432 AND ABOVE EME NEWS
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CONDITIONS: What a month! Although the turnout for the ARRL Microwave (MW) was down this year; this disappointment was at least partially offset by the MW activity that produced the first WACs on 9 cm and 3 cm. Much thanks goes to DL2NUD for making this possible with his dxpedition to Cypress. [It counts for Asia – I did not know]. HB9Q, OK1KIR, W5LUA and possibly others completed 3400 WAC. LU8EAU has became the first station to put South America (SA) on 10 GHz and provided the first WACs to W5LUA and OK1KIR, and now to possibly others - see Jaun's report in this newsletter (NL). There was also MW dxpedition activity from the Vatican – see the HV0A report. OK1DFC has now completed what will very likely be the fifth 1296 DXCC with a QSO to XE1XA. [I have received certificate #4]. EA8DBM is QRV on 1296 from the Canary Islands with a good signal. He is giving out a new DXCC for many. The DXCC opportunities only increase in the coming month. First will be the Saint Maarten dxpedition (TO2EME) on both 70 and 23 cm on 23 Oct and on 13 cm on 25 Oct. (Followed by FJ7/PE1L, starting on 26 Oct). N1VT will be on 432 from VT right before the ARRL EME Contest and then on 1296 during the contest weekend. On 18 Nov FH/DL1RPL will be active on 70 cm from Mayotte Island (LH27). (On 25 Nov, they will move to Reunion as FR/DL1RPL – see www.dl1rpl.de for schedule). About the same time (starting on 19 Nov) HK0/DL2NUD will be QRV from San Andres Island (EJ94) -- see details in the reports in this NL. In the MW EME Contest, it appears that HB9Q is the leader. Dan has a total of 64 QSOs with > 42 multipliers [actual number not clear]. The closest reported score is from OK1CA with an overall total of 43x30. G3LTF without 3 cm had 38x30. **Of course The BIG EVENT is the first weekend for 50-1296 part of the ARRL EME Contest on 31 Oct/1 Nov.** There will also be a 24 GHz Activity Weekend (AW) on 24/25 Oct. This weekend originally proposed by LX1DB offers Moon perigee with lowest loss and lowest spread at 24 GHz! [My head is spinning from all this activity]!

5B/DL2NUD: Dan (HB9CRQ) dan@hb9q.ch sends the following report on Hermann's microwave dxpedition to Cypress -- The QTH was in KM64ku on about 600 m in the mountains of Cyprus. The moonrise was limited to > 18 deg and moonset to > 10 degs. He used a 1.5 m dish covered with aluminum foil. TX on 23 cm was 170 W, on 13 cm 110 W and 100 W on 9 cm. He used DB6NT preamps. All are mounted at the feed horn. Tracking was done manually. This was a limitation of his set-up; the higher the frequency, the more difficult it was to track the moon, especially if there was wind, which was part of the challenge during the 5B operation. Hermann also tried to use the set-up on 6 cm, but unfortunately could not master the tracking. He will try to find a solution to this challenge. Since the equipment is flying directly from 5B to HK0, San Andres Island, there will be no time to have a fix ready and thus there will be no 6 cm – see separate report on HKO/DL2NDD in this NL. Herrmann arrived in 5B as planned on 2 Oct, but his luggage did arrive until late the afternoon of 5 Oct, amd lost almost 3 moon-passes. Therefore, he could only become QRV 6 Oct at mid day. He worked in 2 hours on 1296 UA3PTW, OH2DG, PA3DZL, OK2DL, NC1I, OZ4MM, YL2GD, PE1CHQ, DG5CST, PA0BAT, PA3FXB, W5LUA, RD3DA, OK1YK, ES6FX, DF3RU, I1NDP, PA2DW and PY2BS. He added on 7 Oct OK1KIR, SP5GDM, UA9YLU, G4CCH, OE5JFL, HB9Q, ES6RQ, UA4HTS, DK3WG, PA3CQE, DC9UP, YO3DDZ and K2UYH for a total of 32 initials. He switched to 2320 on 8 Oct to work OK1KIR (CW & JT), OH2DG, OZ4MM, PA0BAT, PA3CQE, PA3DZL, UA3PTW, HB9Q, ES5PC, PA7JB, W5LUA XB and IK3COJ for 12 initials. Finally on 9 Oct he worked on 3400 HB9Q, OK1KIR, PA3DZL, PA0BAT, OH2DG, OK1CA, ES5PC and W5LUA for a total of 8 initials. This was the first activity form the continent of Asia on 3400 and the first WACs on 3400 were completed that day! In the evening of 9 Oct, Hermann was informed, that he had to deliver the packed station for shipment on Sunday and not as planned on Monday. This cut one more day of operating time much to his disappointment. Please send QSLs (including SAE and 2 US$) to: Hermann Pietsch, Rehwinkel 15, 17255 Priepert, Germany. Any donations are very welcome and help him to prepare a future dxpeditions. Please send with the QSL, or if you prefer by Paypal. Since Hermann does not have a Paypal account, you may use my Paypal account (dan@hb9q.ch).

