432 AND ABOVE EME NEWS NOVEMBER 2023 VOL 52 #7

EDITOR: AL KATZ, K2UYH; DEPT. ELECTRICAL/COMPUTER ENGINEERING, THE COLLEGE OF NEW JERSEY, PO BOX 7718 EWING, NJ 08628, TEL (W 609-584-8424), (C 609-947-3889), E-MAIL <u>alkatz@tcnj.edu</u>

ASSOCIATE EDITOR AND REFLECTOR/NETNEWS MATEJ PETRZILKA, OK1TEH, SIMUNKOVA 1609/21, 18200, PRAHA 8, CZECH REPUBLIC, TEL (+420 603 489 490), EMAIL <u>ok1teh@seznam.cz</u>

CW INITIAL LIST G4RGK, DAVID DIBLEY, E-MAIL <u>zen70432@zen.co.uk</u>, AT: <u>http://www.zen70432.zen.co.uk/Initials/index.html</u> SUN & EXTRATERRESTRIAL NOISE LIST MANAGED BY OK1TEH: <u>http://www.ok2kkw.com/next/nl_k2uyh/sun_table.xls</u> EME INFORMAL NETS: 14.345, ~1500 SATURDAY AND SUNDAY. NET COORDINATOR: OPEN

ON0EME EME BEACON, 1296.000 IS PRESENTLY NOT QRV. IT IS NORMALY ON WHEN MOON >10°, SEND RX REPORTS TO WALTER (ON4BCB) on4bcb@gmail.com

DL0SHF 3 & 1.2 CM EME BEACONS, 10368.025, 24048.025, SEND QUESTIONS TO PER (DK7LJ) per@per-dudek.de EME DIRECTORY BY JAN, PA0PLY IS AT www.pa0ply.nl/directory.htm

NL EMAIL DISTRIBUTION and EMAIL LIST CORD: WARREN, W2WD* <u>wbutler@ieee.org</u> THE NL WEB VERSION IS PRODUCED BY REIN, W6SZ rein0zn@gmail.com, AT: http://www.nitehawk.com/rasmit/em70cm.html

INTERNATIONAL EME MEETING 2024 IN TRENTON, NJ: www.EME2024TRENTON.org

CONDITIONS: The main news is the results of 1st of the two ARRL EME Contest weekends (WEs) for 6 m thru 23 cm on 28 and 29 Oct. The conditions (condx) and weather (WX) were generally good. The main problem was the late hours that were not operator friendly. Most QSOs were made digitally using Q65-60 (B on 432 and C on 1296), although there was for the first time some significant use of Q65-30, particularly by stronger stations. [In this newsletter (NL), the Q65C or B notation will be used for Q65-60 without any -60. The Q65-XX will be used only for time periods other than 60]. CW was used extensively on 23 cm, but not as much on 70. Scores were also higher on 23 cm. The top scorer on 1296 was OK1DFC with 150 x 62 and included 44 DXCCs; > 20% higher than last year! On 432, K2UYH has the top reported score with a total of 43 x 31 about 40% less than last year. I suspect there are some higher unreported scores.



OK1DFC's dishes – 8 m offset dish (on right) use for 150 x 62 score in one WE!

The final Contest weekend is 25 and 26 Nov. I am anticipating a lot of activity as the Moon times are

better than in Oct. To increase CW activity on 432, we are proposing a CW time-period for both Saturday and Sunday starting at 0000 and continuing while activity remains.

HB9SV is a SK – end of an era of EME: It is with great sadness and deep regret that we must inform you that HB9SV is now an SK at age 95. Enrico leaves a void in all of us who are passionate about EME and Microwave communications.



HB9Q with his dishes – RIP dear friend

The following is by HB9Q. They were friends for 44 years. Enrico was Dan's EME mentor -- HB9SV was born in 1928. He graduated from ETH Zurich as an electrical engineer (master). He was licensed in the mid 50s. From the beginning of his ham career, he was interested in building PAs for the higher bands (144-24000). His PAs were widely used in Italy and all over EU. Enrico enjoyed designing new PAs all his life. He built all the PAs that he used; and his 7.5 m dish, his preamps and all the control and az/el systems himself.

His QTH at the south border of HB9 was on a hill overlooking the river PO plain in northern Italy and an excellent V/UHF location for DX on the higher bands. He made many HB9 firsts with different DXCCs on 2 m thru 1.25 cm. He was more of a designer/builder than a QSO maker, but he became very interested in the challenge of EME in the late 70s. His first EME station was on 432 using 16 x 21 el yagis and 1 kW. He had great success EME. He added 144 EME with 4 x 16 el yagis and then 16 x 16 el yagis and 1 kW. In the late 80s he became QRV 1296 with his 7.5 m dish and 1 kW PA. Having a dish, he soon moved to 2320. In 2005 he became QRV 10368 and later on 5760 using a 3 m solid dish. On all these bands he always had one of the top signals. Enrico was a very good CW operator and did all his EME QSOs in this mode. Throughout his ham life he helped people; I and others become QRV on EME because of Enrico. He was always ready to help with his technical expertise and experience. He was our EME mentor. Many are still using PAs that Enrico built for them. In his late years Enrico had two physical ailments, which made it more difficult for him to enjoy his passion. In last few years of his life he had to stop completely his ham related activities. On 9. Nov 2023 Enrico passed away. Enrico was a great person, always ready to help. He enjoyed very much to support others with all he had. He was a friend and gentleman. Dear Enrico, the EME community misses you! Rest in Peace.

DXPEDITIONS: The big news this month is the completion of the 1st 33 cm WAS by W5LUA on 26 Oct thanks in great part to the efforts of KA6U. Al worked KA6U in WI for his last State. At the end of Sept he was at 32 States confirmed. Peter went on a 25 State dxpedition to provide the last 18 states. See Al's report in this NL for more details of this truly remarkable achievement.

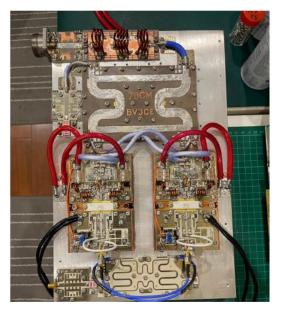


W5LUA with 1st 902 WAS Certificate

There is not much dxpedition news. **4W8X** to Timor-Leste is to be QRV from 12 thru 27 Nov including 70 and 23 cm – see report in the Aug NL, but no new information has been received. Because of the low DEC, there is only a very small window for many of us. **CT9/EA8DBM** (IM12) is to be on 23 cm from 19-27 Nov from Madeira island (CT3). During the ARRL Contest **GD0TEP** (and before and after) has been providing the Isle of Man on 70 cm – see Logger News. **PJ2BR** was active from Curacao on 23 cm during the contest and should remain QRV afterwards – see his report in this NL. Also **9Y2KM** in Kwait was QRV on 432.

