432 AND ABOVE EME NEWS
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CONDITIONS: Congratulations to DL9KR on making his 1000th 432 QSO! See Jan's report in this newsletter (NL). OK1DFC also completed 432 WAS this month! The 2016/17 EME contest season started this month with two contests on the same weekend. Most of the reports in this NL are for the ARRL Microwave (MW) EME Contest. Both conditions and weather (WX) seemed excellent. The result was lots of activity, but as stations become QRV on more of the higher bands, the activity is more divided and it is harder to decide on which band and when to operate. 13 cm had the most activity [43x25 – OK1CA], with 3 cm [20x15 - OK1DFC] the next most active. 6 cm which has been rapidly growing in popularity, (it is the only band above 1296 where we can all operate on the same frequency), seemed to have been caught in this squeeze. Of the reported scores, OK1CA again leads the pack with total overall score of 73x50. For those not yet on 2300 and above, the ARI contest was also taking place. This contest includes the MW bands. I see no reason why those who were on the MW bands cannot enter both contests. **Coming right up is the first weekend of the 50-1296 part of the ARRL EME Contest on 22/23 Oct.** *There are also several dxpeditions coming up. Both XT2AFT and S9YY are in operation at this writing. Unfortunately Hermann is hospitalized with Dengue fever and has had to limit his operation. SP9YY should be on 432 again on 22 Oct. K5QE had a very successful State dxpedition to LU, MS and AL, but KB7Q/7 canceled his 70 cm operation from NV. K5SOP will be QRV on 432 from LA during the Oct ARRL Contest weekend. E44CM will be on 70 cm from Palestine in Nov. This dxpedition will be followed by another in Dec for 23, 13 and 9 cm. See reports on these dxpeditions in this NL.*

PY2BS QRV was on 10 GHz in the EME MW Contest

DK3WG: Jurg dk3wg@web.de continues to on of the most active EME stations on 70 cm – In Sept I added on 432 using JT65B the K5QE dxpedition in all 3 states to give me the grids of EM32, EM42 and EM63 and an initial with RA9CHL. On 1296 I worked using CW IZ1BPN, N2MO – the big Diana dish memorial station, and using JT65C DF2GB, VE3NXK and UA3TCF.

DL9KR: Jan Bruinier@t-online.de has completed his #1000 initial on 432! All were made on CW, an achievement that no one else is even close to accomplishing. His recent QSOs follows: DL1SUZ (Dec 2015) #977, R6CS #978, DL8DAU, KB7Q (DN45), RW4HW, UX4IJ, N0IRS (first QSO of 2016), VK4CDI, DK4RC, DD0NM, DL6SH, OK2AQ, AA1KK (strongest dxpedition ever heard), UR7D, DJ2TX, W1PV, EA6/PA2CHR, KB7Q (DN44), BH4PVP (DXCC 137), OK1YK, KB7Q/0, PA5Y, N4QWZ, K5QE #1000, UR3EE, S9YY (DXCC) 138 and SM3KPX #1003. He says -- All these QSOs were a major part of my life as a ham. EME continues to be interesting, even if limited to a single band.

E44CM: *Chris (PA2CHR) post@pa2chr.nl and Jos (PA3FYC) report -- Palestine (KM71ru) will be QRV on 432* (and 144) from Jericho city between 15 and 24 Nov. The flights and the hotel are booked and license paid. On 70 cm, we will use a single 27 el DK7ZB yagi (17.7 dBd gain) with mechanical polarization control and 400 W, and will have spare transceivers/PA's/preamps, etc. 432 activity will be for only one moonpass starting Saturday, 19 Nov at 2015. Because we are QRV during the ARRL EME Contest, we kindly ask all stations who work us before the contest, NOT to call again unless you see no one else calling. *[E44QX and E44HP will be QRV from 8 to 18 Dec on 23, 13 and 9 cm. More info to follow in the next NL].*

EW1AA: Sergej ew1aaminsk@gmail.com was is QRV on 23 and 13 cm. He had a problem with one the transistors in his 2300 SSPA; thanks to help from RW3BP he should now be back in operation. But he did not have enough time to complete the fix and was only SWL in the MW contest. Sergej should be QRV on 1296 for the main event.

G3LTF: Peter g3ltf@btinternet.com reports on the ARRL MW Contest -- On 27 Sept, I started on 13 cm and worked UA3PTW, OK1CA, UA4HTS, SP6OPN, LZ1DX, DL7YC, JA8IAD crossband (XB), DF3RU, OK1KKD, HB9Q, SP3XBO, ZS6EME, SM3BYA, PA3DZL, OH2AXH, F5HRY for initial #128, DJ3FI, K5GW (XB), IK5QLO, G4RGK, S53MM, K2UYH (XB), WA2FGK (XB) for initial #129, VE6TA, SM2CEW, WA6PY (XB), ES5PC, WA9FWD (XB), K1DS (XB) #130 [for a 13 cm total of 29x22]. Heard were W7JF (?), LX1DB, ON5RR and OK1YK. On the second pass, 28 Sept, I started on 6 cm a bit late due to poor WX and worked SP6GWN, OK1KIR, HB9Q, SM6CKU, DF3RU, W5LUA, ES5PC and SV3AAF. I then changed to 9 cm and worked S53MM, OK1CA, SP6OPN, OZ6OL, W5LUA, HB9Q and K5GW [for a 9 cm total of 7x6]. Finally, I went back to 6 cm again at moonset to work K2UYH and heard WA9FWD, but was defeated by the strong winds blowing into the dish. [On 6 cm the total was 9x9 for an overall score of 45x37]. All QSOs were on random CW. The logger was only used to help newcomers to 13 cm X band procedures. Activity on 13, 9 and 6 cm seemed about the same level as prior years (i.e. flat-lining!), but think 3 cm had increased activity. I believe the activity level will all remain pretty much unchanged, unless the ARRL distributes the time available for operation on the 7 primary EME bands (2 m to 3 cm) in a better way. Presently 4 of the bands are restricted to one weekend, while the remaining 3 bands are allowed 2 weekends.

G3WDG: Charlie charlie@sucklingfamily.free-online.co.uk writes about his past month's activity – I have been mainly on 10 GHz. The 50 W system that was used in Hungary (HA) last year has been upgraded from a 76 cm dish to a 1.2 m (prime focus). The feed is the same – lin pol version of SM6FHZ's 0.692 wl design. Using a DU3BC preamp, sun noise is now close to 10 dB and moonnoise 0.55-0.6 dB. This makes tracking with moonnoise much easier. The new system was tested with VK7MO from our home QTH prior to taking the dish to HA, and we were able to make a full QSO on JT4F. Rex was running his 77cm system for this test. From HA, we again tested with VK7MO prior to the contest, and completed JT4F and QRA64D QSOs with Rex using his 77 cm and 1.13 m systems. During the contest period with the 1.2 m system, we worked OZ1LPR, UA4HTS, IW5BHY, W6YX, HB9Q, YO3DDZ, G4CBW, SQ7D, PA3DZL, DL7YC, OK2AQ and PY2BS [for a score of 12x12]. All QSOs were using two-way JT4F with the exception of PA3DZL and DL7YC, where we transmitted JT4F and

received CW. We used JT timed 1 min periods for these QSOs, with full Doppler control from our end using WSJT-X. A slight adjustment of RIT was needed on our end to get the audio pitch right – after that the Doppler control kept the pitch the same from period to period. We missed a QSO with OK1KIR – we had good copy from them but they could not hear me. They spent considerable time trying to help me troubleshoot – it turned out that noise from the 240 V – 24 V SMPSU was unlocking the 10 GHz transverter LO, but only on TX when the PSU was supplying current. The problem only occurred when the LO was in bright sunshine and approaching its maximum operating ambient temperature. The "fix" was to locate the power supply a greater distance from the LO, and also apply freezer packs on top of the LO. After returning home, using the 3 m dish, we had several QSOs with OK2AQ comparing performance of JT4F and QRA64D with higher values of libration spreading, followed by a JT4F QSO with PY2BS. We also managed to work W5LUA on successive nights on his 1 m portable dish at MW Update – at times Al was easily audible.

