



Climber Rescue

Imagine waking up to the distinctive smell of smoke, seeing the flicker of an orange flame and realizing your house is on fire. What you do in the next few precious seconds can determine the future and well-being, of you AND your family. Are you prepared? Do you know what to do?

It's this type of urgent mental scenario/stress tower climbers will face when one of their own needs rescue. This PAN is intended to provide an overview of why rescue planning, communication, and training is a critical skill set that tower climbers need to possess and utilize.

Remember, the most important part of rescue planning is to remind everyone not to put themselves in a position to need rescue.

Sure, we've all seen the dramatic videos or read about firefighters performing high-angle rescues of a tower worker in need. After all, drama is what news stations (and YouTube viewers) thrive on. Although we greatly appreciate what our brothers and sisters in red, white and blue do to keep the public safe, tower rescues can put fire fighters, medical first responders, and law enforcement at risk. In many cases, their excellent training does not cover towers and the equipment that is necessary to properly perform a rescue from a tower. It should be noted that the National Fire Protection Association (NFPA) 1607 and 1006 provides tower rescue guidelines to firefighters, but this is on top of so many other things that they must be prepared for. Firefighters should be able to look at tower rescues as a low frequency event that they support because our industry can properly equip and train for rescue.

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Another problem is civic budgets, as properly trained and equipped high-angle rescue teams are not everywhere and are expensive to outfit with equipment properly. The planning for RF and other hazards associated with working at heights is well known to people in our industry. Many times, firefighters can be exposed to unnecessary risks. Further, the infrastructure that we install, modify, upgrade, and maintain are often located in rural areas where the closest team could be hours away. In a time of a true emergency when a worker needs both rescue AND medical attention, minutes matter. We need to have the support of emergency services and work with them to ensure rescue and treatment. To effectively accomplish this, our teams must be prepared to perform the rescue while communicating with emergency services for additional support.

The tower crews performing the work at heights have a distinct advantage over many high-angle rescue teams. We work at height daily, have completed our JHA (Job Hazard Assessment) and are familiar with the exposures and other hazards that may be present on the specific job site. The JHA allows us to ensure that we have assessed the structure and addressed any hazards on the site. Our JHA properly completed ensures all members of our team are on the same page. We rig structures with wire and synthetic ropes to hoist objects, and we are used to working on and around all types of structures, antennas and obstructions. We have been trained to understand the exposure concerns with RF and can manage and mitigate these hazards in a way that others simply cannot. We even have our own ways of communicating based on the SOW, hazards, and people on the site. Therefore, tower crews are naturally better suited to perform safe, prompt, and efficiently executed rescues from these structures on which we are building and maintaining the networks of today and tomorrow.

Remember the fire scenario from the beginning of this article? Proper preparation for the unexpected, be it a house fire in the middle of the night or a coworker rescue off a tower in the middle of the day, can save lives. Being truly prepared for the rescue of a coworker or employee involves much more than holding a laminated Competent Climber/Rescue card or the filling out of a generic rescue pre-plan form downloaded from the internet and kept in file cabinet. Being truly prepared for rescue requires commitment at all levels from the employers, the competent person and any authorized person(s). It should be noted that the effort to plan and be prepared for rescue does not always mean the job will take longer. In fact, it has been observed that when a team plans properly all work on the site is completed in an efficient manner with quality and safety achieved.

Our friends at OSHA require employers to provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves (OSHA 1926.502(d)(20)). But successfully executed rescues require more than just the proper gear and initial training. To truly provide prompt rescue, an employee must not only be trained and equipped, they need to also mentally prepare themselves for the possibility of a rescue each and every day. It is this mental preparation that enables the team to be focused on the first rule of rescue; never place yourself in need of rescue. This cannot be overstated; it is not effective to attempt a rescue creating a need for an additional rescue. When we approach rescue with a mind to avoid the need of rescue, we are in fact working to ensure the rescue plan is there to support the fall protection plan without needing to be used. Every good rescue plan must deal with the obvious, however none of us know when, or who, or how a team member will need to be rescued. Therefore, training to a mental process and methodology can be more critical than listing out the specifics of different types of rescues. Again, no one knows when the unexpected is going to happen, so the most detailed rescue plan on the planet can be shot full of holes in seconds if even one small detail differs from the plan. Ensuring that the entire crew is on the same page for every single job and that they all share the same rescue preparedness mindset will allow for a successful approach versus one of panic in a time of crisis.

