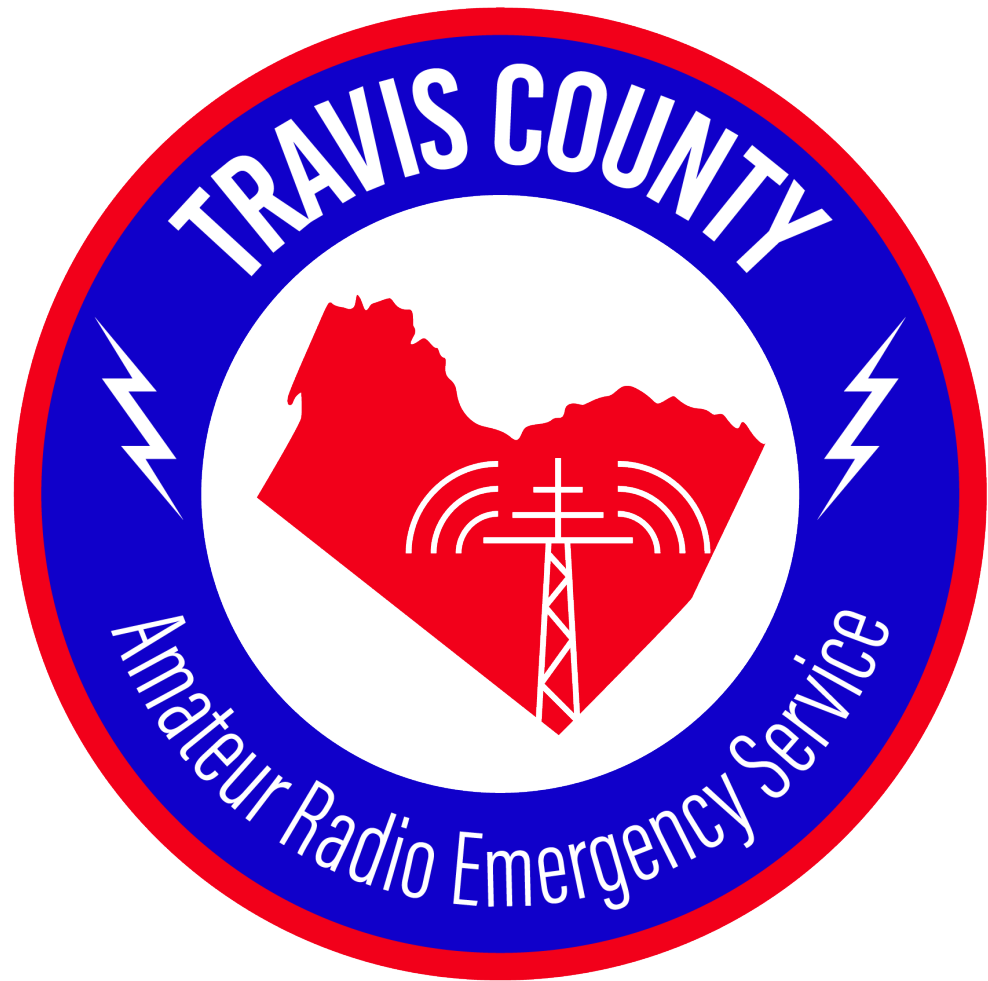


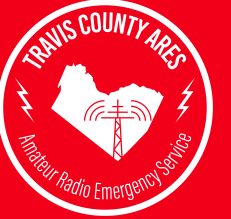
Connecting to Repeaters

Glenn Meter
W5MTR
Emergency Coordinator
Travis County ARES
2/25/2025

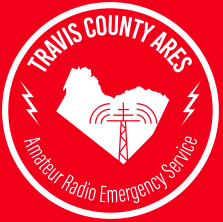


Requirements

- Programmed radio
- Antenna able to reach repeater
- Power to reach repeater

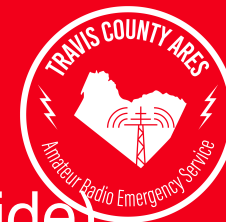


Programmed Radio



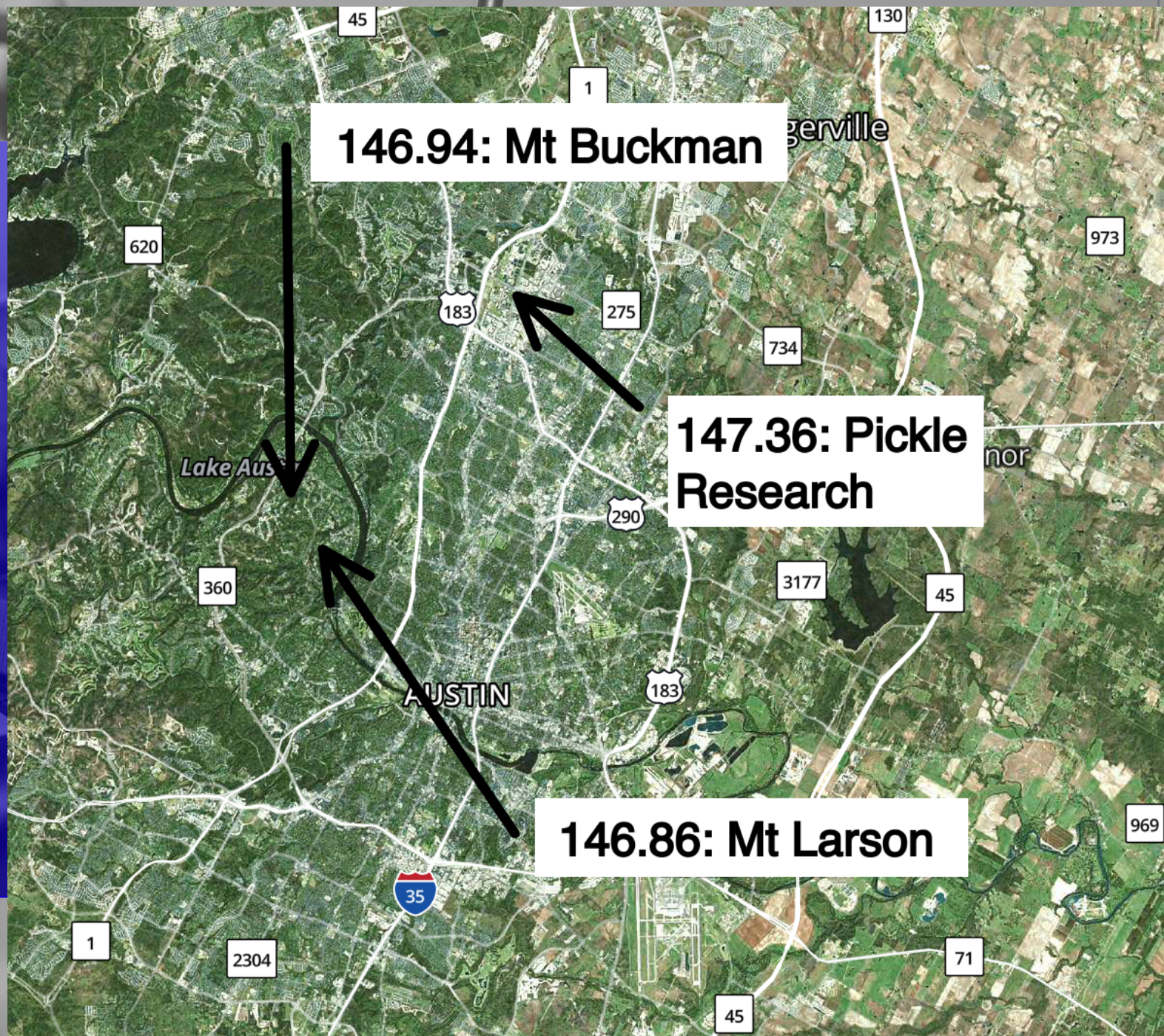
- TCARES Repeaters:
 - 146.940 MHz: offset -600kHz; CTCSS tone 107.2 Hz
 - 146.860 MHz: offset -600kHz; CTCSS tone 146.2 Hz
 - 147.360 MHz: offset +600kHz; CTCSS tone 131.8 Hz
 - 146.580 MHz: no offset, no tone
- Need help?
 - Bring HTs to Saturday breakfast
 - Mobile radios:
 - Check manual
 - Ask for help on Groups.io or Discord

Antenna

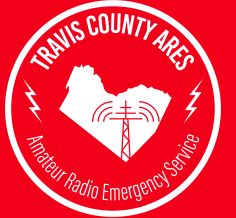


- Need line-of-sight with repeater (map next slide)
- Want antenna above obstructions (buildings, hills)
 - If mobile, drive to higher ground
- Want better antenna than HT “rubber duck”
 - DIY ground plane antenna: mag mount on chunk of metal (baking sheet, ammo can, fridge or freezer)
 - Taller -> more gain (radiation focused on horizon)
 - Those far from Austin use beam antennas (Yagis)

Repeater Locations



Radio Power



- Increase radio power level
- HT -> Mobile Radio (~5 watts -> ~50 watts)
 - Used is ok. From recent AARC SwapNet newsletter:
 - Yaesu FT-2980 80 watt 2m FM mobile \$175
 - Yaesu FT-7800 Dual Band 50 watts mobile \$200
 - Icom IC-2200H mobile 65 watts \$100
 - Will need power: FT-8900 (50W) requires up to 8.5 A (117W)
 - Power Supply
 - “12v” battery (13.8v)
- Need Help?
 - AARC Elmer Net Sat 7pm 146.94
 - Groups.io and/or Discord
 - Saturday Breakfast

