



Eastern Iowa DX Association

An ARRL affiliated club - Established 1975

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October 2023

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President's Propagation, Pontifications and Prognostics

Fall is coming, I hope everyone has their antenna work done. This has been a good year for DXing, I put three ATNOs in the log but missed Bouvet. The long-delayed Swains Island expedition is coming in few weeks.

The next EIDXa meeting will be held Friday 13 October at the Mercy Medical center Hall Perrine rooms A and B. We will elect new club officers, W3ACO has a good selection of candidates.

The program, "Contesting for Non -Contesters" will be presented by Dave Jacksa WØVX (see his bio later in the newsletter) via a Zoom link. Yes, we are going to introduce Zoom to the Meetings.

WØSR finally has his new antenna installed, just in time to go on a European vacation.

- WAE - Notes from Rich
- CQWW RTTY - Notes from Adam
- Solar Eclipse QSO Party

WØAWL, NRØX and WØWP helped with the installation.

Rumor has it that Jim is becoming interested in FT-8.

QRM

Club Officers:

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Gayle Lawson, KØFLY

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George Cooley, NG7A

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Nelson Moyer KUØA

Repeater: NØDX/R

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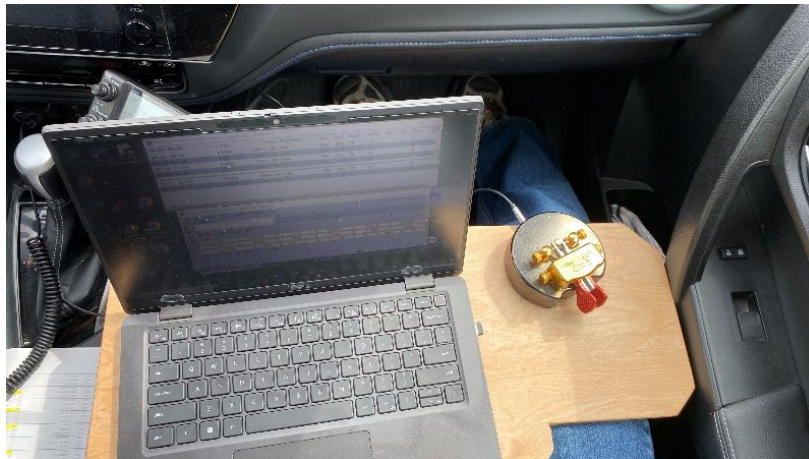
Musings from the lunatic fringe

Iowa QSO Party

I hope you had a chance to get on the air and pass out a few Qs during Iowa's QSO party.

I spent five hours activating eight counties. I started in Belle Plaine and worked my way in a zigzag south, activating Benton, Tama, Iowa, Poweshiek, Mahaska, Keokuk, and then over to Washington and Louisa. I only needed about 15 minutes at each stop to run it dry. Mahaska must not be a rare county because I worked only one person.

This was the first HF outing with my ICOM 7100. Installed new this year, I've used it for several months on VHF/UHF. Seems to work well. I think I'll keep it.



I kept things simple. I ran N1MM on my laptop but it wasn't connected to the radio. It simply served as an easy way to log and create a Cabrillo. I did all the sending by hand. You can see the radio head behind the laptop screen. It's mounted on a Lido L-MAX seat bolt mount.



Most of my operating positions looked like this. Pictured here is a road in Mahaska county :-)

I stopped with 100Qs as a thunderstorm was developing overhead and I don't like operating in those conditions with a wire attached to my head.

In other news...

The big thing coming up is W8S. Work'em early and work'em often. With propagation improving faster than normal, the upcoming DX season looks to be a good one.

73, Bob

Club News and Administrative Items

Minutes of the EIDXA meetings are on

NEXT MEETING

Friday
October 13, 2023

Social Hour 6:30 PM

Meeting & Program 7:30 PM

Meeting and location information [here](#)

Program: Contesting for Non -Contesters” will be presented by Dave Jaksa WØVX via a Zoom link.

