



**Jeff Welton**

Sales Manager, Central USA  
Nautel



**Shane Toven**

Senior Broadcast Engineer  
Educational Media Foundation



Episode #46

# Fall Maintenance Tips

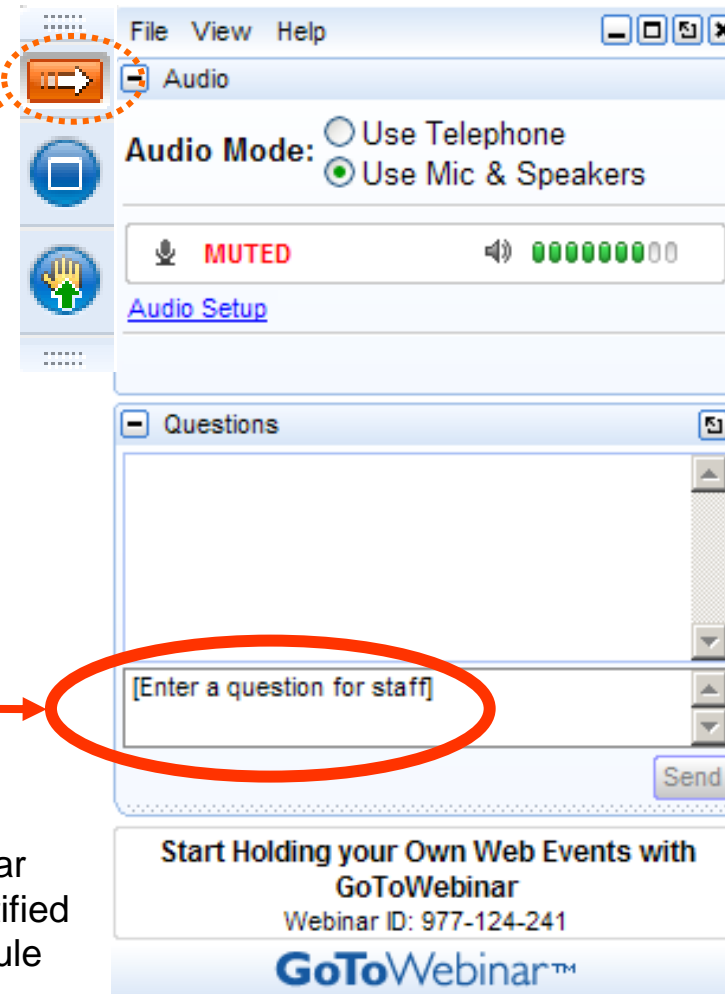
# Your questions please?

(if you don't see the control panel,  
click on the orange arrow icon to  
expand it)

Please enter your questions in the  
text box of the webinar control panel  
(remember to press send)



Remember: The completion of a Nautel webinar qualifies for ½ SBE re-certification credit, identified under Category I of the Re-certification Schedule for SBE Certifications.



# Ideas for things to discuss

- **What are the gotchas?**
  - The things that are easy to miss, but can cause big issues (like blower belts)
- **What are the “must haves”?**
  - Things that no transmitter site should be without (first aid kit, water, snow shovel?)
- **What’s the obvious stuff?**
  - Sometimes, it’s the most overlooked (like generator transfer switch testing)
- **Other thoughts?**
  - Cleaning up the “temporary” fixes?
  - Checking the nuts and bolts?

# Winterizing

- **Station (or personal) vehicle**
  - Winter tires
  - Chains as needed
  - Fluids/filters/wipers changed
- **Survival kit – vehicle/sites**
  - Blanket
  - Water/energy bars
  - Hygiene stuff
  - First Aid



