

Offset-Highline Rescue Workshop INFORMATION

“A rigging extravaganza!”

See [Current RTR Open Schedule](#) for Dates & Location



This OHRW Program:

The [Offset-Highline Rescue Workshop](#) (OHRW) is taught in several locations around the US in both wilderness and industrial venues. After both are represented in the same workshop. Regardless, the OHRW is rigging intensive and



for those who desire a better understanding of the subtle differences between highlines and high angle offsets. The OHRW is an entry-level workshop requiring no prerequisites however it is recommended that the participant have basic rope work, knotcraft and rescue knowledge to get the most out of this program. It is not for beginners. The OHRW teaches the minor and major offsets to high angle evacuations. “Minor” offsets are the 1) Tag line and the 2) Guiding line. The “major” offsets are the 3) Tracking lines, 4) Deflection lines, 5) Skate blocks, and 6) Two rope offsets. All of these can be executed off of tall buildings, towers, bridges and any other structure. Offsets can replace the complexity of the highline and be a good alternative in rescue without a departure from already established protocols.

Highlines require special training which is where the OHRW heads next. They can be divided into two basic categories: 1) high tension highlines and 2) low tension highlines. The spanning element in these highlines is called a **trackline** and the tighter this trackline is, the more force is exerted on the anchors at either end. The OHRW, as an entry level workshop, concentrates on low tension highlines exclusively—generally where the trackline is at a maximum angle of 150° or less.

(Above 150° , we enter the realm of the high tension highline which is a province of the [Advanced Skills Rescue Workshop](#). These are sometimes referred to as "Kootenay Highlines" due to the precautions that must be taken to maintain a good safety factor).

Low tension highlines are therefore easier to construct and use, for the most part, the same rope, equipment and practices that are found in the standard high angle technical evacuation (similar to the previously covered offsets).

Offsets, when compared to low tension highlines, are operated at even a lower angle of 120° or less. Hence, they are even more user friendly and can attain a high safety factor. Students will gain valuable insight into which discipline, offset or highline, works the best for a particular situation given certain parameters.

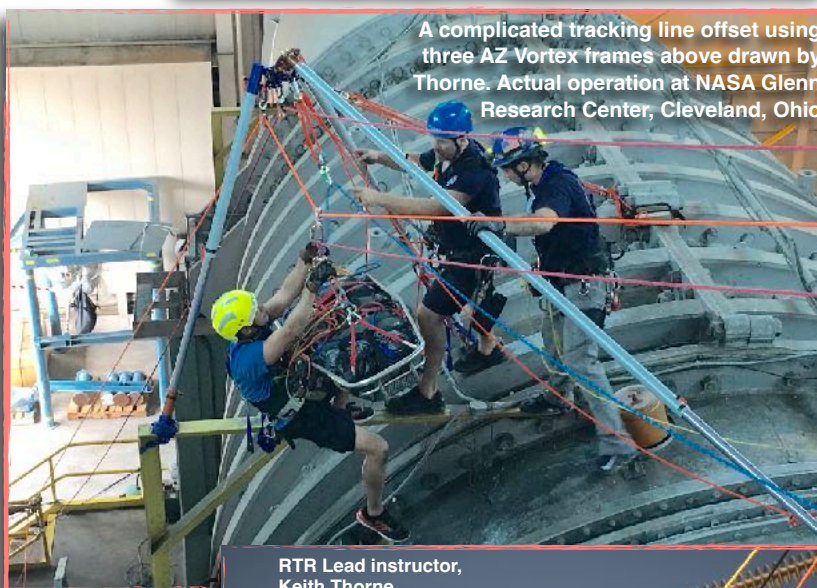
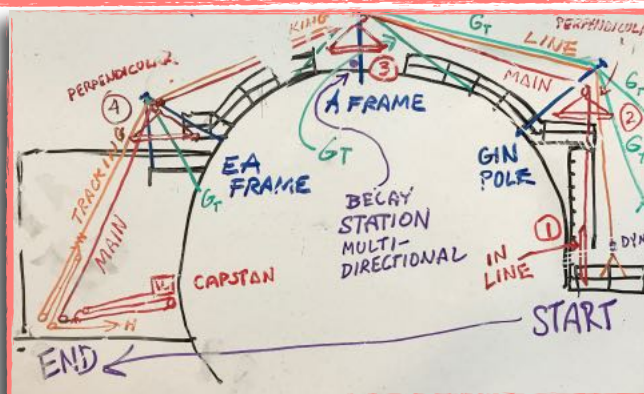
There are extensive lectures on physics, pulley systems, artificial high directionals (AZ Vortex) in the OHRW.

NOTE concerning certain venues:

There are any number of good venues that are always sought for the OHRW and none of them are guaranteed to be available for our use. We are also hoping to get onto some power transmission towers with the local utility but the permissions are hard to obtain. RTR cannot guarantee that we will be able to train on any of the venues shown here.

KEY POINTS:

- This program deals with a comparison between offsets and the use of low tension highlines for spanning canyons or industrial gaps
- Physics of rope rigging with emphasis on tension forces relative to tracking elements
- Acute differences between offsets and highlines (physics)
- Ideal for rope access technicians (those that work at elevation)



A complicated tracking line offset using three AZ Vortex frames above drawn by Thorne. Actual operation at NASA Glenn Research Center, Cleveland, Ohio



OHRW: Rescue using a tracking line on 500kv electrical power transmission lines at Western Area Power Admin. Elverta, California

- Low tension highlines with higher side to side anchorages
- Anchor building - system anchors
- Knotcraft - basic through advanced
- Introduction to pulley systems (simple through complex)
- Moderate use of simple to intermediate frames (Arizona Vortex)
- Critical analysis of tracking elements-critical point test
- Major high angle offsetting:
 - ▶ Skating tracking lines (belayed and self belayed)
 - ▶ Deflection lines (belayed and self belayed)
 - ▶ Two rope pendulum offsets (belayed from both sides)
- Limited highlines (only those with high anchorages and more than 15% sag) (NOTE: This is NOT a full highline program)
- Low tension reeving highlines (carriage belayed from both sides -reeve line belay options)
- Low tension drooping highlines (belayed from both sides)

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 OHRW you are signing up for.

HAWAIIAN SHIRT DAY!

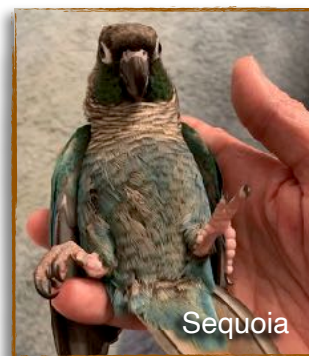
The final day of all RTR programs is Hawaiian shirt day. It is a silly but fun tradition which we try to maintain. Please bring a Hawaiian shirt to receive an RTR embroidered hat!

KNOTCRAFT (Get ready with Sequoia, the Green Cheek Conure!)

If you have signed up for any RTR workshop, you can join us on the CLOSED Facebook Page "[Arizona ART of Clean Rigging](#)" for RTR students and alumni ONLY. This is a secret special place where we all meet to discuss rigging. You must apply for membership and if you are signed up, we will admit you there. On that page, you can watch the various knots being tied by Reed & Sequoia (the Green Cheek Conure). They are found under the "Media" section of that page. Go to "Albums" and then click on "KNOTCRAFT with Reed & Sequoia" link. This will give you a head start on the knotcraft used in RTR workshops. Enjoy!



OHRW: Rescue using a deflection line offset with a patient litter scoop within an indoor foyer at Progressive Field, Cleveland, Ohio



Sequoia

