

MARC Repeater Update

21OCT24

KR4YK- Fred

Updates since 16SEP23

Bald Knob Site

Bald Knob Site- 146.840

- **Added courtesy tone on 4NOV23 to try to cut down on “doubling”.**
- **MARC membership voted to remove this tone on 15JAN24.**

Bald Knob Site

- **Major power problems at all Bald Knob sites on 12JAN24.**
- **Standby generator at Bald Knob failed.**
- **Generator replaced on 15FEB24.**

Bald Knob Site

- **Re-tuned bandpass filter to reject 154.920 on the 146.840 input side.**
- **Be aware that band openings, solar activity, sporadic E and ducting does influences VHF propagation.**

146.840 Antenna

Problems with the current antenna location:

- **Interaction with existing antennas**

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- Interaction with existing antennas**
- Lack of real estate on top of the tower**
- Every antenna is a compromise**

146.840 Antenna Location Change

- **Lowering the antenna (~ 40') WILL affect the coverage pattern to the North.**
- **Re-location should improve dead spots in Montgomery.**

146.840 Antenna Damage

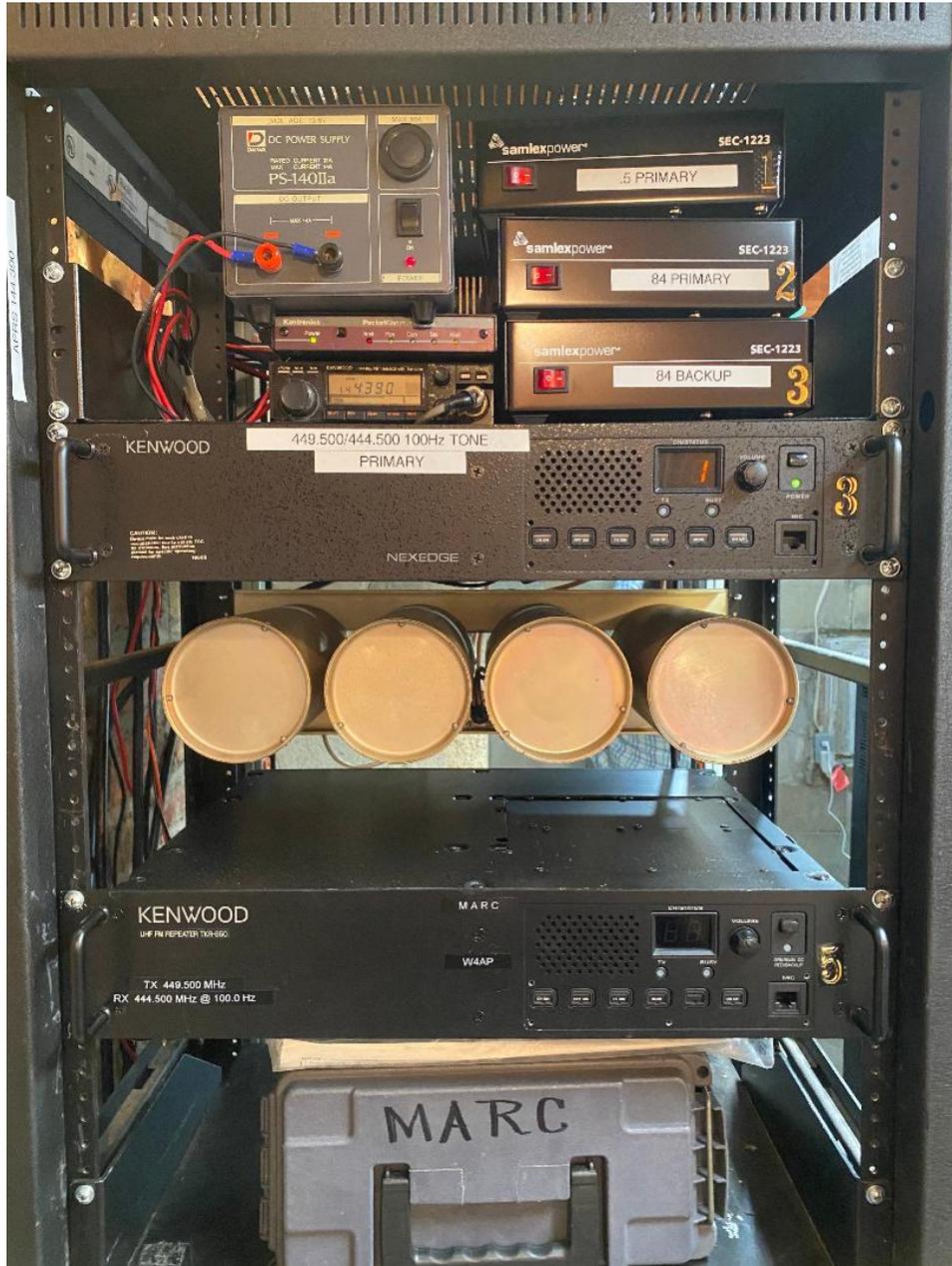
- Lightning strike damaged on 8/9AUG24.**
- Service restored on 9AUG24 (AM).**
- Related problems developed later as a result of this strike (PM).**

