NFARC North Florida Amateur Radio Club
(In support of ARES)
MINUTES
September 12, 2018
Meeting: Gainesville Red Cross

Attending:

Susan H.	KG4VWI	
Alvin O.	KM4DLF	
Leland G.	AA3YB	
John T.	KM4JTE	
Mike S.	KD4INH	Gilchrist County!
Vann C.	AC4QS	
Jeff C.	W4UFL	
Judith J.	KI4QNZ	
Gordon G.	KX4Z	
John G.	KJ4YPZ	Gilchrist County!

NOTE: Our meetings are carried out with a "Shelter WIFI System" so the Agenda and all supporting documents are available for all participants on their computers or smartphones at the web URL 10.10.10.10 This allows our participants immediate access to all documents and helps them be prepared to assist shelter occupants where we are providing bulletins.

Meeting began a bit late, around 7:10 due to Gordon being a tiny bit late and having a fully stuffed vehicle with all the demonstration equipment for this meeting.

Tentative Agenda is here: https://www.qsl.net/nf4rc/2018/TentativeAgendaSEPT.pdf

1. Update on Hurricane Florence. Jeff C. reviewed the ways to be aware of storm plans through Google techniques, involving Google Plus.

2. Initiatives this Year.

https://www.qsl.net/nf4rc/2018/Initiatives2018.pdf

Gordon G. reviewed with photos all the items we've already been involved in this year: building digital nodes in January; adding a microwave 2.395 GHz antenna on Beatty and weather-capping the feed pipe in February; repairing Susan's storm damaged antenna; Section -wide and beyond February Emergency Symposium; LunchNLab Lightning Arrester construction; Tabletop practice for Wildfire Exercise; installation of one of the January nodes in Trenton at Mike S.'s house; LunchNLab construction of 11 Bu*kmaster clone baluns; June Full Scale WILDFIRE exercise that was subsequently published on Amazon; assistance to sister-club GARS with their FIELD DAY effort, including a travel trailer station and a dual solar power system capable of running a 500 watt transmitter indefinitely with 2kw sine wave inverter; first local governmental NCS SHARES license-- the local MARC unit; the July EOC

Technician class where the 2nd ranking Sheriff's deputy got his license back and more than a dozen 2-meter antennas were built; publication of the "blank book" for ICS documents during a disaster; development of the Shelter Web Bulletin system; moving the Trenton digital node to the Trenton Fire Tower w/cooperation / permission from the Florida Forest Service; creation of a "luggable" UHF itinerant voice duplex repeater on FASMA Itinerant channel 5 (application in process) ; and planning by Leland & Susan for the October full scale exercise S.E.T.

3. Full Scale Exercise & Saturday Table Top Practice (full radios) -- plans were reviewed including the ICS-201 and ICS-205, scenario, injects (still secret), organizational roles, locations (permissions and insurance already dealt with) for the full exercise and the preparatory Table Top to be held at Leland's and Gordon's houses on Saturday Sept 15'th right after the morning Breakfast at County Foodly (34th street North). Leland requested MORE PARTICIPANTS and more volunteers. Alvin O. was appointed Operations Chief and John T. (subject to the arrival of a grandchild) the Logistics Chief. Susan H. Reviewed the complementary plans for the Table Top. They warned us that the PIO position would be particularly important in the Full Scale Exercise as there would be rumors and "fake news" to be dealt with often. Discussed that the ARRL has a training program for PIOs. Leland speaks next to the GARS group (which is co-sponsoring but most of their leadership is previously committed). Weather/storms permitting the MARC Unit (region 3) will be participating with us, with friendly competition.

