Governor’s Homeland Security
Grant for Type-2 Urban Search & Rescue Trailer Caches

US&R - Urban Search & Rescue
California Emergency Services Act

Article 4.5 – Urban Heavy Rescue Act

§ 8584. Citation of article
This article shall be known and may be cited as the Urban Heavy Rescue Act of 1988.

§ 8584.1. Acquisition and maintenance of urban heavy rescue units

(a) It is the intent of the Legislature that the state have an urban heavy rescue capability in the event of a major earthquake. It is also the intent of the Legislature that the Office of Emergency Services and the State Fire Marshal’s Office pursue the necessary funding to carry out this article through the normal budget process.

(b) The Fire and Rescue Division of the Office of Emergency Services shall acquire and maintain urban heavy rescue units and transportable caches of search and rescue gear, including hand tools and protective gear. The division shall position the units and caches to ensure a rapid response of personnel and equipment anywhere in the state, and ensure that a unit will be available on the scene within one hour of a major earthquake.
History

- In 2007, the Governor’s Office of Emergency Services (OES) and California Fire & Rescue Training Authority made an application to the Governor’s Office of Homeland Security (OHS) for grant funding. The request was for US&R “Medium” Type-2 Cache on a trailer.
- The first installment was funded with $1,000,000 on 9/25/2007.
- The second installment was funded with $1,434,244 on 4/29/08.
History

- 1st Installment Purchased
  - 5 – Type 2 US&R Equipment Caches
  - 22’, 2-axle equipment trailers
  - 1 – Training Cache
  - 22’, 2-axle equipment trailer
  - Rescue Systems-I training equipment
  - Rescue Systems-II training equipment
  - Trench Rescue training equipment
  - Confined Space Operational training equipment
  - 1 – Type-3 US&R Equipment cache only
History

- 2nd Installment Purchased
  - 11 – Type 2 US&R Equipment Caches
  - 22’, 2-axle equipment trailers
  - 2 – Type 2 US&R Equipment Caches
  - 16’, 2-axle equipment trailers
On January 8, 2008 the contract was finalized and awarded to Grainger.

OHS granted an extension to Jan 31, 2008 due to the fires in Southern California which caused the delay in completing the formal bid process.
Assignees were chosen
- Based on a GIS map
- Goal - that no California location would be more than 2 to 3 hours away from a US&R Rescue Unit
- Assignees near these GIS points that could staff these Units were approached
  - Staffing needed to comply with FIRESCOPE recommended training
History

- Assignees will operate under a MOA based on the Fire & Rescue Branch Engine Program
  - Meet MOA conditions
  - Provide Insurance
  - House Equipment
  - Respond to Mutual Aid requests
  - Be subject to Inspections by Cal EMA
US&R Capability

Type-2

- Heavy Wall Construction
- High Angle Rope Rescue
  - (not including highline systems)
- Confined Space Rescue
  - (no permit required)
- Trench and Excavation Rescue
US&R Capability

Type-3

- Light Frame Construction
- Low Angle Rope Rescue
US&R Capability

Other Types  Type-1

☐ Heavy Floor Construction
☐ Pre-cast Concrete Construction
☐ Steel Frame Construction
☐ High Angle Rope Rescue
  ■ (including highline systems)
☐ Confined Space Rescue
  ■ (permit required)
☐ Mass Transportation Rescue
US&R Capability

Other Types Type- 4

- Surface Rescue
- Non-Structural Entrapment in Non-Collapsed Structures
Required Training

Type-3 US&R
- Rescue Systems-I
- Confined Space Awareness
- Hazardous Materials First Responder Operational
- BLS First Aid
Required Training

Type-2 US&R
- Rescue Systems-I
- Rescue Systems-II
- Trench Rescue
- Confined Space Awareness
- Hazardous Materials First Responder Operational
- BLS First Aid
Trailer Basics

- Trailer
  - Charmac
    - 2-Axle (6000 # axles), Electric brakes
    - 22’ foot box length
    - 2-48” x 96” through compartments
      - Roll-up doors each side forward of axles
      - Slide out equipment trays
        - Slide out both sides
    - 14 foot rear entry compartment
      - Rear ramp door
    - Code-3 Lighting package
Trailer
Trailer
Trailer
Trailer
Trailer
Equipment Load

- Equipment is loaded to provide a balanced, safe ride without overload.
- CHP have assisted in weight and balance between axles and tongue weight
- GVW of Trailer is 9,999 pounds
- Tongue weight is loaded at 1200 pounds
- Load equalizer Hitch is supplied
Equipment Load
Equipment Load
Trailer Electrical

- Trailer is setup for both 12 volt and 110 volt interior lighting.
- Protected with Code Standard breaker protection
- 6500 KW Generator can power trailer
- 110 volt Duplex boxes on trailer are GFI protected
Trailer Electrical
Trailer Electrical
Door Protection
Door Protection
Equipment Storage
Equipment Storage
Equipment Storage
Equipment Storage
Equipment Storage
Equipment Storage
Equipment Storage
Position Labels
Position Labels
Equipment ID
Equipment ID
Portable Lighting
Portable Lighting
Portable Lighting
Rope Rescue
Equipment Recall

Dear Customer:

CMC Leatherneck H1050 is a product recall notice for the WCF 3000 Kit. It has been identified that this product may not perform as intended and may cause injuries. We have received reports of this issue from customers. As a result, we have decided to recall the kit to ensure customer safety.

As part of the recall process, we ask that you return the kit to the store of purchase or to CMC Leatherneck. We will provide you with a replacement kit and a refund for the recalled kit. Please contact our customer service for further assistance.

