W9JOZ

Next Meeting is on the Air

Greeting fellow amateurs,

We should stay safe and look to the ISS as KE5GGX is aboard.

 I will conduct a virtual net for the June club meeting.

Dave
Kc8obh

INSIDE THIS ISSUE

STARKE COUNTY AMATEUR RADIO CLUB
WWW.W9JOZ.ORG

Meetings are at the Henry F. Schricker Library on the third Thursday of each month, with the exception of December.

The library is located on west Culver Road, two blocks west of Highway 35.

Are you on the air?

Library Door locks at 7:00 p.m. so if you are late, knock loud.

Don't forget Dues are due for 2020.

Still $12.00

Events

Fox Hunts are the 2nd Sunday. See webpage for details

Birthdays

4th - Tom, W9QN

If your birthday has not been listed, it is because I do not have the date for it. If you would like it to be included in a newsletter, please email me the date. Thanks w3ml@w3ml.com

Starke County Amateur Radio Club Weekly 2 Meter Net will be on each Saturday at 8:00 p.m. Central time.

DAY OF WEEK: Saturday 8:00 p.m. Central time
HOST: KN9OX Repeater
FREQUENCY: 145.410 - 600
PL TONE: 131.8

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New Items Listed

See all the For Sale Items at
www.w9joz.org/forsale.htm
There are a lot of them there. Updated regularly.

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See the For Sale Page on the Club website. If you have items to sell email me a list with prices and contact information.

Six Meters Recently Running Hot

In recent days, 6 meters has been living up to its nickname -- "the magic band." On May 30 at around 1200 UTC, Rich Zwirko, K1HTV, in Virginia, worked Nicolas Sinieokoff, TT8SN, in Chad, who answered his CQ on FT8. After the quick exchange, K1HTV alerted several local 6-meter DXers, who were also able to snag the rare contact. TT8SN was able to work into the US mid-Atlantic and Arkansas as well as West Virginia on FT8 before switching to CW at about 1300 UTC and then alternating between the two modes over the next hour. Yves Collet, 6W1TA, in Senegal also showed up on the band, and K1HTV and other stations were able to put him in the log as well.

"So the 6-meter E-skip season has begun," Zwirko remarked. "Who knows what kind of magic the band will serve up?"

What's being called a historic opening on 6 meters occurred on May 31, when David Schaller, W7FN, in the Pacific Northwest saw the band open at about 1430 UTC and stay open for a couple of hours. W7FN worked 12 DXCC entities on FT8 (on 50.323 MHz); other stations had similar success. Schaller said longtime 6-meter DXers from his area reported never having experienced a 6-meter opening to Europe like the one on May 30.

On May 28, Bill Steffey, NY9H, just south of Pittsburgh in western Pennsylvania, reported working three European stations on FT8 at around 2200 UTC. "Six [meters] has been great this week," Steve Fetter, WA8UEG, in eastern Pennsylvania, observed after working stations in the Caribbean and in Europe.

From Greenland, Bo Christensen, OX3LX, has been showing up on 6 meters on FT8 between 2230 and 0000 UTC. He's been reported working into the mid-Atlantic stations with a good signal. Mark Murray, W2OR, in Florida, took advantage of an opening to Japan on the evening of May 22. Two Florida stations each worked 20 or more Japanese stations, and one was said to have had 40 stations in Japan. W2OR said it was "an incredible number for an opening that did not last." On the previous evening, a similar opening occurred from Wisconsin and other parts of the upper midwest.

Jim Reisert, AD1C, reported that stations in Wisconsin and Minnesota were able to work Hawaii on 6 meters starting around 2300 UTC on May 24, using FT8. John Sweeney, K9EL, in Illinois, worked three Hawaiian stations from 2240 - 2250 UTC. He called it "the best 6-meter opening to Hawaii from W9 that I have seen."