REPORTS:

BV3CE: Tom tom33638998@yahoo.com.tw updates us on his recent EME activity -- After March, I was not active on EME due to working on a 1.5 kW 70 cm SSPA. I re-designed the power combiner for higher power, added a new BPF and power detection circuitry. I bought 2 Ampleon LDMOS devices from Digi-key. The SSPA is based on their demo design for 352 and 500 MHz. I ordered the CDE mica cap samples kits for the output tuning. Everything worked smoothly. After output circuit match tuning, I had 1.5 kW+ out with 48V at 55 A, 60% efficiency. I stopped at this output power level since I didn't have more powerful DC power supply. I bought coaxial-relays (REW-14) from UR4LL for the T/R switch. They worked well. The PA is now completed but not yet QRV. I new to make sure my LNA has adequate isolation, and the coaxial line to my antenna may need to be replaced as well. On 28 and 29 Oct, I joined the ARRL EME Contest fun, and made QSOs with K2UYH, K5QE, VK4EME, VK2CMP, KD2LGX, W7TZ, JF6CTK, JE2UFF, JJ3JHP, HB9Q, PA2CHR, PA5Y, SM4GGC, PA2V and ON4AOI for a total of 16 x 11. All on 70 cm using Q65B. I will be QRV again for the Nov Contest WE and hope to make more QSOs.



BV3CE's 1.5 kW 432 PA's deck

DL1SUZ: Uwe dl1suz@t-online.de reports on recent 9 cm EME and plans - On 3400 I worked some initials on 27 Oct with HB9Q CW (579/529), DB6NT CW (599/559), DL3WDG Q65C (16DB/15DB) and G4RFR Q65C (16DB/17DB); and on 4 Nov K2UYH Q65C (17DB/15DB) - my first US, W5LUA Q65C (11DB/14DB) new ODX of 8178 km and PA0PLY Q65C (22DB/20DB). During the Nov ARRL EME Contest WE, I operated only on 23 cm and made 70 QSOs using Q65 and 2 using CW including 9 initials. A problem with the contest was the mix of Q65-60C and Q65-30B. In WSJTX, it is tricky to switch between both modes. DG2YCB has added on my request 2 buttons in "WSJTX to improve" fast switching between 30B to 60C - see https://sourceforge.net/projects/wsjt-ximproved/files/. I'm still working to complete my 6 cm setup.

DK3WG: Jurg dk3wg@darc.de (JO72gi) reports on his recent EME – I added in Oct initials on 70 cm using Q65B with KA6U in FM04, K3SK in VA, KF2T in MD and W8PU in (OH); and on 23 cm using Q65C with CT1FGW, LA3PNA, PA0TBR and W3SZ (PA).

G3LTF: Peter pkb100@btinternet.com sends his EME report Oct -- I'm trying to understand why the Nov ARRL EME Contest WE was chosen. I know how hard it is to find good dates at the present part of the lunar cycle. However, a weekend with medium declination and late nigh Moon times didn't work for me! On top of the poor times, I was unwell (fully OK now) and so no way could I operate in the 0000-0300 time slot. I was exclusively on 1296 using CW (I am not QRV for digital modes) and worked on Saturday between 2030-2300 OK2ULQ, SM3BYA for initial #536, DL1AT, DL4DTU, DF3RU, CT1FGW, FR5DN, UA5Y, F5KDK, IK3MAC, SP9VFD, SP6ITF, SP6JLW, SP3YDE, PA3DZL, OK1DFC, IK3COJ, OZ6OL, G4CCH, G0LBK, OM4XA, PA3FXB and OK2DL; and on Sunday between 2100-2300 IW2FZR, SP3XBO, SP7EXY, OK2PE, SA6BUN, DL1SUZ, SM5DGX and DL6SH for a total of 31x13. Most QSOs were random: CQ or search and pounce (S&P), I did announce my CQ frequency a few times but it didn't have a lot of effect. It was good to work many old friends, especially SM3BYA for our 4th band, and thanks to FR5DN for my only QSO outside of EU. Also notable in my total are 7 SPs (!). I hope to work some more stations in Nov, and also to work into the small hours to get some NA stations. The low/medium dec means I have no moonrise window due to trees.

G4DDK: Sam jewell@btinternet.com set up for 9 cm in Sept to work HB9Q before the end of his operation from Switzerland -- I returned on 16 Oct to work K2UYH (18DB/6DB). I have been wondering why my echoes have not been very strong. My receive system works very well. I had initially suspected it. When I QSO'd him, the 12 dB difference in our reports suggested my power output at the dish was less than I had calculated from the PA power and expected cable loss (14 m of LDF550 and 4 m of M&P Hyperflex 13). I expected 3-4 dB loss. The loss, probably in the Hyperflex, was much higher at 3.4 GHz than the spec. I've seen this with Ecoflex 15. I just decided to measure the power at the input to my RA3AQ feed horn. We worked with 6.5 W at my end! I could have probably made the QSO with 1 W. I have my Toshiba SSPA in my shack and used the cables I usually use for 23 and 13 cm. Clearly the loss is too high for 9 cm. I am reluctant to mount the PA outside for several reasons, but am now thinking that is the only way on 9 cm.

G4RFR: Julian (G3YGF) Julian@ygf.org.uk reports on his group's recent 9 cm activity – We are back to using G4RFR rather than GB2FRA. This past month we dug out our 3.4 GHz feed in preparation for working HB9Q. We were running 40 W to the 3.65 m dish, and seeing 12 dB of Sun noise, 0.5 dB of Moon noise, and 3 dB of ground. Our echoes had a 9 dB S/N in 6 Hz, so all seemed good. We worked using Q65C DL3WDG (12DB/13DB), OH2DG (13DB/14DB) and G4DDK (24DB/16DB). Then just before the third leg (6 m to 23 cm) of the ARRL Contest, we worked HB9Q (5DB/4DB) and (559/559) CW, DL4DTU (12DB/12DB), DL3WDG (16DB/11DB), DL1SUZ (17DB/16DB) all on Q65C unless noted, and DB6NT (539/559) on CW. We also heard G4NNS at (12DB) in 6 Hz, so hope to work him next time. We have just received a 24 GHz preamp from PA0PLY and expect to be on 24 GHz with about 10 ~ 20 W in the next few months. [They were also QRV on 1296 during ARRL Contest WE].

<u>GI7UGV:</u> John <u>gi7ugv@johngrant.com</u> updates us on his recent 10 GHz EME – I managed a handful of Q65D 3 cm contacts using 9 W to a 1.2 m dish earlier in the year. I updated this system over the summer months to provide 20 W. This seems to have worked well enough to allowed me to work several stations that I had copied but could not contact previously. Stations worked in the past month include DL3WDG, OZ1FF, PA0PLY, F6BKB, IK0HWJ, IW2FZR and VK7ZBX to bring me to digital initial {#12}. I'm looking forward to working more stations and am considering ways to improve my rotator setup.