This rescue mentality can be broken down into a few simple steps: Prepare, Assess, Communicate, Equip, and Execute.

PREPARE
ASSESS
COMMUNICATE
EQUIP
EXECUTE

Prepare

Before a foot is stepped onto a job site, rescue training is required for climbers and is available from several training companies. The most important aspect of this training is that is applicable to the scenarios one will encounter in the field. Annual re-fresher training is also required and must be documented. The NATE Climber Training Standard is available to all and is a great resource on what specifics shall be covered for rescue training. As part of the Job Hazard

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Assessment (JHA), a site-specific rescue plan must be discussed and documented with the entire crew. This plan should cover emergency contacts and where team members will be working based on the SOW. It should also include how to utilize available resources and equipment to execute a rescue.

Assess

Before a finger is even lifted, just STOP and assess the situation. Often when a rescue needs to be performed, panic sets in. Not thinking clearly, understanding what has occurred and how as a team the situation can be responded to will be the proper way to execute.

Communicate

As a part of planning avoid assigning tasks to specific individuals, this is where a wrench can get thrown in and people panic-or worse, do nothing. Instead, approach the process of rescue in a way that makes rescue EVERYONE'S responsibility. Verbally walk through the work scenario, and openly discuss how rescues would need to happen at each location. Discuss the need to clearly understand the rescue needs through assessment with awareness of the equipment and other team members available. If a rescue is required, ensure that communication is ongoing throughout the entire rescue. This is often overlooked in rescue training. Stop, assess, understand, communicate and then as a team execute a rescue utilizing the proper equipment.

Equip

Ensure the proper equipment is available and has been assessed. Just like most PPE, rescue equipment over the years has evolved to become safer and easier to use under the guidance of standards such as ANSI Z359.4. This standard exists to ensure equipment used during a rescue meets several specific testing criteria for not only strength requirements but ease of use under stressful situations. Safety features like an anti-panic feature on a rope descend device exemplify this critical difference in equipment used for daily work versus that used for rescues. The anti-panic feature was born from real world scenarios where panic and adrenaline kicked in during rescues. Due to technology advancements items that were once common are now non-compliant such as figure 8's and fisks. Advancements were often the result of feedback from the industry or from root cause analysis of workers injured, or cases where the rescue was overcomplicated which happened even during rescue training. It is important to note that our industries feedback as end users to equipment manufacturers is crucial and has influenced

product design, thereby helping us to work and rescue more safely and efficiently.

In addition to evolved safety features for descent control devices, new mechanical advantage devices have surfaced creating in many cases a 60% or greater mechanical advantage for scenarios where an injured or unconscious worker must be lifted. These devices combined with certain descent devices, proper training and a rescue mentality can be the difference between a successful rescue or a botched rescue attempt.

It is important to remember that when it comes to rescue equipment and pre-planning, one size does NOT fit all. The equipment lists needed for rescues varies with structure types, scopes of work, training of team members, and working environments. Therefore, pre-work planning for rescue is just as important as bidding the job properly. There may be a specific piece of equipment that is required to safely provide rescue to team members on a non-standard site. Because there are all different types and flavors of equipment, training based on crew experience and equipment is crucial to success.

Execute

This is the most critical part. A rescue is often accompanied by adrenaline, sometimes panic, and quite possibly a crushing fear of our own mortality. Obviously, we never want to see a coworker injured or in a spot where a rescue is needed. It is however, a possibility that we must address, and should be prepared mentally to accept the chaos but stay cool, calm and collected. This will avoid additional harm or making a situation worse by overthinking the situation. Sometimes it takes slowing down to go faster and taking your time to ensure everyone remains safe. Remember the old saying, "Slow is smooth, and smooth is fast."

Our industry is supporting telecommunication infrastructure from initial install, to maintenance and disaster response. As a part of this it is critical that we as an industry never lose sight of the dignity of each and every person involved. To ensure that we are planning, training, and equipping our team members properly is critical. Remember to keep things simple; over complicating systems is a recipe for a bad day. Get the proper training, have a plan on every site, communicate with each other on your rescue plans and processes and stay cool. ■