Kev Hewitt, ZB2GI, in Gibraltar, made his first 6-meter contact of the season, working K1TOL, in Maine. ZB2GI said the band sounded dead, except for K1TOL's signal. Read more. -- *Compiled from reports in* The Daily DX

WSJT-X Version 2.2.0 is Now in General Release

WSJT-X version 2.2.0 is now in general availability release, after a short period in beta (or release candidate) status. *WSJT-X* version 2.2 offers 10 different protocols or modes -- FT4, FT8, JT4, JT9, JT65, QRA64, ISCAT, MSK144, WSPR, and Echo. The first six are designed for reliable contacts under weak-signal conditions, and they use nearly identical message structure and source encoding. JT65 and QRA64 were designed for EME ("moonbounce") on VHF/UHF bands, but have also proven very effective for worldwide very low-power communication on HF bands.

"FT8 is operationally similar but four times faster (15-second T/R [transmit-receive] sequences) and less sensitive by a few decibels," developer Joe Taylor, K1JT, explains in the version 2.2.0 User Guide. "FT4 is faster still (7.5-second T/R sequences) and especially well suited for contesting."

Taylor noted that even with their shorter transmit-receive sequences, FT4 and FT8 are considered "slow modes," because their message frames are sent only once per transmission. "All fast modes in *WSJT-X* send their message frames repeatedly, as many times as will fit into the [transmit] sequence length," he explained.

Compared with FT8, FT4 is 3.5 dB less sensitive and requires 1.6 times the bandwidth, but it offers the potential for twice the contact rate.

New in *WSJT-X* version 2.2.0: FT8 decoding is now spread over three intervals, the first starting at 11.8 seconds into a receive sequence and typically yielding around 85% of the possible decodes. This means users see most decodes much sooner than with previous versions. A second processing step starts at 13.5 seconds, and a third at 14.7 seconds.

"Overall decoding yield on crowded bands is improved by 10% or more," Taylor said.

Other changes: Signal-to-noise (SNR) estimates no longer saturate at +20 dB, and large signals in the passband no longer cause the SNR of weaker signals to be biased low. Times written to the ALL.TXT cumulative journal file are now correct, even when decoding occurs after the T/R sequence boundary.

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Snippet from the WSJT-X 2.2.0-rc2 Release Notes:

"Increasing FT8 usage on the popular bands 40, 30, and 20m means that the default 3 kHz sub-bands are often wall-to-wall with signals. Overcrowding encourages some to turn on their amplifiers, which only makes things worse. We are trying to coordinate the suggested frequencies in WSJT-X with updated band plans being considered by IARU, ARRL, and other amateur radio societies.

On a trial basis, and in response to numerous suggestions from around the world, we have added a second set of suggested dial frequencies for FT8 on three HF bands and also on 6 meters.

The new suggested dial frequencies are 7.071, 10.133, 14.071, and 50.310 MHz.

These frequencies will appear in your drop-down band-selector list after you go to the "Settings | Frequencies" tab, right-click on the frequency table, and select "Reset". Alternatively, you can add the new FT8 frequencies manually.

When the conventional FT8 sub-band on 6, 20, 30, or 40 m seems too full, please try moving your dial frequency down 3 kHz! Be aware that as currently implemented, WSJT-X will set your dial to the lowest frequency for the selected mode and band, when you switch bands."

"Of course we are aware that almost any newly suggested frequency may step on some toes. As stated in the Release Notes, our currently selected trial frequencies follow guidelines being considered by IARU, ARRL, and other amateur radio societies. Some eventual reorganization may need to take place...
Or perhaps not. We shall see.

We try to follow world-wide community wishes, not to dictate them."
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Handy Hint
By Steve Mollman-KD9HL

Threading Coax for a PL-259

This Handy Hint is not another tutorial on how to work with PL-259 connectors but just a suggestion that may make the job a little easier regardless of the method you may use.
Michael Tracy-KC1SX, writing in the ARRL's "On the Air" magazine's Hints and Hacks column suggests using a 7/16 X 14 threading die as a way to insert large diameter coax into a PL-259 connector. We decided to try his suggestion and see how it worked.