5B/DL2NUD 1.5 m dish with 23 cm feed in place

DK3WG: Jurg dk3wg@web.de reports on his Sept/Oct EME activity – I worked initials on 432 using JT65B with DH1WM, K7ULS and HV0A for my DXCC* 120. On 1296, I QSO'd using JT65C G4RGK, EA3HMJ for DXCC* 42, SP3XBO, YO8RHI, G4YTL, EA8DBM DXCC 43, YL3AEV, OZ9KY, WA3RGQ, W7MEM, SV1CAL DXCC* 44, I5PLK, K4EME and VK5FA, and using CW SM4IVE, SM3AKW, VK3UM, XE1XA DXCC* 45 and N4PZ.

F6DRO: Dom f6dro@wanadoo.fr in (JN03tj) is QRV on 3 cm and looking for skeds -- I worked OZ1LPR easily on 9 July with my tropo system using CW. During the ARRL Microwave EME Contest, I QSO'd HB9Q and OK1KIR. I heard DL0EF, W6YX and DL7YC. In the past I have worked LX1DB, IQ4DF and F2TU. These QSOs where done with horizontal pol. I have since switched my polarization to vertical, but I will go back hor pol in case of a tropo opening. My rig is 120 cm prime focus dish with a hooked waveguide feed system and about 45 W. I am seeing 9.3 dB of Sun noise and 0.5 db of Moon noise.

F6DRO's 1.2 m dish set for 3 cm EME

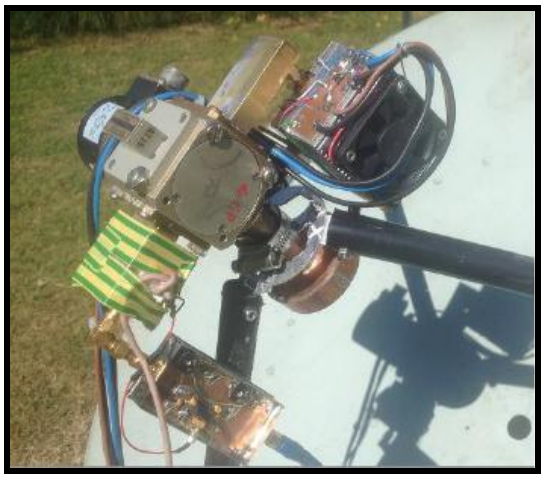
G3LTF: Peter g3ltf@btinternet.com continues to make QSOs on CW and invites stations normally on JT to try and QSO him -- On 5 Sept I was on for the ARRL Microwave (MW) Contest. On 13 cm I worked UA3PTW, OK1CA, JA4BLC (crossband) XB, JA8IAD XB, OH2DG, SP7DCS, SM3AKW, UA4HTS, F4JWF, OK1DFC, DL7YC, HB9Q, SV3AAF, WA9FWD XB, HB9SV, SP3XBO, WD5AGO XB, W5LUA XB, WA6PY XB, OH1LRY, OZ4MM, K5GW XB, and on 6 Sept G4BAO, W6YX XB, PY2BS, SM2CEW, OZ5G, WA8RJF XB, KL6M XB. I CWNR K2UYH XB and heard ON5RR XB, SM3BYA XB and DF3RU. DJ3FI was lost. I ended with a total of 29x20; down from my 2013 high of 34, but better than my 2014 total of 23. On 9 cm on 6 Sept I worked OH2DG and ES5PC for a total of only 2x2 (2013 = 9, 2014 = 9). On 6 cm on 5 Sept I worked HB9Q and on 6 Sept SM6FHZ, UA3PTW, IK2RTI, OH2DG, SV3AAF and SM6PGP for a total of 7x7 (2013 = 7, 2014 = 11). All QSOs were on random CW. Overall I had 38x30 without 3 cm. The HB9Q logger was used only to announce band operation. My operating hours were pretty much as in previous years... Too long for the activity around this year. Activity on 6 and 9 was disappointing compared to previous years and several regulars were missing from 13 cm. I think lots have migrated to 3 cm. We also had a big 144 contest in EU at the same time. However, having a contest on 5 microwave bands simultaneously is not a very clever arrangement and the change in rules makes it now much the same as an activity weekend (except the AW focuses on one microwave band of course). On 11 Sept, I was on 23 cm and worked on SSB I1NDPand S59DCD, and on CW G4YTL for initial #406, SM4IVE, K2UYH, OZ6OL, and PA2DW. There was fair activity over the 26/27 Sept weekend (ARI Multiband EME Contest) with real apogee conditions. Signals and echoes were noticeably stronger. (We also had fantastic viewing conditions here for the "Blood Moon" eclipse). On 27 Sept I worked on 1296 CW DG5CST, SP6ITF and PI9CAM, then on SSB DL6SH, OK1CS and G4CCH, back on CW SP3XBO, I1NDP, I5YDI, IZ1BPN, EA8DPM #407, SM3AKW, PA3CQE, LZ1DX, SP2HMR #408, ON5GS, G4BAO #409 (1. 9 m dish, called on random), on 28 Sept RA3EC and YL2GD, on 29 Sept SP6ITF, XE1XA #410, PY2BS on SSB, VK3UM, OZ6OL on SSB and ES5PC, on 30 Sept SP6ITF, on 4 Oct K5DOG #411, and on 7 Oct WA3RGQ #412.

