

VEHICLE EXTRICATION

Basic Concepts and
Techniques

Captain Gallagher

Course Objectives

- ◆ Provide insight on **Safety, Teamwork and Technology** when dealing with **Modern Vehicle Extrication**

Course Objectives

- ◆ Understand and Practice:
 - the skills needed for the **disentanglement** of a patient entrapped in the wreckage of a vehicle crash.

Course Objectives

- ◆ Understand and Practice:
 - The skills related to the **Assessment and Packaging** of a patient entrapped in the wreckage of a vehicle crash.

Course Objectives

- ◆ Understand and Practice:
 - Safety features
 - Precautions
 - Capabilities
 - ◆ Of the extrication tools used by this department

Course Objectives

- ◆ Understand:
 - The psychological considerations of patient care.

Course Objectives

- ◆ Understand:
 - Rapid Extrication/Protocol

Course Objectives

- ◆ Demonstrate:
 - Proper glass removal techniques
 - ◆ Tempered
 - ◆ Laminated

Course Objectives

- ◆ Demonstrate:
 - Patient access
 - Interior rescuer duties
 - Proper protection of patient(s) during extrication

Course Objectives

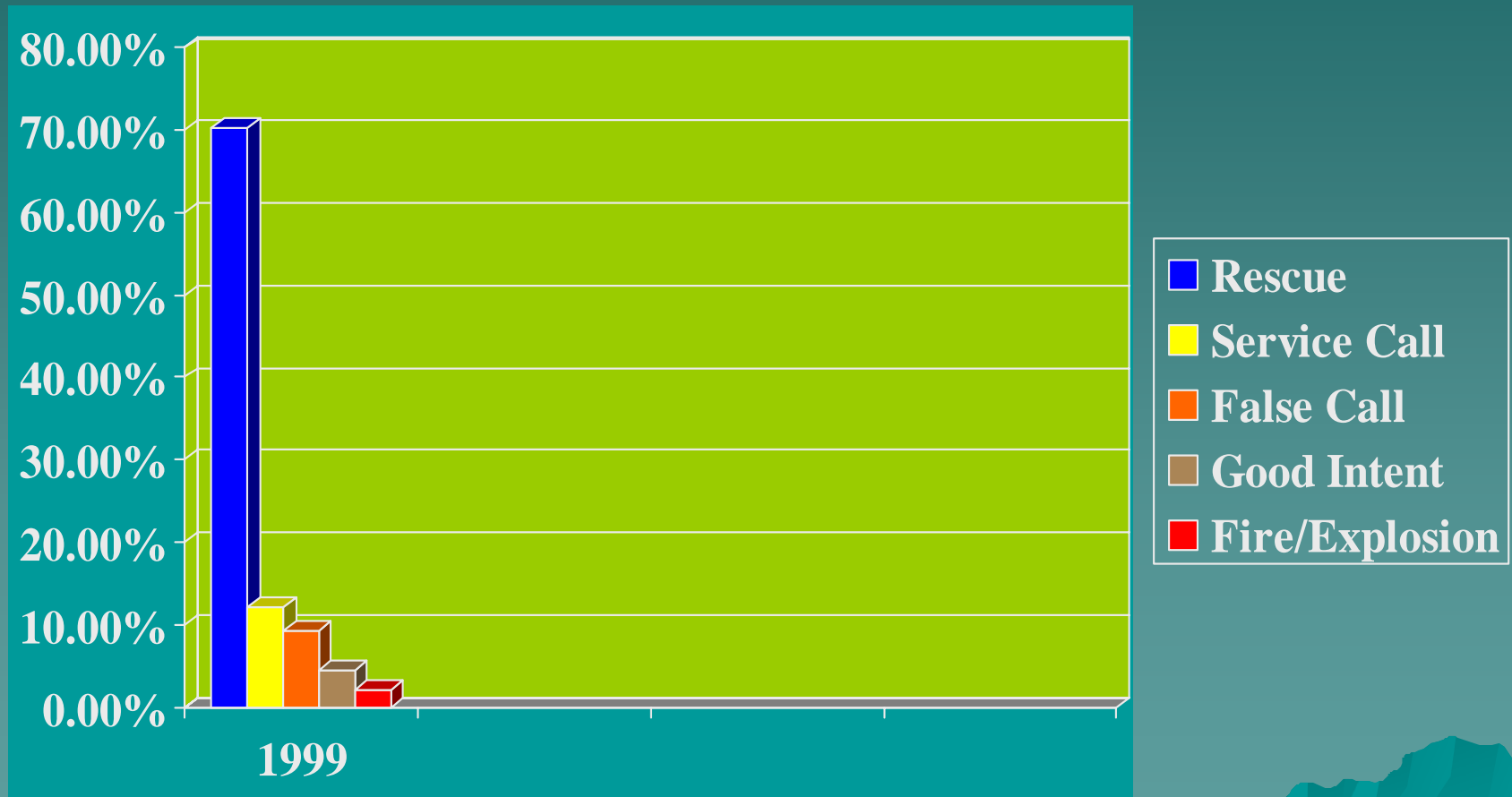
- ◆ Demonstrate:
 - Making a purchase point
 - The forced opening of a door using hand tools
 - Proper vehicle stabilization with cribbing