F8DO: Marius <u>f8do@orange.fr</u> was QRV on 432 in Oct – I have upgraded my station to 400 W and 2 x 21 el yagis on 70 cm. I am now able to contact stations with 4 yagis or a 4 m dish with equivalent power if Faraday permits. I QSO'd during the ARRL Contest using Q65B SV8CS, K5QE, DL4DTU, N1AV, PA3FWV, F1RJ, IW4ARD, KD2LGX, PA5Y, GD0TEP, GW4ZHI and SP2WRH for 34 DXCC and mixed initial #74*. My total was 12 x 12.

HB9Q: Dan <u>dan@hb9q.ch</u> announced in Sept that he [and all HB9 stations] will lose use of 3400 at the end of this year and writes -- Anyone wanting to work HB9 on 9 cm has to do it in the time remaining in 2023. I plan to be QRV on 24 and 25 Nov from about 1500 until about 2300. I will be on the HB9Q 3400 logger. I will take skeds in advance by email [above]. In Oct I worked mixed initials on 9 cm using mainly Q65C with DL4KGC, G4DDK, G4RFR, DB6NT, PE1ITR, DL6SH and PA0PLY (his 1st EME QSO on 9 cm) to bring me to #98*. It would be great to reach 100 or even a few more! To work me you only need a small dish and 10 W. Give it a try! [Dan was also QRV on 4 Nov and now planning to be QRV on 24 Nov].

IK1FJI: Valter <u>valter dls@yahoo.it</u> sends disappointing news that he is QRT [temporarily] on 23 cm – Unfortunately my tower was bent over by110 km/h (68.5 mph) winds. Thus, I must replace it, but the work will not be easy on top of my roof! I will be watching the situation concerning the future of 1296 here in the EU. If need be, I will use the rebuilt dish for some other bands.



IK1FJI's dish disaster

IK2DDR: Francesco frankddr@yahoo.it had a very good time during the 28/29 Oct ARRL Contest WE - I was on 1296 and although I had some conflicting commitments, I did spend my free time on the contest using mixed mode. I worked 90 stations plus 2 DUPs. I had 20 CW plus 70 Q65 QSOs. In comparison to 2022, I found less activity on CW. I was surprised to not work a single NA station on CW. I only heard one strong W9 that was busy working another station. I was very satisfied with how my setup performed. My best CW QSO was DJ3JJ. I was never able before to work Andreas on CW. FR5DN on CW was another memorable QSO. Worked were on 28 Oct SP6JLW. OK2DL, OZ6OL, DF3RU, DL1AT, DJ3JJJ, PA3HDG, YO2LAM, UA5Y, K5QE, KB7Q, AC0RA, OK1KKD, CX2SC, K3WM, AA4MD, W3HMS, W3SZ, KC2HFQ, WA3RGQ, W3HZU, W3CJK, PA3FXB, LU8ENU, N0AKC, WA3GFZ, VE6TA, SP3YDE, SP6ITF, OK2PE, SM3BYA, DL4DTU, GM0PJD, OK1DFC HB9Q, EA8DBM, IK5VLS, OK1USW, OH1LRY, GI4DOH,

LA3PNA, OE3JPC, OK1UGA, G7TZZ, KA1GT, OK1IL, DL6UDA and YU1SAN; and on 29 Oct OM4XA, G4CCH, DK1SW, KD5CHG, W2ZQ, KN2K, OZ9KY, VA7MM, OZ4MM, VK3VJP, SP5GDM, 9H1BN, DL3WDG, IK3COJ, PA0BTR, UA9FAD, YL2GD, VK3NFI, CT1FGW, SP9VFD, FR5DN, JJ3JHP, F1RJ, IQ0RM, IK7EZN, OZ1CTZ, IK3MAC, PE1LWT, OH3MCK, G0LBK, ON4BCV and DL6SH. In my opinion the conditions were much better on Saturday. I will now concentrate on the 4W8 Timor dxpedition. For the Nov leg I hope to work some more stations and improve on my 2022 results. I am using a 3.7 m dish with OM6AA septum feed, VHF Design preamp and 300 W SSPA.

IW2FZR: Dario dario296@virgilio.it was QRV on 23 cm in the Oct ARRL Contest but had problems – During the contest I operated my station remotely. Unfortunately, at the remote location the Internet is not stable. Many times, the network crashed on me and I had to wait several minutes to send my reply - very sorry. Another problem occurred when I used my morse key in my house. The keyer decodes my transmission and sends via web to my remote keyer. When I send an error, the keyer sends "?", but when I send a number 6, it sends the wrong number. I hope to give out many more QSOs in Nov.

JH1KRC: Mike <u>qq363gud@voice.ocn.ne.jp</u> has his HPA repaired was QRV during the Oct ARRL EME WE on 1296 using CW – During the WE, I worked 22 QSOs with 4 stations from NA at a very early hour for them. My EU window showed nice activity; and I enjoyed at *very sleepy hours* here. My echoes sounded excellent in the both windows of Saturday and Sunday. There was deep and fast libration fading that made copy difficult, especially at normal speed CW, or if call was not repeated many times. SRI for the invalid QSOs, but many TNX for the tries. I used a 4.4 m TVRO dish and 500 W at the feed.

KB7Q: Gene <u>geneshea@gmail.com</u> was active in the Oct WE of the ARRL EME Contest on 23 cm -- I worked 41 stations with my 2.4 m folding dish/300 W. I also added six new stations: OK2AQ (25DB), K7EME (21DB), VE4SA (17DB), N0AKC (25DB), W3SZ (24DB) and IK2EZN (25DB) to bring my total to mixed initial 150*. Just before the contest WE, the WX was sunny and warm day and I decided to check out my dish's focus with some quick sun noise measurements. I found it was 2" (6 cm) off. Ouch! I also started gathering bits and pieces for a 902 EME effort thanks to generous donations of loaner gear.

