



FEEDBACK

July 2020

Do you have a story, humorous or otherwise, about amateur radio? If so, please contact the newsletter editor (w8kdb@arrl.net) and get it published in **FEEDBACK!**

If you would like to place a classified ad to sell, purchase or swap amateur radio related items, please contact the editor.

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Inside this issue:

Lead article.....	1
Upcoming Radio Contests.....	2
Supplemental article.....	2
Meeting Minutes.....	4
Upcoming Hamfests & Conventions.....	3
Club Repeaters.....	5
Nets & Upcoming Events.....	6

Club News

Cornoavirus (COVID-19) Update

So far, things seem to be on track for Michigan as no new Shelter in Place orders have been issued (at least any that will affect us). I have not been told by the church that they are closed, so we are planning to have our normal face to face meeting. The church does request that people wear face masks while at the church and that we wipe things down once we are done. As for the BLB Luncheon, SMARS Breakfast, and Board Meetings, limits may be imposed on these events by Coney Island (sometimes restricting the number of people at one table). Please keep this in mind when planning to attend these events.

Field Day was a success for how last minute it was put together. Friday's setup was cut a little short with a storm rolling in, but the trailers were mostly ready for the Saturday start (just need to raise the towers and make some adjustments before the start). Other than that, the weather was nice all weekend. The location was also great offering a good amount of space. Ken (KC8QNG) brought out his camper to operate a radio from using a butter nut or long wire (switching between the two). We ran a different configuration for HF2 with the butter nut antenna on top of the tower and beam. We also made a good amount of contacts (384 total contacts with 108 contacts being Digital). We didn't have someone to run CW, but George (K8GG) and George (W8UVZ) operated as independent stations so we should get aggregate points from their CW/Phone/Digital work. If you operated during Field Day from your own location, you can have your points added to W8DF by putting "Southern MI ARS" as the Club/Group Name. Next year we are planning to be back at Fort Custer, but the American Legion Post 257 was a nice alternative (and someone has mentioned operating from Marshall Airport). The board has also agreed to donate \$150 to the Post for using the location for Field Day. Our preliminary total score is 2,034 for the 4A class we operated as.



Upcoming Radio Contests

Looking for a little action on the airwaves? You might want to check out these upcoming contests!

222 MHz and Up Distance Contest

Bands: All authorized UHF and Above
Mode: Phone, Digital, CW
Date: 08/01 - 08/02
URL: <http://www.arrl.org/222-mhz-and-up-distance-contest>

10 GHz & Up

Bands: 10 GHz and Above
Mode: Phone, Digital, CW
Date: 08/15 - 08/16
URL: <http://www.arrl.org/10-ghz-up>

Rookie Roundup

Bands: 80, 60, 40, 20, 15, 10 Meters
Mode: RTTY
Date: 08/16
URL: <http://www.arrl.org/10-ghz-up>

September VHF

Bands: 50 Mhz (6 Meters) and Above
Mode: Phone, Digital, CW
Date: 09/12 - 09/14
URL: <http://www.arrl.org/september-vhf>

10 GHz & Up

Bands: 10 GHz and Above
Mode: Phone, Digital, CW
Date: 08/15 - 08/16
URL: <http://www.arrl.org/10-ghz-up>

EME Contest

Bands: 2.3 Ghz and Above
Mode: Phone, Digital, CW
Date: 08/21 - 08/22
URL: <http://www.arrl.org/eme-contest>

**A more thorough listing of upcoming Contests can be found on the ARRL's web page [ContestCalendar](http://www.arrl.org/contest-calendar), <http://www.arrl.org/contest-calendar>*

The test session went great as well, we had a large turn out and most people walked away with a license/upgrade. It also looks like John Tucker (WB8ZVV) also managed to secure a location for the testing this month on July 18th. The exams will be offered at St. Luke's Episcopal Church in Kalamazoo at 8 AM. If you are interested, or know of someone who is interested, please have them get a hold of John Tucker for details (269-324-9085 or wb8zvv@gmail.com).

Other News

Russian-Ukrainian "Radio War" Remains at a High Level

The [June newsletter](#) of the International Amateur Radio Union Region 1 Monitoring System ([IARUMS](#)) reports that what's being called "the Russian-Ukrainian radio war" continues apace.

"The Russian-Ukrainian radio war remained on a high escalation level also in June," IARUMS Region 1 Coordinator Peter Jost, HB9CET, said. "Almost every day, we heard the massive spiteful and provocative broadcasts. In June, they used more frequencies than before, affecting our bands very hard. It is a great annoyance and a big shame!"

Jost points out that the IARU Monitoring System has little opportunity to stop the on-the-air conflict.

"Only national authorities can hopefully do something against international complaints," Jost said. "It is very important and very helpful that many other [IARU] member-societies also observe these frequencies and make complaints to their regulators. We have to coordinate this well within IARU and act together. This is the only way we have a certain power."