G3WDG with 4' dish portable in Hungary

G4RGK: Dave zen70432@zen.co.uk sends news that he is updating his CW Initials/DXCC lists and asks that updates be sent to him now. He also reports on the ARRL MW Contest weekend -- Due to prior commitments, I was only able to operate for two or three hours each day on 2320 only. I was also down on performance with only around 10 dB Sun noise. I didn't have time to investigate the cause and operated as is. Thankfully, it was a nice calm weekend, which made it easier to keep the dish pointed. I worked on Saturday OZ4MM (559/439), PA3DZL (O/O) and G3LTF (559/549) and on Sunday UA4HTS, UA3PTW (O/O), OK1CA (559/559) and ES5PC (O/O). CWNR were OH2AXH (partial), ZS6EME, F5HRY, S53MM, OK1KKD, SP6OPN, SM2CEW and OK1YK. Heard were SV3AAF, ON5RR, DJ3FI, OZ5G, IK3COJ, DL7YC, SP3XBO, OH2DG and SM3BYA. [My total was 7x6]. The station is a 4.6 m stressed dish, RA3AQ feed and 110 W Spectrian PA. I will not be QRV for the Oct ARRL Contest weekend as I will be in CA.

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp was not active in the MW contest, because he was moving his 3 m dish -- I was not QRV on the upper EME bands until mid Oct. In Sept, I stopped EME operation for a month while I moved my MW dish to a new location and 2 m higher than it was before. On 14 Oct I heard my echoes on 5760 for the first time from the new position. Although I have some blockage to the east, I have a much better window to the west. [Yoshiro should be QRV on 1296 for the ARRL EME Contest].

Remounted 3 m MW dsih at JA4BLC

K1DS: Rick rick1ds@hotmail.com had great success on 13 cm during the MW Contest -- I planned the setup of my portable EME station for the MW weekend. I assembled the 3 m dish on the trailer on Thursday and put the electronics together for 150 W out on Friday. I always fear that I may miss something, as everything has to be put together and taken apart after each weekend of operation. Fortunately, everything seemed to work this time and the weather cooperated too. The improvements that made a big difference were a hotter preamp (TNX WD5AGO) and the use of my SDR-IQ. I measured 11.4 dB of sunnoise. Trees blocked the Moon up to 35 degs, so my Moon time was limited. On the first pass, I worked using only CW OK1CA for an initial (#), OZ4MM (#), K2UYH (#), LX1DB (#), HB9Q, WA2FGK (#), VE6TA (#), G3LTF (#) and ES5PC (#). On the second pass, I added LZ1DX (#), OK1KIR (#), W5LUA and W6YX (#) [for a total of 12x11]. I am grateful to all the big dishes and big signals that help me peak my dish, and was excited to work WA2FGK, who has a 3.6 m dish and 200 W. I plan to be on 1296 for the next ARRL EME weekend. Please send me your stories and pictures so that I can use material for the contest write-up in QST. Please submit your logs to ARRL.

K4EME's refurbished 432 8 yagi array

K4EME: Cowles candrus@mgwnet.com brings us up to date on his 23 and 70 cm EME progress -- I am planning to be on 23 cm and 70 cm during the Oct ARRL EME Contest weekend. I plan to start when the Moon is very low, on 70 cm first! I will use my old Yaesu FT-847 running ~ 600 W on JT and 1 kW on CW. On 23 cm I plan to run a TS-2000x, but will just be using it for a 2 meter IF to drive a TR-1300 and home brew 500 watt amplifier based on W6PQL XF-286 modules at the base of my 10' dish. The TS-2000x is somewhat different from the FT-847 and has a bit of a learning curve. I bought the TS-2000x from a Ham Radio Supply company used and scratched up but they said it was checked out and worked! As soon as I got it, I checked it out and found the HF receiver was dead, but everything else appeared to work. I removed the case and found the radio had taken a lightning hit and had some damage, so I was ready to send it back for a refund. After they saw the pictures of the damage, the company gave me two options; they would take the rig back for a complete refund or refund about half the cost I paid for the radio. Since the radio worked great on 23 cm and 70 cm I kept the radio! I had to pull two boards but was able to repair the HF receiver for a few dollars of parts. I checked it out on a signal generator and it meet sensitivity specs. I purchased an interface connector to switch my transverter's sequencer, but missed the note deep in the TS2K operation manual where it explained that the switched output for linear amplifiers was menu controlled for each band, and the default was in the off position. While in the process of hooking everything up, I must have hit TX at some point and blew my 23 cm preamps! I had a 10 dB pad in line with the output, and think I had the radio in transverter mode, (very low output), so aside from the preamps, I got off lucky! I figures out what must have happened, read the manual and set the linear amp output on, then testing everything before disconnecting the radio from the dummy load and then to the transverter. I repaired my 23 cm LNA and everything worked with the new radio! When I was troubleshooting the blown LNA's I found I had a small nick in the receive coax. We had a lot of rain and some got into the receive coax between the LNA and transverter. I actually drained some water out of the coax! I plan to have this fixed before the contest! I do have one other small issue with the TS2K, the fixed level cable does not work with my RIGblaster. I think the issue has to do with no audio coming to the rear ACC connector. I have this connector's audio turned on in the TS2K, but just noise out. I will use the audio from the

real audio jack to drive the RIGblaster until I have time to fix the ACC connector issue. I was able to trim the trees to the east and now have a much better EU window for my 23 cm dish. I changed the actuator to get to a lower elevation toward the east too. Now I have moon at only 15 degs, so in just over an hour after moonrise, I now can be on 23 cm! I have a Utube video showing my basic setup - https://www.youtube.com/watch?v=TX92Wk-Zc28. While testing my 23 cm station, I worked on JT65C UA9YLU (17DB/13DB) and VA6EME (22DB/17DB). I found that with a couple of minor modifications that my 70 cm LNA is very usable at 23 cm. It has a gain of 16 dB and NF of 0.25 dB - [See For Sale]. I am now using my own preamp on 1296 and working on a 23 cm design with 30 ~ 36 dB of gain.

K5QE: Marshall k5qe@k5qe.com reports on what he calls his 432 Mini-dxpedition -- Bill (N5YA) and I worked from LA 11 stations (OK1KIR, DL7APV, OK1DFC, DK3WG, K5DOG, K2UYH, W7MEM, HB9Q, UA3PTW, UT6UG and K5DOG), from MS 16 (OK1DFC, DL7APV, OK1KIR, UA3PTW, UT6UG, DL9KR for his 1000th initial using WSJT CW mode, DK3WG, UX5UL, DL8FBD, W7MEM, K2UYH, HB9Q, PA2V, G4RGK, DL8GP and UT5DL), and from AL 16 (OK1DFC, DK3WG, UA3PTW, UT6UG, DL7APV, UX5UL, OK1KIR, K2UYH, DL8FBD, DL8GP, OH6UW, DF3RU, UT5DL, UR7DWW, W7MEM and HB9Q on our recent 3 state dxpedition. We were able to work OK1DFC in all 3 states giving him states 47, 48 and 49. He was able to get his missing NV contact a few days later, so he has completed WAS and is just missing my cards. We were able to work several other stations in all three states.

