



ARES® and AUXC at the Minnesota COMMEX – Northstar III

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ARES® ASEC-Events, Minnesota Section

President, MNVOAD Radio Club

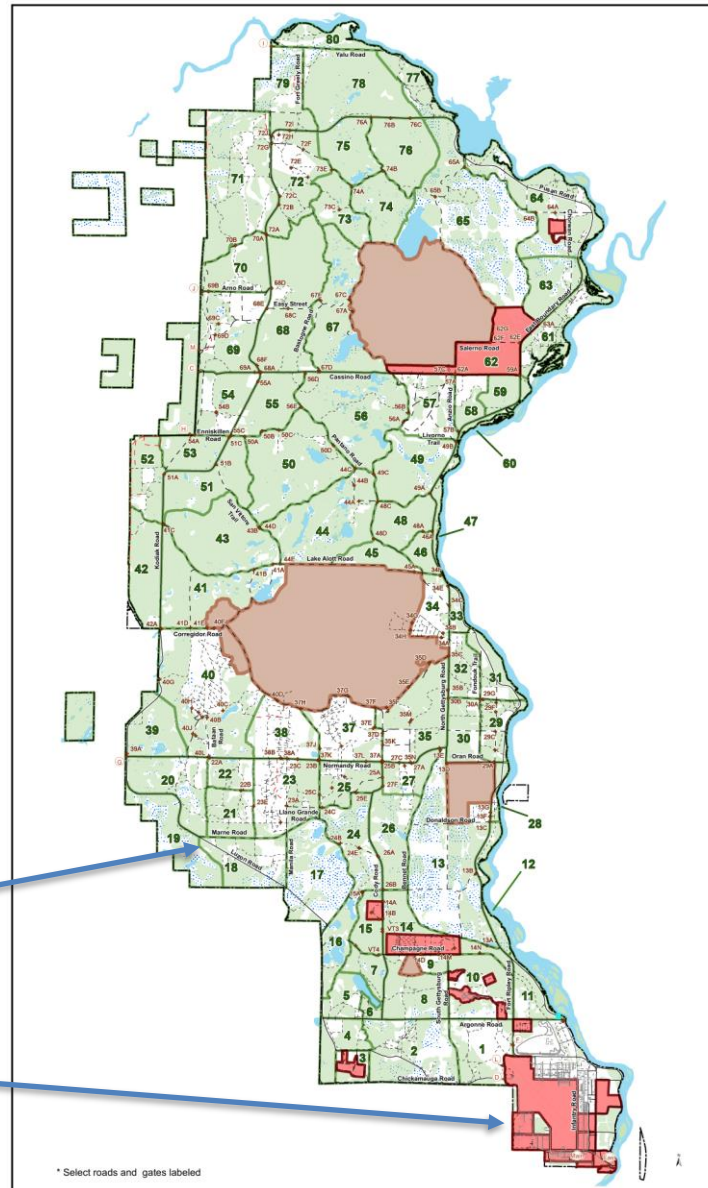
August 17–21, 2025 | Camp Ripley, MN

Event Overview

- Annual Minnesota Statewide Communications Exercise (COMMEX)
- Location: 53,000-acre MN Camp Ripley regional training facility
- Over 100 participants
- Main objective: Restore interoperable communications after a simulated natural disaster
- 17 COML candidates (many are working 911 dispatcher supervisors) completing task books



Camp Ripley



FASP

Airfield and EOC

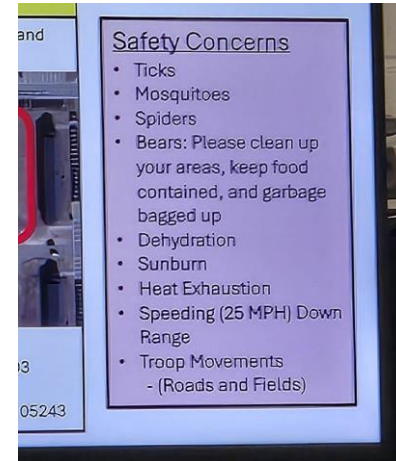
ARES® Involvement

- ARES® volunteers invited for the past 5 years (Benton is well established here)
- Roles: FEMA/NIMS AUXC + Field Observer
- 2024: ~12 hams | 2025: 5 hams
- Minor compliments from agency speakers
- We brought Truck23, 6KW tower trailer + Starlink



