

Eastern Iowa DX Association

An ARRL affiliated club - Established 1975

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Welcome to winter!

Our Midwest weather hasn't been too bad, so guess we needed a jolt.

Propagation had a few good days for 6 meters but I'm looking for more DX on that band. Several of you helped out with spots on email and google groups. VU4A has just now closed his one-man operation with 30,970 Q's showing on the club log map tracker. Several members reported they had an ATNO. I printed VU4A on 80 FT-8 for 20 minutes but didn't connect. Here are a few calls in my log since our last meeting: KV1J, K8R, N5J, E51WL, TO8FP, PX0FF, C21MM, VK9CV, S9Z, FW7AA, VU4A.

Stop the presses!! LoTW just processed my 14 Q's that have been in limbo since August. Hopefully, all credits will tally

QRM

Club Officers: <u>President:</u> Glen Kesselring, KØJGH

Vice President: Todd Le Mense, KKØDX

<u>Secretary:</u> Bill Caldwell, NØLNO

Treasurer: Mike Nowack NA9Q

Repeater Committee: Jason Joens NRØX

Membership Committee: Jim Spencer WØSR Nelson Moyer KUØA

Repeater: NØDX/R 144.59 / 145.19 (tone 192.8)

www.EIDXA.org

Web Master: Craig Fastenow KØCF

Newsletter Editor: Bob Lee WØGXA rclee2266@gmail.com correctly, and we can all get back to normal. Others have reported their applications now have moved through.

It was good to see members working Europe on 6 meters around November 1st. I logged KL7's then. JA and TF on November 6th.

A new year means it is time to send your membership dues to Mike, if you have not already paid. Along the lines of membership please reach out to past members to encourage them to re-activate. There are fewer new countries for many of us. How about working a different mode or band as a challenge?

The Geminid meteor shower peaked on December 13th. It was overcast here so visual observation was nil. There are several spots on 6 meters using MSK 144 within the WSJT-X software.

I'm looking forward to seeing all of you on January 10th. Please come to the meeting with new ideas.

Planned meeting dates for the 2025 year: April 25th, July 11th, October 10th.

Have a safe and healthy Christmas and a Happy New Year.

Cheers, 73 Glen KØJGH pres.

Musings from the lunatic fringe Bob WØGXA

It seems from the email reflector there's plenty of DX to be had. I hope

everyone is working those ATNOs and filling band slots.

I was reflecting on contest activity this past week and how SO2R has changed the experience. I do not use SO2R. I'm lucky enough if I get my shoes on the correct feet in the morning. I do, however, like to sit on a frequency and run stations. It used to be quite predictable... call CQ, I can hear three stations calling me, I work one and then two will come back. I developed a skill to remember a partial call of an unworked station and tune my ear to listen for them to come back. Nowadays, it's more likely than not, they're not there. They will typically return one or two CQs later. Meanwhile they're off working other stations. I guess I'll have to adapt my skill set :-)

I don't use the QSL buro much (only responding to those sent to me) but I just saw (I'm way behind in the news) that the League is suspending monetary support for the service. Do you use it? I'm sensitive to the fact that some awards require cards, but I was considering ceasing to use it and it might be time.

Our very own WØIY has thrown his hat in the ring for Iowa SM. My ballot arrived just a few days ago, so remember: "Vote early and vote often"

Enjoy this warm weather. There's still time to get in some last minute antenna work before it really gets cold!

Bob

Club News and Administrative Items

NEXT MEETING

January 10, 2025

Social Hour 6:30 PM Meeting & Program 7:00 PM Meeting and location information <u>here</u>

Program: "ARRL DXCC" small group discussion with our Midwest Division Director, **Art Zygielbaum**, **KØAIZ** of Lincoln, Nebraska and Vice Director, **Dave Propper**, **K2DP** of St. Louis, Missouri.

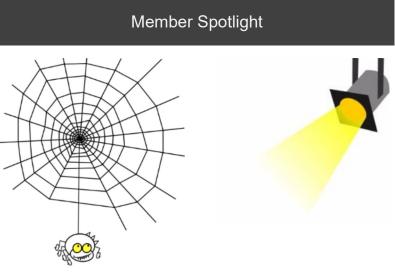


Card Checkers

We have club members who can check your QSL cards

- Glenn, WØGJ
- Mike, NA9Q

Contact info can be found here: http://www.arrl.org/dxcc-card-checkersearch



Nothing to report this month. If you haven't been featured in the newsletter, let me know. We'd love to do a story.