KNOWS: Carl <u>carlhasbargen@q.com</u> discusses his experiences and results this year during the Oct

ARRL Contest WE -- Most years I will do one Moon pass in Oct on 70 cm, then during the day I move my equipment to my 16' dish and set up for a 23 cm Moon pass. I also take the mesh off my 6 m dish for the winter. In 2022 I had 30 QSOs on 70 cm during my one Moon pass. 20 of those were in the first 7 hours during the EU window. This past month my ARI contest experience on 70 cm was cut down to only a bit over 4 hours because of a failed power supply, but I worked 11 stations in that time. I knew this ARRL WE I would only have about 5 hours on the Moon before tearing gear down and heading to a family wedding, but was hopeful it would be a productive 5 hours, since it would correspond with the EU window; also people would not be divided between a half-dozen bands as is the case with ARI, and the sky "degradation" would be down to only -0.7 dB. It had been raining for 3 days again, so mud was a big issue, but in spite of total cloud cover, it did not rain on me during my operating time. Temperatures dropped to 26 degs during the night. My repaired power supply worked, my field-repaired dish feed was working and I saw a few big stations talking to each other on the HB9Q logger before my moonrise. I was pretty excited. Unfortunately, participation on 70 cm during my time seemed very low and those that were participating seemed to be having troubles working each other. In my 5 hours I worked only 8 stations in 8 mults, and only one of those was EU. Using Q65B, I worked K2UYH (13DB), N1AV (19DB), K5QE (16DB) and had initials with SP2WRH (25DB), VE4MA (23DB), N9HF (22DB), N9XG (19DB) and W5LUA (15DB). I saw DJ7FJ (27DB), KD2LGX (17DB), W4ZST (16DB) and OE3JFC (19DB) but wore myself out climbing my ladder to manually play with polarization without success. I figured everyone else must be doing 23 cm or perhaps a natural disaster was hitting EU. The next evening after the reception at my family wedding, I saw a big bright Moon in the sky for the first time all weekend and when I got to my hotel and signed onto the HB9Q logger to peek, there were 2.5 times as many people logged onto the 432 logger as the night before. Oh well... I will head back north in a few days to take the mesh off since I had no time to do it this weekend. All my 23 cm efforts in Nov will depend upon how much snow is on my northern property at the time.

NOOY: Pete petesias@yahoo.com (KS) was QRV on 1296 during the Oct ARRL Contest WE with his big dish and is now on 3 cm -- As I'm retired, I have more time to pursue long overdue projects. Number one is to do more EME both operating and building. I am semi QRV on 3 cm EME with a 1.8 m offset dish, 30 W at the feed and ~ 0.6 dB NF. My first QSO was W5LUA (10DB/13DB). It is in my unheated machine building for testing and limited operating. I can do digital or CW and will take skeds but need advance notice to get everything set up. Also, I have only about 2 hours of Moon visibility after my moonrise. On 1296, I did operate a few hours on Saturday during the ARRL Contest. I am still using my 8.5 m dish and 500 W. It was nice to re-connect with old call signs and see new ones. I made 20 QSOs both digital and CW. I found CW conditions to be very good. I'm setup to operate anytime on 1296 when I have Moon and open to schedules.

NC1I: Frank frank@NC1I.COM sends his Oct/early Nov EME report -- Unfortunately, I was not QRV for the Oct ARRL Contest WE. On Saturday (28 Oct) we put up our new 6.1 m (0.4 f/D) dish for 23 cm. It was a very busy WE and I was just too exhausted for EME. The project went well and as of 6 Nov the dish is now in operation. There is still plenty of work that needs to be done to totally complete the project but hopefully by the 2nd WE in Nov most of the remaining tasks will be done. Early observations are very promising. I am measuring almost exactly 20 dB of Sun noise (SFI just under 150) and I believe if we spend some more time adjusting the feed and choke, we can squeeze some more out of it. With my old 4.5 m dish I was measuring around 16 dB. The 4 dB difference is better than expected/calculated but I think there are several contributing factors. I am concerned about mechanical issues. Even at relatively low wind speeds, torque causes some rotation at the top of the ten-foot Rohn 55 tower section. The base is in 6cubic yards of concrete so all of that rotation is actually in the tower section; in fact I can see it and I can feel it. I will need to come up with a solution to substantially reduce that stress on the tower otherwise the z-welds on the z-bar braces will eventually break down. Also, due to the narrow beamwidth of the dish, I can see signals drop noticeably in the wind. Flex lines still need to be cleaned up (re-routed) and shortened but I have completed 15 QSOs with it the last two days. Signal reports both ways reflected the performance improvement noted above. None of these QSO's were initials. The mount utilizes a 7" slew drive from Sub-Lunar. On 70 cm, I have added 26 QSOs including the following initials: NY1V (best 21DB) with a single 22 el vagi & 140 W, KA6U (9DB/12DB) from OK, KE0HQO (22DB/21DB) with 2 x 21 el yagis & 100 W and K7KQA (13DB/22DB) with 4 x 22 el & 600 W. As of 5 Nov, I am up to date with LOTW and QSL cards. If WX cooperates, we will spend significant time on both 23 cm and 70 cm during the final WE of the ARRL Contest.



NC1I's new 6.1 m dish for 1296

OK1DFC: Zdenek ok1dfc@seznam.cz reports on his operation during the Oct ARRL Contest WE -- I didn't do any special preparation for this 1st round of the 50 to 1296 part of the ARRL EME Contest. I operated only on 23 cm. On Friday I measured 22.8 dB of Sun noise. I installed the new version of WSJT-X and Console 3.3 to try QMAP decoding. Then I mounted the SSPA in my dish and waited for 0000 on Saturday. At the start of the contest, I had only a 4 hour Moon window. I used Q65-30B from the start, which brought me many stations from NA. I alternated between CW and Q65 for the entire pass from Saturday to Sunday. There was a lot of activity that I kept busy during all of my Moon time. At the end of the pass. I had 135 QSOs in the log and was anxiously awaiting to see if any new stations would still be available during the time after moonrise on Sunday before the contest ended. I added 15 QSOs for a score for Round 1 of 150 QSOs, 23 WAS, 3 VE provinces, and 46 DXCCs, for a total of 150x62. During the contest, I worked rare DXCCs such as PJ2, FR5, CE3, CX2. At the end of the contest, I also worked a station from HG, a first for me during an ARRL Contest. I look forward to the 2nd round and hope the activity will be the same as during the 1st. On the list of stations I heard during the contest are VK4AFL, VK5MC and many others. My station was an 8 m offset dish. 1 kW SSPA, and DDK 0.15 dB NF LNA.

OK1KIR: Vlada vlada.masek@volny.cz and Tonda report on their activity in Oct -- In the 3rd part (Oct) of the ARRL EME Contest, we were active only during the first pass from Saturday (28 Oct until 29 Oct) on Sunday; and only on 23 cm. We concentrated on working new stations. Using Q65-30C we contacted RD3DX for digital initial {#538}, JF6CTK {#540}, LB6B {#541}, K2TER {#542}, PJ2BR {#543}, K5WO {#544}, N0AKC {#545} and NOOY {#546} as mixed #840*. With Q65-30B we worked F5KDK {#539} and with Q65-30C OK1DFC. With CW we QSO'd only SM3BYA for initial #516. In between, worked with Q65C DL1SUZ, OZ9KY, 4X1AJ, OK2DL and G7TZZ for a total of 16 x 15). Unfortunately, we did not decode W4ZTS for undiscovered reasons. Because of a completely cloud covered sky we saw nothing of the lunar eclipse. On Saturday 11 Nov we were active on 6 cm as requested by UR3VKE. We worked Anton easily as his 2nd 6 cm QSO at 0855 with Q65D (14DB/9DB) for digital initial {#64}. Anton copied our CW but was not set up to respond. Later Anton QSO'd PE1CKK.