G3WDG: Charlie Charles.Suckling@Qorvo.com brings us up to date on his recent 3 cm EME -– I worked on 22 Aug IW5BHY on random CW for initial #53 and using JT4F. He called me while I was echo testing to evaluate my first CP feed. On 3 Oct I had two QSOs using JT4F with LU8ENU for #54 and a new continent! For the initial QSO, I ran horizontal pol knowing there was a 45 deg spatial offset. Under these conditions his report was (17DB). Later I moved the pol to match the offset and we made a much quicker QSO with a (14DB) report. Had I used CP, we should still have worked, but with weaker signal levels. I was running WSJT-X v1.6.0, which seems to report signal level changes accurately at these levels. [Charlie was also QRV on 10 GHz from Hungary. See separate report from HA/G3WDG in this NL].

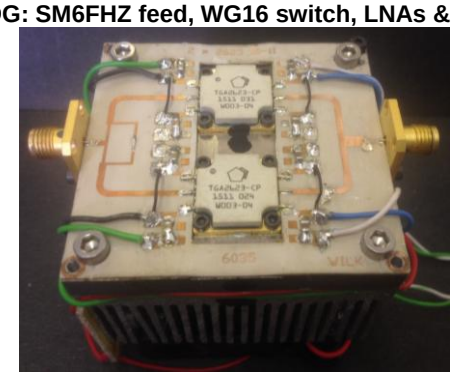
G4BAO: John john@g4bao.com is now QRV on 1296 with 180 W to his 1.9 m dish with a SM6FHZ CP patch feed and VLNA23 – My copy of the ON0EME Beacon averages around a 15 dB C/N. I have worked a few since I started and am looking for skeds. QSO'd on 12 Sept at 1242 I1NDP (13DB/24DB) JT65C, on 14 Sept at 1429 OH2DG (O/O) CW, 1506 G4CCH (539/539) CW, 1529 DL6SH (15DB/17DB) JT65C, 1533 OK1YK (22DB/O) JT65C and 1545 G4CCH (12DB/16DB) JT65C, on 15 Sept at 1437 DC9UP (22DB/25DB) JT65C and 1513 SP5GDM (23DB/O) JT65C, on 16 Sept at 1604 ES6FX (16DB/O) JT65C and 1613 TI2AEB (24DB/25DB) JT65C, on 23 Sept at 2117 DC8UP (20DB/23DB) JT65C, on 26 Sept at 2113 DG5CST (23DB/27DB) JT65C, 2135 OK1DFC (22DB/21DB) JT65C, 2138 UA9YLU (26DB/O) JT65C and 2327 LZ1DX (15DB/O) JT65C, and on 27 Sept at 0001 PA3CQE (18DB/25DB) JT65C and 0015 G3LTF (O/O) CW. I have a very limited window from moonrise round to 190 degs due to trees and houses, but clear to around moonset. There are certain "gaps" in the trees and some big stations can "cut through" on 1296 that don't get heard on 2320. Obviously the higher the declination the better, but some directions are blocked at even at the highest declination. 1296 will become my main band as there is actually regular activity, but I will be QRV on 13 with suitable notice, on request and during activity days.