WØVX Bio

Dave Jaksa, WØVX, was first licensed as a Novice while in High School in suburban Chicago in early 1962. Two months later he upgraded to General and began chasing DX and contesting. In 1968, when Incentive Licensing became effective, he upgraded to Extra Class.

After finishing college in 1968 he took a job with Collins Radio in Cedar Rapids, Iowa. With the move from W9 land to Iowa the FCC gave him a new zero district call, WAØVDX. In 1976 he dropped a couple of letters to get his current call, WØVX, which he has kept as Collins moved him to California in the mid 80's and to Texas in 1988.

From the beginning of his Ham Radio “career” Dave has been an active DXer and Contester. He was the co-founder of the Eastern Iowa DX Association in 1975 and served several terms as president. In Texas Dave served several terms as president of the Lone Star DX Association and is a past president of the N5CXX Collins ARC. He is on the Mixed, CW, and Phone DXCC Honor Rolls with 359 Countries confirmed. He holds the 9 Band DXCC, WAZ, and 5 Band WAS awards.

Dave holds a BSEE degree from Rose Polytechnic Institute and a MBA degree from the University of Iowa. He is now fully retired and lives in suburban Dallas, TX with his XYL Judi, WØJJ. They have 3 married daughters and 6 grandchildren. Dave is currently very active on 160 through 6 meters mostly on CW.



Card Checkers

We have club members who can check your QSL cards

- Glenn, WØGJ
- Mike, NA9Q

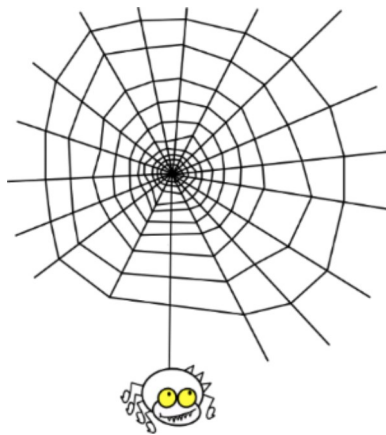
Contact info can be found here:

<http://www.arrl.org/dxcc-card-checker-search>



Wind has twisted The NØDX repeat antenna mount. Terry WØAWL has been coordinating repair activities with the Marion water department.

Member Spotlight



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

W8S - Swains

In case you've not been paying attention...

<https://swains2020.ildxt.eu/the-plan/>

Work'em early, work'em often

A busy autumn season...

It looks like we have a busy few months with upcoming (or active) DXpeditions. List curated from DX-World.net [HERE](#).

—SEPTEMBER—

T32AZ
VK9LAA
5X3K
T22T
ZD9W
ZL7IO

—OCTOBER—

5W0LM
YJ0TT
TX6D
V73AH
E51JAN

W8S
T32AN
E6AM
T2C
V63AH
ZL7/SP5EAQ
V6SX
H40WA
ZD9W
V62P
TO8FH

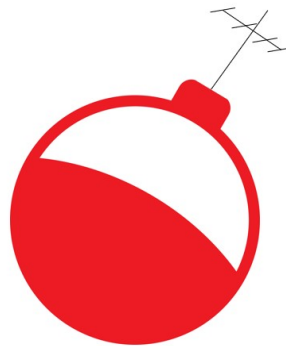
—NOVEMBER—

4W8X
FW2CW / FW5N
PR0T
XW4DX
TJ9MD
V62S
E6AJ
9L5M
3B9/M0CFW
TX7L
ZL7A
H44WA
VK9XGM

Feature Articles

Tales of the Sea

Jeff Woods WØODS



QST

I have successfully activated KH2 Guam from Apra harbor this afternoon. Work was on 15m for the SAC contest. Signals were strong. Only 16 Qs so far, S&P. I tried running but got no takers.

N1MM is interfaced to a Xiegu 6100. It tries to send the CW but seldom gets an entire exchange out with no errors. My error rate using a Begali Traveller in my lap whilst sitting on the dock is still poor, but significantly better. This trip, since I was flying out and it was

expected to be only 75 days, I flew with just the Xeigu instead of dragging the Flex 6600 and its Pelican case. An IC-705 would have been a better choice, and one will be procured for the next trip.

