

# Chapter 10

## Developing a Trench Rescue Program

# Objectives

- By the end of this chapter, you should be able to:
  - Define steps of ASTART program for development and implementation of a trench rescue team
  - Describe steps to develop a needs analysis and implantation plan, including utilization of accredited references

# Objectives (cont'd.)

- By the end of this chapter, you should be able to (cont'd.):
  - Develop a target hazard directory for the response area of a trench rescue team
  - Develop a resource and reference directory for the response area of a trench rescue team

# Introduction

- ASTART program
  - A: assessment and planning
  - S: staffing
  - T: training and learning
  - A: administrative functions
  - R: resources and response analysis
  - T: teambuilding

# Assessment and Planning

- Assess and document need for service
- Use local, regional, and national data



Figure 10-1 Assessment and planning is the foundation of this program

# NFPA 1006

- Standard for Rescue Technician Professional Qualifications
  - Establishes minimum job performance requirements necessary for fire service and other emergency response personnel who perform technical rescue operations

# NFPA 1670

- Standard on Operations and Training for Technical Search and Rescue Incidents
  - Assist AHJ assessing a technical search and rescue hazard within the response area
  - Identify the level of operational capability
  - Establish operational criteria

# NFPA 1500

- Standard on Fire Department Occupational Safety and Health Program
  - Specifies minimum requirements for an occupational safety and health program for a fire department



# NFPA 1521

- Standard for Fire Department Safety Officer
  - Minimum requirements for the assignment, duties, and responsibilities of a health and safety officer and an incident safety officer for a fire department or other fire service organization

# NFPA 1951

- Standard on Protective Ensembles for Technical Rescue Incidents
  - Minimum design, performance, testing, and certification requirements for utility technical rescue, rescue and recovery technical rescue, chemicals, biological agents, and radiological particulate protective ensembles for use by emergency services personnel during technical rescue incidents

# NFPA 1951 (cont'd.)

- Standard on Protective Ensembles for Technical Rescue Incidents (cont'd.)
  - Minimum requirements for the various elements of the utility technical rescue ensembles and the rescue and recovery technical rescue protective ensembles
    - Including garments, helmets, gloves, and footwear, interface, and eye and face protection devices

# Staffing

- NFPA 1670 states the areas of proficiency
- Providing adequate staffing
  - Collaboration of resources
  - Expanding response area and agencies
  - Use of public and private resources
  - Combine teams
  - Share human resources

# Training and Learning Opportunities

- Includes:
  - Previous training and certifications
  - Current training plans and schedules
  - Future training needs

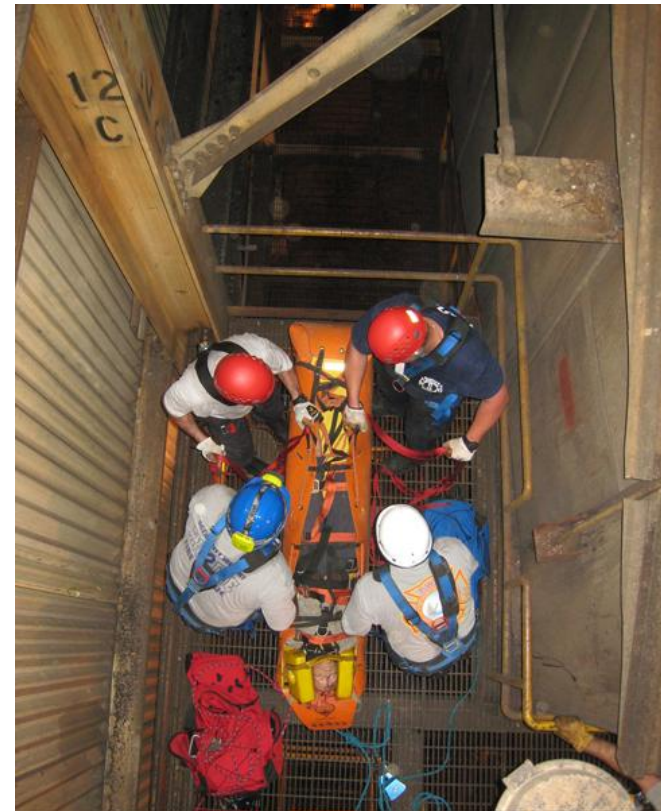


Figure 10-7 Combine training opportunities with other special operations disciplines

# Administrative Functions

- Planning is the cornerstone
  - Logistics
    - All of the “little things” that happen peripherally and enable the main objective(s) to be accomplished
  - Finance
    - Instructors, students, classrooms, and equipment and materials cost money
  - Scheduling
  - Size and configuration of the management and leadership structure

# Resources and Response

- How you are currently addressing trench collapse incidents, as well as future goals and objectives for trench rescue response
  - Address what is and what is not working
  - Response plan should include immediate response, mutual or automatic aid response, and regional response
    - Apparatus is common to all three



# Resources and Response (cont'd.)



Figure 10-8 A and B Trench rescue apparatus come in a variety of different configurations



# Resources and Response (cont'd.)

- Apparatus
  - Some have a dedicated rescue or heavy rescue, others may have the equipment but not the apparatus to transport it
  - Must be safe for personnel
- Equipment
  - Small tools and gear used in trench rescue consist of tools powered by hand, electricity, pneumatic pressure, hydraulic pressure, and gasoline engines

# Resources and Response (cont'd.)



Figure 10-9 Small tools and gear used in trench rescue

# Resources and Response (cont'd.)

- Immediate response
  - Encompasses fully staffed rescue apparatus, cross-staffed rescue apparatus, and on-call staffed rescue apparatus
  - Determine:
    - How apparatus and personnel are going to get to the operation
    - Team member consistency, equipment familiarity, and pre-assigned tasks

# Resources and Response (cont'd.)

- Mutual aid
  - Reciprocal agreement
  - Resources must be requested when needed
- Regional resources
  - May consist of several area departments developing a single automatic aid agreement to provide specialized services

# Resources and Response (cont'd.)

- Additional resource considerations
  - Public resources
    - Law enforcement
    - Local department of public works
    - State departments of transportation
    - Jurisdictional building officials
  - Private resources
    - Infrastructure contractors
    - Aero-medical resources
    - Rehabilitation sources
    - Materials and construction resources



# Resources and Response (cont'd.)



Figure 10-10  
Public resources



Figure 10-11  
Jurisdictional building officials know about our biggest target hazards before we ever know they exist



Figure 10-12  
Private resources

# Resources and Response (cont'd.)



Figure 10-13 Storm sewer repair and maintenance companies have many resources



Figure 10-14 Trench boxes and many other tools come from shoring services type companies



Figure 10-15 Lumber and hardware supply companies carry materials that span a wide range of quality and strength

# Team Building

- Selection and motivation of teams
  - To group self-assessment in the theory and practice of organizational development



Figure 10-16 The best way to assess the teamwork of emergency services members is to observe them in many different situations



# Conclusion

- Once you have found your formal and informal leaders, evaluate the big picture
  - Establish parameters for elements of your plan
  - Trust must be developed so they are all understood and respected
- ASTART program
  - Developed by On the Job Emergency Services Training, LLC
  - Analysis, organization, and development of special operations programs