K5SOP: Jerry hpceng@att.net will be QRV on 432 in Louisiana during the Oct ARRL Contest weekend – My dxpedition will be from grid EM32hk. I plan to operate 6 hours during both days. The rig consists of 2 x K1FO 22 el yagis in horizontal polarization and 300 W. Since this is a minimal station I plan to work JT65b only and will both call and answer CQ's on 432.080 depending on activity heard.

KA1GT: Bob ka1gt@hotmail.com is now QRV from Maine on 432 with 2 x 28 el yagis with adjustable polarization and 450 W -- I worked UT6UG, UA3PTW and UX5UL using JT65B on my first night of testing. I plan to be on for the ARRL EME Contest.

KN0WS with his dishes

KN0WS: Carl carlhasbargen@g.com reports on his activity from MN -- In Sept, I was at my remote EME location for a weekday sked with KD3UY the 14th and copied him (25DB) and then tried with N5BF. He had such a bad frequency drift that we switched to JT65C2 with 30 second cycles. This did the trick and we completed (20DB). My first weekend off from work in twelve weeks was on 24/25 Sept during the ARI contest. I setup my ice fishing tent and popped my radio into the chicken egg incubator to prevent frequency drift and started up at 0700. I used my 6 m dish at 70 cm to work DK3WG (17DB), PA2V (28DB), DL7APV (11DB), DL8DAU (22DB), K9MRI (17DB), UX0FF (19DB), UR3EE (26DB), RN6MA (25DB), SP1JNY (20DB) and UT5DL (24DB) - 5 of these were initials. I had troubles with my preamplifier. My only remaining day this year for 70 cm operation will be the first moonpass of the October ARRL contest. I will try to be back on then. On 25 Sept, I used my new 4.8 m dish on 23 cm. It rained off and on all night long. I have discovered how to operate in the rain using strategically placed garbage bags and electrical tape! One electrical generator lost power during a QSO because a tarp was blocking the air intake. I worked OK2DL (7DB), IK5VLS (16DB), DK0ZAB (17DB), I1NDP (7DB), I7FNW (25DB), I0NAA (20DB), PA3FXB (17DB), DC9UP (16DB), RA3EC (17DB), YL2GD (20DB), NC1I (15DB), SP5GDM (15DB), G4YTL (21DB), DK3WG (17DB), G4FUF (25DB) and VA6EME (21DB) – 7 were initials. By the end of the 24th, I was up to initial #48 on both 70 and 23 cm, but now 23 cm has moved ahead to #55 and I don't think 70 cm will ever catch up again. If it had not been raining on the 25th, I have tried listening on 13 cm, but this will have to wait for another time. I was hoping to look for folks in the Pacific, but it appears they were either working the higher bands in the MW contest or were in bed at 3 am. I am looking forward to the Oct ARRL Contest, but have not found anyone at work to trade Friday shifts, so the European window may almost be closed by the time I am QRV that night after work. We shall see.

N4PZ: Steve n4pz@live.com was QRV in the MW contest and made some QSOs on 13 cm, but is not focusing back on 1296 for the Oct and Nov ARRL Contest weekends. He will be operating exclusively on CW -- I am getting a solid 1500 W into the feed of my 4.9 m dish from my new TH-327 PA and eager to put the amp to work. It is stable as a rock. Using it I worked VK4CDI (549/559). Also worked a new one EA8DBM (579/579) and K2UYH & N5BF. I will be on regularly on 1296.020 calling CQ endlessly on CW. Please get on and let's have some fun.

N5BF: Courtney courtney.duncan.n5bf@gmail.com sends his latest EME activity report – I am up to initial #8 on 23 cm so far: K2UYH, HB9Q, DK3WG, G4CCH, KN0WS, VA6EME, I1NDP and IZ5TEP. Currently I only have visibility from the eastern horizon (5 to 10 degs depending on azimuth) up to about zenith with all visibility to the west blocked by trees. Also, the lunar arc for declinations south of the celestial equator is also blocked by trees meaning that I am blacked out two weeks of the month. Since the contest days are at high northern declination, I plan to be on for the first six to eight hours of each of the four days. I hope to work stations in EU and the Americas. In parallel I'm planning some tree work to open up at least some holes to the west and south, but when this work will occur is currently unknown. While I'm getting the hang of the JT65C (and JT65C2) contacts, I have failed at some CW attempts from lack of familiarity with how the exchange works. I have asked the reflector for help on these procedures and hope to successfully complete some CW contacts next week when I have moon again. Thanks to everyone for their patience.

Tree blockage at N5BF
Moon through dish is at AZ 135° & EL 22°

NC1I: Frank frank@NC1I.COM reports on recent activity and possible state EME dxpedition -- I have not had much time to operate in recent months as I have tried to focus on getting my 432 station back up and running. W1QA and I have been hard at work on both the 432 antenna and 432 station in an effort to be back on for the first weekend of the ARRL contest. The contest is now just a week away and the 432 station/antenna rebuild is still not complete. We have not given up hope, however, and if everything goes well tomorrow (15 Oct) we could be back on as soon as the 16 Oct moonpass, but this may be a bit optimistic. If we have problems completing the rest of the work on the 15th, I would fully expect to have everything ready for the Nov contest weekend. At the very least we expect to be on 1296 for both contest weekends, but it won't be an all-out effort. Time will be split between WSJT and CW. Hopefully we are on both 432 and 1296 no later than the second contest weekend. Since my last report we have completed the following QSO's on 23 cm using JT65C unless noted: On 28 Aug using JT65C at 0840 DF2VJ (17DB/19DB), 0911 IK5EHI (20DB/11DB), 0925 LA3EQ (19DB/9DB), 0935 PA2DW (19DB/12DB), 1110 OK1IL (10DB/7DB), and at 1204 II3EME (13DB/7DB); on 23 Sept at 0732 I7FNW (21DB/14DB), 0742 DC9UP (11DB/O), 0758 EW1AA (26DB/18DB), 0816 OE5JFL (549/569) CW and 0846 DF3RU (6DB/O); on 24 Sept at 1102 EA5DOM (22DB/O), 1109 PA3FXB (12DB/6DB), 1115 IK5VLS (9DB/5DB), 1121 RA3EC (13DB/6DB), 1129 I0NAA (14DB/7DB), 1135 OK2DL (5DB/5DB), 1141 IZ5TEP (19DB/9DB) and 1159 K5DOG (21DB/11DB); and on 25 Sept at 1100 G4FUF (21DB/9DB), 1119 KN0WS (22DB/15DB), 1127 I7FNW (20DB/11DB), and 1149 SP5GDM (11DB/6DB). Once my 432 station is back up and running Bob and I will start thinking more about activating another State on either 432 or 1296. This would likely be in the spring (possibly May). We have discussed two possibilities and some input from the group would be helpful in making our decision. One possibility is to go back to CT, but this time setup on 432 (last year we put CT on 1296 and 144). This is favorable site due to the horizon to horizon moon window. Also the location is quite convenient, just a 5-minute drive from my work QTH and only 20 minutes from my home QTH (about 25 minutes from W1QA's home QTH). Another plus is that we have an established relationship with the property owners and they have expressed interest in having us return. Another possibility is to try and put NH on 1296. We do not have an established location yet in NH, but have scoped out a couple of promising sites. We would need to contact the property owners and ask permission to setup there. These locations are still reasonably close (90 minute drive) but certainly not as convenient as the CT location. And of course there is no guarantee that we could obtain permission to use the property. I believe it has been a number of years since CT has been well represented on 432 EME (RIP my good friend K1FO) or since anyone has been on 1296 EME from NH. Due to the enormous effort it takes to make these State dxpeditions successful, whichever operation we end up doing may be our last such effort - we are not getting any younger! Any input would be greatly appreciated.

