by and tell us how we're doing and let us know how you're doing!

Enhanced Training

Firefighter Safety & Survival, Part 1

Objectives

After watching this program the student shall:

1. Understand where injuries are occurring on the emergency scene.
2. Understand where deaths are occurring on the emergency scene.
3. Explain the reasons for these deaths and injuries.

Standards and Regulations

This training is compatible with NFPA 1001, Standard for Firefighter Professional Qualifications (1992 Edition) and NFPA Fire Department Occupational Safety and Health Program 1500; 1992 edition

Training Outline

Introduction:

- A. No one can dispute that firefighting, rescue and emergency medical services can be an inherently hazardous occupation. Annually statistics show a steady occurrence of accidents that result in injuries and death. This multi-part training lesson will examine where accidents to fire and EMS personnel occur, the relationships between those numbers, and then what you as a firefighter, company officer or chief officer can learn from these relationships.
- B. This safety series will strive to help firefighters, company officers and command officers to identify locations of high risk and low risk to personnel and present answers to questions and suggestions to reduce the exposure to risk and hazards.

Accidents are caused for a variety of reasons, some of the most significant reasons are attitude, training and basic knowledge. Estimates for injuries in 1994 (most recent year with complete data) indicates that at least 95400 firefighters were injured in the performance of duties.

- C. The National Fire Protection Association conducts a survey each year to extrapolate numbers which indicate the number of firefighter injuries each year in the United States.
1. Injuries are divided into five specific categories by type of duty, these include;
 - a. Fireground
 - b. Non-fire emergency

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- c. Other on-duty
 - d. Responding to and returning from alarms
 - e. Training
2. In each category by type of duty, specific nature of injury information is provided. This ranges from:
- a. Burns
 - b. Smoke or gas inhalation
 - c. Other respiratory distress
 - d. Eye irritation
 - e. Wound, cut, bleeding, bruise
 - f. Dislocation, fracture
 - g. Heart attack or stroke
 - h. Strain, sprain, muscle pain
 - i. Thermal stress
 - j. Other
3. When categorizing type of duty with nature of injury, the top five percentages include;
- | | |
|---------------------------------|-------|
| a. Strain, sprain, muscle pain | 42.6% |
| b. Wound, cut, bleeding, bruise | 21.6% |
| c. Other | 9.1 % |
| d. Burns | 6.8% |
| or gas inhalation | 6.0% |
4. The locations that account for the injuries by type of duty indicated that;
- a. Fireground accounted for 52875 of all reported injuries **(1)**
 - b. Non-fire emergency accounted for 11810 of all reported injuries **(3)**
 - c. Other on-duty accounted for 18005 of all reported injuries **(2)**
 - d. Responding/returning from alarms accounted for 5930 of all reported injuries **(5)**
 - e. Training accounted for 6780 of all reported injuries **(4)**
5. An injury is defined as any physical damage a person suffers that requires treatment by a medical practitioner, such as a physician, nurse, paramedic, or an EMT within one year of the incident, regardless of whether treatment was actually received; or physical damage that results in at least one day of restricted activity immediately following an incident. Injuries reported annually, remain somewhat steady in the area of 100,000.

{ **Answers to Enhanced Training Quiz on following page:** }

1. True 2. False 3. True 4. a, b, c, d. 5. d.

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D. Safety experts have long debated the relationship between the number of injuries and how many deaths can be expected to result in correlation. Needless to say, the behaviors or actions that cause injuries can certainly cause death, and do. Categories for location of emergency scene death are identical to those for injuries, ie. fireground, responding/returning from alarm, non fire emergencies, other on duty, training.

1. In 1994, the total number of reported firefighter deaths increase to exactly 100. This follows a two year decline from the previous ten years. Traditionally, anywhere from 100 to 130+ firefighters die in the line of duty each year.

2. Using the five location categories for deaths, there is some contrast with injury reports;

a. Fireground	59 deaths	59%
b. Responding/returning from alarms	18 deaths	18%
c. Other on duty	10 deaths	10%
d. Training	7 deaths	7%
e. Non-fire emergency	6 deaths	6%

3. The fixed property use in which the deaths occurred indicate that;

- a. Residential fires accounted for 44% of deaths
- b. Wildland fires accounted for 37% of deaths
- c. Storage area fire accounted for 8.5% of deaths

We gratefully acknowledge the work of Rita Fahy, Michael Karter, Paul LeBlanc, and Arthur Washburn for their work in the compilation of casualty statistics which have been quoted above. Please see the Bibliography section for complete citations of the authors' works.

Follow-up segments to this series in the following months:

Part 2: The basics of safety management, why accidents happen and how they can be reduced.

Part 3: The Players: who has to be involved in the safety program, their responsibilities and what they do together.

Part 4: Safety equipment, from personal protective equipment to apparatus, and the safety standards that attempt to protect us.

Part 5: Physical and mental fitness

Enhanced Training

Firefighter Safety & Survival, Part 1: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer.

1. True or False The fireground is the location of most reported firefighter deaths and injuries.
2. True or False Responding to and returning from alarms is not a category within the NFPA report.
3. True or False Strains and sprains are the leading cause of firefighter injury.
4. The cause of injuries and deaths can be attributed to many causes, one of these might be (circle all that apply):
 - a. Tactics
 - b. Lack of training
 - c. Equipment purchased
 - d. Time of day
 - e. None of the above
5. The area where most injuries and deaths occur appears to be:
 - a. Commercial manufacturing facilities
 - b. Forests
 - c. Hazardous chemical facilities
 - d. Residential areas
 - e. Railroads

Bibliography

Karter, Michael & LeBlanc, Paul; *NFPA Journal*, National Fire Protection Association; Batterymarch Park, Quincy, MA; 1995.

Washburn, Arthur, LeBlanc, Paul & Fahy, Rita; "Firefighter Fatalities in 1994"; *NFPA Journal*, National Fire Protection Association; Batterymarch Park, Quincy, MA; 1995.

National Fire Protection Association; Standard for Firefighter Professional Qualification 1001; Batterymarch Park, Quincy, MA; 1992 edition.

National Fire Protection Association; Fire Department Occupational Safety and Health Program 1500; Batterymarch Park, Quincy, MA; 1992 edition.