I am running 50 watts into a SuperAntenna loaded vertical clamped securely to a stainless steel ladder out on the pier; the ground is excellent and the antenna is performing well.

The sun has just set here in Guam at 0830Z. VKs usually begin coming in about now and I am headed back out to converse with a few.

I shall make every effort to have a charged battery and be QRV tomorrow (Later today GMT, 17SEP) on 12M or whatever appears to be open at the time. Propagation predictions indicate that this band/time slot is best.

Operational notes:

We have shifted piers as of yesterday and will be in Guam for weeks, rather than days. The new location has an excellent spot right off the ship for operations. Photos have been taken to document my location off the ship, so this will count for DXCC credit. Please include me in the next EIDX A update and pass on to the ARRL or any other concerned parties who post dxpeditions. I am still working 7 days a week here, although I do have some flexibility in my working hours. Operation time is probably going to be limited to about 2 hours since the station is running on a single 9AH LiPo battery. 50 watts from the Hardrock 50 kit amp that I built on the way here from Thailand/Malaysia really gets out well.

73 to all from sunny Guam,

WØODS/KH2

Jeff Woods



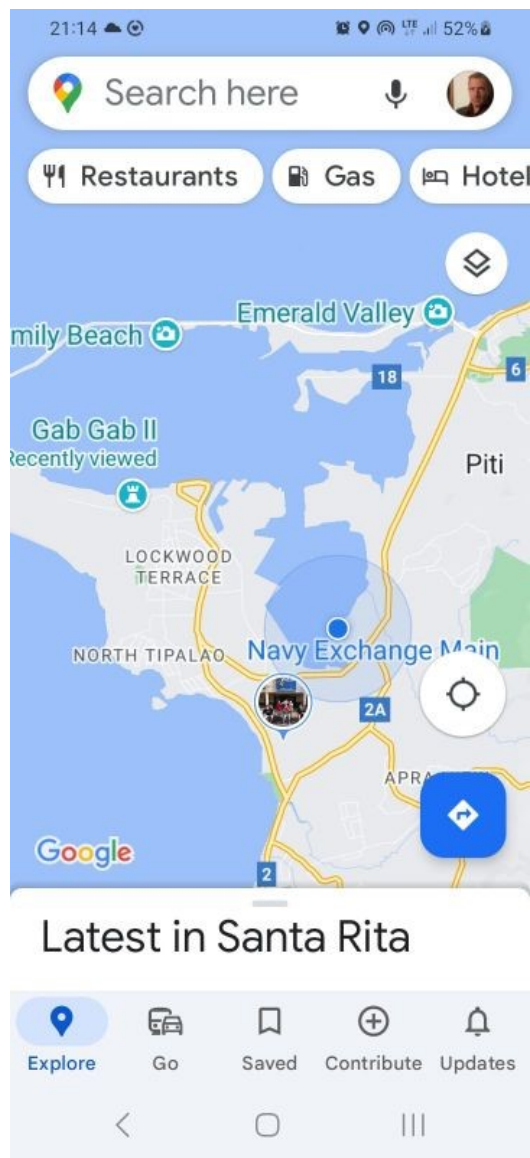
Apparently, the sea air corrodes your razor so you can no longer shave.



A shack with a view



It's a rental



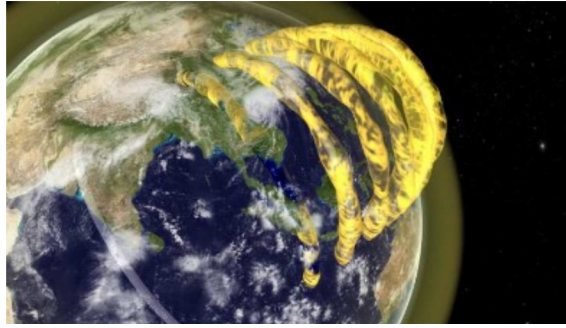
Ionospheric Ducting

George NG7A

Ham radio operators have worked propagation paths that seemingly defy the free space transmission path loss equation (FRIIS). It has been postulated that under certain conditions the ionosphere can produce ducting much like a fiber optics wave guide, either within a particular layer or between layers. If true, the propagation modes would much less loss than a free space transmission .