OE5JFL's extended 80 cm feedhorn – see blow

OE5JFL: Hannes oe5jfl@aon.at has copied the 1296 EME Beacon (ON0EME); here is the report as forwarded by Walter, ON4BCB -- I made a reception test of beacon with my enlarged feed horn. I added an extra cone to achieve an 80 cm diameter of the mouth. ON0EME was found immediately, clearly visible on Spectran and WSJT, audible most of the time when it transmitted carrier. CW was not readable of course, only sometimes a letter or fragments. The level in WSJT was between 20 and 22DB, on one occasion 19DB. For comparison, reception of the beacon with my 7.3 m dish, which has 19 dB more gain compared to the horn, is about 20 or 21 dB better because the preamp at the horn is slightly worse, and also some extra noise pickup because of the broader lobe.

OK1CA: Franta's strihavka@upcmail.cz NL report for Sept -- I was QRV in MW part of the ARRL EME Contest on the four bands. I was active on 13 and 6 cm at Saturday 24 Oct and on 13, 9 and 3 cm at Sunday 25 Oct. The activity on 13 cm was good on Saturday from EU and NA, but I worked only JA8IAD from JA. Initials for me were F5HRY, IK5QLO, WA2FGK and K1DS to bring me to initial #139. I worked 6 QSO on 6 cm with initials from JF3HUC #66 and UA3TCF #67. I am sorry had to close down 2.5 hours early and missed some stations on 6 cm. My first QSO on 3 cm was with SP6JLW on Sunday. I made 17 QSOs and added an initial with PY2BS #79 - very good signal and CW from Bruce. I made 7 QSOs on 9 cm. The weather and conditions were very good during the whole weekend. My totals were on 13 cm 43x25, 9 cm 7x6, on 6 cm 6x5 and 3 cm 17x14 for an overall score of 73x50. All QSOs were on CW.

OK1DFC: Zdenek ok1dfc@seznam.cz writes about completing WAS on 432 -- Hello EME gang, after 20 years of activity on 70 cm, I have worked my last State, the 50th, Nevada! I was expecting to participate in ARRL MW Contest, but just before the start, I received an offer of a sked from W7UV in DM26jd in Las Vegas. I finished up a new polarization rotator for my 432 feed the next day (Saturday) and the following day (Sunday) worked W7UV with a (22DB) signal. Joe is running a single yagi and 50 W. He was best with a 45 deg pol angle. Just the week before K5QE made the 50th possible with a mini dxpedition to LA, MS and AL to give me states 47, 48 and 49. My first WAS in Nov 1996. Thanks to all who helped make my dream come true! More info can be found at http://www.ok1dfc.com/eme/432/432webhtm#WAS.

OK1KIR: Vlada vlada.masek@volny.cz and Tonna report on their group's Sept/Oct operation – We were only on 3 cm on Oct 1 for a short time, but QSO'd using CW at 1511 DL6ABC (549/419) for initial #113, 1556 WA6PY (559/569) and 1606 VE4MA (559/569), and using JT4F at 1449 PY2BS (11DB/7DB) for digital initial {#102} and 1501 DL6ABC (11DB/10DB) {#103}, on 13 Oct, while waiting for W5LUA (testing his 1 m dish with about 35 W), at 2230 G3WDG (13DB/18DB) JT4F, and on 14 Oct at 0009 G4CBW (12DB/8DB) {#104} - nice signal and 0034 W5LUA/0 (15DB/14DB) {#105} in MO for our 9th US state on 3 cm. We heard Al all the time before up to (12 DB), but he often disappeared. Also heard with a strong CW signal was K5GW in sked with W5LUA after 0000. We found W5LUA's signal only rarely with (T) level, however they probably succeeded. In Sept on 432 during K5QE's dxpedition to 3 US states, we worked using JT65B on 13 Sept at 2154 DL8FBD (17DB/19DB) for digital initial {#177}, 2200 UT6UG (13DB/11DB), 2320 K5QE (15DB/O) {#178} in LA, on 15 Sept at 2046 SM3KPX (14DB/17DB), 2142 S51ZO (27DB/18DB), 2234 DL6KAI (15DB/16DB), on 16 Sept at 0030 K5QE (18DB/O) {#179} in MS, on 17 Oct at 2254 FR5DN (12DB/12DB) {#180}, on 18 Sept at 0238 K5QE (18DB/1O) {#87} in AL and 0304 K5DOG (19DB/16DB). On 13 cm in Sept, we found only a few stations QRV for the 13 cm AW. We worked using CW on 17 Sept at 1920 OH2DG (569/569) and 2025 DK3SE (O/O) for initial #150, and on 18 Sept at 0515 VE6TA (559/569), and using JT65C on 17 Sept at 1857 OH3LWP (15DB/17DB), 2115 ZS6EME (7DB/11DB) and 2149 OZ5G (7DB/O). During the MW part of the ARRL EME Contest (and ARI Trophy Contest), we participated only on 6 cm and worked on CW on Saturday 24 Sept at 0003 IK2RTI (569/569), 0011 JA8ERE (569/569), 0017 HB9Q (589/589), 0213 OK1CA (569/579), 0221 JF3HUC (569/569), 0340 UA3TCF (O/O), 0520 SV3AAF (559/569), 0715 UA3PTW (569/579), 0813 SM6CKU (559/559), 0823 SP6GWN (O/O), 0829 OH2DG (569/569) and 0909 K5GW (569/569), and on Sunday 25 Oct at 0015 JA6CZD (569/569) - then our WG switch failed but fortunately there was no damage to the SSPA and after repair of mechanical parts inside WG137 switch we continued at 0415 DF3RU (559/559), 0546 G3LTF (559/569), 0836 W5LUA (569/569), 0853 ES5PC (569/559)), 0920 VE4MA (559/559) and 0957 WA9FWD (O/O), and using JT4F on 24 Sept at 0158 partial JA6AHB (13DB/17DB) and 0309 UA3TCF (13DB/12DB). In total we had 19 CW and 1 JT for a score of 20x15. We were also active on other MW bands during the contest. On Saturday 24 Sept when PY2BS became first QRV on 3 cm, we changed feeds to 3 cm and worked at 1000 PY2BS (559/549) for initial #112 and the 1st PY – OK QSO on 3 cm and GG field, and also at 1028 OZ1LPR (12DB/15DB) on JT4F, and on Sunday 25 Sept because of low activity on 6 cm, we switched to 13 cm to work using CW at 1149 K1DS (559/579) #151 in

PA (US state #18), 1200 VE6BGT (569/589) #152, 1212 W6YX (579/589) #153 and 1234 OK1CA (579/579), and using JT65C at 1301 OH3LWP (16DB/O). Unfortunately nobody realized the existence of the 24 GHz band in ARRL MW EME Contest - nobody even asked about it. It seems that the only 24 GHz activity this year could be during the AW planned for 12/13 Nov, but still not confirmed by 24 GHz EME community. The reality is that no one seems concerned about 24 GHz in the multiband Contests, either in the DUBUS (10/24 GHz part) or the ARRL Contests (all MW bands together). We should think about this a bit!

ON5RR: Marc moonbouncer@skynet.be reports about a special EME EVENT that he has helped organize -- A while ago I was contacted by Maarten Inghels, the City Poet of Antwerp. Maarten had been commissioned to write a poem on the occasion of the Mental Health Week on 10 Oct. The moon is often a symbol for the mental and emotional state of people. Inghels wrote the poem "The Dark Side of Thought". To make it even more special, he asked me whether it would be possible to recite the poem by using a lunar reflection. Technically speaking, this presents no problem, and some tests were made. With the help of LX1DB, the poem was sent to the Moon on 1296. The poem was recited in its original form, but also in English. Maarten, a photographer and a representative of the City of Antwerp were present in the shack, along with my co-op ON7EH to make the recordings. In addition, there were also a number of recordings made by moonbouncers around the world. Thanks to the press release from the City of Antwerp, we can listen to an embellished version of these recordings: Dutch film: https://www.youtube.com/watch?v=kJ6L9-7YW-s and English film: https://www.youtube.com/watch?v=AQi75zLIrTI. On Monday, 10 Oct pamphlets were distributed in Antwerp Central Station with the poem and information on the recordings. This info was also made available to physicians and pharmacists in Antwerp.

