

Nuts and Bolts

Troubleshooting by
Evidence,
Experience,
& Intuition

Broadcasters Clinic

2025

Moderated by
Kirk Harnack, Telos Alliance

**CLEVER IDEAS
FROM THE
WORKBENCH**



Help – we're
off the air!

The jock calls.

How do you respond

What do you check first?

There's a
serious hum
on your FM
program
audio...

What do you check first?

What can you check at the studio
(if that's where you are?)

If audio is clean leaving the STL,
what's next?

Backup audio processor?

During a routine transmitter site inspection you see there's no pressure on the FM transmission line.



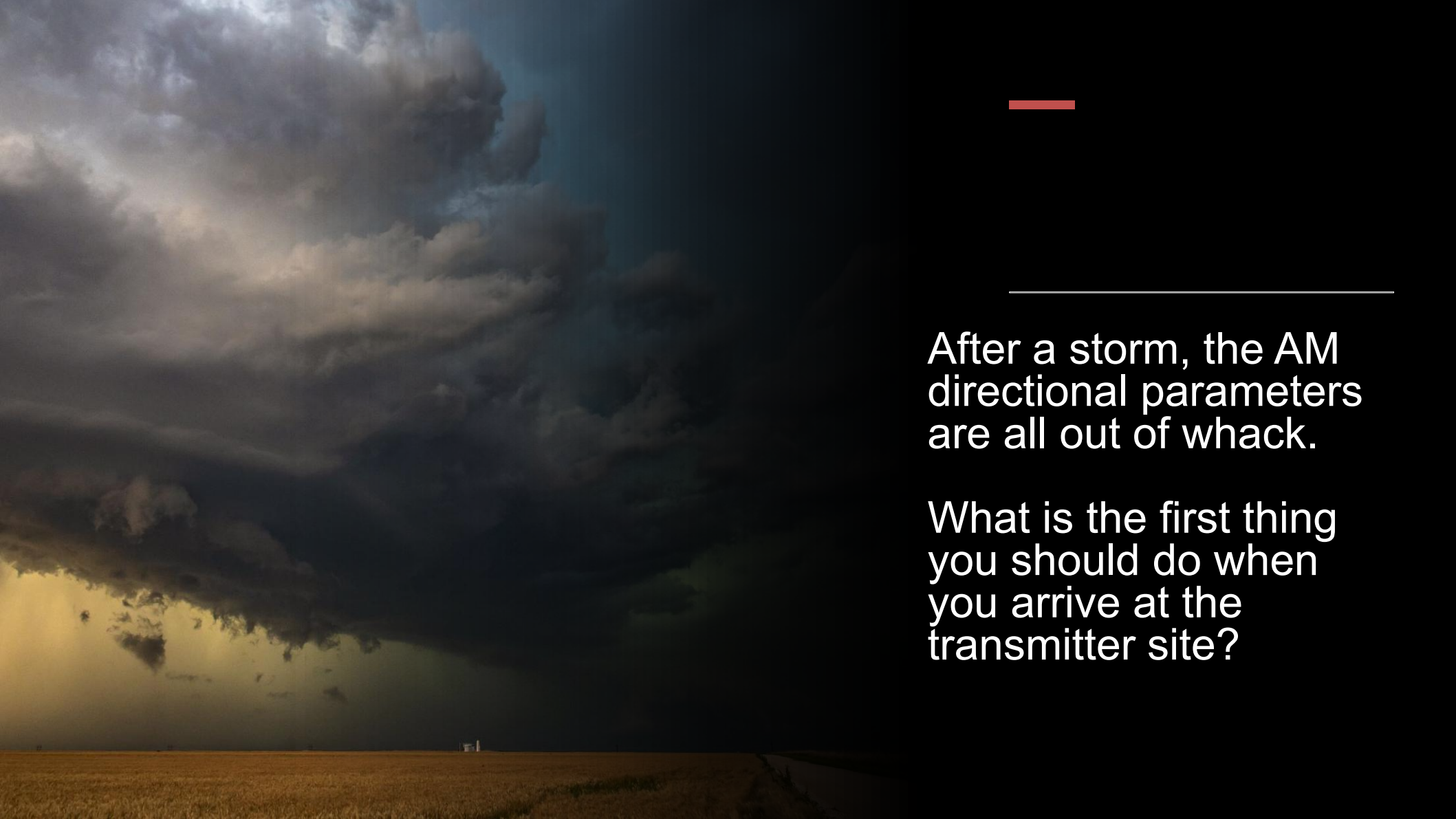
What do you check first?



Nitrogen tank is empty, but
dehydrator isn't running?