Echoes around the Earth Echoes were first observed in 1926 with delays of 125 to 140 ms. These delays suggest a path around the Earth, for given that the Earths radius is 40,021 meters and the speed of light travels just under 300 m/s, it would take a radio wave around 133 ms to traverse that distance.

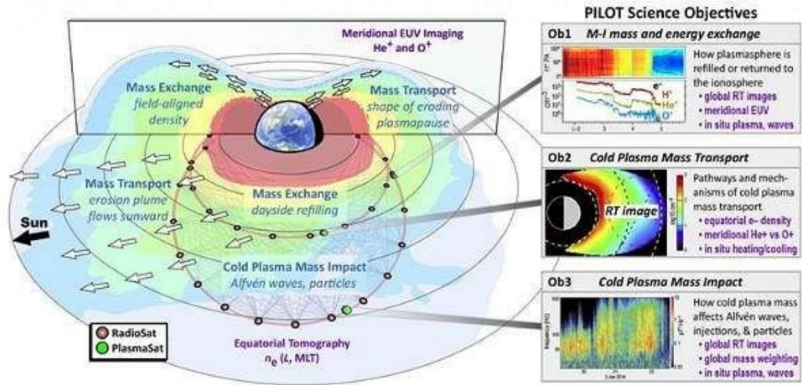
A new observation Australian Scientist Cleo Loi in 2016 seems to support the ducting theory. Loi managed to image plasma ducts interacting with the Earth's magnetic field as pictured in the image below.



In 2022 NASA collaborated with a team of science and engineering organizations to help design a science mission to further study this. The mission concept, called Plasma Imaging, LOcal measurement, and Tomographic experiment (PILOT), is designed to measure the flow of cold, dense plasma into and out of Earth's magnetosphere to better understand how the interaction between Sun and Earth's planetary magnetic field defines the evolution of our planetary atmosphere.

To achieve the mission's science goals, the 34 satellites are distributed between two coplanar, near-equatorial orbits that overlap to form a radio tomographic (RT) imaging plane on the apogee side. The orbits were designed to optimize RT imaging of the inner magnetosphere, in-situ observations near the plasmasphere, and large-scale photon imaging of extreme ultraviolet emissions. Both the inner and outer orbits were designed to have the same orbital precession rates to ensure that the area between the orbits remains fixed.

The magnetosphere is a dynamic system, with regions of cold, dense plasma changing size and shape as they flow around the planet. Previous space measurements captured data from single locations at specific times along their orbit. What the team wants to create spatially resolved images of the magnetospheric cold plasma, making real-time movies of the plasma flows. The mission would "follow the mass," measuring how much atmospheric mass is lost to the solar wind, and how much is returned to Earth via the Earth's magnetic field.



By broadcasting radio waves to each other, the combined fleet of spacecraft can create a mesh of plasma density observations that can be used to create a picture of the whole area within the orbit once every 10 seconds. Ultraviolet cameras on the spacecraft can also measure the flow of cold dense plasma into and out of the Earth's equatorial plane.

Member News

W9DXCC - Notes from Barry

Barry WØIY spent a weekend at W9DXCC in Chicago and he sent me some content for the newsletter. - Ed.



A good turn out.

DXCC

There was much discussion with ARRL representatives about rare entities, RIBs, etc. It seems like there is no (or close to zero) interest in deleting entities that have nearly zero probability of being activated again. Additionally, the idea of operating within territorial waters of these entities also have little interest in moving forward. In the context of a place like Bouvet, a first class activation will cost \$1M to get a large enough vessel to support reliable helo ops.

The key take away from the session is that RIBs may be the future. It's difficult to overstate the environmental benefit of sending a couple of people ashore part time to set up a remote station and then leave. By not sending 10 people and enough provisions to stay on an island for three weeks makes applications for landing more palatable.

Barry noted a RIB under development that is an FT8-based "suitcase" that you carry on, deploy solar panels, antenna and leave.



