



Inside this issue

- [Meeting Minutes](#)
- [President's Letter](#)
- [Surprise 15 Meter Opening](#)
- [Measurement of the Man-Made Noise Floor on HF in the Netherlands](#)
- [First Club Contact](#)
- [The Amateur Radio Emergency Service](#)
- [Calendar](#)

Meeting Minutes

Majors Field ARC Meeting Minutes 3/14/2019

- Meeting was called to order @ 1145

Officer Reports

- Meeting minutes for January meeting are in the latest edition of "Airwaves".

Subcommittee Reports

- Repeater updates (none).

Upcoming Events

- Audie Murphy museum venue reserved for Field Day. Will rent a port-a-potty just like last year.

Old Business

- General class license instruction and testing 9-11 May.
- Technician class license instruction and testing 22,23 March.
- Will try to launch Elmering effort after technician class.

New Business

- TXSPOTA event – club will hold event at Cooper Lake State Park 13-14 April.

Presentations

- TXSPOTA antennas.



Attendees

- Meeting adjourned @ 1215.
- Larry Smith – K5XB
- Scott Davis - K5PS
- Joe Lum - KE5ZBL
- Kirk Lieder – KI5BSH
- Jose Santiago – KG5SKR
- Scott Joseph - AG5QQ
- David Rogers – KG5KPU
- Mark Bushnell - AE5FG
- Jonathan Brown – WB5KSD
- Michael Ketchum - K5MDK
- No conference call was setup – our bad.

Written by Secretary Scott Davis – K5PS

President's Letter

Spring is here and opportunities to get on the air and have fun are coming at us hot and heavy. The calendar is getting full with hamfests, contests, special events, and just good ol' communicating on frequencies from DC to light.

Meetings/Events

This month's meeting, we'll be fresh from the Belton Ham Expo and folks will be talking up HamCom just around the corner. In between those two events, Rains County is holding its first ever tailgate hamfest May 11 in Emory on the courthouse square. So it will be a hamfest a month for the entire Spring season. Also, we will talk up our General Class license session coming in May. Remember the current question pool for General expires July 1 this year. We're trying to get one more upgrade opportunity in the books before the General question pool resets. Also on tap this month is preparation for Texas State Parks on the Air the weekend after the upcoming April meeting. We will be activating Cooper Lake State Park again this year at the South Sulphur Unit. We'll be using Special call sign N5C, so it is bound to be a popular catch for Parks Chasers. We'll be busy. Come out and work the pile-ups.

At the end of May, we're going to be teaming up with SVARA to bring ham radio to the Audie Murphy Day celebrations at the Audie Murphy/American Cotton Museum. This will also be a Special call sign event using W5A as the call. This is bound to be very popular and we might should consider running two HF stations, one on 40 and one on 20 meters for the duration of the event, which is on Saturday, May 25th at noon and runs to the end of the day. We also think we should run a VHF station beaming back toward Dallas on SSB and DStar. SVARA will be setting up their communications trailer in the morning at a theater downtown and making HF contacts when the festivities kick off in the morning at the theater. We will be responsible for setting up the station at the museum to be in operation for the afternoon.

After the "gavel falls" on this coming meeting, there are only two more meetings until Summer Field Day. So let's start that planning.

As you can see, there are TONS of things going on and I hope you can participate. I feel like sometimes, we get so few of you out to the events that we are not offering what you want to do. Please bring your ideas for club activities to the meetings. We absolutely want to do whatever the members want to try.

AIRWAVES



It won't be without you having to put in some work. But everything we've done so far that I have participated in has been a lot of fun and very rewarding.

Make a 5 or 10-minute talk about what's going on in your part of the hobby and show it off at the meeting. We'd love to hear what's up. Remember you get an extra ticket for the end of year drawing when you present a program at a regular monthly meeting.

Club Projects

Still pending real discussion and planning for the idea of a club station. I would like to make some progress on that issue this year.