Course Objectives

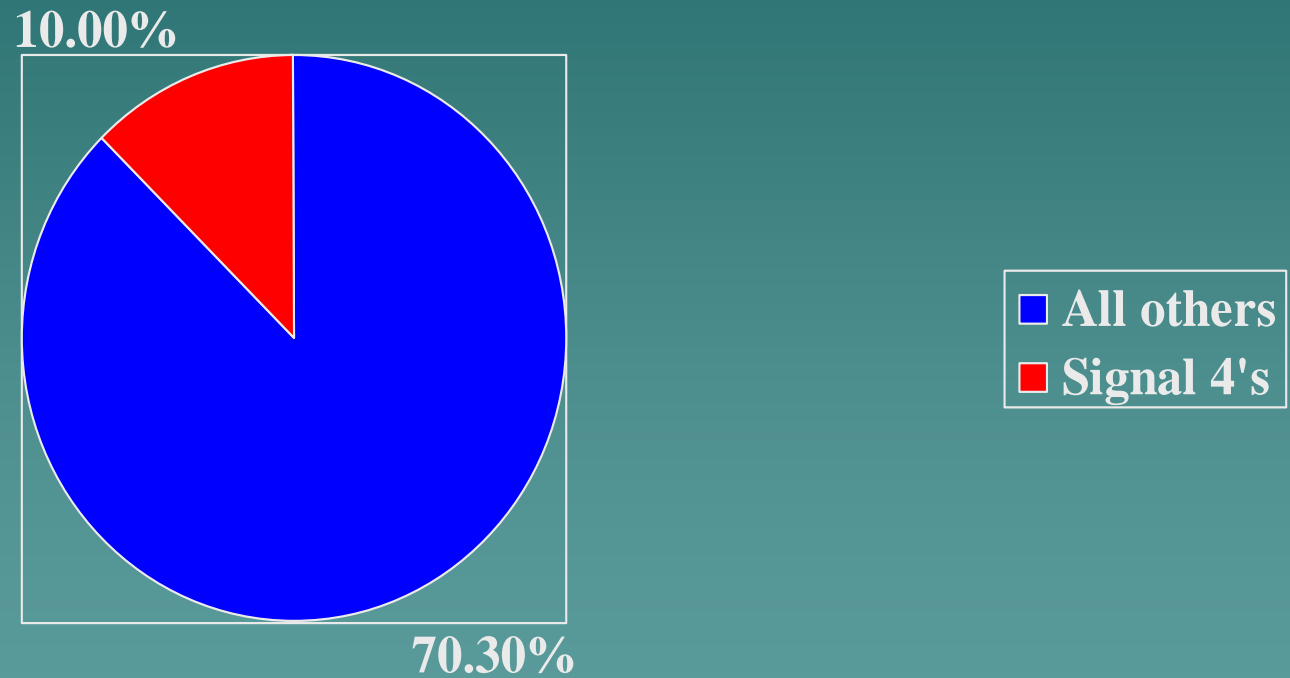
◆ Demonstrate:

- Roof displacement procedures using hydraulic cutters
- Door displacement and removal using powered hydraulic tools
- Procedure for dash lift using rams and spreaders

1999 TOP FIVE CALLS



Signal 4's vs all calls



- ◆ The ability to **quickly** extricate a critically injured patient and transport to a trauma center may help determine his/her outcome.

The Golden Hour

- ◆ From the time of injury to “Bright Lights and Cold Steel”

Rapid Extrication

- ◆ Shall **ONLY** be employed in the following situations:
 - When the scene is **unsafe and clear danger** to the rescuer and/or patient exists, necessitating rapid removal to a safe location.

Rapid Extrication

- ◆ Shall **ONLY** be employed in the following situations:
 - When the patients condition is so unstable that he **needs immediate intervention** which can only be provided in a supine position and/or out of the vehicle or when his **condition requires immediate transport** to a hospital without delay.

Rapid Extrication

- ◆ Shall **ONLY** be employed in the following situations:
 - When the patient **blocks the rescuer's access** to other more seriously injured patients in the vehicle

Study of Effectiveness of ALS for MVA's

Trauma review committee of ER physicians, trauma surgeons, neurosurgeons

- ◆ The committee felt that ALS was helpful or essential in 85% of cases
- ◆ Pre-hospital care improved survival of pt's suffering major blunt trauma
- ◆ Penetrating thoracic/abdominal trauma mandates rapid transport
- ◆ The added time of transport to a trauma center, even if it bypasses another hospital is justified

If extended extrication time:

Initiate ALS procedures while pt. is still
inside vehicle

- ◆ Intubation
- ◆ IV fluids
- ◆ O₂ via NRB or BVM

Time Studies

Mean scene time studies for all Trauma Alerts

◆ Tuscon	8.1 minutes
◆ Denver	9.8 minutes
◆ Lee County	12.0 minutes
◆ Australia	13.0 minutes
◆ Sacramento	14.5 minutes
◆ New York	17.3 minutes
◆ Milwaukee	21.0 minutes
◆ Washington D.C.	24.9 minutes

Preparation & Response



Preparation & Response

- ◆ Proper training
 - This class
 - Specialties
 - ◆ Trucks, busses, heavy equipment, etc.
 - ◆ **Every six months**

Preparation & Response

- ◆ Response considerations
 - Time of day
 - Weather conditions
 - Response routes
 - Multiple calls reporting
 - Reports of entrapment

Preparation & Response

- ◆ **Possible entrapment or vehicle rollover?**
 - Respond with engine and 510

Teamwork

Common Terminology



Anatomy

- ◆ Right side
 - ◆ Left side
 - ◆ Top
 - ◆ Bottom
 - ◆ Drivers side
 - ◆ Passengers side
 - ◆ Roof
 - ◆ A-post, B-post
- 



C-Post

Roof

A-Post