ICS-201 Just For The TableTop Saturday

ICS-201 for the Exercise
ICS-205 (Frequency List) for the October 13th Exercise

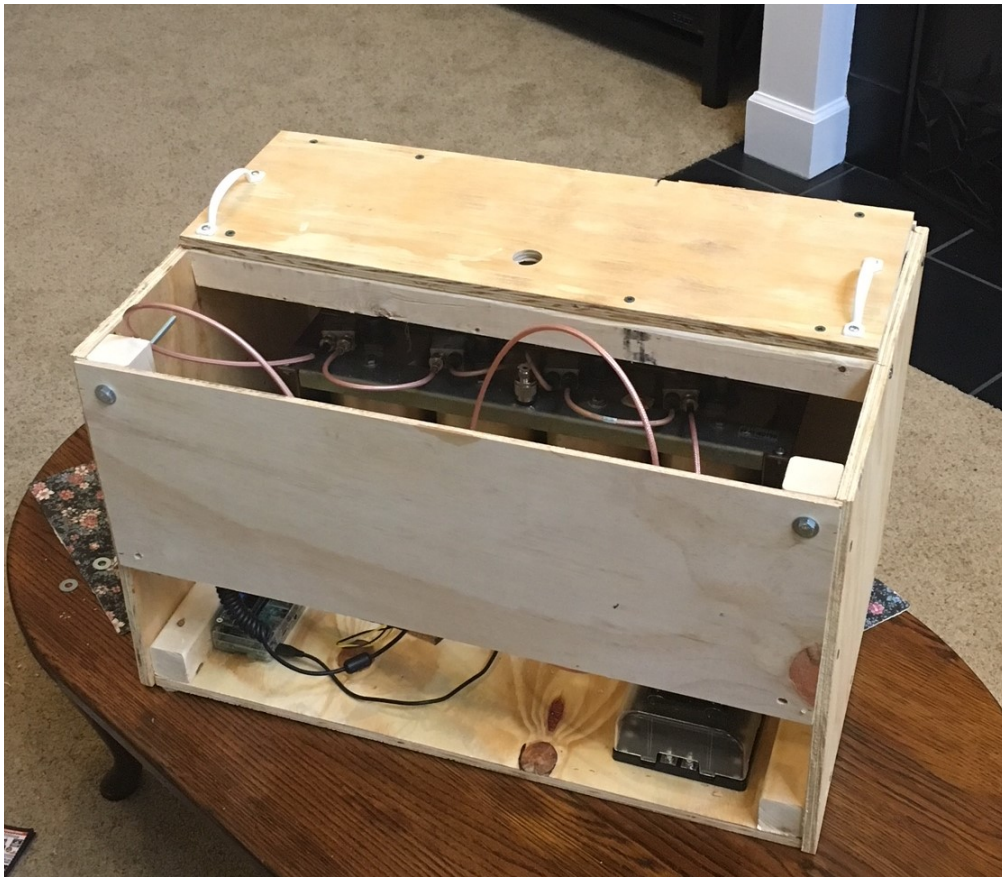
4. Getting All The Oars Pulling! Gordon went through a review of the participation by NFARC members in local nets. Heavy participation in the voice Thursday VHF net, but no traffic experience there. 3 or 4 are participating in the Florida WINLINK check-in net --- every check-in is a piece of traffic passed there! Some participation in the Florida Medium Speed CW net by John T, and heavy participation by Gilchrist County EC John G. in the Florida Phone Traffic net, into which Gordon G. checked twice this month; some participation in the 9AM NF ARES net into which Gordon also checked a couple of times. Strong encouragement that members participant occasionally in as MANY of these nets as possible to maintain skills and familiarity. Encouragement that each member develop:

- Portable abilities (deployment) including antennas and power source
- Digital capabilities
- Strong familiarity with WINLINK
- Participation in multiple different kinds of nets
- Participation in training and exercises

