Rescue at the East Side Access Tunnel

by Lieutenant Peter W. Blaich

At 1117 hours on February 10, 2011, Hook and Ladder Company 2 was dispatched from quarters to Manhattan Box 0828 for a UCT-911, unknown type trauma at 28 East 48th Street. Company Officers and members are familiar with this Box--the location of the "world's largest underground construction site," aka the Metropolitan Transit Authority's East Side Access Tunnel Project.

On arrival, Ladder 2 members (Lieutenant Peter Blaich and Firefighters David Burkhart, Sean Deans, David Feder, Michael Pergamo and Ricardo Velazquez) learned that an Operating Engineer had been struck by a vehicle operating underground within a location known as "Well Way" Number Four. Members made patient contact and then placed the injured worker on a backboard. Ladder 2 members quickly removed the injured victim.

Current photo of Well Way Number Four shows where Ladder 2 members made the February 10, 2011, technical rescue.

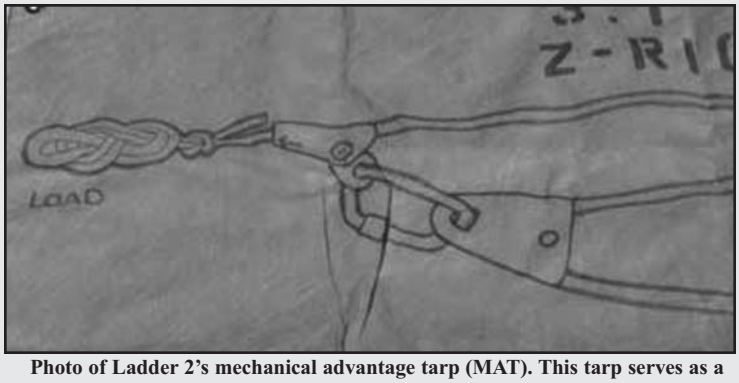

Photo of Ladder 2's mechanical advantage tarp (MAT). This tarp serves as a "memory jogger" and template for the proper layout of equipment. Ladder 2 members constructed the MAT at minimal cost. They used a standard, lightweight, four- by six-foot, polyvinyl tarp, purchased from a local Home Depot. The tarp was folded lengthwise into four quarters, providing the option of drawing four separate systems or one system per side. Each mechanical advantage system was traced with a permanent marker. This marker must not contact the rope or any of the hardware because its chemicals might damage the rope. Direction of the haul and location of the anchors and load were emphasized. Each system was labeled with common terminology to eliminate confusion. Following some company drills on the MAT, members were able to assemble the system with ease.

Ladder 2 members used a metal stokes basket that enabled them to remove the victim vertically, rather than horizontally. Simultaneously, the team deployed a mechanical advantage system, which uses ropes integrated within a pulley system. The members used these items to remove the victim to street level within 20 minutes. FDNY EMS personnel transported the victim, in stable condition, to Bellevue Hospital.

Technical rescue guidelines

- Well before the actual call for help was placed, this rescue was pre-planned. Starting in January 2010, the FDNY recognized the unique response requirement that such a large underground construction project would require from responding units and subsequently invested new training and equipment for Ladder 2 as the first-due assigned ladder company.
- There are many incidents when using a mechanical advantage system will facilitate moving a patient or Firefighter more effectively and safely. It also eases the raising and lowering of weighted patients, as well as equipment that is routinely carried by firefighting personnel.
- Some members may be apprehensive about using a mechanical advantage system because of perceived complexity. To remain proficient and increase efficiency during technical rescue, Ladder 2 has developed its own version of a "Mechanical Advantage Tarp" or MAT. This tarp often serves as a memory jogger or template for the proper deployment of the mechanical advantage system.
- The FDNY uses a multi-tier response to technical rescue incidents. Often, initial arriving companies are used to assist the later arriving Special Operations (SOC) units. In order to assist with securing the scene and retrieving victims and equipment, the first-responding companies may use the MAT to assist with deployment of a mechanical advantage system.
- The MAT complements formal training and company drills and is a valuable asset for many FDNY companies.
- Members must never forego their basic hazardous materials training and should continuously monitor the environment in which they are operating.

To reiterate, Ladder 2 members were able to deploy their new equipment and use their training by placing the patient into a vertically rated stokes basket. Webbing, ropes and pulleys were used to rig a mechanical advantage that was employed successfully to remove an injured worker from an underground cavern.

About the Author...

Lieutenant Peter W. Blaich is a 12-year veteran of the FDNY. He is assigned to Hook & Ladder 2 in Midtown Manhattan. Prior assignments include Ladder 123 and Rescue 5 as a Firefighter. He is an Adjunct Professor for the Fire Science Program at John Jay College of Criminal Justice, where he received his Masters Degree in Fire Protection Management. This is his third article for WNYF.