Elmering/mentoring has been kicked off. We had some initial contacts made soon after the call signs came out from our latest Technician licensing event. (The call assignments were actually a few days later than normal this time, as during the testing on Saturday, the FCC was experiencing a major crash on their license applications server.) This is a very worthy effort and I hope every active member will take part. Remember, the goal is to make sure that new hams that take our licensing study/test sessions and pass the test, get on the air and at least make one if not more QSO's as quickly as possible after his or her call sign is issued. We might not be able to hold their long-term interest, but we need to make sure they have the chance to enjoy what they have earned. We will continue to build a list of volunteer Elmers.

What else would you like to see your club do? HF station? Contesting? Kit building? PCS fundraiser? Bring your ideas to the meeting and let's get something started.

ARRL

Remember if you join or renew your ARRL membership through MFARC, then MFARC gets a "cut".

See you at the meeting Thursday. Bring a friend, and feel free to bring your lunch.

73,
Larry
K5XB
MFARC President

Written by President Larry Smith – K5XB

Surprise 15 Meter Opening

Sunday night April 7 at about 10:00PM there was an unexpected, strong opening to the Australia and New Zealand area on 15 meters. I was able to work two DXpeditions on somewhat rare islands. The first was on SSB to Niue Island, E6AF. He was running a pileup, which I thought might be difficult to crack, because I could hear none of the stations he was working. But his signals were very strong and he was listening on his transmit frequency. I was able to get him in the log with one call. Of course 1200 Watts out of the big Henry amp helped me on that one. The next one was a bit more difficult. VI9NI on Norfolk Island was on CW and not quite as strong as E6AF. He was working split frequencies so it took a while learn where he was listening. His only clue was "up". Usually that is not hard to figure out. If you go back and forth between two VFO's, and you can hear the stations he is working, you can set up to



transmit on the frequency his current QSO is using and call him there. But in this case since I couldn't hear his stateside contacts, his listening frequency was hard to track down. I made several "wrong" guesses until I heard him work another DX station I could hear, and then I was on target. So that one took a little longer but it was worth the effort. I ran about 600 Watts on that contact, as CW hits the Henry a lot harder than SSB, and the higher power would have only made 3dB difference on Norfolk Is., anyway. But, I had that 3dB ready if I needed it! By about 10:45 PM, the opening faded away and 15 meters was back to normal; quiet, and lonely.

Written by President Larry Smith – K5XB

Measurement of the Man-Made Noise Floor on HF in the Netherlands

Interesting article, *Measurement Methodology and Results of Measurements of the Man-Made Noise Floor on HF in The Netherlands* (<https://ieeexplore.ieee.org/document/8396864>), in IEEE Transactions on Electromagnetic Compatibility (Volume: 61 , Issue: 2 , April 2019). It includes measurements made by amateur radio operators.

From the conclusion:

The measurements at 54 different locations show that man-made activities generate an increase of the man-made noise floor in The Netherlands. In general, there is a statistically significant increase of the MMN floor in comparison with the reference levels as given in Recommendation ITU-R P.372-13 [21]. This increase is highest in dense build-up regions like city center, where increases up to 14 dB averaged, with peak values over 20 dB, exist. In residential environments, the increase is also very significant, although gradual lower with lower habitation densities.

As known from previous work [28], [29], our measurements and analysis have confirmed the accumulation effect caused by the increasing density of interfering sources in close proximity. From this observation, we can conclude that the paradigm of man-made noise has shifted over time. In conventional EMC standards, it is assumed that only one single (sub)system is present in the close vicinity of a radio receiver, but clearly, this is not the case anymore.

Finally, it is noted that due to the constant change in our modern day society similar noise-floor measurements should be conducted frequently to keep track on the evolution of the MMN floor.

Notes:

MMN = man-made radio noise

The current revision of ITU-R P.372-13 was published in 2016, but the noise data is likely older.