DX News

Six Meter EME DXing – de Corn Field EME Gang by Rod Blocksome, KØDAS

In 2016 a group of hams interested in 6 meter EME joined forces and built a very temporary station in an effort to work Lance, W7GJ who was portable on the island of Palau in the western Pacific. Initially the station was an IC-9100 driving an ARCO PA to about 1200 Watts to an M^2 6M9KHW 48-ft. Yagi. The Yagi was manually aimed at the moon while the station and 220 Volt generator was located in the bed of my Ford Ranger. The feedline was short – just long enough to go up from the pick-up to the driven element. As the Moon moved across the sky it was necessary for the pick-up to move to keep the station beneath the driven element of the yagi. Every tenth of a dB counts in this game. For the next four years we enjoyed many successful DX QSO over the nearly 500,000 mile path to the Moon and back.

Then the Derecho wind storm put an end to our 6-meter EME station back in August 2020 and we were off 6-meter EME until now.

Recently we planted some Rohn 25 into concrete at our hill top EME station and refurbished the old 6M9KHW yagi from years earlier. We home-brewed a hinge plate to support a couple sections of Rohn 25 giving us a tilt-over tower of about 25 feet. A 12 Vdc winch from Harbor Freight handles the raising and lowering nicely. It is quite a sight to see an antenna that is more than twice as long as it's supporting tower!

The station is another IC-9100 plus my HB 8877 amplifier I designed and built back in 1990. It easily cranks out the legal limit of 1,500 Watts (remember every tenth of a dB is important in this game). We buried 7/8-in Heliax from the shack and up the tower to the mast-boom junctions where we transitioned to ½-in "Super Flex" around the junction and to the driven element.



Corn Field EME Station and 6-meter EME Yagi

Of course, Lance, W7GJ, is heading out on another one of his exotic EME DX-peditions – this time to Tristan da Cuhna operating as ZD9GJ. Our goal was to get everything finished in time to work Lance, which meant leaving a lot of "nice to have" features for later. One example, was to use manual elevation to aim the antenna at the Moon which meant the Moon had to be visible. Since the antenna site slopes off to the west, visually aiming the antenna at lower elevations required a lot of hiking back and forth to the tower. To verify, I would then go inside and test to see if I could receive my own echoes from the Moon.

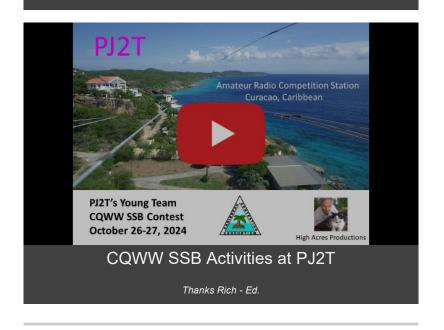
This was the scene on the night of September 21, 2024 at 0458 UTC when I finally completed with ZD9GJ after trying for over 3 hours to work him. I could copy my own echoes each time I tested, so I knew my system was working as expected, but I was getting no decodes on Lances' Q65-60A signal. I was getting close to calling it a night when

suddenly "Mr. Faraday" (who fools around with polarization of the signals as they pass through the ionosphere twice) decided to "give up" and I decoded Lance at -27 dB. He later said he decoded me at -26 dB.

So that's my story and I'm stickin' to it, Best Regards, Rod, KØDAS



Feature Articles



Caption this...

Visitors to NOØB's 30m beam





AMSAT AO-7...A Fifty Year Anniversary!

I found this series of articles on OSCAR-7 and found them interesting - Ed.

https://www.amsat.org/amsat-ao-7-a-fifty-year-anniversary/

Member News

KØDAS/KH6 - A retrospective



I ran across a nostalgic photo of my ham station from early 1970 when I had been living in Honolulu for about 8 months (in the USAF). I guess I was collecting tubes and dreaming of building a PA. Later on I did build one using the 4-1000A tube on the left (We thought in terms of "big bottles" back then).



The two blue panels in the rack are my homebrew single band 20 meter PA and PS. The PA ran a pair of 4-125 at about 600 Watts. It was 20 meters only as I used it to run phone patches from Guam.