In May, Jost reported that the radio war has raged "for years" at 7055 kHz LSB (as well as on 7050 or 7060 kHz).

Jost also reported continued daily transmissions from the Russian over-the-horizon radar known as "Contayner" in the 40- and 20-meter amateur bands and elsewhere. The Chinese "V" has been reported on 20 meters, from 14,246 to 14,256 kHz.

Article courtesy of <http://www.arrl.org/news/russian-ukrainian-radio-war-remains-at-a-high-level>

Choosing a core for an RF choke



While reading about how to configure my solar system for Field Day, I came across a recommendation to use an RF filter on the input of the

Upcoming Hamfests & Conventions

08/08/2020

Angola Hamfest
Location: Angola, IN
Sponsor: Land of Lakes Amateur Radio Club LLC

08/08/2020

Elkhart East Hamfest
Location: Elkhart, IN
Sponsor: Northern Indiana Repeater Group
<http://elkharteasthamfest.com/>

09/12/2020

GRAHamfest
Location: Wyoming, MI
Sponsor: Grand Rapids Amateur Radio Association
<http://w8dc.org/>

09/13/2020

Findlay Hamfest
Location: Findlay, OH
Sponsor: Findlay Radio Club
<http://findlayradioclub.org/>

09/20/2020

Adrian Hamfest
Location: Adrian, MI
Sponsor: Adrian Amateur Radio Club
<http://w8tqe.com/>

solar charge controller. As you can see from the photo at right, it's just an RF choke formed by winding the input cable through the core a couple of times. I have a bunch of cores, so I figured that instead of spending \$5 on this core, I'd just use one I already have.

So, I emailed the company and asked about the core. Rob, the DIYSolarforU proprietor, who is also a ham, informed me that it was a Mix 77 ferrite core. I looked through my box of cores and couldn't come up with a 77, but I did have a Mix 61 core that I used.

Truthfully, I don't know if my homemade choke did all that much. It's supposed to protect the controller from "strong, nearby transmitters." Since I was only running 5W, I'm not sure it was needed at all. Certainly the controller didn't produce a lot of RF noise. I could hear a little hash once in a while, but it was so low that it really didn't bother me.

After Field Day, I emailed Rob and described my experience. He said that my choice of the Mix 61 core really wasn't a very good choice. So, I did a little googling and found this Palomar Engineers' article on ferrite mix selection. I learned that there are actually two different types of ferrite cores: nickel-zinc (NiZn) and manganese-zinc (MnZn). According to the article:

"The NiZn ferrite cores (mix 43, 52, 61) have low permeability, exhibit high volume resistivity, moderate temperature stability and high 'Q' factors for the 500 KHz to 100 MHz frequency range. They are well suited for low power, high inductance resonant circuits. Their low permeability factors also make them useful for wide band transformer applications. Nickel-zinc ferrites have a higher resistivity and are used at frequencies from 2 MHz to several hundred megahertz. The exception is common mode inductors where the impedance of NiZn material is recommended from 70 MHz to several hundred GHz.

The MnZn ferrite cores (Mix 31, 73, 75, 77) have high permeabilities above 800 μ , have fairly low volume resistivity and moderate saturation flux density. They offer high 'Q' factors for the 1 KHz to 1 MHz frequency range. Cores from this group of materials are widely used for switched mode power conversion transformers operating in the 20 KHz to 100 KHz frequency range. These cores are also very useful for the attenuation of unwanted RF noise signals in the frequency range of 2 MHz to 250 MHz. Manganese-zinc ferrites are generally used in inductor applications where the operating frequency is less than 5 MHz. The exception is common mode inductors where the impedance of MnZn material makes it the best choice up to 10 MHz."

I don't have a Mix 77 core in my collection, so I may have to buy one. Another thing that I might try is to make choke with some of the iron powder cores that I have. In either case, I think testing the chokes will be a good application for my nanoVNA.

Article courtesy of <https://www.kb6nu.com/choosing-a-core-for-an-rf-choke/>

Meeting Minutes 06/18/2020

Called to Order: 7:00 PM

Officers Present: Kyle W8KDB John W8JRD Smokey N5MKY Ivan W8IDR Tom W. KE8GDN

Pledge of Allegiance

Introductions

Greetings to new members: none this month

Secretary's Report as published in Feedback: Motion Tom G WR8G Second Tom W KE8GDN Approved

Treasurer's Report as distributed at the meeting: there was a donation from the Ohio hams that our VEs travelled to test. Motion Jay N8ARR Second Smokey N5MKY Approved

Committee Reports:

- Hamfest: Refunds for those that asked. Several donated in lieu of refunds. Date reserved for 2021, although still discussing a later date.
- Skywarn: A meeting was held on June 16 with 12 attendees. The recent storms have been classed as a significant storm event. The first CERT meeting will be held in July. Planning a HIAD in the fall. The may be a visit to WWMT after their antenna rebuild. New policy: 2 consecutive failures to check into the net will result in being dropped from the roll call. There was a question about joining Skywarn.
- Repeaters: Don is trying to link the 2 meter repeater to Echolink. The APRS digipeater is not working, the transceiver is kaput. The internet was lost in the storms and was out for several days.
- FieldDay: Fort Custer group sites closed until July. The WX8BTL and W8DF groups will operate jointly at the Legion Post 257 at B Drive N and Beadle Lake Rd, operating as W8DF. There will be other activities at the post during Field Day. Currently planniing to use the VHF and HF2 trailers with 3-4 transmitters. Scott AB8I will bring his own butternut. We will run generator power at 100 watts. Food will be up to the individual, but potluck is welcome. Chef Jay will be absent this year. Kyle W8KDB, Jim W8JMZ, and Ken KC8QNN will be co-chairs. Tom G. is finishing repairs to the balun from HF2. Which trailer contains the canopy? Tom W. and Kyle will handle trailer towing duties. Setup is Friday June 26 at 3pm. Sanitary wipes for tables, equipment, etc. need to be obtained. Smokey has obtained pool noodles for guy wires or other hazards.

Old Business:

- Tom W. reports the presentations scheduled for the next few months have been postponed but may restart next month. He is still trying to

organize a fox hunt.

New Business:

- Dave Frantz K8DEF is in the hospital with a triple bypass.

Adjourned: 8:20 PM

Respectfully Submitted,

John Davidson W8JRD
SMARS Secretary

Board Meeting Minutes 07/07/2020

Called to Order: 5:34 PM

Officers Present: Kyle W8KDB John W8JRD Ivan W8IDR Tom W. KE8GDN Smokey N5MKY

Others: Dave W8RDX

Topics:

- Field Day: Results have been submitted. The location this year at the Legion post worked out well. The food was tasty. There needs to be an inventory of the trailers. There still needs to be maintenance done on the trailers. Next year's Field Day, if held at the Fort, will need a different food vendor since OT's in Augusta is closed.
- The black trailer's antennas need work on the clamps.
- The June VE session went well with masks and social distancing.
- Questions were raised about making a donation to the Church for the June meeting which was held on the air and also about making one to the Legion post for Field Day. Both were approved.
- Tom W. wants to have a presentation on Foxhunting at the July meeting.

Adjourned: 6:24 PM

Respectfully Submitted,

John Davidson W8JRD
SMARS Secretary

SOUTHERN MICHIGAN AMATEUR RADIO SOCIETY FEEDBACK

S.M.A.R.S. W8DF Club Repeaters

2m Repeater 146.66MHz, -600KHz offset, CTCSS 94.8Hz

2m DStar 146.79 MHz, -600 KHz offset

*1.25m Repeater 224.240 MHz, -1.6 MHz offset

APRS Digipeater/Igate, 144.39 MHz

*70cm Repeater 443.950 MHz, +5 MHz offset, CTCSS 94.8 Hz

70cm DStar Repeater 442.7625 MHz, +5 MHz offset

***Note:** 70cm & 1.25 meter repeaters are linked, and also available via Echolink.

Other Repeaters

2m Repeater 147.120 MHz, +600 KHz offset, CTCSS 186.2 Hz

70cm Repeater 442.350 MHz, +5 MHz offset, CTCSS 186.2 Hz

<p>Club Meeting 3rd Thursday of every month Maple United Methodist Church 342 Capital Avenue NE Battle Creek, MI 49017</p>	<p>SKYWARN Coffee 1st Saturday of every month Immediately after Siren Test Coney Island, N.E. Capital Battle Creek, MI</p>	<p>BLB Luncheon 1st Thursday of every month Coney Island, 962 Capital Ave NE, Battle Creek, MI</p>	<p>SMARS Breakfast 2nd Saturday of every month Coney Island, 962 Capital Ave NE, Battle Creek, MI</p>
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<p>SMARS Nets: Monday—Friday 11:30 AM, 146.66 MHz Sunday Evening 8:00 PM, 146.66 MHz Monday 8:00 PM, 224.24 / 443.95 MHz Wednesday 7:00 PM, 224.24 /443.95 MHz Wednesday 8:00 PM, 28.365 MHz Saturday 8:00 PM, 224.24 / 443.95 MHz</p> <p>Other Nets: Skywarn Net: Tuesday 7:00 PM, 147.12 MHz</p> <p><i>Please see previous page for offsets and CTCSS tones</i></p>	<p>Upcoming Events:</p> <p>Club Meeting: July 16th @ 7:00pm BLB Luncheon: August 6th @ 11:30am Board Meeting: August 4th @ 5:30pm Club Breakfast: August 8th @ 8:30am VE Session: August 27th @ 7:00pm</p>
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