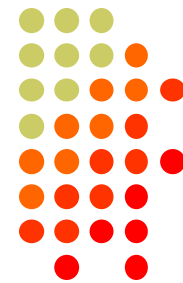


# Tower Safety

Tim Jellison W3YQ/KL7WV



# Some disclaimers:



- I am not a certified instructor.
- You will not be a certified climber after this talk.
- I am, however, a certified climber/rescuer/rigger.
- My only goal is to help you stay safe.

# Hazards



- Electrocution
- Structural Failure
- Incapacitation (Don't climb crank-ups)
- Falls

# Hazards



## ● Electrocution

Check for powerlines before beginning work.

Dipoles, verticals, towers, Yagis, ropes.

They're all conductive.

# Hazards



## ● Structural failure

Check all guy wires.

Check foundation.

Check for rust/degraded components.

Cheap hardware used?

Guyed towers need to be straight and plumb.

Install temporary guys when stacking or dismantling towers.

# Hazards



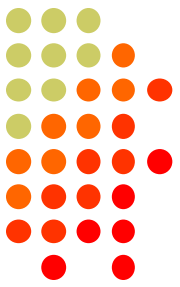
## ● Incapacitation

Know your body.

Heat/cold. Both can tap your strength.

Work slowly and methodically.

Insects and birds.



# Hazards

## ● Falls

Any fall could be fatal.

Even falling 10 feet could kill you.

100% tie-off. **No free climbing.** No exceptions.



# Safety procedures

- First – check for power lines
- Use a proper harness and lanyards
- 100% Tie-off. NO FREE CLIMBING
- EVERYONE wears a hardhat
- Never “EVER” ride a rope, capstan



- 100% Tie off. No free climbing!
- Always use a full body harness.
- It will keep you safe(r) and it will greatly assist the rescuer during a rescue.
- I use a DBI Sala Exofit harness. But there are all kinds of approved options on the market.
- None of it is cheap, however. But what's your life worth?





**Plus, you can get a harness with a seat strap. These are the best!!!**



# Positioning Device



# Double Fall Arrest Lanyards



# Double Fall Arrest Lanyards



# Full Body Harness



# Fall Arrest Equipment



- The true, proper and safe methods of using fall arrest equipment is complicated and beyond the capabilities of this class. But we'll do our best.
- Using it improperly can be dangerous. And it might give you a false sense of security.
- Taking a professional tower climbing class is highly recommended.

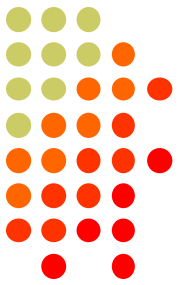
# Fall Arrest Equipment



- The forces exerted on your body during a fall will surprise you.
- The tie-off point for your fall arrest equipment is critical.
- And while (if used properly) the fall arrest equipment will save your life, you **WILL** be hurt.



# Fall Arrest



Only attach to the back, dorsal D-ring.

Your attachment point must hold 4000 lbs.

Will it hold a pickup truck?

**When using a fall arrest lanyard, the tie-off point is critical. Don't trust Rohn cross braces. They're not strong enough.**



# Snap around the tower leg instead



# Good way to climb Rohn towers



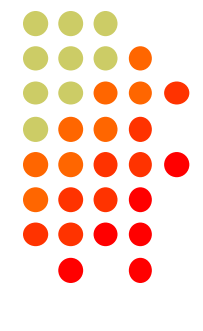
**Be careful at the top of the tower.  
Don't let the lanyard slip over the top.**





- Using man lifts and cranes cost you some \$, but they're a good way to do tower work. And do it safely.
- When using a man lift or a man basket hung from a crane, a full body harness with fall arrest lanyard **MUST** be used.





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- If hiring a tower crew, use only certified climbers
- Consider becoming a certified climber yourself
- [www.comtrainusa.com](http://www.comtrainusa.com)  
[www.citca4training.com](http://www.citca4training.com)

**And above all, when climbing  
follow all safety rules!**



**NO SK's**