Current Bald Knob Configuration

- 146.840 & 444.500 are on the lower dual band antenna using a diplexer.**
- 144.390 (APRS) is running on the upper dual band antenna.**
- 147.180 cross band is running on bottom antenna.**

146.840 Antenna Plan

- TDR confirms likely antenna, matching harness, and/or connector damage. Feedline is OK.**
- Antenna will be taken down for inspection and evaluation. Feed line connector will be inspected.**
- Antenna will be relocated to the proposed location as planned.**



APRS System

APRS System Upgrade

- **Existing I-Gate location changed from W5NZ (Mark) to W4IJG (Jerome) in November 2023. It is still located in Pike Road (Montgomery Co.).**
- **Secondary I-Gate KD4AXP (Charles) added to provide diversified operations from Prattville (Autauga Co.).**

DC POWER SUPPLY
RATED CURRENT 5A
MAX. CURRENT 10A
PS-140IIa

DC OUTPUT

100V 10A

POWER

DC OUTPUT

DC OUTPUT



Kenwood
Power-Beam
Power

4390

Kenwood

samlexpower®
SEC-1223

.5 PRIMARY

samlexpower®
SEC-1223

84 PRIMARY

samlexpower®
SEC-1223

84 BACKUP

KENWOOD

449.500/444.500 100Hz TONE

CAUTION:
This device is not to be used for
communication with any other
equipment. Use of this device
may be subject to specific operating
instructions.

NEXEDGE

CH STATUS

VOLUME

TX

BUSY

POWER

MIC



Ramer Repeater

Ramer Repeater

- **Reprogrammed the repeater to add a decode tone (123 Hz) to block the Villa Rica, GA repeater on 26JAN24.**
- **This Georgia repeater was being picked up directly in South Montgomery County.**

Ramer Repeater

- **Replace back-up battery and UPS with a 550A CCA battery on 8OCT24.**
 - **Charger built into the repeater.**
- **This will extend the operational time to at least 24 hours in case of a power failure.**

Ramer Security- WS4PDR



Thanks for the Donation

K4PO (Phil) for the battery.

**Cross Band for 147.180
Project Completed**

Cross Band Repeater for 147.180

- **Kenwood repeater assembly completed and in test mode until 24OCT23 at temporary site.**
- **Moved to Bald Knob on 4NOV23.**
- **Upgraded UPS w/new batt on 21DEC23.**

Cross Band Repeater for 147.180

- **Simplex operation on 444.0750 MHz with 203.5 Hz encode tone.**
- **Listed on W4AP webpage.**

Cross Band Repeater for 147.180

- **UHF radio unit developed intermittent problems (starting late FEB24) and eventually failed.**
- **Radio repaired and re-installed on 2JUL24.**
- **Thanks to WB4UQT (Chris) for the repairs.**



Thanks for the Donation

- **KO4UWY (Mac) for the power supply.**
- **K4PO (Phil) for UPS batteries.**
- **KR4YK (Fred) for the UPS.**

444.500 Repeater

444.500 Repeater

Low power and problematic ICOM UHF backup repeater replaced with a Kenwood TKR unit on 15FEB24.