The Dark Side of Thought

I put my ghosts in a row and take a group shot. They don't react to what I say.

There's my fear of being discovered.

The fear of dark crevices in which my body is a puzzle. Stick my hand into an unknown hole. The echo fails to answer.

There's my fear of heights – the depths are tugging at my clothes – the call of emptiness an invitation to jump. Only the tower block is listening, my words a hollow reverb off the entry hall.

The other way round there's the upward abyss when I gaze at clouds too long. I'm being sucked into the cosmos.

To be bitten by domesticated dogs, or see myself in their wounded eyes.

Clowns. Hollow needles. Pension schemes. My elevator allergy. The thought of my head in a shoulder grip in a screaming playground.

I'm worried that I'm not destroying enough memories. Scared I'm swallowing other people's illnesses.

Falling on my teeth. The lonely sound of breaking blood.

I want to know why sometimes I lie in bed like a snapped branch. Gasp for breath for seconds on end between two worlds.

Softly, I speak of the fear of losing someone. Maybe only the moon knows what it's like to be seen in another's light.

The answer sounds like the revolving grind of planets.

PA3DZL: Jac pa3dzl@ziggo.nl reports on his MW EME Contest activity on 13 and 3 -- I had a really great weekend with several highlights. I was not QRV during the night, only during daylight. On 13 cm, I was only QRV on Saturday and worked OK1CA, OK1KKD, ON5RR, G3LTF, OH2AXH for an initial (#), DF3RU, SV3AAF, G4RGK, SP3XBO, DJ3FI, UA3PTW, SM2CEW, ES5PC, K5GW XB, S53MM, VE6TA and K2UYH XB. Also heard on 2304 were LZ1DX, SM3BYA and WA6PY. The strongest signals were ES5PC (both QRGs) and K5GW and K2UYH on 2304 but Al's signal was also distorted. I ended with a score of 17x14. On Saturday 2 hours before moonset, I switched over to 3 cm and worked PY2BS for an initial (#) and a first QSO between PA-PY - great signals from Bruce peaking (559)! On Sunday, I stayed on 3 cm and QSO'd SP6JLW, OZ1LPR, UA4HTS, YO3DDZ (#), F5IGK (#), DLØEF, F5JWF (#), OH2DG, HA/G3WDG (#) and a first QSO between PA-HA - great signals from Charlie cross-mode DZL in CW - WDG in JT4F, OK1CA, W6YX (#), WA6PY, VE4MA, G4CBW (#) and PY2BS (DUP). Also heard were DB6NT and OZ7Z. The biggest signals were SP6JLW, OZ1LPR, UA4HTS and DLØEF! On 3 cm, I scored 16x15 with 7 initials. [The overall score was [33x29]. 3 cm is getting very popular; there are so many well equipped stations on this band. QSOs are "easy" at least you will not have a problem to hear the big guns that is for sure! Also DK7LJ his great beacon that gives us a very nice opportunity to work on our station and get the best out of it. My rig is a 3.7 m 0.34 f/d Andrew solid dish. I am QRV on EME on 6 m and 23, 13, 9, 6 and 3 cm.

PY2BS: Bruce py2bs@me.com sends news of his latest moon activity on 3 cm and visit to HB9DRI's new station in South Africa -- After some work and time my 3 cm setup is now fully operational. It uses a 3.7 m "prime focus" dish with an SM6FHZ designed feed without the septum polarizer. Instead of the probes, a round to rectangular transition has been added to directly match the feeder to the waveguide switch. The feeder, WG switch, WG LNA, XVTR and SSPA are all assembled on a rotary chassis, which is driven by a DC motor and reduction gear. It provides full 180 degrees linear polarization adjustment, controllable from the shack thru an Arduino microcontroller and display. I have one tenth deg resolution on Moon tracking by using OE5JFL's soft start-stop controller. Power out from the SSPA is 30 W. Luckily, it became ready just before ARRL's MW EME Contest; so there were many stations active on 3 cm during the WE and also still some on the following days. So far on I have 23 QSOs, 20 initials and 12 DXCCs. QSO'd using CW unless noted otherwise were on Saturday SP6JLW, OZ1LPR, HB9Q, UA4HTS, OK1KIR, DF1OI, DL0EF, PA3DZL and WA3LBI (JT4F), and on Sunday W5LUA, DL7YC, VE4MA, OK1CA, G4CBW, HA/G3WDG (JT4F) and PA3DZL (JT4F) DUP in the contest for a total of 16x14. Despite nice speaker copy from W6YX, I could not decode enough using JT4F to complete a QSO. I had to stop earlier on Sunday due to rain, as the sensitive equipment at the feeder are not WX protected yet. After the contest I added LX1DB, OZ1FF, WA3LBI (JT4F), DL6ABC (JT4F), OK1KIR (JT4F), K2UYH and G3WDG (JT4G). I had to interrupt my post contest 3 cm activities due to a one week family trip to South Africa. There we were kindly welcome by HB9DRI at his new home, and able to visit his newly built ZS6EME station. Luckily the Moon was up and it was possible hear his nice SSB echoes coming back on 13 cm. It was great to meet Alex in his new DXCC QTH. I'll be back on 3 cm about the time this NL becomes available. Skeds and test requests are very welcome. [Bruce has a 13 min Utube video of his 3 cm station in Portuguese at https://m.youtube.com/watch?feature=youtu.be&v=QA7rQwhMHcM].

PY2BS' 3 cm rotatable pol feed

S9YY: ***Peter (DL1RPL) peter@dl1rpl.de despite problems with electric power has had an outstanding dxpedition from Sao Tome, especially on 432.*** He was active with 2 EF7017 yagis and 400 W on 14 Oct (432.090) and ***will be QRV again during the contest on 22 Oct.*** Peter QSO'd on the 14 Oct at 1727 OK1DFC (23DB), 1733

UA3PTW (19DB), 1737 JA6AHB (22DB), 1741 OK1KIR (19DB), 1745 DL7APV (14DB), 1749 DK3WG (19DB), 1753 G4RGK (26DB), 1757 DF3RU (18DB), 1801 DL6SH (15DB), 1805 UT5UG (27DB), 1815 PA3CSG (22DB), 1819 DK4RC (24DB), 1825 YL2GD (24DB), 1833 HB9Q (10DB), 1837 ZS6JON (22DB), 1841 DL8FBD (22DB), 1847 UX5UL (25DB), 1915 I1NDP (23DB), 1947 DL8GP (28DB), 2037 DL9KR (559) on CW, 2057 LZ1DX (25DB), 2127 ES3RF (25DB), 2307 WA4NJP (21DB), 2313 US7GY (25DB), 2321 UX0FF (22DB), 2331 UT5UG (20DB) and 2345 K2UYH (23DB), and on 15 Oct at 0031 UT5DL (24DB), 0045 S51ZO (26DB) and 0131 W7MEM (26DB). For more info see www.dl1rpl.de. QSLs should be sent directly to Peter with return envelop and funds for postage.