OK1TEH: Matej ok1tehlist@seznam.cz writes about the Nov leg of the ARRL Contest -- I was on 70 cm only with my old single 23 el yagi. I have a new antenna coming online but it isn't ready yet, which frustrating as I am ready to move out of the QRP station class. I operated using Q65B mostly in the CQ mode and made 11 QSOs and 10 mults with K5QE, VK2CMP, HB9Q, KD2LGX for a digi initial {#}, W7JW {#} and a State for WAS, K2UYH, PA2CHR, DL7APV, PA5Y, SM4GGC {#} and GD0TEP {#} and new EME DXCC (!). I was very happy to QSO GD0TEP (Isle of Man), who had only 4 x yagis. [I have worked the whole of EI/GI/GU/GW via CW/SSB tropo]. Heard or decoded were KL6M, K4EME, VK4EME, S57Q, AE6IE and G4RGK. Condx were fine; however, most of time the cross pol was bad for EU-EU due to Faraday's lock. Also activity seemed quite low with big guns such as DL9KR and OZ4MM missing, perhaps because of very strong winds across EU. Maybe it's time to speak about changing the ARRL Contests rules to be more like the ARI EME Contests where CW and digital contacts each count for count for contest points, which results in improved CW activity. I'd also vote for more points for CW contacts.

OK2AQ: Mirek mirek@kasals.com reports on 1st WE of lower bands part of the ARRL EME Contest; operated on 1296 – WX always plays an important role in EME. The Oct WE of the ARRL Contest was still relatively warm with occasional showers and no strong winds. I was active in the evening hours, all of the week before the contest with the Moon in the east. My goal was mainly adding initials; I managed to add 26 using Q65C. Contacted were on 24 Oct EA8DBM, DK3EE and YL2GD; on 25 Oct OH2DG, PA0TBR and GM0PJD; on 26 Oct LA3PNA; on 27 Oct GI4DOH, G4RGK, OZ1CTZ and DL0SHF; on 28 Oct during the contest KB7Q, WA3RGQ, IK5VLS, SP3YDE, OK2ULQ, DL3WDG with 2.4 m dish and 35 W, F5KDK and ON4BCV; and on 29 Oct AC0RA, W3HZU, W3SZ, VA7MM, AA6I, VK3VJP. RX3DR and OK2PE using CW. I made total 39 QSOs in the contest and enjoyed excellent EME conditions. See my log at https://www.radio.feec.vutbr.cz/esl/files/EME/ LOG/EME LOG 1296M.htm.

OK2DL: Marek ok2dl@seznam.cz sends info about his participation in the Oct ARRL Contest on 23 cm -- As the Moon was in the sky all night long, it was clear that I was going to struggle with sleep deprivation. I sat down at the radio 5 minutes before the start of the contest. The dish was already in position since Friday, so I set the elevation and was ready to go. I spent the first hour on the CW, but there were not many stations active. I switched to Q65C and found plenty of ttraffic there. There were many new stations coming in from the west, but not much new from the east. I made a total of 138 QSOs including 21 initials with SM3BYA, K2TER, NOAKC, K5WO, YU1SAN, W3SZ, JJ3JHP, RX3DR, UA1ALD, HG5BMU, F5KDK, PA3JRK, GI4DOH, OE3JPC, LA3PNA, LB6B, 9H1BN, OE5VRL, K7EME, VK3NFI and LA1TN. After the contest I discovered that I was missing part of my 6 m dish's mesh. It was probably wind, but I'm not sure if it happened during the contest or later. [TNX to OK1TEH for translating].

OK2PE: Karel <u>ok2pe@kbb.cz</u> was active on 23 cm CW in the Oct ARRL Contest WE -- I managed to make 30 QSOs; 4 were initials with SP6ITF, YL2GD, SP3YDE and OK2AQ. I was very pleased that everything worked without any problems. The conditions were good. I QSO'd in the 1st pass OK2DL, OZ6OL, DL1AT and DF3RU, in the 2nd I added17 more, and in the last on Sunday 9 QSOs. I am looking forward to the final round in Nov. [TNX to OK1TEH for translating].

OM4XA: Fero <u>cesnekf@gmail.com</u> sends info about his activity on 23 cm EME in Oct -- My Moon activity was limited to participation in the ARRL EME Contest. Despite some initial equipment problems that I managed to fix, I effectively lost the Saturday morning part before moonset. Nevertheless, I made using CW 89 QSOs with 44 mults, 4 of which were DUPs. I worked stations from 29 DXCC countries outside the USA and Canada. Saturday's blackout was probably why I had a relatively small number of contacts with US stations and thus only 13 US States and two Canadian provinces to count. During the contest I added 6 initials to the log, W3SZ, RX3DR, PA3JRK, GI4DOH, EA5DOM and IQ0RM. GI4DOH is also a new DXCC. I am looking forward to the final part of the contest and the new contacts.

PA2V: Peter peter@pa2v.com has had problems with noise and his antennas on 70 cm the past few months but is now back in operation; he has also been working on adding 10 GHz -- This year 70 cm EME has been a challenge. In the spring I was very worried that I might have to give up 432 EME from my QTH. I had many new noise sources and birdies that greatly degraded my reception. To make matters worse in June my elevation rotor gave up, and I had some wind damage to the array. But at the same time my noise QRM disappeared. This motivated me to make repairs. This was not easy because my antennas are on top of my house. I hired a crane and I was able to repair the elevation system, my yagis and replaced bad cabling. I had most of my performance back again. I was still missed 1-2 dB in Sun noise. I finally discovered I had a bad circulator between preamps. When I replaced it, I seem to be back again in most Moon directions. I still have some noise issues near Moonrise below 10 degs elevation. This made it hard to work Hawaii. I have tried the last year and to work NH6Y. On 5 Oct at high dec, I had low noise at moonrise; and I was finally able to have a easy QSO, for a new DXCC and HI. I was even more amazed when Tom called me two days later and we had a 2nd QSO. During the Oct ARRL Contest on 432 my time was limited by family activities to only a total of 3 hours. worked 17 stations x 16 mults with 2 mixed initials. On Saturday DF7FJ (#*), SM4GGC, EA5CJ, UR3VKC and BV3CE - conditions were bad with 90 deg Faraday; and on Sunday KD2LGX, KL6M using CW, K5QE, N1AV, VE4MA, K4EME, K2UYH, AE6EQ (#*), OZ1SKY, W7TZ, W4ZST and DF2VJ. Conditions seemed better with loud signals to NA. In parallel, I have been working on a 10 GHz system. I acquired a 1,.2 m offset dish with matching feed. It has been modified for WG16 mount and is ready to go. I also acquired some surplus broadcast equipment and now have 12 W output on 3 cm. (PA0MHE has the same dish and following the same path to 10 GHz). When all was up and running the

position drive mechanics give up after placing it on the right location. I am working on getting it going again. I am hoping to make my first 3 cm contacts this year.