I had a very good friend, KH6CTQ (now SK), who was a Navy crewman on the nuclear subs. At approximately 3-month intervals they surfaced in Guam to change crews (who were based at Pearl Harbor) and to take on supplies. During this period of a few days, he and I would phone-patch the departing crew to their families back in the Pearl Harbor area on 20 meters. The black telephone in the photo was modified for phone patch operation and worked well. This was back in the days when a phone call via undersea cable was quite expensive.

..... and that's the way it was :>}

Rod, KØDAS

ARRL Sweepstakes SSB

Guy NØMMA



This year at NØMMA we ran a multi-single, high-power, un-asisted entry for ARRL November sweepstakes SSB. We started the contest, like last year, with amp problems that had us on low power for a couple of hours at the beginning of the contest. With a little help from our friend Dave (WAØYDO) and his mint Healthkit SB220, and son Matt (KDØSXF) who is an electrician, we brought in a fresh amp and routed a 220v supply from the basement up to the operating position in my office. From that point on we were warmed and encouraged by the warm glow of the SB220's tubes as we steadily ran on the bands. The problem may have cost us our sweep since the missing section was NL, and those we know who worked them did so early in the contest before we got up to full speed.

The 10m and 15m bands, which we had hoped would be good, proved disappointing. 20m during the day and 40m during the night were the "money" bands for rate. The overall average for the contest was 24 QSO per hour. Prime time produced hours in the 70-80 QSO/ hr range. The first bit where we had to run on low power was not something that could be overcome later. It probably cost 250-300 QSO with the low power and the confusion of getting the new amp and AC power routed. The mayhem on Sunday afternoon of sweepstakes is legendary and this year was no exception. 20M was crowded but 40m produced some runs in the last hour. Final QSO count and score was:

9 of 14

Band	QSOs
3.5	67
7	406
14	387

21 90 28 42 Total 992 QSO 84 sections Score : 166,656

This year will also be the last Field Day style Sweepstakes event. I expect the towers and antennas to be up in the air and in use before the spring contests. As of today, the mult/2nd station tower is up and rotor mounted. For the contest we used Wyatt's (ACØRA) truck and 50ft air mast to get the mosley beam up in the air for the contest, but now the mosley and the 6m yagis are in their permanent positions on the tower.

Targeting placement of the main tower in January, weather permitting. The base section and guy anchors are installed and the concrete is set. We will need two lifts, one to place the top 60ft of tower, and then the 2nd for the antennas/mast. TH7DX and 40M beam go on the main tower. This year we used a temporary 40m 2 element vertical array for that band and the typical dipole in the trees for 80m. It was field day style, but we had antennas up and tested for all 5 bands at the start of the contest.

This contest is the major social event of the year for NØMMA station friends and supporters. The pot luck dinner on Saturday night with spouses was fun with excellent food and conversation. The work leading up to the contest as well as work done during the weekend provided progress and strong encouragement to push ahead with finishing the construction of the "real" station.

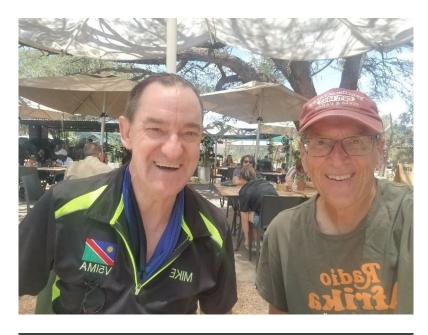
My wife Chris and I purchased our home in Benton county three years ago with the firm intention of it being a place where amateur radio nuts, especially contesters could come and "play" together and enjoy the fellowship of our little fraternity. It has taken longer than hoped to put up towers and get the shack in shape, but the last major steps are nearly completed.

Guy/NØMMA

We'll look for an update for a future newsletter - Ed.

V51 Travels Tom, NYØV

In December while in Namibia I met up with Mike, V51MA for a bite to eat and talk radio. I also gave him the Stateside QSL's that I have processed since the last time I was in V5. I have met hams around the world in my travels and each time we immediately share that common ham spirit. Radio is a global language! I see Mike about once a year as my daughter, son in law, and three grandkids live in Windhoek. Tom, NYØV



Logbook

CQ Test

10 meter single band CW

I told myself that for the next few years, I'd focus on 10m while I'm waiting for 160 to be good again. I will give myself a C-.