Day One

- Introductions & area familiarization
- Aircraft capabilities & safety talk
- Vendor/partner trade show
- Equipment listing via ICS forms
- Assets promoted:
 - Tower trailers
 - Deployable cell towers
 - Satellite to cell
 - High power access point
 - Radio vendors
 - Comms trucks



Day Two

- Briefings + Search & Rescue exercise
- Helicopter familiarization at Forward Ammunition Supply Point=FASP
- No cell service @FASP = realistic EMCOMM
- Convoy deployment with tower trailers
- Reliable instant VHF comms to the EOC via AUXC
- Lots of equipment problems



Day Three

- Exercise Play at five sites teamed with COM-L Candidates
- Three EOCs caused some crowding
- Truck 23 convoy deployment with tower trailer at FASP
- Reliable instant VHF comms from AUXC + CAN-P reports
- Our one WinLink message went via Starlink



Day Three- Some Obstacles

- The two portable cell towers were mostly inop
 - One had a dead starting battery- we helped troubleshoot it – it had a L16-30 shore power input + solar
 - The other had a bad satellite uplink
 - One of the big 110' towers got stuck
 - NVIS/HF was a no
 - Our duplexer was miswired



Day Four

- Hot Wash / After Action Review
- More exercises requested statewide i.e. invite COML trainees
- Evaluated with HSEEP
- Volunteer to help plan 2026 event



Lessons Learned (1/2)

- Bring many tower trailers- one per site
- Mesh networking (Ubiquiti Unifi®) was in many kits
- 10 min setup/teardown- that was the time to first request
- NVIS skepticism by me – events and disasters are run on WebEOC
- Starlink useful (5 dishes in use at least)
- ICS forms critical to COMU work
- AUXC = bottom rung of the chain of command
- MN Guard Members were professional, friendly and engaged
- We brought our 500' tactical single mode fiber kit and a wireless bridge.

Lessons Learned (2/2)

- Government P25 Talk Groups not universal answer to all questions
 - ESF 2, Whole Community, VOADs etc.
- Air-ground comms on P25 vs civilian or other agency aircraft
- AUXC voice comms undervalued- EOC standby role sidelines your gear
- Gear fails → Plan B/C rapidly
- Remote video improvisation
- Carrier portable cell issues – how does restoring Band 14 support ESF-2
- IT central in EMCOMM
- Ten feet of TV mast saved the day for us

Other Observations

- High cost of Motorola P25 gear + emerging alternatives (PTT, LTE Radios, competing radio vendors etc.)
- Repeater duplexer error
- Wi-Fi calling limitations in terms of pre-planning needed
- Solar power popular
- AUXC Task Book outdated
- Need ARES capabilities brochure

Final Thoughts

- COMMEX Northstar III was successful
- Integration of ARES/AUXC was valuable
- Path for stronger collaboration in 2026 + more functional exercises
- We did announce our new roles were as Field Observers and in Operations
- Quote: “Show me, don’t tell me.”



In Other News

- The Marathon went well - ~50 hams, 7-8 repeaters, our new tactical fiber and Ubiquiti Unifi mesh
 - EM and Fire wanted a better dashboard in the EOC/ROC- open vs closed cases
 - We got “civilians” in using our database
 - We managed 110 SAG transports, supported 15 EMS/911 Hospital Transports, >200 medical cases
- We had another Downdraft exercise - #4 in Cottage Grove
 - Locked down government laptops could not access aprs.fi or get mail from WinLink
 - Ten feet of mast would have been useful...
 - Our new 30' MNVOAD trailer is now operational ~4 operating positions, power from a generator or 115V
 - ARMER Radios were requested by Incident Command
- The MS Event series (MS-150 etc) again went well
- Working on an exercise in Crow Wing County and CAN-P Training and we made an event training video