PJ2BR: Brett brettruiz@gmail.com was active from Curacao on 23 cm during the ARRL Contest -- I decided to give my brand new 23 cm EME system a test drive during the Oct ARRL EME Contest. On the first day at contest start, I started calling CQ but received nothing. On HB9Q, it was clear that many stations were calling me, but I was getting nil at my end. I went back to the drawing board again; the next day, I fine-tuned the focal distance of my Sub-Lunar 1.8 m dish. Saturday evening around 2330, I was back on the Moon again. This time after making a few CQ's, I was rewarded with my first 23 cm EME QSO with OK1DFC. After about 5 more QSOs, I noticed that my home brew SSPA was running hot and decided to quit. I plan to be at it again in Nov with hopefully the station working better.



PJ2PJR, Bret looking for 1296 sigs under the Moon

OZ4MM: Stig gsvestergaard@gmail.com was on 1296 during the Oct ARRL EME WE -- I was only briefly QRV but worked 44 stations on CW. I was not as activity as in previous years, probably because of the poor window hours. In the last few years, I lost interest in EME and am looking for someone to take over my 10 m dish (for free if you will give it a good home). The ribs and dish surface look great and are still in good shape after many years of use (on 144, 432, 1296 and 2320). Please contact me directly if you are interested in a free dish. I am not yet QRT on EME, so far; I will be there in and out, and hopefully for some hours in the last section of the contest. Maybe even more years, but it depends on the interest in the dish.

<u>SM3BYA:</u> Gudmund <u>SM3BYA@wannberg.net</u> sends his 23 cm CW results for the Oct ARRL WE --

I got on 1296 in the ARRL contest for my very first operation on the band from my SM3 QTH. My only previous operation on the band was as part of the SK2GJ team that put the Kiruna EISCAT's 32 m dish on 23 cm back in 1980 - 43 years ago! I can't help but notice

that things have changed. The story of why I haven't been on 1296 earlier should probably be told. Back in 2007 I had worked 144 quite dry from my SM2 QTH and the concrete pad for my 3 m dish was ready here, so I started to build equipment for 1296. In 2008 I had everything ready to go - a homemade transverter, 250 W RF from two phased,

water-cooled N6CA cavities, a 40 Kelvin preamp box and a carefully aligned super VE4MA feed. I was planning to become operational during the summer and then continue to 13 cm, where I had a high-power permit. But then, for the first time, our P&T refused to prolong all 2300 high power permits and also indicated that the amateurs would be cleared out of the band pronto! A legal fight ensued, even the national URSI committee getting into the fight with support for continued 2300 EME activity, and eventually the P&T gave in - but only partially; we were notified that we would lose 2300 eventually. Instead, they also opened up 3400, but also that band only for a short time. Seeing the writing on the wall, I decided to concentrate fully on 2300 and 3400 while we had those bands and let 1296 wait until later. The 1296 rig ended up on a shelf. After Sweden finally lost 2300 and 3400 in 2020, I haven't been on EME at all until now - I felt the fun had gone out of it. But this autumn, just to get a taste of 1296, I dug out the old equipment, that had never been used and hooked it up to my 3.8 m dish. I operated a total of about 7 hours, only in the east and south windows (can't manage to stay awake until 5 am local anymore - Hi). I made 16 QSOs and copied/called another 15 or so stations, among these were XE1XS, VK4AFL, VK5MC, CT1FGW, SP6ITF and JH1KRC. I had QSOs with: OK2DL, OZ6OL, SP6JLW, DF3RU, SA6BUN, OK1DFC, SM6CKU, G4CCH, OZ4MM, OK1KIR, OH2DG, DL0SHF, IK2DDR, G3LTF, SP9VFD, YL2GD and IK3MAC. (I have now worked G3LTF on four bands (432, 1296, 2320 and 3400). All in all an interesting experience. Obviously, I could use more power on 23 cm. It encourages me to work harder towards becoming fully operational on 6 and 3 cm!

SP9VFD: Rafal sp9vfd@yahoo.com reports on his Oct ARRL Contest WE -- I was active in the contest on 23 cm. Unfortunately, I couldn't operate the 1st Moon pass in the night between Friday to Saturday. I only started working the 2nd Moon pass on Saturday evening about 1700. WX conditions in JN99xn were very good, without rain and strong wind. I was active on 23 cm CW only on random. I do use any logger. I had QSOs with SP6JLW, OK1DFC, FR5DN, DL1AT, OZ6OL, OZ4MM, SP6ITF, OK1KKD, IW2FZR, OH2DG, IK3COJ, OK2ULQ, SA6BUN, SP3YDE, OK2PE, G4CCH, G3LTF, F5KDK for initial (#), IK3MAC, OK2DL, PA3FXB, DJ3JJ, WA9FWD, XE1XA (#), SP3XBO, IK5VLS, K3WM, GOLBK, WA6PY, VE6TA, UA5Y, NQ7B, DL4DTU, CT1FGW, SM3BYA (#), IK2DDR, SP7EXY, JH1KRC, YL2GD, DL6SH, OM4XA, SM5DGX and DL1SUZ (#) for a total results 43 x 22. I heard also OH1LRY, DF3RU and JA6XED during their QSOs with others but could

not catch them. I hope to work with them in the next leg in Nov. I measured 1296 CS/SUN of 21.5 dB at SFU 168 (6.4 m homemade dish) with G4DDK HB LNA). After two years of practice with noise measurements using very nice but old General Radio 1236 noise meter, I decided to hook up SpectraVue software to the DAX I/Q output of my FLEX for the tests. The line of SpectraVue noise graph is exciting me, its awesome. I checked FLEX+SpectraVue measurements values with my GR1236 and they are close the same. Seems that using simply DAX I/Q 96 kHz stream from FLEX it will be very handy tool for Sun/Moon noise measurements and dish pointing calibrating. Initials were XE1XA, SM3BYA, DL1SUZ and F5KDK for new CW initials. Hope to see you in next leg in Nov.