I operated in the RAC Winter contest this past weekend for about 45 minutes and put 40 Qs in the log. It was 2:30PM, so I pointed the beam NW and starting calling CQ.

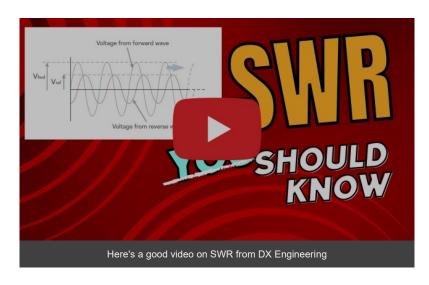
Obviously I worked a lot of strong PNW stations and a few from Brasil off the back of my bean. The most surprising guy to come back to me was from Hungary. He had a good signal too. I also snagged a few others (e.g. Scotland, Germany).

I recall years ago doing CQWW single band 20m and having nice openings to JA and EU at the same time. I finally just pointed the beam north and worked them both. I had not had the same experience on 10m until this weekend.

NAQP and ARRL DX CW will be my next opportunities to work 10m. We'll see if I can stay at the radio for longer periods of time.

Bob WØGXA

QRM



Amateur Radio Operators Detect Signals From Voyager 1

A pretty cool article here

"...On its journey back, it amassed so much knowledge, it achieved consciousness itself. It became a living thing." – James T. Kirk, <u>2270s</u> (<u>Star Trek: The Motion Picture</u>)

Geomagnetic storms cause "mass migrations" of satellites

Jeff Foust December 11, 2024

Space News



An aurora seen from the ISS. Geomagnetic storms that create auroral displays can also affect satellite orbits and, with them, collision avoidance efforts. Credit: NASA

WASHINGTON — A pair of major geomagnetic storms this year led to unprecedented "mass migrations" of thousands of satellites in low Earth orbit that create new concerns about space traffic coordination.

The phenomenon was first seen in May during a major solar event called the Gannon storm. That event is best remembered for creating auroral displays in the northern hemisphere at latitudes much further south than normal.

The storm also increased atmospheric density at low Earth orbit altitudes by up to an order of magnitude, said William Parker of the Massachusetts Institute of Technology during a presentation at the annual meeting of the American Geophysical Union here Dec. 9. That increased density results in more drag, affecting satellite orbits.

The first problem was the low accuracy of forecasts of the timing, magnitude and duration of the storm. "As a result of this low skill in our forecasts, SpaceX saw 20 kilometers of position error in their one-day computations" of the orbits of Starlink satellites, he said. "If we're uncertain in where our spacecraft are by 20 kilometers, then you can throw collision avoidance out the window."

The problem was compounded by a lack of knowledge of just how inaccurate the forecasts were at the time. "We were pretty confident in those bad solutions," he said. "Being confident in the wrong answer fundamentally changes the decisions that we're making whether or not to maneuver the spacecraft."

The second issue came shortly after the peak of the storm. The increased drag caused satellites' orbits to decay to the point where they performed maneuvers, often automated, to raise their orbits to the altitudes they were at before the storm. In the last geomagnetic storm of the same magnitude as the Gannon storm, in 2003, there was an increase by a factor of two to three from the baseline of about 10 satellites a day making orbit-raising maneuvers.

After the Gannon storm there was a far sharper response. In one day after the storm, nearly 5,000 satellites, nearly all Starlink, performed orbit-raising maneuvers, far higher than the baseline of about 300 satellites a day. "This is half of all active satellites deciding to maneuver at one time," Parker said. "This makes it the largest mass migration in history."

That record, he added, was broken in October after another geomagnetic storm with a slightly higher number of satellites moving in one day, the difference being the addition of hundreds of Starlink satellites launched in the months between the two events.

Those mass maneuvers further complicate collision avoidance efforts already hampered by the position errors from the storm. "Then we have no idea when a collision is going to happen. We lose that capability for days at a time," he said.

That wasn't appreciated at the time by satellite operators, he said,

because of a lack of awareness of the position errors and the massmigration phenomena. "Lots of operators continued to maneuver as if nothing was wrong, but all of those maneuvers were pointless because they didn't represent reality."

That underscores the need, he concluded, for improved space weather models and forecasts. "This is a significant impact," he said. "This is critical infrastructure to all of our space operations moving forward, and it will only become more important as time goes on."

Original article here.

Vail Code??

What would Mr. Morse say??

Check this out here



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