Written by Mark Bushnell – AE5FG

First Club Contact

Over spring break, my sister brought her family from New Mexico to my QTH in Richardson for a few days' visit. While playing fetch with my dog, my nephew Oscar (10 years old) asked about the 40-meter vertical antenna in the center of the yard. His father explained that I am an amateur radio operator and use that to talk to faraway places "like Belize." I chuckled and remarked that I had never contacted Belize, but other places Central and South America, along with Europe, Africa and Hawaii.



I took Oscar into my shack and showed him the setup, including the MFJ-949E tuner, ANAN-100D software defined radio (shout out to K5JAE!) and all-in-one computer I use to operate. I fired up the radio and PowerPSDR software and tuned around the 20 meter and 40 meter bands.

I asked Oscar if he wanted to talk to someone, explaining how CQ works. A SSB sprint was underway at that time, and Oscar was intimidated by the fast exchanges and asked if I can text over the radio.

I launched WSJT-X and 15 seconds later, we had a screen full of FT-8 text messages. I showed him how the messages are automatically generated, and how CQ works in digital modes.

"You just click on one of these messages that says 'CQ' in it?" Oscar asked.

"Yes. Go ahead and pick one." He clicked one and asked how far away. "Not far," I replied. "He's in the same grid square, EM13, so he's really close." The auto-QSO continued as I looked at the caller info on the screen to see how many miles apart we were.

"K5PS! I know that callsign!" I exclaimed. : That's Scott Davis, a friend of mine at work." That was my first digital QSO with someone I know in person, not just on the air.

To top it all off, I made contact with Belize later that night after the guests had departed. About one week too late to catch K5PS there.

Written by Mark Arvidson – AG5GL

The Amateur Radio Emergency Service

Here are a few thoughts about serving your community as a member of Amateur Radio Emergency Service (ARES)

If one studies the FCC rule book carefully, it becomes apparent that there is one major reason that we are able to enjoy our hobby of radio communications. The primary reason that we are permitted to engage in radio is to provide the nation with a large cadre of trained communicators to assist with any response the nation requires in difficult circumstances. All of the other stuff, DXing, National Traffic System message handling,



AIRWAVES



amateur TV, digital modes etc. is secondary to the concept of our skills being used to aid the country in time of need.

That time of need might be a hurricane, an earthquake, floods, tornados, or something as simple as a backhoe cutting through the cables that connect a 911 center to the community it serves. Even a hospitals computer system crashing can generate a need for backup com munications. At that point, restoring communications becomes absolutely vital to protect the safety of people and property. To do that various organizations have been created over the years to make this task more organized and easier to initiate. One of the most complete organizations doing this is Amateur Radio Emergency Service, a service of the American Radio Relay League. The ARRL has divided the country into Divisions. Each Division is sub-divided into Sections. Each Section has an individual, appointed by the Section Manager, whose title is Section Emergency Coordinator. Each county within the Section has an Emergency Coordinator (also appointed by the Section Manager with input from the SEC) who coordinates activities with their local county or municipal Emergency Services staff. The EC also serves as the head of the local ARES unit.

The local ARES unit or group is the heart of amateur radio's response in times of need. The members of the local group train together and practice their skills during events called Simulated Emergency Tests (SETs). In coordination with local and regional emergency services from the municipality, the county or the state. The members also train on-line in the basics of the Incident Command System taking tests provided by the Federal Emergency Management Administration (FEMA) in order to be considered expert enough to be deployed to participate outside of their local area should the emergency require more assistance than the local group can provide. All of these members provide their own equipment including radios, antennas, power plus they provide their own clothing, food and shelter for at least several days. They do this all because they love to provide assistance to their fellow citizens in time of need. They also do this because not only do the radios have to function without the benefits of infrastructure but so do the radio operators. Trying to provide communications when you are hungry, cold and wet is not fun. Sometimes it is not even possible, so the members make sure that they can do the job when needed.

In other pages on this web site, you can find discussions and projects intended to allow you to construct the equipment you will need to be of use in an emergency. There are articles on suitable radios that are mostly self contained. There are articles on power sources (batteries) that will allow one to operate for some period of time without line power or a generator. What I have not discussed so far are the preparations one should make to be similarly self-contained for that same period of time. That is also one of the reasons for this page.