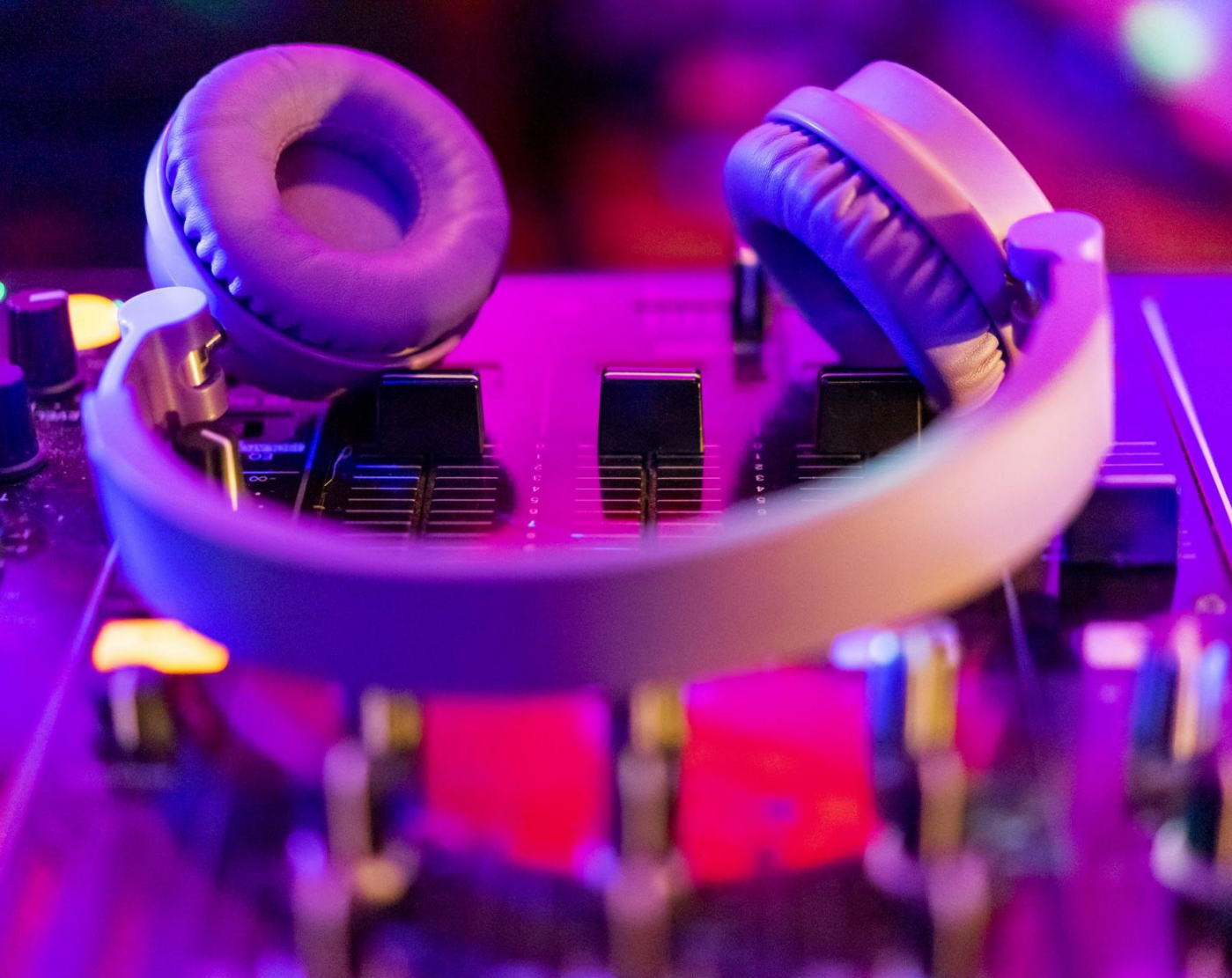


Use spray bubbles to
check for leaks




After a storm, the AM directional parameters are all out of whack.

What is the first thing you should do when you arrive at the transmitter site?



What can you
use to
monitor audio
in a Livewire
AoIP facility?

- 
- You get a call from the GM, saying he can pick up your station several places on the dial
 - What's the likely problem?
 - What would you check first?



- You notice two sources are playing at the same time on the air – and no one is at the station, as you are on satellite.
- What's the likely problem?
- What would you check first?



- There is a terrible echo in the remote audio from the baseball play-by-play announcer.
- What's likely going on?



- The main transmitter is off the air. When you get to the transmitter site, and reset breakers, hitting PLATE ON is followed by a flash and a large bang.
- What does this scenario point to?
- What would you check first?



The old 1kW AM tube auxiliary transmitter will not come on.

What should you check first?

Are the tubes lit?

Is the blower fan working?



You started a new job and each of the three transmitter sites has a backup power generator.

What things should you do to insure reliability?



- One of your contract stations calls to complain they lose their satellite-feed every evening at sundown.
- What's likely the cause?



Your satellite-
fed station has
lost audio.



What should
you check?

-
- You arrive at a transmitter site that uses a 20kW tube FM transmitter. Everything is quiet, but the overhead lights are on.
 - What could be the problem?



What are some causes of LOW plate current in an RF Amplifier?





What are some causes of HIGH plate current in an RF Amplifier?

What should you check if the plate voltage will not energize on a high power FM tube transmitter?



What are some
causes of a
PLATE overload?





This Week in Radio Tech

ThisWeekInRadioTech.com

facebook

You Tube