Other Area Repeater Updates

Wares Ferry Site (DSTAR, DMR and Fusion)

- Major power problems on 12JAN24 resulting in D-Star, Fusion and DMR outage. Local repeater service operational but lost internet service connection due to server issues.**
- Full operation restored on 3FEB24.**
- Thanks K4DJL (E1).**

KE4LTT 147.200 (Waugh) Repeater

- Off the air due to suspected lightning/power surge damage (8/9Aug24).**
- Repairs completed and operational on 23AUG however failed again 1SEP24.**
- MARC loaner repeater currently at this location.**

W4KEN 220 MHz Repeaters

- **The 224.880 repeater is off the air and will not return.**
- **The 224.840 (+ offset and 103.5 Hz tone) repeater remains on the air.**

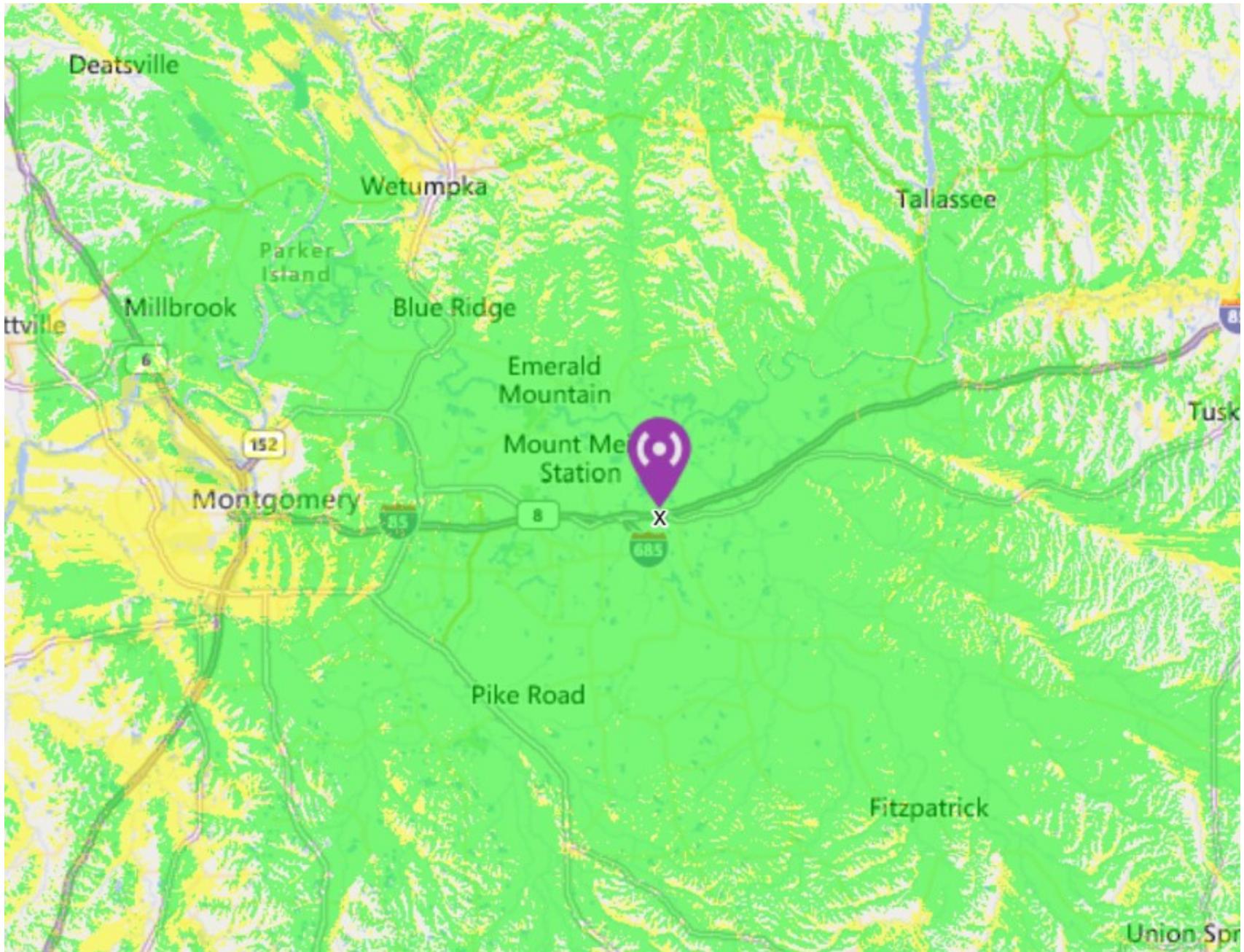
KF4RHA Repeater

- **Currently on 442.500 (+) with no tone.**
- **Will change to 442.550 (date and tones TBD).**
- **Likely re-location to W4KEN tower.**

**Waugh GMIRS Repeater is
Operational**

Waugh GMRS Repeater

- **Installation completed and operational on 26SEP23 and field testing on 1NOV23.**
- **Listed as MTG600- 462/467.600 with a 141.3 Hz encode tone.**
- **Total cost to the club was less than \$400.**





Thanks for the Donations!