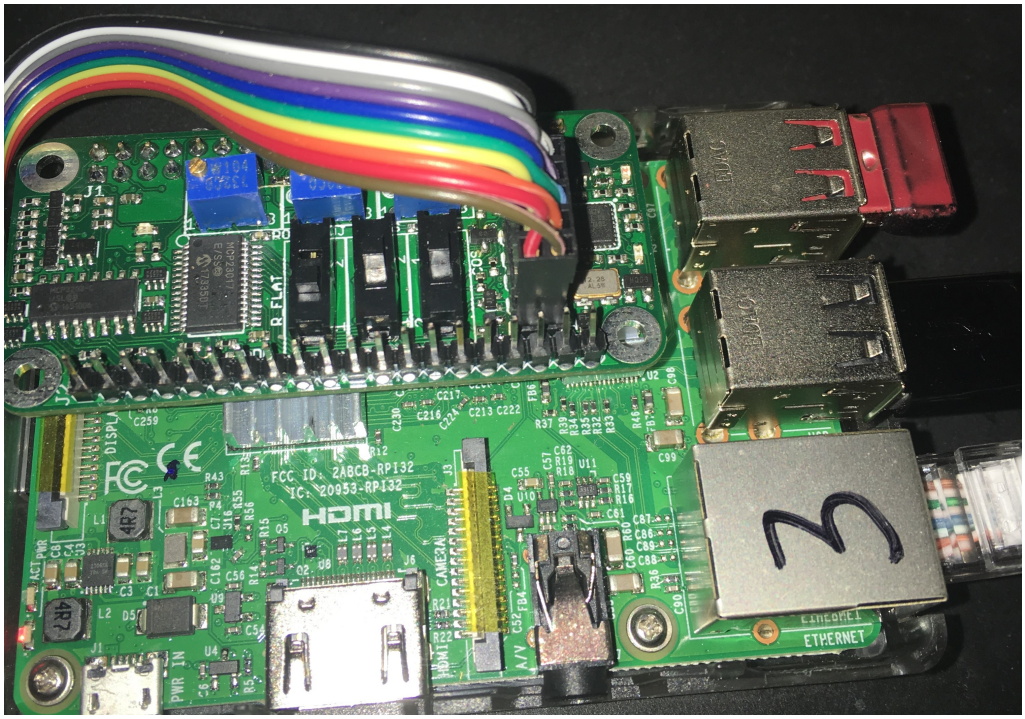
https://www.qsl.net/nf4rc/2018/AllOarsPulling.pdf

5. How To Build a Deployable UHF Voice Analog Repeater: Gordon turned on the UHF repeater and we demonstrated how it repeats (with a slight digital delay that may be further reducible); identifies in CW and/or voice, and has some DTMF control functions. Intended for emergency deployments on

FASMA Itinerant Channel 5. Gordon went through a live demonstration of how to tune one duplexer can, using a 2meter Notch Can and a Chinese $110 Spectrum Analyzer with Tracking Generator. The kinds of cables, attenuator Pads and techniques needed to tun the can were all demonstrated LIVE. The notch frequency was moved several hundreds of kHz by manipulating the variable rod. (On that can, there is not an adjustable capacitor). Then the Raspberry Pi control System using ICS-CTRL $59 daughter board will demonstrated LIVE with displays of its output, and then a brief introduction to how to adjust parameters in the control configuration file: /etc/svxlink/svxlink.conf Everyone seemed to be fascinated with how simply a repeater could be constructed. Discussions of the required attenuation based on off-channel rejection of the receiver etc were held.



"Luggable" UHF Repeater, with removable front panel to allow for switch between demo Baofeng radios, and performance higher powered mobile 12V UHF transceivers. Duplexer cans visible in the rear.



ICS-CTRL controller mounted on Raspberry Pi Version 3 Model B

http://arrl-nfl.org/wp-content/uploads/2018/08/HOW-TOontheICS-CTRLBoard.pdf
https://www.youtube.com/watch?v=AUvwUgV6Nmc

6 db attenuator pad: https://www.amazon.com/Aim-Cambridge-Cinch-Connectivity-Solutions-27-9300-6/dp/B010SHB1L6/
20 dB attenuator pad: https://www.amazon.com/Attenuators-Interconnects-PADS-BNC-20db/dp/B00HKIEGB4/

RG400 double shielded coax jumper (if you can't make it yourself):
https://www.amazon.com/Eightwood-Adapter-Antenna-Extension-Cable/dp/B071H6Q3FV/