First off, using a micrometer, we measured the diameters of various cables we had. Not all coax is created equal! Most manufacturers claim to produce a cable that is nominally .405 inches or 10.287 mm in diameter. The results are shown below:

Brand	Type	Size-Inches	Size-Metric
Belden 8214 (1st Sample)	RG 213/U	.394 In	10.08 mm
Belden 8214 (2nd Sample)	RG213/U	.386 In	9.80 mm
JefaTech	LM400	.395 in	10.03 mm
InterComp	RG 213/U	.404 in	10.26 mm
Lacue	RG 213/U	.409 in	10.39 mm
Unknown	RG-8	.401 in	10.19 mm
Comcast	75Ω Surplus/Scrap CATV	.408 in	10.36 mm

The PL-259 connector(s) were Amphenol RF 83-1SP-6. The inside diameter of the barrel of these connectors measured a nominal .38 inches or 9.65 millimeters. That being the case, means that the jacket of all the coax is slightly larger than the inside of the connector. Not only is the coax larger than the inside of the barrel we must depend on the internal threads of the barrel to cut threads in the coax jacket. This can be a hard job because the jacket is made of a very tough plastic. These are probably the reasons we have trouble screwing a Pl-259 onto a coax end.

Scrap piece of RG-8 style coax and tools. Precision Calipers, Pl-259, Die Holder, 7/16 X 14 Die and a Coax Cutter.

Cutting the Threads into the Coax Jacket

Approximately 1½ inches of Threads Cut

PL-259 on Threaded Coax

With some caveats, the method works. The first difficulty we had was starting the die on the coax. As we turned the die it would initially tear the jacket. Once it was started though, the die cut the jacket in a straightforward way. Possibly pre-lubricating the jacket with a silicon spray and/or using a brand new die may have minimized this (our die had been used an unknown number of times on steel). The Comcast 75Ω cable presented a special problem because the jacket was of a softer material and the die tore it as we cut the threads.

◄73's and Good DX ►

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2020 Indiana Hamfest Schedule:

Updated May 12, 2020

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July 10 & 11 - Indianapolis Hamfest (CANCELED)
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July 11 - Auburn Classic City Hamfest
Auburn Cord Duesenberg Museum
1600 S Wayne Street - Auburn, IN

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August 8 – Elkhart East Hamfest – 9 am (CANCELED)
Northern IN Event Ctr. – Elkhart, IN
http://www.elkharteasthamfest.com
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August 8 – Angola Hamfest
Gateway Community Church – Angola, IN

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August 15 - East Central Indiana Hamfest
Randolph County Fairgrounds - Winchester, IN

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October 17 – Hamtober Fest
Lynnville, IN
http://hamtoberfest.com/

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November 7, 2020 - Hoosier Hills Hamfest
Lawrence County 4H Fairgrounds - Bedford, IN
just off of US-50, west of SR-37
http://www.w9qyq.org/hamfest

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ARRL Central Division Convention
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November 14 - 15, 2020 – Ft Wayne Hamfest & Computer Expo
Allen Co War Memorial Coliseum
Ft. Wayne, IN
http://www.acarts.com/hfmain.htm

Hamfest Information:
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The 2020 Fort Wayne Hamfest & Computer Expo will be open to the public
from 9 AM to 4 PM on Saturday, November 14, and from 9 AM to 2 PM on
Sunday, November 15. Admission is only $6.00 per person (good for both
days), or $3.00 for just Sunday, and there is plenty of parking in a
large, paved parking lot, but please note that the Coliseum charges a
$5.00 parking fee. Children 11 and under are free with an adult.
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November 28 - Wabash Valley ARA Turkey Fest
Clay Co. Fairgrounds - Brazil, IN
www.w9uuu.org
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Search the ARRL hamfest calendar for upcoming hamfests :

http://www.arrl.org/hamfests/search

Clubs may use the hamfest application to add your clubs' hamfest to
the ARRL website by using this link:

http://www.arrl.org/hamfest-convention-application

ARRL Indiana Section
Section Manager: Jimmy L Merry Jr, KC9RPX
kc9rpx@arrl.org
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If you have something for the newsletter, please send it to me before the 20th of the month.

See you at a meeting.

Sometime in the Future

73
John, W3ML