VK2CMP: Mick vk2cmp@me.com was QRV on 70 cm in Oct EME Contest but had his plans disrupted -- My planned preparation for the ARRL Contest to make sure everything was working, etc. was overtaken by a tree branch falling on the back of our house and ending up on the bed in the guest room. At least it missed my antennas. I repaired the roof as well as the ceiling in the spare room before heading off to my son's wedding a couple of days before the contest. We got home just in time to warm up the radio in time for moonrise on the Saturday evening of the contest. After fighting off windows updates and fixing the random USB audio settings that just seem to be par for the course in Windows 10, I was off and running. Alas my IQ+ decided to just stay muted and I was left without a pan-adaptor and adaptive polarization set-up for the WE but I still managed a new DXCC with GD0TEP and three initials SP2WRH, UX0FF and W7TZ. The contest was great fun and I plan to be back better prepared with more sleep for the next round.

W2ZQ: Joe (K1JT) joe@princeton.edu reports on the Delaware Valley Radio Association (DVRA) results for the Oct EME Contest weekend – The club's ARRL effort is a muti-op collaboration with 1296 operation at the club station using a 3 m TVRO dish and 240 W to a septum feed; 432 operation at K2UYH's QTH with his 28' dish and 500 W; and 144 operation at K2TXB's QTH with 2 long yagis and 1 kW. K2UYH also operated on the microwave bands, and W2HRO plans to be QRV on 902 for the Nov weekend. Our 23 cm effort was hampered by failure of a remote cable connection 3 hours after Moon rise on the first night. The problem was repaired after Moon set the next morning, and the station performed well on the second night. We finished on 23 cm with a total of 63 x 35 with 22 DXCC, 10 US States, and 3 Canadian provinces; on 70 cm with a total of 43 x 31 – see K2UYH's report for more details; and on 2 m 65 x 44. We are all looking forward to the final contest weekend.

W5LUA: Al w5lua@sbcglobal.net did what was not imaginable a year ago, he completer the 1st 33 cm WAS on 26 Oct -- Through the efforts of KA6U, I was able to work WI for my last State in the 33 cm band. At the end of Sept, I was sitting at 32 States confirmed with cards and or LOTW. Peter went on a 25 State dxpedition providing my last 18 states. Thank you Peter! I started collecting states on the 33 cm band shortly after we first obtained the band in 1985, so it only took 38 years! My station consists of a 5 m dish and 400 W obtained from 2 paralleled 300 W Motorola SSPAs. My feed is a dual polarity patch feed. With all the folks active on the band now, we have experienced times of excessive Faraday rotation. Faraday rotation seems to be very pronounced at zenith especially at low declinations. Faraday rotation is also more pronounced during daylight hours. When Faraday was excessive. I would on occasion not be able to hear my echoes unless I flipped my polarity 90 degrees during receive. The consensus now is that we will migrate to circular polarization very soon. I was also active in the Oct part of the ARRL EME Contest. I operated on 432 and worked 9 stations and 9 mults using Q65B: K5QE, W4ZST, VE4MA, K2UYH, OE3JPC, N9XG, N1AV, KN0WS and F6GRB; and KL6M using CW. I decided to go to bed at midnight. On 29 Oct, I worked N0OY (13DB/10DB) on 3 cm with Q65C in KS (EM18ct). Pete was running a 1.8 m dish and 30 W. I then went on 1296 and worked K2TER and blew a $\frac{1}{2}$ inch Heliax connector; and decided to call it guits. On 30 Oct, I decided to put the new 902 circular polarized feed in place. I use a dual polarization patch feed fed with a Meca 90 deg 3 dB hybrid. I was utterly blown away with my echoes! No more switching between polarities to offset Faraday rotation. I went on to work VE4MA and W2HRO who were also CP. Over the next few days, I worked on 902, KA6U, AC0RA and K0DSP who were running linear. I do believe that most stations on 902 will be moving over to CP in the near future. I am staying CP. On 4 Nov I was on 9 cm and worked DL1SUZ and PA0PLY using Q65C; and then K2UYH on CW (579/579). I have spent a lot of time on the test bench testing various 3 dB hybrids and patch feeds for the 33 cm and the 23 cm bands. I also checked out N0AKC's 33 cm equipment and tuned up a 33 cm filter in hopes of cleaning up the 33 cm band for Charlie. I also tuned up a 13 cm bandpass filter for John, ZS6JON in hopes of making the 13 cm band usable for John. His filter covers both 2304 and 2320 in hopes that we in the US may also have a shot at working him.

WA6PY: Paul's <u>pchominski@maxlinear.com</u> Oct ARRL EME WE operating time was limited by family complications -- We have a new puppy with health problems – During first Moon pass, I spent the entire night with him at the vet emergency room. The next night, 29 Oct on 23 cm, I QSO'd using CW SP9VFD, DF3RU, SP6ITF, G0LBK, SA6BUN, G4CCH, SP6JLW, OZ6OL, K3WM, OZ4MM, UA5Y and OK1DFC for a total of 12 x 8. I could operate only for 1.5 hours on the second Moon rise window. During that time, I switched to 432 but heard only my echoes and few weak JT signals. Then I came back on 1296. After my CQ usually a few stations call me on almost the same frequency. They start and stop transmission at almost same time. This makes it difficult to catch callsigns. After my QRZ, stations repeat my callsign at the beginning few time, lowering their chance that I will pick up their callsign. I plan to be QRV in Nov, both days on my eastern and western horizon.

K2UYH: I (AI) alkatz@tcnj.edu am still discovering more lightning damaged equipment such as the driver amp for my 1296 SSPA. I already knew my 1 kW GaN SSPA was bad. My pre-Oct ARRL Contest objective was to get my 70 cm system back in service. I had joined forces with the DVRA's W2ZQ team that has been building up their 1296 EME capabilities - thanks to the efforts of W2HRO and K1JT. They operated exclusively on 1296 and I operated on 432. (K2TXB operated on 144). [I would have used the W2ZQ call, but I had already operated in the MW part of the contest using my call; and could not switch calls according to the ARRL Contest team rules]. Aside from my 432 PA running a little low in power (~ 500 W) everything was ready to go at the start of the contest. And continued to work except for my pol rotation controller. The Faraday rotation was non-reciprocal for much of the contest; requiring rotation of 90 degs between TX and RX. Do to all the exercise my rotation indicator stopped working. I could rotate pol but not tell the angle it was at. After the end of the EU window on both days, the pol became more aligned and echoes louder. I contacted using Q65B unless noted on 27 Oct VE4MA, KD2LGX NY, N1AV AZ, KN0WS (14DB/15DB) MN, K5QE TX, K3SK VA for mixed initial #1099*, K7ULS UT, YL2GD, KF2T MD #1100*, AA5C TX, W4ZST GA, NY1V IN #1101*, AG4W AL 1102*, N9XG IN, SP2WRH #1103*, W7TZ OR, N5NHJ TX, K5ATN NY #1104, W5LUA TX, OE3JPC, W7TZ DUP, KL6M (569/569) using CW AK, DF2VJ, F6GRB LOST end of EU window, VK4EME, BV3CE and JA6UJS #1105* - moonset; and on 28 Oct GW4ZHI, S57Q, N0AKC WI, S51ZO #1106*, OK1TEH, SV8CS, SM4GGC #1107*, K4EME VA, ON4AOI, G4RGK, AE6EQ CA, UX0FF LOST, DL1VPL, OZ1SKY #1108*, PA2V, PA5Y, PA2CHR #1109*, JE2UFF, JA7PJS #1110 and JA6UJS DUP for a total of 43 x 31. I was also on 9 cm using Q65C unless noted and QSO'd on 16 Oct at 1536 G4DDK (18DB/6DB) using Q65C for mixed initial #71*, and on 4 Nov at 0640 HB9Q (3DB/2DB), 0654 DL1SUZ (15DB/17DB) #72*, 0713 PA0PLY (9DB/13DB) #73* and 0718 W5LUA (579/579) using CW. We will be back on 432 for the final leg of the contest. I am proposing that on both Saturday and Sunday 0000 be the start of a 70 cm CW time period. I will be calling CQ on around 022. I hope to make some more CW QSOs then.