SM2CEW: Peter sm2cew@telia.com was QRV on 13 cm during the ARRL MW Contest and made many contacts, but did not make it on 10 GHz due to a problem with his transverter. He sends the following note on his TS-2000X. Over a long period of time I have had an intermittent problem with my TS-2000X. The symptom was that all of a sudden the radio lost TX power and RX sensitivity, for short or long periods. It got worse after transmitting for some periods, as the radio got warm. As the problem has been intermittent, I have not been troubleshooting systematically, instead I've hit the top of the radio with my fist (1 to N times) to get it back in business. Not a friendly or scientific way of dealing with things, more a lazy moonbouncers way of dealing with his frustration. As with all intermittent problems, when I've taken all the covers off to poke around inside the radio the problem has never shown up, no matter what I've done. Hence, no measurements have been helpful in tracking the problem down. However, I stumbled across some very interesting information on the website http://www.worldwidedx.com/threads/kenwood-ts-2000-intermittent-stop- transmit-and-receive.145649/. And sure enough, when I checked my 2000, I found the component IC-202 (voltage regulator) hidden under the internal speaker and realized that I had the same problem as described on the webpage. One leg of IC-202 was practically loose and the other two just barely making contact to the PC board. Cleaning and re-soldering the legs of the regulator was the cure; my radio is now working 100%.

SQ7DQX: Matt (SQ7D/SN7D) sq7dqx@poczta.onet.pl writes about the MW EME Contest – On 25 Sept, I was active again on 3 cm EME after a pause of 2 years. Early in the morning I decided to place my 10 GHz EME module at the feed point of my 3.7 m dish. I used a laser pointer to more precisely adjust position of the module. I had previously used this dish on 23 cm. I operated on JT4F with my frequency stabilized with a Rubidium standard. I made no Doppler correction on my side, but was able to complete 5 QSOs with OZ1LPR, HB9Q, UA4HTS, G4CBW and HA/G3WDG for the first HA - SP 3 cm contact – TNX G3WDG. OZ7Z was also copied well for one period. A video of my 3 cm station/QSOs can be seen at https://youtu.be/yGgaI5KrUXQ. It was very difficult to track moon with my 0.5 deg rotator resolution. My tracking software did not help. However, strong JT and CW stations and moonnoise were very helpful in tracking the Moon.

UA3PTW: Dmitry ua3ptw@inbox.ru in Sept added initials on 70 cm using JT65B with KA1G and KC8YJJ, and on 23 cm using JT65C with DF2GB, RD9SAC and DK3SE. He was also QRV for the MW EME Contest. In Sept he made initial QSOs on 13 cm using CW with LZ1DX, OH2AXH, WA2FGK and F5HRY, and using JT65C with IK5QLO and EW1AA, and on 6 cm using CW with K5GW. [Thanks to DK3WG for relaying this report].

UR3EE: Arthur ur3ee@rambler.ru is a relative new station on 432 EME from the Ukraine. In Sept he made his first CW QSO with DL9KR and added JT65B initials with KN0WS and HB9Q. [Thanks to DK3WG for relaying this report].

W5LUA/0: Al w5lua@sbcglobal.net reports on his portable 3 cm operation at MW Update -- We had a successful demonstration of 3 cm EME at the Microwave Update Conference in St. Louis, MO on 13, 14 and 15 Oct. I was located in EM48ss in the hotel parking lot. The antenna was a 1 m offset fed dish made by Winegard. Power was provided by a GaN device delivering 30 W to the feed. I used a KX-3 IF and DEMI transverter locked to a 10 MHz Isotemp TCXO. I was not able to take advantage of measuring moonnoise as a pointing assistance as there was a local beacon up the band that was getting into my GR-1216 noise meter. I plan to look into better ways of measuring moon noise over narrower bandwidths. However, I drug out the compass and was able to get reasonably close on azimuth and when we started hearing stations, we could easily optimize the dish and establish a new azimuth reference. The theoretical 3 dB beamwidth of the 1 m dish at 10 GHz is 2.2 degs. My dish mount is calibrated in 1 degree increments making it easy to update once we find the Moon. Elevation readout was provided by a Sears digital level placed on the offset dish feed support. Based on prior sunnoise measurements, I determined that the arm angle was 3 degrees below the actual pointing angle of the dish. I requested that other stations who wished to call me do the mutual Doppler correction on both receive and transmit so that I could receive and transmit on 10368.050. On the first moonrise, we worked using JT4F at 2257 G3WDG, 2305 OZ1LPR and 0042 OK1KIR. We attempted contact K5GW on CW, but it was confirmed later that Gerald had some tracking program issues and we gave up for the night. The attendees were able to copy K5GW calling us on CW, so that provided a good demo to the guys. The tones from the other 3 stations were also heard in the loudspeaker. Despite the fact that we had to manually (with some luck) keep it on the Moon without the help of moon noise, we did have success. On the second night, we had a repeat QSO at 2342 G3WDG - thanks Charlie for confirming we were on the Moon) and 0023 WA3LBI. I then ran a sked with K5GW with me doing the mutual Doppler correction on both receive and transmit and we established contact by 0130. We then went back to CQing on 050 hoping for further contacts and were surprised and pleased to contact at 0135 G4CBW who was only running a 1.5 m dish. We finished the evening with a nice contact with OK1CA. Thank you to the stations we worked and my friends who helped me with setup and teardown.

WA6PY: Paul pchominski@maxlinear.com sends news on his latest activity – I was QRV in ARRL EME MW Contest on 24/ 25-Sept and QSO'd on 2.3 GHz S53MM, OK1CA, UA3PTW, G3LTF, SP6OPN, K5GW, LX1DB, SM3BYA, K2UYH, WA2FGK, VE6TA, WA9FWD, VE6BGT, W5LUA and HB9Q. On 10 GHz I contacted SP6JLW, VE4MA, OK1CA, UA4HTS, LX1DB, W5LUA and PA3DZL. The following weekend, on 11 Oct, I was trying to catch PY2BS on 10 GHz, but Bruce went QRT before my window opened. I did QSO OK1KIR and VE4MA. All QSOs were CW. I hope to see all of you in the next part of the contest.

WA8RJF: Tony temanuele@ebulent.com EME report for Sept follows -- After a long absence I was QRV on EME again, but only for a limited time on 13 cm during the ARRL MW Contest. I worked K5GW, K2UYH, ES5PC and W6YX. Heard were several other stations including a few on 2320. I found with so many stations on other MW bands that activity on 13 cm was noticeably down compared to just a few years ago. In retrospect perhaps, I should have probably spent the weekend on 9 cm instead. With so many stations QRV on multiple bands, one weekend for 2.3 GHz and above is simply not enough.

WB2BYP: John storyavenue@hotmail.com writes about his recent 9 cm activity -- Mr. Murphy chased me around all of the MW EME weekend; the result was irresolvable failures of my azimuth encoder and my 9 cm SSPA, which was apparently only putting out 100 mW vs. 40 W. I did however enjoy the practice of manually keeping the dish peaked on moonnoise and hunting for signals. I copied the following CW on Sunday morning at 0800 OK1CA, 0859 SP6OPN, 1002, S53MM, 1035 G3LTF, 1130 W5LUA, 1152 HB9Q, 1220 K2UYH and 1222 K5GW. There were a couple of others that I was not fast enough uncovering before they signed. Fairly good signals from all heard. A few were easily 20 dB out of my noise. I am working on the PA this week and if I resolve the problem quickly I'll poke around looking for echoes. The 9 cm feed is the only one in at the moment at the prime focus.