Glenn shilling for NCDXF



Card checking by hand - the way God intended

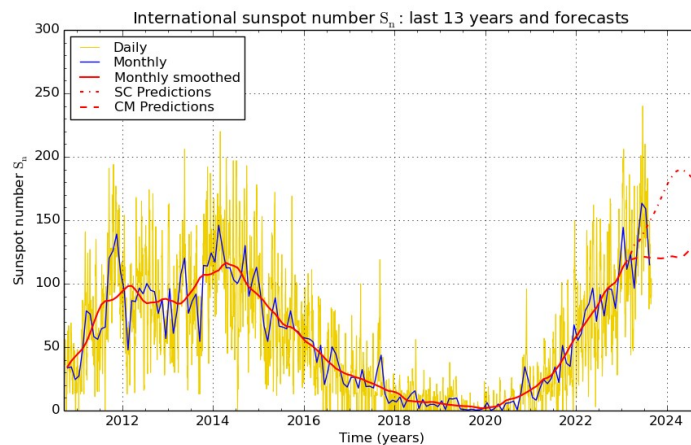
Propagation

Barry reports that K9LA gave his assessment of the current cycle. Conditions on 20-10m will continue to improve. This cycle is expected to be better than cycle 24 but not as big as 21 and 22.

I guess that means there's hope for filling slots on the higher bands.

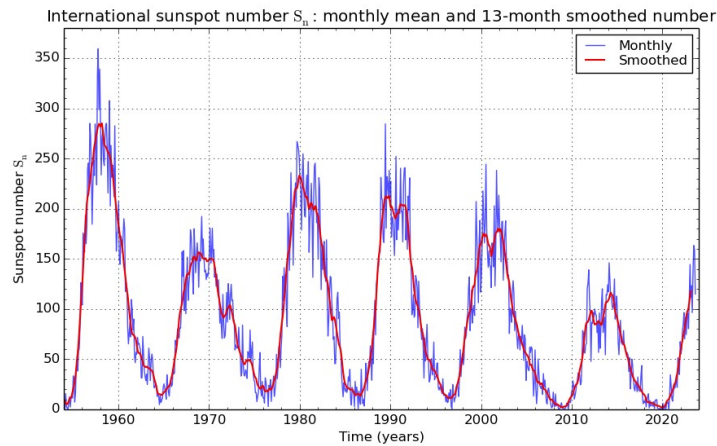
Here's an article suggesting a peak one year sooner than anticipated:
<https://www.science.org/content/article/peak-solar-activity-arriving-sooner-expected-reaching-levels-not-seen-20-years>

Also some plots from the Royal Observatory of Belgium...



SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium 2023 September 1

<https://www.sidc.be/SILSO/daysnplot>



SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium 2023 September 1

<https://www.sidc.be/SILSO/monthlyssnplot>

High-frequency traders

These guys are serious. If you've not been donating to the ARRL spectrum fund, you might want to consider it. There's a real fear these guys will interfere with our HF bands.

Pictures of some sites in the greater Chicago area are shown. This information including some emission plots have been assembled by David Wilson.

These are some pretty serious stations.

DPA Mac LLC (Ex 3DB Communications Inc.) (W12XXG)
47W543 Perry Road, Maple Park (Kaneville Twp.), IL (41° 50' 36" N, 88° 32' 17" W)

Frequencies: 4438-4650, 5060-5450, 5730-5800, 6765-7000, 7450-8100, 8147.5, 9040-9400, 10150-11175, 11400-11600, 12100-12230, 13410-13570, 13870-14000, 14350-14990, 15800-16360, 17445, 18168-18780, 19020-19680, 19800-19990, 20010-21000, 21897, 22855-23000, 23000-23200, 23350-24890 kHz