In addition to your radio, antenna and power source, you need to consider what you yourself will need when the infrastructure is damaged and/or unavailable. This particular list comes from the South County ARES Group in Southern California.

GRAB AND GO CHECKLIST

- 2 meter HT plus 12 hours worth of batteries (a dual band 2M/440 is better)
- Consider a waterproof bag to protect it from the elements
- 1/2 wave gain antenna for better performance and a magnetic mount antenna
- AC to DC adapter and auto cigarette lighter plug cable to power HT

AIRWAVES



- Remote speaker/microphone or headset
- Headphones with correct connector to plug into radio, for use in noisy areas
- Extra coax for antenna and connectors and adapters for radio
- Thomas Guide Map book or other maps
- Repeater listing frequency Directory
- Users manual for your radios or cheat sheets
- Message forms, writing pads, pens and clipboard
- ARES badge, copy of FCC license
- Appropriate clothes for the weather, terrain and duration. Dress to stay warm and dry.
- Hat, sunglasses and sun block during warm sunny weather.
- Food, water, and needed medicines for at least 12 hours
- First Aid Kit, First Aid and CPR training?
- Night time gear, flash, light extra batteries and bulb, reflective vest, flares in vehicle
- Small tool kit, gas and water shut off tools

EXTRA ITEMS

- Second radio with 12 hours of battery power
- Base station antenna i.e.. J-pole and mounting hardware
- 50 feet of coax with connectors
- Scanner radio and frequency list of local public safety agencies
- Large 12 volt battery, Gel or deep cycle, charger, 100 feet of AC power cord, large gauge
- Poster paper, markers and tape for signs
- Hard-hat for your head
- 3-way electrical adapter (for 2 prong outlets)
- Whistle
- Waterproof paper

Each ARES group will have a similar list, which may be slightly different to this one.



Different areas of the country will have different needs in terms of personal protection from the elements. Different seasons of the year will also require other items of clothing and other items. This list is also only for a very short term deployment (less than 24 hours) The list for a longer deployment will have many more items particularly in terms of power, food, clothing and personal shelter. These longer lists are normally available from your local ARES team. Many ARES groups have acquired trailers or RV type vehicles in which they have constructed their own Emergency Communications Centers. Often these are built in coordination with their local

governmental ES agencies and are equipped with governmental radios in addition to the amateur gear. Usually they are equipped with gasoline or diesel generators to enable operations for an extended time

AIRWAVES



period. This fact does not relieve the individual operator of the responsibility to ensure their own survivability and comfort since few of the operators deployed will be working in said trailer or RV. They will usually be operating from emergency shelters or feeding or first aid stations out in the community they serve. So far, we have been dwelling on the very serious aspects of serving in ARES and they are very important, however there are lighter aspects to training and serving in ARES.

ARES units also often volunteer to assist with communications for community events such as charity bike races or various foot races sponsored by charitable agencies. Some units volunteer for community events such as town fairs and the like. These are excellent opportunities to test your equipment in a non-emergency situation and also to demonstrate the value and fun of amateur radio. Many good contacts are available within the community. By participating in these fun events you also join a network of people who can assist you in the future. One of the people I met at such an event was very helpful when I needed some welding done for a tilt-over flagpole antenna that I was building. The movers and shakers in your local community are often the same people you will be working with in a disaster response situation. Building relationships with them in these non-emergency events will pay big dividends when the situation is much more serious.

The opportunity to serve your community in times of need is a very big responsibility but it is also a huge honor. All of the gear that you acquire to be of service is needed by you in the situation, and most of it will be of use even when you are not so occupied. Your radios and antennas etc. are just as useful on a day of casual DX at the beach or in a city park. The discipline you develop to make sure your go kit is well stocked and ready will also serve you well when getting ready for Field Day or a family vacation. Please really consider serving your community as a member of your local ARES group. It is a wonderful way to serve your community and a wonderful way to hone your skills as an amateur radio operator.