XT2AFT: *Hermann (DL2NUD) initially had problems with rain. He was QRV from Burkina Faso in IK92 on 15 Oct on 1296 but had problems with his sequencer and only made 6 contacts with a single 55 el yagi and 150 W. He was on 432 the next day, 15 Oct with a single 38 el yagis and 450 W, and made 11 QSOs before he became ill and had to terminate his operation early. He never made it on the next day for 13 cm operation. He is now in the hospital with Dengue fever and it is not clear if he will be able to operate again on the higher bands.*

ZS6EME: Alex zs6eme@linkrf.ch sends the following update for the NL -- After 6 weeks in EU, I return to South Africa just for the ARRL MW EME Contest. Unfortunately, Murphy decided to visit just 3 days before the contest. My 13 cm SSPA failed and RF was down from 250 to just 140 W. After one complete day of work, I was able to dismount

the PA from the working position and to find some terrible damage to one of the output strip lines of a MRF21120. Post analysis showed that when I modified the output lines, one of the flappers I solder was improperly installed, and that an RF arc to a close capacitor had destroyed the PCB. Having several brand new Ericsson PAs with me and some main boards, I replaced the complete PCB, but didn't have time to modify that PA. The system was return to work, but with just 180 W instead of 250 W. It was with this power that I entered my first EME contest. The activity on 13 cm during the first day was high, and after spending some time during my holidays practicing CW, I decided to start operations in this mode. I made a sked with HB9Q and managed to do my first ever CW EME QSO. Our reports were (569/569). I then worked UA3PTW (559/559) – my first random CW QSO, G3LTF (559/549), SP6OPN (55/55) on SSB and (569/559), UA4HTS (569/559) and DF3RU (559/559). For the 1st leg of the contest, I decide to evaluate the benefit of under illumination. I extend the mouth of my feed with Aluminum foil just 5 cm. The change was tremendous. I measured 1.6 dB less sunnoise, but my echoes were 3 to 5 dB stronger. Definitively the under illumination worked fine and my SNR was much better. To confirm my initial observation during the first day, I decided to remove the addition to the feed for my second moon pass. My sunnoise was back to the previous level, but definitively my echoes were weaker and my overall RX exhibited poorer performance. I will implement the extension soon with more permanent material to regain the 3 to 5 dB of RX performance. The second day in the contest was a little disappointing. There was much less activity. I think most of the stations change feeds and move to 6 cm. I did QSOs ES5PC (559/559), DL7YC (559/559) and PA0BAT (549/559). My summary for the contest was 9 CW QSOs, 1 SSB QSO and 1 JT65 QSO. For an experienced operator this number did not seem a great result, but considering that I had managed my first 9 CW QSOs, 6 of them on random, I felt it was a big achievement for me. I also had 11 partial QSOs on CW. If I had completed these, my total would have been 20. I think this is a good number, looking at other results. Numbers still a problem for me and the libration spreading made it at times very hard to decode signals. Dits and dots mix and confuse my untrained brain. I hope with more practice to have better results in the future. To the "CW only guys" as I promised "I made it"; I'm very happy to add CW as another new mode for me and have the chance to operate CW, SSB and digital for three times more fun than a single mode. During the last month, I tried several times with K2UYH for a 13 cm QSO, but unfortunate my US band is completely polluted by a ISM repeater just 300 m away from my antenna. The noise floor is 30 dB higher than on 2320; curiously at 2400 the band is very quiet. My next step will be to re-build a completely new 13 cm SSPA. I will not rely on a modified Ericsson PA. It is a matter of luck to do a proper modification with 3 FETs all together on the same board and the Anaren combiners not designed for the power. I now have 110 W from a single FET. My plan is to modify the other 3 boards and with proper combining to reach 400 W, my legal limit in South Africa. I have also decided to move fast to 6 cm as I will be only 3 more years in South Africa. I am still waiting for a permit for 9 cm. I hope to have an answer soon. It should take me just one day to be QRV on 9 cm with 120 W at the feed. All the equipment is ready to deploy. I am just waiting for the authorization. For 6 cm, I have already the feed, same as on 13 cm, and a DB6NT 0.65 NF LNA. The transverter is a modified W1GHZ design with 300 mW output, and the PA is a 70 W SSPA that I will mount at the feed. Regarding the SSPA, I extend my gratitude to F2CT for his generosity. Guy has been of great assistance. I will be in EU until 22 Oct. For more info on my station see http://www.linkrf.ch/zs6eme.html. Please email me for 13 cm skeds.

PY2BS (L) and ZS6EME in Alex's shack in SA

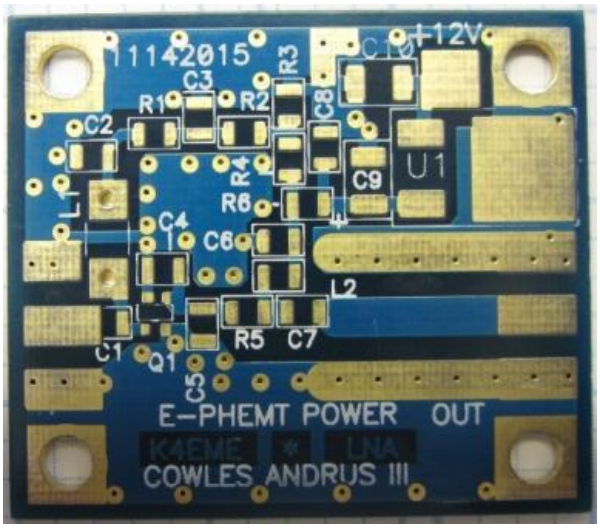
K2UYH: My alkatz@tcnj.edu moontime was limited this month because of travel and family activities, but I still had time to make a few QSOs. I also made time for the MW EME Contest. The contest team consisted of NE2U, K2BMI, K2TXB and me. We had some problems, but had fun overall. The first day we operated on 13 cm where we spent too much time. We should have switched to the higher bands and made an error staying on 13 cm for the JA/VK window as no one was on. Our real problem was the second day. We planned to start on 3 cm but discovered that when we elevated the dish that we lost power. We made only 2 contacts as our power kept dropping out, and wasted several hours trying to fix the problem. When we finally went on 9 and 6 cm, the EU window was near its end and thus our QSOs were very limited. The new PAs on 13 and 9 cm gave excellent echoes almost as good as on 1296. We obviously have some work to do on 3 cm, although the new 30 W SSPA worked well and was not the source of our problem. We worked during the contest using CW unless noted on 24 Sept on 2304 at 0750 OK1YK (15DB/14DB) JT65C for mixed initial #89*, 0805 ON5RR (559/559), 0911 OK1CA (589/679), 0820 OH2AXH (539/549), 0822 LZ1DX (559/579), 0835 UA3PTW (579/579) XB, 0840 WA2FGK (559/559), 0850 UA4HTS (579/569) XB, 0902 K1DS (559/559) for initial #86 and mixed initial #90*, 0911 S53MM (569/569), 0919 LX1DB (589/579), 0924 G3LTF (579579) XB, 0928 IK2RTI (569/579), 0937 WA8RJF (549/569), 0949 OK1KKD (559/559), 1000 DL7YC (559/559) XB, 1017 N4PZ (559/559), 1030 K5GW (579/599), 1032 SP6OPN (579/579), 1038 WA9FWD (559/569), 1044 SM3BYA (569/579), 032 WA6PY (569/579), 1102 PA3DZL (559/579) XB, 1119 SM2CEW (559/559) XB, 1141 OH3LRP (16DB/18DB) JT65C, 1206 ES5PC (589/569), 1209 VE6TA (579/577), 1644 W5LUA (579/579) for a total of 28x20, and on 25 Sept on 10368 at 1012 OZ1LPR (559/529) and 1028 SP6JLW (569/559) for a total of 2x2, on 3440 at 1218 OK1CA (579/579), 1227 SP6OPN (559/579) and 1234 HB9Q (589/579) for a total of 3x3, and on 5760 at 1312 ES5PC (559/559), 1318 W5LUA (559/559), 1330 WA9FWD (O/O) and 1346 G3LTF (559/559) for a total of 4x4. Our overall total was 37x29. After the contest I worked on 1 Oct on 3 cm at 1506 PY2BS (O/O) CW for initial #20 and mixed initial #22*, DXCC* 17 and SA, 1545 partial WA3LBI (-/13DB) JT4F - could not decode Jim, 1555 VE4MA (559/559) CW and 1604 OK1KIR (579/559), Earlier in the month, I QSO on 432 using JT65B unless noted otherwise and a new feed TNX to OK1DEFC, on 11 Sept at 0253 K1DOG (13DB/16DB), on 14 Sept 0200 K5QE (O/O) in LU for mixed initial #908*, on 16 Sept at 0244 K5QE (O/O) in MS 909*, on 17 Sept using CW at 0345 WA2FGK (559/559), on 18 Sept at 2243 K5QE (14DB/21DB) in LA #910*, 0318 DL8FBD (11DB/15DB) #911, 0335 N4QWZ (23DB/23DB) #912* - 28 el yagi and 275 W, and on 18 Sept at 0406 PY2BS (569/569) CW and on SSB too. During my trip to London I had an EME mini-conference with G3LTF, G3WDG and G4KGC, along with Sally. It was great to see Peter, Charlie and Petra again.