Emission: 48K0G1D, 54K0G1D, 70K0G1D, 95K0G1D, 96K0G1D

Modulation: FSK,PSK,QAM4,8,16,32,64



**DPA Mac LLC (Ex 3DB Communications Inc.) (W12XXG)
44W527 Welter Road, Maple Park, IL (41° 56' 3" N, 88° 29' 1" W)**

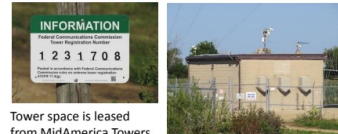
Frequencies: 4438-4650, 5060-5450, 5730-5800, 6765-7000, 7450-8100, 8147.5, 9040-9400, 10150-11175, 11400-11600, 12100-12230, 13410-13570,13870-14000, 14350-14990, 15800-16360, 17445, 18168-18780, 19020-19680, 19800-19990, 20010-21000, 21897, 22855-23000, 23000-23200, 23350-24890 kHz
Emission: 48K0G1D, 54K0G1D, 70K0G1D, 95K0G1D, 96K0G1D
Modulation: FSK,PSK,QAM4,8,16,32,64



IMC/Toggle Communications LLC (W12XAJ)

SW corner of Rowe and Bateman Roads, Elburn (Blackberry Twp.), IL (41° 51' 30" N, 88° 29' 10" W)

Frequencies: 6.795-7.000, 9.040-9.400, 10.150-11.175, 12.100-12.230, 14.359-14.990 MHz
Emission: 3K00G1D, 3K00Q1D, 6K00G1D, 6K00Q1D, 10K0G1D, 10K0Q1D, 12K0G1D, 12K0Q1D, 18K0G1D, 18K0Q1D, 24K0G1D, 24K0Q1D (linked to Seattle, WA) Modulation: (Confidential)



Antenna Work

Terry Cellman
WØAWL

I had some good help this last week. Rick NØYY and his wife Dee stopped for a visit. They were on their way home from the sheep and wool show in Wisconsin. I had mentioned to Rick that I wasn't happy with the 6 meter antenna on my 6 band Yagi. So on Monday an order was placed to DX Engineering for a 4 element 6 meter yagi antenna (50LFA4). DX Engineering shipped the antenna that day and the package of antenna, DXE -400MAX low loss cable, and balun kit arrived Wednesday.

There were 2 minor problems with this antenna. It is an EAntenna

made in Spain with most of the assembly instructions are in Spanish. The other minor problem was all measurements were in metric. Rick and I were able to complete the assembly Thursday. Friday turned out to be the climbing day.

Several years ago at Dayton I had purchased a DX Engineering mast extension. This allowed me along with a 4 foot mast to position the 6 meter antenna 5 feet above the HF yagi and at a right angle.

We did some initial testing at 5 feet above ground and decided the SWR was acceptable. Once the antenna was in its final position the SWR was great!





PJ2

An update from Rich:

I will be active as PJ2/W3ACO from Oct 23 through Oct 26 prior to the CQ WW SSB contest. I will work 40 meters and higher at various times. I will be doing some of the cooking and getting provisions so op times will be random.

Rich W3ACO

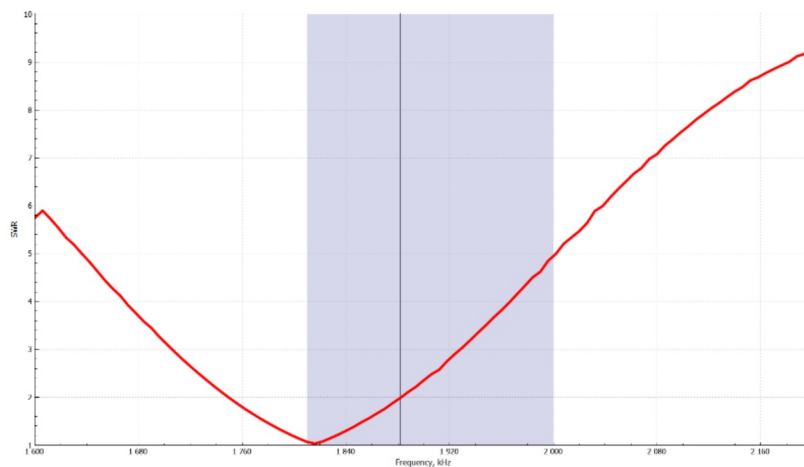
From Trash to 160m Treasure

Adam AEØDX



In the 2022-23 winter season, I operated on 160M using a 130' Inverted-L fed in the back yard into a ~45-foot vertical segment, with the rest of the wire strung high over the garage roof into a ~45-foot tall derecho-damaged pine in the front yard. A Spring storm led to a mechanical failure at the apex of the "L" and the wire and its supports. The wire became completely stuck in the top of the pine as I attempted to recover it from ground level without success.