73.

*Written by Geoffrey E. Haines, N1GY
Assistant Section Manager West Central Florida Section, ARRL
Technical Coordinator West Central Florida Section, ARRL
Frequent Contributor to QST over a number of years
Web site: www.n1gy.com*

Calendar

- Apr 6 Ham EXPO Spring 2019 Belton, TX <http://TARC.org/hamexpo/>
- Apr 8 – 11 COMMEX <http://www.arrlntx.org/NTX-invited-to-COMMEX-2019>
- Apr 11 Majors Field Amateur Radio Club Meeting – Kitty Hawk at 11:45am.
- Apr 13 Rains County ARC Meeting at 9:00am at Rains EOC, 200 Industrial Blvd, Emory.
- Apr 13-14 Texas State Parks on the Air <http://tspota.org> MAJORS FIELD CLUB EVENT!
MFARC activating Cooper Lake State Park. contest@w5nni.net
- Apr 14 ARRL Rookie Roundup – Phone <http://www.arrl.org/rookie-roundup>
- Apr 16 Rockwall ARC Meeting at 7:00pm at Soulman's BBQ in Rockwall.
- Apr 27 ARRL NTX Mentorfest 2019 – Garland, TX <http://www.arrlntx.org/mentorfest>

AIRWAVES



- May 9 Majors Field Amateur Radio Club Meeting – Kitty Hawk at 11:45am.
- May 11 Emory Tailgate Hamfest at the courthouse square in Emory. <http://w5ent.org>
- May 11 Rains County ARC Meeting at 9:00am at Rains EOC, 200 Industrial Blvd, Emory.
- May 21 Rockwall ARC Meeting at 7:00pm at Soulman's BBQ in Rockwall.
- Jun 7 HamCom Plano, TX <http://www.hamcom.org>
- Jun 8-10 ARRL June VHF Contest <http://www.arrl.org/june-vhf>
- Jun 15 ARRL Kids Day <http://www.arrl.org/kids-day>
- Jun 22-23 ARRL FIELD DAY

REGULAR ACTIVITIES

- Daily DFW Early Traffic Net (NTS) at 6:30pm 146.88 – PL 110.9Hz
- Daily DFW Late Traffic Net (NTS) at 8:30pm 146.72 – PL 110.9Hz
- Daily DFW CW Traffic Net (NTS) at 7:00pm and at 10pm on 3541 KHz <http://www.k6jt.com>
- Mons. Rains/Hopkins Co combined NET at 7:30pm 146.92 – PL 88.5Hz
- Tues. Rockwall ARC Net at 7:00pm 441.525 + PL 141.3
- Thurs SVARA Net Every Thursday night at 7:00pm on 146.780 MHz (+) PL 114.8Hz

Officers

- President:** Larry Smith – K5XB
president@w5nni.net
(254) 644-6465 cell
- Vice President:** David Rogers – KG5KPU
vice-president@w5nni.net
(972) 408-6573 cell
- Secretary:** Scott Davis – KK7JS
secretary@w5nni.net
- Treasurer:** John Nelson Jr. – N0DFW
treasurer@w5nni.net
(903) 454-0911 cell
- VE/Class Team Leader:** Scott Joseph – AG5QQ
classes@w5nni.net
- Club Trustee:** Jonathan Brown – WB5KSD
trustee@w5nni.net
- Contest/Activities:** David Rogers – KG5KPU
contest@w5nni.net

Club Repeaters

- Club Station:** TBD
- VHF Repeater:** W5NNI/R
147.160 MHz (+) PL 100.0 Hz
- UHF Repeater:** W5NNI/R DMR
444.625 MHz (+) Rx-SQ PL 151.4 Hz

AirWaves is a production of the Majors Field Amateur Radio Club

We're on the Web! Find us at: <http://w5nni.net>

Your article submissions are welcomed. Please submit to editor@w5nni.net.