

# STRW VENUE INFO SHEET

## STRUCTURAL-TOWER RESCUE WORKSHOP *Multiple Venues in the USA (AZ, MI, OH, MD etc.)*



The [Structural Tower Rescue Workshop \(STRW\)](#) is an in-depth, hands-on course, emphasizing structural rescue from the ground up. The techniques used in this program are closely aligned with mountain or tree rescues where similar bottom-up procedures are used on stranded climbers above the rescue team's arriving location. Most rope rescues (>95%) are top down in nature due to the fact that the rescue team is able to easily gain access to a position above the victim's location to perform the rescue.

The STRW addresses these important distinctions early on with both structure-based and ground-based rescue techniques, provides in-depth orientation on lattice steel and monopole radio and power transmission tower construction, climbing techniques and hazards, all for the emergency responder. This is the first and only seminar carefully delineating the many hazards associated with energized power transmission lines for fire fighters. 99% of all above ground towers in the US are electrical power transmission lines. The STRW



Below, Rescuers in Michigan STRW hang off of Port Huron Bridge between Canada and the US.



also features video support from the training materials "TOWER RESCUE for EMERGENCY RESPONDERS" which Reed did back in 2003.

Before the rescue section begins, students learn several ways of safely climbing not only towers but structures such as bridges using time-tested climbing methods, rest positions, and tips for route strategy. Many of these techniques are used today by seasoned workmen who work on towers and structures as part of their daily employment. All climbing is taught with first-up fall protection and established self belay lines for all subsequent climbers on the tower. This rigorous workshop teaches rescue of uninjured, ill, slightly injured or injured workers or unauthorized climbers on lattice steel and monopole structures up to 40m (125'). The seven-day seminar is designed for emergency responders only and is not recommended for tower workers and linemen. The STRW is all personal movement on rope, solo and semi-solo rescues and predominately bottom up rescues.

## STRW KEY POINTS:

- Anchoring on structural steel
- Awareness orientation on different types of towers
- Methods of climbing with fall protection: Emergencies associated with structures
  - ▶ Double lanyard
  - ▶ Advance-placed
  - ▶ Lead climbing
- Tower types and awareness
- Electrical power transmission towers and hazards
- Rescue options (team or solo)
- Climbing exposure assessment
- Minimum tower rescue essentials
- Medical considerations & patient assessment
- Patient packaging while suspended (using litter scoops and the Yates Spec Pack®)
- Ground-based versus structure-based tower rescues
- Electrical grounding hazards
- Radio frequency hazards
- Personal climbing on rope:
  - ▶ Ascending and descending
  - ▶ Passing knots
  - ▶ Aid traverses
  - ▶ Self belays and true belays
- AZTEK passing of the patient through tower
- Skate blocks off of tower
- Dynamic skate blocks
- Limited raising and lowering systems:
  - Pulley systems
  - Skyhook® capstan winch



Top: A skate block used by students during an Arizona STRW.  
Middle: A Michigan STRW at a local utility using a training power transmission tower. Below: Riding a long radio tower guy wire down to the ground in a Maryland STRW





## **ABOUT ROPES THAT RESCUE:**

RTR is a comprehensive rope rigging school and a rope access consulting firm based in mountainous northern Arizona with programs around the US, UK, Canada, Japan and Australia. The firm teaches roped techniques to emergency rescue teams in industry, mines, wilderness search & rescue, emergency medical and fire services. RTR is renowned for its teaching of practical rigging principles with understanding and simplicity

RTR offers workshops on roped access, fall protection and rescue procedure for transmission structures and conductors. The training includes emergency medical training for linemen and practical rigging and techniques in use in other vertical disciplines without the use of specialized gear. The schools innovative techniques were

Radio cell towers



Rescue from power transmission lines if the venue is available



featured during the [History Channel special "High Voltage" \(SUICIDE MISSIONS\)](#) where linemen were rescued from energized 500kv lines using rigging skill and ropes.

## **PROGRAM LIAISON:**

(INFO, Location / Meeting Place / and Logistics)

The liaison for each RTR program varies according to location and RTR instructor. See the [Open Enrollment Schedule](#) for these details on the STRW you are signing up for.

## **HAWAIIAN SHIRT DAY!**

The final day of all RTR programs is Hawaiian shirt day. It is a silly but fun tradition which we try to maintain. Please bring a Hawaiian shirt to receive an RTR embroidered hat!



## REQUIRED (and Recommended) EQUIPMENT FOR THE STRW:

See [EQUIPMENT LIST](#) for this program which is different than other RTR programs. NOTE! A structural harness with side D rings and adjustable positioning lanyard is required for participation in the STRW. Other specialized ascending gear may also be recommended but not required. However, having your own set of sternally attached double Y lanyards (or sternally attached step clip Y lanyards) is highly recommended.

## Preparation for this program: TRY TO DO THIS!

Knots, bends and hitches are an integral part of every RTR program. You simply cannot be a good rigger without knowing extensive knotcraft—Pure and simple. To assist you in the mastery of these knots PRIOR to class we have assembled videos of Reed tying each one on camera with

the help of Sequoia, the green-cheek conure. Once you have registered for a program, you are invited to join our closed Facebook Page called [“Arizona ART of Clean Rigging”](#) for access to these videos. Look under “Media” and open the link to these videos under “Albums”. Look for album “KNOTCRAFT with Reed and Sequoia”. On this page (only open to past RTR alumni and current students) you will be able to watch all the knotcraft being performed clearly. This will speed up the learning process during the classroom portion which will allow us to get to the field earlier.

[See RTR Open Enrollment Schedule](#)