Fast forward to August, and it was time to have that beloved pine tree removed. Completely unprompted, and unaware of the wire's purpose, the tree service personnel carefully preserved it as they deconstructed the tree. I was very surprised and grateful that they presented me with the tangled mess pictured above, after all it's a tinned copper PTFE jacket Kevlar in a nice camouflage green color - almost \$1 per foot, that is. I reinforced a few areas where the insulation had been nicked and re-installed it in a better configuration - estimated 60' height at the peak, with the rest drooping down at a shallow angle in the same direction as the tuned elevated radials below it.



The RigExpert shows an SWR of 1.16 at 1817.

With the vernal equinox behind us, I'm looking forward to adding some to the 16 DXCC entities in the log thus far and working as a Low Power station in the CQWW and ARRL 160M contests among others.

73 AEØDX

Logbook

CQ Test

Worked All Europe

Rich W3ACO hosted two hams from the University of Iowa ARC for the WAE SSB contest. You may recall Paige is the person we sponsored to go to PJ2T for CQWW SSB.

From Gawain, NØGJW

Firstly, thanks to Sir. Rich for use of his fine station. The equipment worked fantastic.

Well, WAE SSB was another opportunity for Paige and myself to get contest practice and to enjoy the hobby some more. Since we had not spoken to Rich prior regarding callsign usage, we decided on using my call for this contest. I will say I will be looking to change my callsign soon. It just does not seem to flow well during contests and while watching the clusters I was getting spotted incorrectly which added to a little confusion. Oh well!, that is a part of the game

School work had me in a bind for most of the weekend, so thanks to Paige for doing most of the CQing over the weekend. N1MM estimated that we were on the air for 13hours in total, and I believe Paige was at the Operating Position for ~8hours. Paige is becoming a hardened contester!

Band Conditions

On Friday night we lost out on the opening of the contest simply due to not having the best antenna on 40m. Furthermore, there was no plan to stay out there through the night (EU sunrise) to get the casuals who came on. We know we would be behind at the start, but that was fine. I don't think we missed out on much on 80m, as by the looks of reports on 3830scores.com, there were not that many Q's on 80m. We are still experiencing summer time conditions anyway.

Saturday morning was much better. We found 15m to have been the money band for the weekend. Many EU stations seemed to have stuck around 15 unlike 20m surprisingly. I think one other thing we possibly could have done was to move stations to different bands when they were a multi, but that's something else we could work on in the future. It does take some skill and perhaps may not be worth it if the pileup is large. (When in Curacao, this may be something you do as a team). I had a good Saturday morning run, and I was happy when Paige came in to relieve me, as the bands were hot. If you ever wondered how well our hourly rate was, Our best was on Saturday where we did 219Q's. This was the top hourly rate for that hour. Overall, it was considered the 4th best hourly rate of multi-op contesters who participated on the online scoreboard.

WAE DX SSB contest best rates list (QSOs/hour)
14 Sep 2023 17:30 UTC (Automatically reloads after hour)

	Call	Best rate	From:
Multi operators			
1	A44A	329	2023-09-10 05:00
2	PR1T	276	2023-09-09 14:00
3	4X7R	220	2023-09-10 14:00
4	N0GJW	219	2023-09-09 13:00
5	K3AJ	196	2023-09-09 12:00
6	SP9R	185	2023-09-09 22:00
7	V3O	144	2023-09-10 12:00
8	P33W	142	2023-09-10 08:00
9	RU1A	132	2023-09-10 13:00
10	HB0A	112	2023-09-09 15:00
11	9A5MX	87	2023-09-09 00:00
12	DA2X	75	2023-09-10 00:00
13	DL9A	68	2023-09-09 22:00

Sunday was good. We were on the bands just after sunrise here, and had a blast on 10m. Many EU casuals were around. I got spotted early by a EU station, and it was off to races. A fantastic opening. I am just sad I had other appointments and studies to tend to. Paige went out in the evening and closed out the show, dividing her time on 15m and 20m. The evening pileup on 20m was sporadic but when it came in there was a good flow.