- **WB4UQT (Chris) for the antenna and feedline.**
- **Carl Howell (Communications International) for the repeater.**

Thanks for the Donations!

- **KN4AAZ (Kevin) for donation of a UPS.**
- **K4PO (Phil) for the UPS Batteries.**

GMRS Capability Now at the Club Station

- **Good coverage into the Waugh GMRS repeater.**
- **Will be used as a supplemental/coordination/alternate communications method.**

Thanks for the Donation!

Thanks to K4PO (Phil) for the donation and programming of the UHF radio for the club station.

Elmore Co. GMRS

South Elmore Co. GMRS Repeater

- **KQ1USA (Jamie) and KS4TOM (Tom) installed an additional GMRS repeater for S. Elmore County on 20MAY24.**
- **Listed as WET550- 462/467.550 with 88.5 Hz tones.**

North Elmore Co. GMRS Repeater

- **KQ4VGE (Ernest) installed an additional GMRS repeater for N. Elmore County in July 2024.**
- **Listed as WTMP650- 462/467.650 with 141.3 Hz tones.**

“The Big Plan”

- The original plan was to install multiple linked GMRS repeaters to cover the interstates in/out of Montgomery.**

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- The original plan was to install multiple linked GMRS repeaters to cover the interstates in/out of Montgomery.**
- However, on 14JUN2424, the FCC e-mailed a linked system in New York “suggesting” that they discontinue linked operations (which they did that day).**

What Happened Next?

- **On 14AUG24 the FCC stated that “Linking repeaters is not in the public interest under Part 95”.**

“Operation of a GMRS station with a telephone connection is prohibited, as in § 95.349. GMRS repeater, base and fixed stations, however, may be connected to the public switched network or other networks for the sole purpose of operation by remote control pursuant to § 95.1745”.

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- **Our linking project is now dead but the repeaters will remain as “stand alone”.**

Remember!

- **GMRS is a separate communications service that requires a GMRS license to use.**
 - **The license covers all family members.**
- **Most repeaters are “open” and free to use.**

**Alternate Input for 146.840
for Prattville Project**

“The Prattville Problem”

- There is a known no/poor coverage area that is located on “the wrong side of the hill” that has always had a major problems hitting the Bald Knob repeater.**
- This project would provide an alternate input to the 146.840 repeater.**

Cross Band Repeater for 146.840

- **Low power and intended to specifically serve the West Prattville area.**
- **Frequencies have been coordinated.**

The Autaugaville Site is Now Out.

**July 2024- Site was
sold and the new owner
has decided to move
the tower to North
Alabama.**



Plan “B”

- **Autauga County EMA office has approved installation (26SEP24).**
- **826 Gillespie St. Prattville**