Sincerely,

[Name]

Supervisor, Customer Service
CMC Leatherneck
Rope Equipment
Rope Equipment
“A” Bag Setup
Bag “A”

- 2 Complete RPM setup
  - 1 with 2 pulleys for “Z” rig
    - With 1 each color webbing
  - 1 with 1 pulley (i.e.: change of direction)
- 6 webbing each color
- 6 pairs of prusik cords
- 14 carabiners
  - 15th carabiner is attached to “pre-rig”
Bag “A”

- 14 carabiners
- 3 – 4” pulleys
- 2 Brake Bar Racks
- 2 Eight Plates
- 2 Collector Plates
- 2 Load Release Devices (LRD or Mariners Knot)
Bag “A”

- 24 Pieces of webbing
  - 6 each color
- 6 Pairs of prusik cord
  - 6 long; 6 short
- 1 Pick-off strap
- 1 Etrier
- 1 Gibbs ascender
- 1 Edge Protector
Bag “B”

- 1 Complete RPM setup
  - 1 with 2 pulleys for “Z” rig
  - With 1 each color webbing
- 6 webbing each color
- 5 ½ pairs of prusik cords
  - ½ pair (green short in “Pig-rig bag”)
- 9 carabiners, plus
  - 3 carabiners in “Pig-rig” bag
Bag “B”

- 9 carabiners
- 2 – 4” pulleys
- 2 Brake Bar Racks
- 2 Eight Plates
- 1 Collector Plates
- 2 Load Release Devices (LRD or Mariners Knot)
Bag “B”

- 24 Pieces of webbing
  - 6 each color
- 6 Pairs of prusik cord
  - 6 long; 6 short
- 1 Pick-off strap
- 1 Etrier
- 1 Gibbs ascender
- 1 Edge Protector
RPM - “A”&”B” Bags
Single RPM Setup

Low Angle Rope Rescue Operational

Single RPM Configuration

- Agencies that respond to urban or structural environments often configure the RPM by doubling the equipment necessary to construct mechanical advantage systems directly to the soft tissue plate. This simplifies operations in environments that provide larger operating distances between the tools and/or the working edge.
- Systems configured in this way minimize equipment needs and weight of systems utilized in high single rpm rescue operations.
- Although not specifically mentioned in this text, systems configured in this way are currently being used safely and efficiently in low angle rope rescue operations.
- The instructor will modify the RPM configuration to best meet local and regional needs.
Single RPM Setup
RPM into Z Rig Setup

Figure 1-3.1

3) Set the prusiki brake.
4) Remove the line from the UCU.
5) Attach the jumprig (short) to line on load side of prusiki(s).
6) Install load line in mechanical advantage pulley.
7) Connect mechanical advantage pulley to load prusiki with carabiner.

Figure 1-3.2

Notes:
- Ensure all connections are secure.
- Use appropriate lifting devices.
- Follow all safety guidelines.
Dual RPM Setup

LOW ANGLE ROPE RESCUE OPERATIONAL

Pre-rigged Dual RPM Systems

- Pre-rigged Dual RPMs with bridge points are a common use operation where low angle rope rescue operations are most often. It is efficient, eliminating a rotational change policy fail the reflection plate.

- When attached to anchors, the RPMs are configured with the leading device (ERD) in the middle and adjacent as shown.

- This configuration is ideal for pre-rigged operations in environments with a limited operating distance between the main anchors and the working area. This is a common scenario in vertical rock operations on tropical terrains.

- Either RPM can become the belay/safety or main line take of the system, based on site specifics and operational needs.

- The equipment required for the construction of the mechanical advantage system is consistently carried in a pocket in one of the two ropes, bagged separately, unpressurized and attached to the lifeline in a separate rope bag. (Figure 6.3)
Pig Rig Setup
Pig Rig Setup

Low Angle Rope Rescue Operational

Pig Rig Constructions 3:1

1) Tie a figure eight on a line with a 4" loop in the end of the pig rig line.
2) Where rope is on ground, forming two heights as shown above.
3) Place high 3/8" line pulley and connect a camber to this pulley.
4) Connect an anchor sling (6'-20') to this camber.
5) Place high 3/8" line pulley and connect a camber to this pulley.
6) Secure figure eight on a height once this camber is on top of the pulley.
7) Connect the short pulley to this camber.

Separation: 0.5" Width

124
Pig Rig Setup
Pig Rig in use Setup
Liter Pre-Rig
Liter Pre-Rig
Pre Rig Bag

- 1 Collection Plate
  - From “B” bag
- 2 16’ Orange kernmantle tied into 2 legs each
- 6 Carabiners
  - 1 from “A” bag
- 4 Prusik cords
Victim Harness
Legal
Vehicle Registration (copy)
☐ Laminated
☐ In Pouch In Side Compartment

☐ If you use a toll road or toll bridge, you must pay the toll for the trailer
DO NOT’s

☐ DO NOT add more load weight
  ■ Fill the 3 fuel cans, that’s it!!!

☐ Do not apply decals, signs, stickers, or mount anything to the outside or inside of the trailer
  ■ No Exceptions

☐ Your Fire Chief has signed a legal document agreeing to the above.
DO’s

- Plan For Safe Operations
- Follow Safe Practices
- Keep Each Other Safe
- Train, Train & Train
- Familiarize Yourself With The Tools & Equipment
- Good Luck & Enjoy the Rescue Unit
Questions

?????
Cal E*M*A Contact
Fire & Rescue Branch
3650 Schriever Avenue
Mather, CA  95655

☐  916-845-8711
☐ Special Operations
  ☐ D/C Lorenzo Gigliotti– 916-845-8729
  ☐ A/C Joe Gear – 916-825-6416