Finally, it felt as if this contest should have been titled WAG (Work all Germany). The DL stations were extremely loud on all bands. There were times I thought I heard other EU stations (possibly multi's), but then a DL station would thunder in, and well, might as well work them and give them QTC's. (It's their contest after all).

This was a good exercise for me, as I kept my contesting ears sharp. Paige, I hope you had fun. This is a slight preview of what you will hear/experience in Curacao. Just imagine, the EU/US/SA all open and calling you :D. The pileups will be never ending

73
Gawain

A few words from Paige:

WAE was a great contest to work on my rate and prepare for contesting at PJ2T!

I think we could've strategized better about being on the radio Friday night, though the contest started at 000 UTC/7pm CST we got some QSO's but it was very slow considering most of the EU stations were getting their rest.

Saturday morning that's when the fun started and we had a few solid hours of getting Q's and having a steady run. Wrapping up the contest on Sunday I had a good pile up on 15m and 20m, and tried to give out all QTC's before the contest wrapped up.

It was the first time for the both of us to give QTC in a contest. I think we picked up on it quickly, personally I thought it was fun. I felt like many EU stations declined taking QTC but those who wanted either got it when they asked or they came back later to get it.

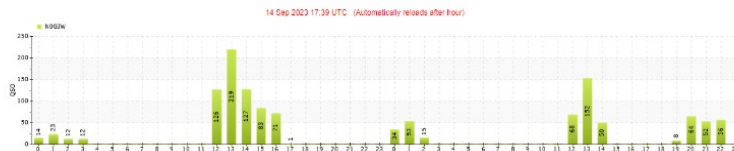
This contest was fun and I'm glad we did it, and I'd consider doing it again in the future.

73
Paige

Summary: [Compare Scores](#)

Band	QSOs	QTCs	Mults
80:			
40:	12	5	24
20:	112	126	58
15:	389	400	84
10:	108	87	42
Total:	1239	1236	208

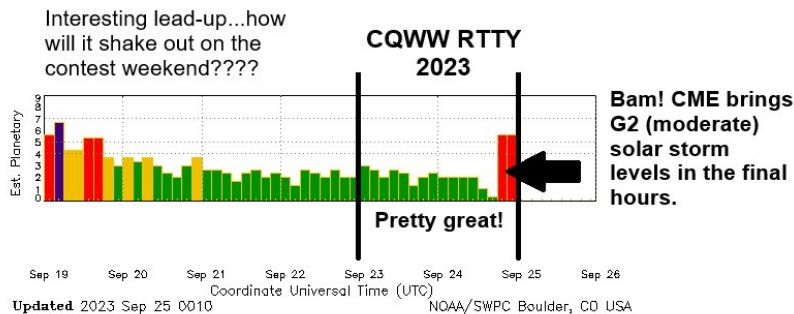
Total Score 257,295



CQWW RTTY

Adam AEØDX

3-hour K-indices for Last 7 days Legend: 0 to 3+ 4- to 4+ 5- to 6+ 7- to 9



The space weather backdrop for CQWW RTTY made for pretty nice conditions. I operated as a SO AB LP (Rookie) for a raw score of 479,886, 717 QSOs (90 on 3.5 MHz, 137 on 7 MHz, 172 on 14 MHz, 187 on 21 MHz, and 131 on 28 MHz). The arrival of the CME in the final hours brought word of amazing aurora views in the northern latitudes. Contest stations including OH8X posted incredible aurora pics and reports of good transpolar 10M paths. At 18:00 local I was just starting to decode JAs on 10M when the family called him up for their weekly dinner meeting (and he complied)! The day up to that point had been plenty generous with 10M mults including Senegal, Guam, Samoa, and all parts of EU and the Americas.



There's a solar eclipse on Oct 14th. If you're so inclined, some info on the QSO party can be found [here](#).

QRM

All in good fun...



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