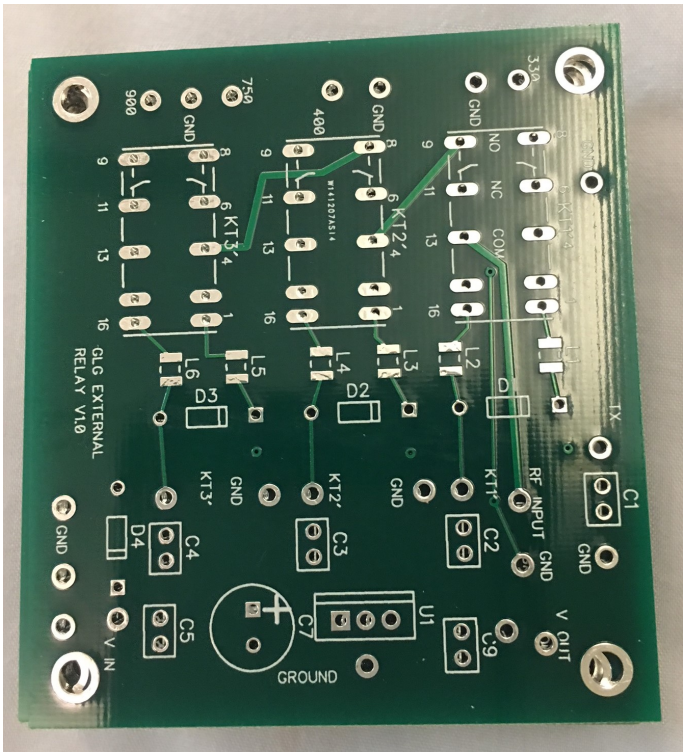
6. Review of the North Florida Regional Medical Center Proposal -- there is renewed interest in this from steadily growing NFRMC hospital....but a suggested meeting on the year-old heavily document proposal developed by Gordon couldn't be held due to scheduling difficulties and may happen later this month. Not holding our breath on this one.

7. Review of the previous Exercise After Action Report/Improvement Plan. John T. reviewed the remaining issues from the last Exercise. We've conquered several of them, but we still need to have a "workshop" to help people get Power Pole connections finished. Both Gordon and Leland(?) have

crimpers can can put these connectors together. Suggestion was to arrange it as a tail-gater to one of the Saturday morning Breakfasts.

https://www.qsl.net/nf4rc/2018/2018 AlachuaCounty Waccasassa Wildfire Excersize.pdf

8. Update on the uBitx External Relays: Gordon has developed (after information supplied by BITX20 Forum Members) an external relay daughter board to fix the bleed-around problem of the final amplifier low pass filters. Installed on one prototype, the results were quite gratifying, and now 30 boards have been shipped to others requesting this possible "fix". Other issues with the uBitx are being rapidly solved by a BITX20 forum of >6000 members.
http://arrl-nfl.org/wp-content/uploads/2018/08/uBitx-External-Daughter-Board-Construction-Document.pdf
https://groups.io/



9. Planning for the November General Class License course --- Date settled for Saturday November 17 (8 AM- 7 PM) and Sunday November 18 (1 PM - 7 PM) (meetings may get out earlier if the material is covered). Gordon demonstrated one section of the ARRL slides, which include a LOT of education and also the Exam Questions -- and also passed around the ARRL General Class license course manual, which everyone will need to get.

https://www.amazon.com/General-Class-License-Manual-Spiral/dp/1625950314/

Instructors Signed up:

CHAPTER/Material	Volunteer Instructor
2 Procedures & Practices	
3 Rules and Regulations	Leland G.
4 Components & Circuits	Thomas G.
5 Radio Signals & Equipment	Gordon G.
6. Digital Modes	
7 Antennas	Gordon G
8. Propagation	Susan H. or John T.
9. Electrical Safety	John T

So HOORAY we have all but 2 chapters already taken! We do not have a LOCATION settled on yet, may depend on participants. Gordon's house and the EOC are both available.
Go ahead and ADVERTISE; a sign up will be forthcoming, with more information on costs - people should purchase the ARRL General Class course book, and plan on building a real antennas as part of the course; this will be the main at-cost item.

10. ARES CONNECT. Demonstrated by EC Jeff C.,, encouraged everyone to sign up (https://arrl.volunteerhub.com/userregistrationwizard/usernamepassword) and then begin to observe the calendar and sign up for events: (https://arrl.volunteerhub.com/)

11. ADDITIONAL SHELTER WIFI DEVICES --- Both Mike S. and Van.C. have purchased Rasbperries and equipment to make their own Shelter WIFI Bulletin system, so while we were havingthe meeting I did a discopy of SHELTER-A raspberry 16Gbyte micro SD card onto their blank cards. The passwords for the systems, SSH access ports, etc. were sent to them the next morning.

The group finally disbanded around 9:20 and all our heads were spinning with all the things is vibrant club is doing!