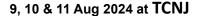
LOGGER/NET NEWS: GD0TEP has been active from the Isle of Man on 432 with 4 x 23 el yagis, 8938 triode PA at 1 kW and AGO cavity preamp. Andy is available for skeds at <u>andrew.kissack@manx.net</u>. **DJ3JJ:** Andreas <u>dj3jj@gmx.net</u> was QRV on CW during Oct ARRL Contest WE. **K5QE** and KA6U are operating the ARRL EME Contest together. They will be on whenever there is Moon on 50, 144, 222, 432, 902 and 1296. On 222 they have 8 x 222XP40s with 1300 W, on 432 16 x 28 el (H-pol) and 8 x 28 el (V-pol) M2 yagis and 700 W; on 902 a 2.4 m dish with 250 W; and 1296 a 4.5 m dish with 400 W. Marshall and Peter will especially be looking for *good* tropo stations with no elevation, on their rising or setting Moon. **M60VP** was looking forward to the Oct ARRL Contest activity. David operates on 1296 with a 10' dish but should have a 12' dish up soon – possibly by the Nov Contest WE. He can be reached for skeds at n6ovp@pacbell.net. **SP6JLW** is adding 24 GHz - see http://emejo80jk.cba.pl/Technika/Zieleniec 2023.pdf.

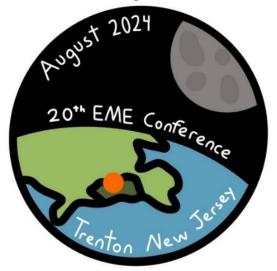
FOR SALE: N2CEI (DEMW) has Toshiba UM2683A 3.4 GHz PAs - unmodified stock 40 W. Tested but never in service. \$250 shipped CON USA. Pay Pal preferred to Suwannee ARC. For more info contact Stephen at n2cei@downeastmicrowave.com. DF6NA has settled down in the Canary Islands. Rainer has a Holiday Apartment for rent in the north of Tenerife. See http://ea8dmf.vhf-dx.net/VaAp.html. OK1FPC still offers his cheap 10 GHz and 5.6 GHz and new 9 cm transverters as well as 4,5 W SSPAs for 10 GHz; prices on request but will be a good deal. If you are interested write to <u>ok1fpc@seznam.cz</u>. Please let him know if you need an IF for 2 m or 70 cm. Alternatively you can write to <u>ok1tehlist@seznam.cz</u>. OK1TEH has for free pick-up a 3 m Al dish with robust ribs. It is the same type of dish as was used by OK1UWA for 24 GHz EME. W2HRO has a non-folding version of his stress dish. The dish is covered by 1/2" hex wire. The entire dish weighs 12 lbs and is nearly invisible. For more info contact Paul at paul@sub-lunar.com.

TECH TIP: PA7JB warns against using lossy caps in your LNA -- If you use a plastic cap in the input of your LNA, please take care. You may be surprised by the loss of these caps. Because the signals from satellites are so strong, this does not matter when looking at TV. The manufacturers want to produce LNBs for as low a cost as possible. But we want to get the last 0.001 dB out off our systems.

FINAL: EME2024 Trenton is now only 9 months away! It's time to complete your travel plans, and submit your registration (\$US125 includes Saturday Banquet) and presentation (talk and/or poster) plans to **WWW.EME2024TRENTON.ORG**. Speakers include OK1DFC, KA6U, KA1GT, W1GHz, K2UYH, W2HRO and many more. The reservation link is up for the Conference first class hotel (Marriot Springhill Suites). We will be also offering a separate one day (Friday) Intro to EME (how to get started on EME) course for "Not Yet EMEers" – tell your friends. Info is also available on social media. There will be 3 local tours: Thursday to Thomas Edison National Historic Park, Friday to the Grounds for Sculpture, and Saturday a Super Outlet

Shopping Extravaganza. Our next planning meeting will be on 30 Nov, time TBD. Email K2UYH for the Zoom link. You are welcome to join in or just listen in.





▶ We received a question on what is the meaning of the color shading that appears in the NL: We use yellow shading to indicate dxpedition related events and QSOs with rare or desired stations. We use other color shades to indicate contest activity. Different colors are used for different contests. The contest and the contest scores are shaded. This month almost all the activity is for the ARRL Contest. There is one holdover report for last month's ARI Contest.

▶ I5WBE sends Top Scores in ARI Trophy Contest: 432 (Overall top) IZ2DJP; 1296 Mixed Modes 1st IQ2DB, 2nd IK2DRR, 3rd IK5VLS; 1296 CW/SSB 1st IK1FJI, 2nd G3LTF, Small Stn 1st DL1AT; 10368 (Overall) 1st OZ1LPR, 2nd OK2AQ, 3rd IK6CAK.

► <u>Concerning Galileo and 23 cm</u>, PA2DW reports that there are not many new developments. The situation seems to have stabilized with the last contribution made by G4SJH to be taken to the WRC. Dick says regarding the high-power segment on 23 cm, there is some degree of agreement, but it may well be that this item will be postponed to WRC 2027. This is just speculation. We need to wait until WRC 2023 is over to know where we stand.

▶ <u>We will be looking for you</u> in the final leg of the ARRL EME Contest. The first 50 to 1296 WE produced record breaking QSO totals on 23 cm. The 25/26 Nov WE has better Moon times and DEC; so we are look forward to a super operating time. We are promoting a 432 CW time-period for both days starting at 0000. We hope you have a wonderful time on the Moon. **73, AI – K2UYH and Matej – OK1TEH**