NFARC/NF4AC Clubs

MINUTES

September 11, 2019
Meeting held at Gainesville Red Cross, 6th Ave NW and 16th St

Attendance: 20 (total persons in meeting room; not every name captured immediately below)

Gordon Gibby
Michael Ridlon
Michael Balchun
COL David Huckstep
Alvin Osmena
Chris Carr
Wendell Wright
Judith Rosemary Jones
Leland Gallup
Earl McDow
Susan Halbert
Mike Shaffer
Vann Chesney
Bob Guertin
Tommy Boyle
John Troupe
John Trites
?? amateur radio operators
Kim Anne Linthicum (Red Cross disaster manager

Meting called to order at 1900
Minutes for August 2019 Meeting approved.

1. **Background checks**. EM wants to do badging in a coordinated fashion. During Hurricane Dorian the Alachua EM decided who is approved for badges. This is an important step in the direction of providing properly vetted ARES volunteers to County designate shelters in the case shelters are opened during emergencies. One issue has to be dealt with later. What the EM was going to do was send a list to shelter managers with the approved ARES people. This is a functioning workaround until actual badges are produced. That we have approvals is huge.
2. **Review of after-action for Hurricane Dorian.** KX4Z showed a draft of a publishable text for the NFRC/ARES response to Hurricane Dorian, August 2019. Text has ISBN. KX4Z Went through the chronology of the event, which was a "low impact incident," not an exercise. Ramping up seriously began Friday, August 30, COL Huckstep got the list of approved shelters. Discovered that there were issues with the "go boxs" that had been prepared. Public service radios have "N" connectors, not PL-259's. KX4Z then showed the meeting the IAP for the Alachua Countty response. The EM received a copy of the IAP and instructed ARES how the IAP and especially its communications 205 would be folded in to the County EM's IAP as a communications subset.. On that Friday we were able to connect new coax to the antenna on the EOC's roof so that both the "chigger antenna" and the roof /EOC antenna could be used.

KX4Z described a test of JS8 Call's utility as an EMCOMM tool for message store, foreward, and relaying. This was done using the @Alachua group., and established that a network of ad-hoc relay stations could be set up that would differ in composition depending on time of day and band conditions, among other factors. For phone and SHARES uses, we prooved that amplification is useful...used amplifier to get through on 80m in the middle of the day. Relays outside the region are what is needed to make for real comms. At 1330 could hit MikeRidlon's station, then stations in TN and GA and was able to set up an ad hoc network on JS8 Call. Described efforts to put in a portable repeater so that we could access the Ocala repeater on the SARNET. At night on JS8, we did our first ARRL radiogram, cached on K4NVR for delivery. Saturday morning, KX4Z put out an ICS-201 action plan, including all they typical ICS forms. 205s, 211s, etc. COL Huckstep and others discussed the point of ensuring potential volunteers can find the shelter. Monday 2 September, KX4Z was able to contact OH, NH, AZ, MA. First experiment to demonstrate possibility of JS8 connections from a shelter with a bad antenna and get message traffic out on a store and foreward/cached message system created on the fly. Finally, listed the observations from the Dorian event that will go in the too-be-published AAR: badging, noise and redundant EOC antenna with switches. Alachua RACES is using a borrowed amp and transceiver at the EOC. KX4Z has SB200 chassis to make it work on any band, including the SHARES bands. Higher power antenna tuner: 600watts or better. Would like to get to 400/600watts. Have parts to build a higher power balun. Motion to thank Randy Pierce on behalf of the ARES Alachua group. Passed. AA3YB will send a letter of thanks to Randy Pierce, cc: Mike Sherrill. Idea: do an exercise that actually uses the shelters. Motion approved to release publication of the AAR.

3. **Balun lab and lunch**. Most successful building session we've ever had, by acclamation. Discussions of using a second tap for the 49:1 balun to give the builder more flexible SWRs at different frequencies.
4. **Winlink defense.** KX4Z described driving ongoing actions to establish that Winlink/PACTOR is a digital system that can indeed be “spoofed” and that even PACTOR messages can be in fact decoded. He described a staggering amount of effort expended in proving facts and concepts key to proposals before the FCC to gut PACTOR and Winlink. KX4Z's efforts included setting up an expedient station 15 miles from his house where his “second” (spoof) PACTOR station was located, and then described the results of coding and capture sessions. By doing this he could monitor his own station and monitored five emails! Recommended that the baluns we'd built use a second tap. Susan Halbert asked if it would be possible for comments to the FCC at this point; no, because we're beyond the comment period. KX4Z's work is going directly now as ex parte to all 15 commissioners of the FCC. Showed pictures of his ad hoc station, in his car at a remote location from his house. This was the PACTOR/snooper dual station concept in action. Showed screen shots of actual snooped hexadecimal copy as it was captured. Showed actual capture of emails that were sent and snooped via PACTOR/Winlink. Working now with a network of coders on multiple continents to drive the effort forward. Personal workings with the SCS president in Germany, for example, as well as others. Thanks from the group to KX4Z for almost single-handedly mounting the national amateur defense of our use modes/modems such as Winlink and PACTOR, which are key elements of ARRL's, amateurs, ARES, and our EMCOMM efforts. Kudos to KX4Z!!
5. **Making printed circuit boards with Diptrace**. KX4Z described how to use this free software to produce circuit board traces/boards.
6. **Chirp**. KX4Z showed code/download. CHIRP is used to program radios through a computer interface.90 local channels have Gordon's input in to CHRIP. Use FTDI interfaces. Have to guess a serial port; device manager will tell the serial port. Make copy of radio firmware first, before doing CHIRP. Always get copy of the radio firmware first; then download list of the

local channels from website; by click/paste you can copy and write out to the radio you want to program. Can set carrier squelch, names, colors of the LEDs, etc. Many possible. Many meeting attendants had their radios programmed on the spot (thanks for Vann Chesney and Mike Ridlon!) to the "Alachua standard 90 frequencies." This include amateur radio frequencies, WX, public service, marine, and others. Programming all ARES' members Hts with these standard "channels" is a great commonality and interoperability boon.

7. **Boom headset**. Description of Warren Gregoire associates headsets; will build the headset for your radio. Recommendation to use the ICOM series, 8 pin round plug, because then you can get a second plug so that Gordon an make a separate connector for that. The ICOM is the foundation plug that we then can use to adapt to other rigs. Highly recommended.
8. **August minutes approved**.
9. **Sound card kits designed by KX4Z**. Vann Chesney asked about the sound card kits (last item on the agenda). KX4Z showed the website for a firm that put out lots of kits. Shop.kit.project.com is the URL. He will do KX4Z's sound cards. He will send out the URL.
10. **Baluns.** John Trites asked about the balun build from lab n lunch. Answer: add a tap for lower impedances. The balun is low power; if higher power is needed, bu the toroid for the "Toroid King." FT240-43 is the higher powered toroid. Ridlon built a 4:1 current balun. Ridlon's is a 1:1 and a 4:1 put together.
11. **Weather website**. Chris Carr showed a website that his father had developed that is a linking site for weather, connected to the National Weather Service and linked to the counties with shelters that will be activated.
12. **Repeater developed by Larry Rovak.** Vann Chesney talked about Larry Rovak's repeater that he'd developed. It will use any of the five itinerant repeaters. This is a UHF; doesn't use can's, but uses two different antennas. Larry will make the list available. KX4Z suggested using cavities which can be purchased for only 75 dollars and could be easier to use than two antennas; but if Larry can make it work, super.

Meeting adjourned 2059.