Autauga EMA Plan “B” Updates

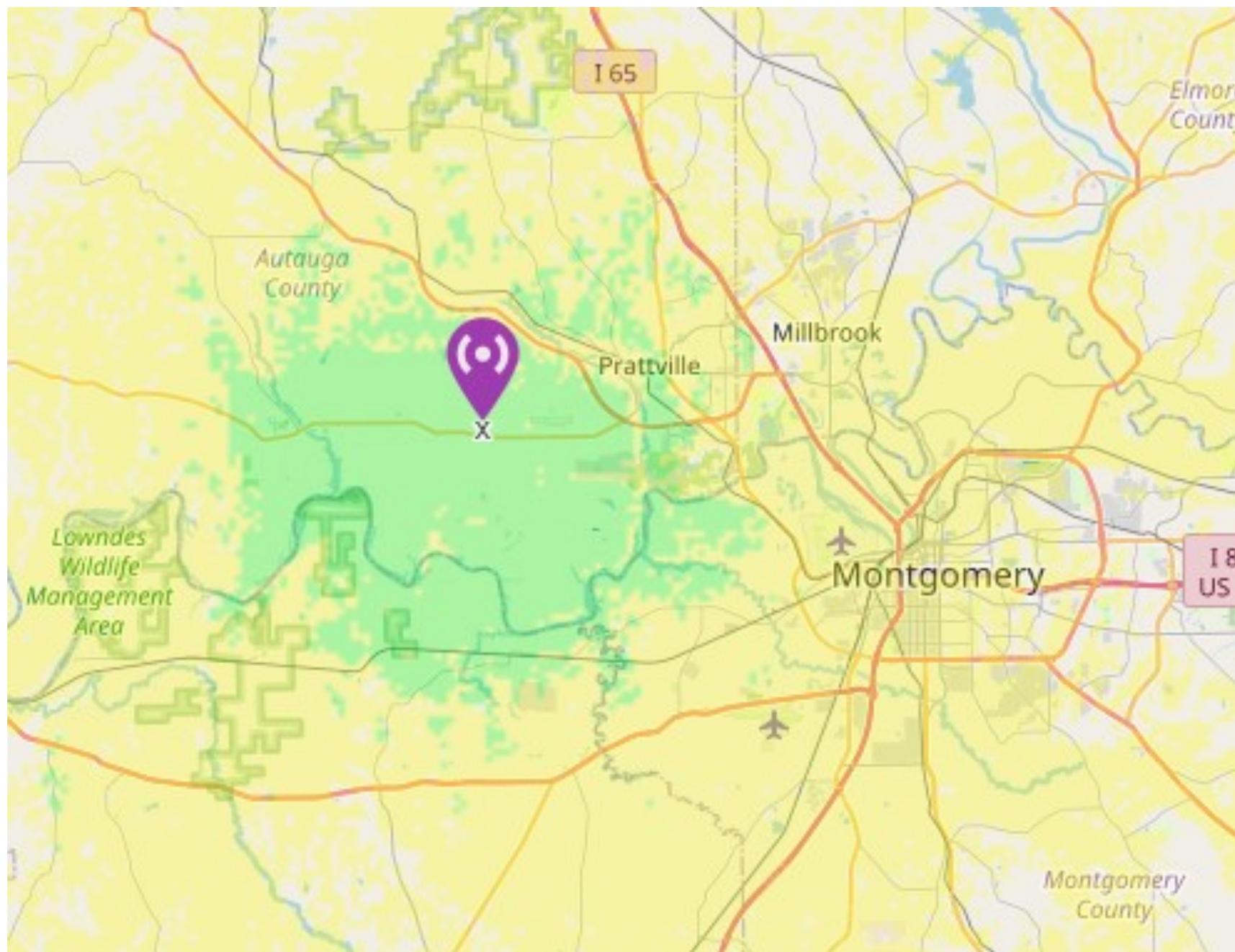
- Thanks to KV4UZ (Trent) for the coordination.**
- Survey trip made (20OCT24) by AK4KN (Ken) and KR4YK (Fred).**
- Project Power Point sent on 14OCT24.**

Autauga EMA Plan “B” Updates

- Equipment needs have changed due to site change.**
- In process to identify equipment and hardware for the new site.**

Autauga EMA Plan “B” Updates

- Frequency coordination completed for new location on 8OCT24.**
- UPS from Ramer can be used at this site.**



Donations Needed

- **About 85' of coax and connectors.**
- **Small dual band vertical antenna.**
- **Offset antenna mount.**



Camp Tukabatchee Project

Camp Tuckabatchee Project

- Project is to install an ~35' tower to generate interest in amateur radio.**
- A permanent VHF antenna on top.**
- A hoisting assembly for an HF wire antenna to be used as needed.**

Camp Tuckabatchee Project

- **Site visit on 22Oct23.**
- **Written project proposal submitted to BSA Council on 7NOV23.**

Camp Tuckabatchee Project

- **Presentation made to BSA Council on 14DEC23.**
- **BSA Council approval is pending.**

Thanks for the Donation

KV4AC (Randy) for the ROHN tower

Donations Needed

- **About 40' of coax and connectors.**
- **Dual band antenna.**
- **Sheet metal and access to a bending brake (3 pieces approx. 5' X 15" each).**

Anti- Climb Panels

**Each of the three panels
are approx. 60" X 15"**



Camp Tuckabatchee Project

The tower and attachments will be donated to Camp Tukabatchee when the project is completed.

**and oh
yeah,
one last
thing...**

UHF Net

- **Monday at 8PM (except the third week due to the monthly MARC meeting).**
- **444.500 MHz (+5) with 100 Hz tone.**
- **Directed toward recently licensed hams, however all amateurs are welcomed.**

UHF Net

- **We are also looking for additional Net Control Stations.**
- **A good opportunity to give it a try and also prepare for emergency operations.**

A lot happens in a year!