Image credit: <http://fivegallonideas.com/high-quality-emergency-kits/>

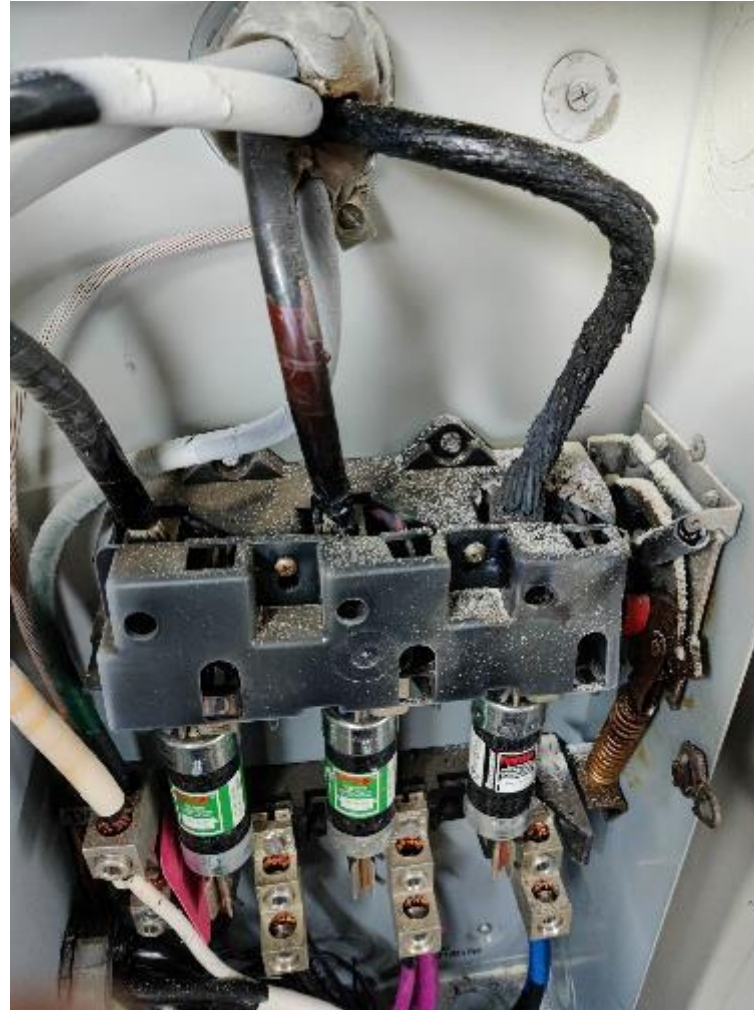


# Cleaning up “temporary” fixes...





# Thermal scans



# Snow gear

- Snow shovels are no good if you can't get to them.
- Do you need alternative transportation?



<http://www.uwyo.edu/uw/news/2008/03/wyoming-public-radio-turns-to-horses-to-fix-thermopolis-transmitter.html>



# Winterizing

- **Perimeter check**
  - Fencing/signage
  - Loose cables
  - Lights – security, ATU, closets, check all bulbs
  - Rodent control
    - Lay down traps or deterrents
  - Seal holes
    - Expanding foam/steel wool (stainless or copper)





# On Rodent Control...



**JEFF'S TIP FOR TODAY...**

## **Critter proof**

Use stainless-steel wool and spray foam to plug holes.



[support.nautel.com/tips-n-tricks](https://support.nautel.com/tips-n-tricks)



# Winterizing

- **Batteries!**
  - Check UPSes
  - Flashlights/headlights
  - Transmitter controllers
  - Smoke detectors
  - CO detectors
  - Multimeters
  - Heating/Cooling remotes



Image credit: rei.com

# Winterizing

- Lubricate
  - Contactors in AM arrays
    - (dry graphite)
  - Air handling system
    - Fan motors
    - Louvres
  - Locks
    - Padlocks on gates
    - Entry locks
    - ATUs or outdoor cabinets
  - Bearings in phase converters
  - Satellite dish drive mechanisms



Image credit: kadexaero.com



# Winterizing

- **Generator**
  - Check Fuel – level and quality
  - Lube/Oil/Filter
  - Coolant level and battery SG
  - Load Test with live switch
  - Hoses and belts
  - Air filter
  - Rodent proof enclosure
    - Mothballs
    - Pest repellents
  - Block Heater



# Checking Access...

- Door closed?
- Transmitter set to REMOTE?
- Cameras are handy.



# And louvres!

- No,  
seriously...  
Cameras are  
handy!





# Weather happens



# The best laid plans...

I've heard that  
heated driveways are  
becoming popular.



# Online Information



## **Webinars**

<https://www.nautel.com/resources/webinars/>



## **Nautel Waves Newsletter**

<https://www.nautel.com/newsletters/>



## **YouTube**

<http://www.youtube.com/user/NautelLtd>



## **Online Info, such as the Broadcasters' Desktop Resource**

<https://www.thebdr.net/>



# THANK YOU!