NET/REFLECTOR NEWS: **DL4DTU** is becoming more active off the Moon on 1296 with a 4.6 m dish and 1 kW. Look for Norbert on SSB. **IW2FZR** has a new 2.4 m dish that he plans to use to enhance his 3 cm signal. **OZ1FF** reports an easy CW QSO on 10 GHz with PY2BS for an initial and new DXCC. **PA2DW** is very near QRV on 3 cm. **TI2AEB** lost another preamp in Sept, but remains active on 23 cm and is available for skeds at aebonilla@ice.co.cr.

IW2FZR's dish on the way to its new home

FOR SALE: **K4EME** ordered additional circuit boards and has more of his very low noise 432 preamps available for sale. Cowles email is candrus@mgwnet.com. **DJ3JJ** is looking for 7/16 male to N female

adapter for his EME station. If anyone has one for sale contact Andreas at dj3jj@gmx.net. **G4HUP** invites EMEers to see his updated website at http://hupRF.com. **K3IB** has a Lunar Link LA-70B 432 1500 W output PA and a BEKO HLV-120 432 3 W input for 120 W output SSPA for sale. Both are in good condition, working well and available at a reasonable price. If interested email Phil at l31nesep@epix.net (all lower case letters). **LZ1DX** needs a 24 GHz OE9PMJ type filter – possible WR42. Contct Ned at lz1dx@lz1dx.org if can help. **SM7OVK** has NOS Siemens YL-1055 for sale. Apparently there are also some used tubes of the same type available that are in good condition. Contact sm7ovk@hotmail.com if you are interested.



K4EME's new 432 LNA PCB

EME 35 & 25 YEARS AGO BY PETER, G3LTF: 35 years ago in Sept 1981, DL9KR was at initial #112 with SM0DJW; Jan this month reported his initial #1000! Back then most activity was on 432 with quite a few SSB QSOs reported. G3WDG reported on his new W2IMU dual mode feed with advice on alignment to get good isolation and VSWR. K4QIF describes his "coffee can" feed with orthogonal probes fed from a 90 deg hybrid. [Peter notes that not everyone was on CP at this time and that this feed was much simpler than the W2IMU dual mode although not anywhere as quiet]. There was also a picture of YU2RGC's 7 m, 0.5 f/D dish for 1296 with ~ 250 W output. 25 years ago in Sept 1991, the NL was 8 pages with over 40 reports and many new stations on 432 and 1296 (including IK3COJ) plus increasing activity on 2304. There were several dxpeditions. The 432 dxpedition to GJ by F6KHM & team made 69 QSOs, UC2/UB4LL made 20 from White Russia and OY/G4DHF activated the Faroes for the first time. TO20EME was to be active with 8x BV10 yagis and 1.5 kW at the end of the month. W4HHK made 4 random QSOs on 2304 with several other stations reporting QSOs including OK1KIR and SM0PYP. The NL contained detailed design data for a 2 stage 2304 preamp by SM0PYP with coaxial cavity input and an estimated noise temperature of 42-52K from CS/G measurements.

FINAL: My use of shading makes the NL difficult to read for some people. I started to highlight parts of the NL to identify *key* information, particularly contest results. In the future I will limit shading to only yellow. Both the dxpedition and contest info will be in yellow, but I will put the dxpedition info in italic to differentiate it.

DK7LJ had turned off the 10 GHz EME beacon at the end of Sept because the output power has dropped about 3 dB. He also wanted to make changes to the JT mode. I do not know if it is back on again.

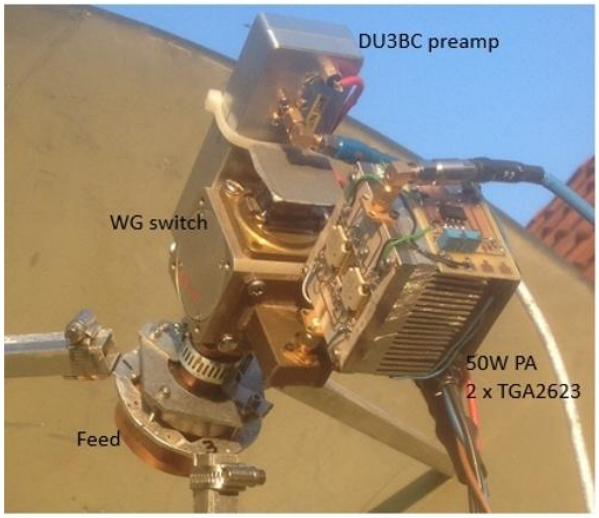
For great photos from Venice EME Conference check out: http://ok1teh.rajce.idnes.cz/17th_International_EME_Conference_Venice_2016/ - TNX OK1TEH. Also SM6CKU produced an excellent video of the EME Conference – see https://youtu.be/tbOgznhHKqw.

The 2017 EU/DUBUS CW/SSB EME Contest dates are 11/12 Feb for 70 cm (and 2 m), 11/12 March 13 cm, 1/2 April for 23 cm, 29/30 April for 9 cm, 27/28 May for 6 cm, 24/25 June 3 cm and above.

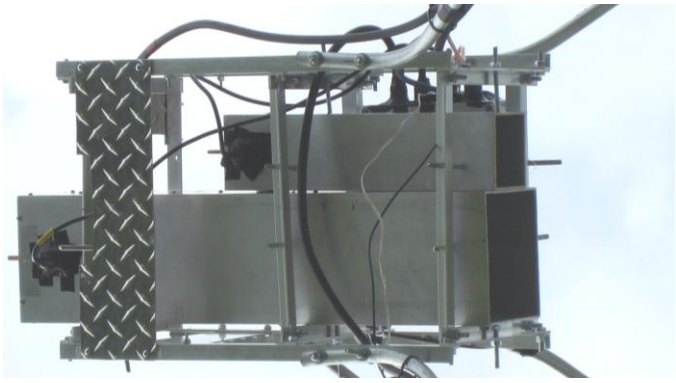
The annual 1296 SSB EME Funtest will be on 7/8 Jan in 2017 to avoid conflict with the DUBUS contest in Feb. What do you think of a 13 cm SSB EME Funtest this year?

I5WBE asked me to remind everyone to send in their logs for the ARI's EME Trophy Autumn Contest. All will be appreciated even if with only one QSO. See http://www.eme2008.org/ari-eme/contest.html for more details.

I had hoped to get this NL out a week ago, but travel, and looking for EME dxpeditions have taken their toll this month. Please keep the info coming. I shall be looking for all of you off the Moon in the Oct ARRL Contest Weekend. Have fun off the Moon and 73, Al – K2UYH



G3WDG's HA dish feedpoint



KN0WS's 23 and 13 cm offset mounted feedhorns

N5BF's feed and enclosure