HA1YA: Gabi, ha1ya@isiscom.hu is back on 70 cm EME again -- Our 16 x 32 el yagi array is refurbished and working well again. I've 1.5 kW, preamp, and active on CW, SSB and the digi modes -- after 25 Sept. I hope to see you on 2 m and 70 cm in the EME Contest! 23 cm is also coming soon with a 3.2 m dish and 500 W PA.

HA/G3WDG: Charlie Charles.Suckling@Qorvo.com reports on his small dish 10 GHz EME operation from Hungary -- Recently I had the opportunity to operate from HA on 10 GHz EME with a small (76 cm) dish. The choice of antenna was limited to something small enough to fit in the car, and based on VK7MO's success with this size of dish on 10 GHz EME. I had confidence that it would be capable of making some QSOs, at least with the bigger stations. One of the aims was to field test a new PA that I had been developing recently, which uses a pair of Qorvo TGA2623-CP GaN devices, with microstrip input splitter and output combiners. The PA produces 50 W output at 100 mW drive with 43% DC to RF efficiency. The devices are part of a new family of packaged MMIC devices that have much higher gain than the 10 GHz GaN devices we have been using up to now, meaning they can be driven directly from a typical transverter. The dish is a prime focus type with f/D of 0.4. The feed is a linear polarized version of one of SM6FHZ's high performance CP feeds (with no septum). The 22 mm od/20.2 mm id tube was squeezed in a vice until it fitted snugly inside a WG16 square flange. The feed was tuned to better than -25 dB return loss with a single tuning screw (in the right place). Sun noise with the feed alone was consistently 5.5 dB, which reduced slightly to 5.2 dB with the WG16 relay and PA in place (probably a combination of extra loss and blockage effects). The 5.5 dB level of Sun noise corresponds to a dish efficiency of about 70%. Moon noise could just be detected (at slightly under 0.2 dB). This was just about sufficient for tracking the moon under clear sky conditions. With cloud or rain present, the Moon noise was barely or not detectable, and under these conditions the DL0SHF beacon was used to peak the dish using the signal on the Combo display of the SDR. Preamps were a waveguide input WDG004 (using an MGF4919) as the first stage followed by a two stage version of the WDG004, also using MGF4919s. Overall NF was in the region of 0.9-1.0 dB. The rest of the equipment was the home station transverter based on WDG002 and 003 modules, G4DDK004 LO + G8ACE RDDS, Isotemp 134 10 MHz OCXO, IC202 radio and a homebrew 96 kHz bandwidth "Softrock" based SDR. Timing was done using GPS. A single PC was used, running WSJT-X v1.6.0 for JT4, the "Spectravue" SDR software, VK3UM's EME planner and the HB9Q logger. Rather too many windows to keep an eye on! The dish was set up on a tripod (temporarily held together with G-Clamps!), and 12 V linear actuators used for remote elevation and azimuth control. Elevation and azimuth readouts were a low-tech spirit level and calibrated base with a pointer.



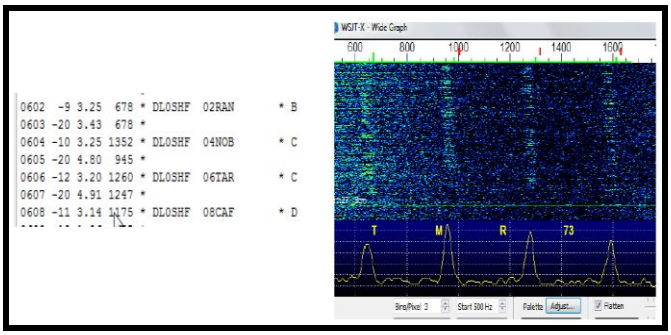
HA/G3WDG: SM6FHZ feed, WG16 switch, LNAs & 50 W PA



50 W PA with 2 x TGA2623-CP FETs & fan cooled heatsink

HA/G3WDG 76 cm dish on tripod mount

Solid single-line decodes were obtained at all times from the DL0SHF 10 GHz EME beacon running at its normal 50 W level with several dB margin.



Decodes of DL0SHF EME beacon (JT4G) & waterfall spectral display

Over two days, with a limited window to moonset, a number of QSOs were also made. Stations worked on JT4F were OK1KIR, W5LUA, OZ1LPR, OZ1FF and HB9Q. OK1KIR was also worked on CW (M/M). The best JT report sent was (9DB) to OK1KIR and best received was from W5LUA (12DB). The QSOs with OZ1LPR, W5LUA and HB9Q are believed to be firsts from Hungary. A number of stations were able to do full two-way Doppler compensation, which made the QSOs much easier at my end with the IC202. In addition to the QSOs, OK2AQ was able to decode my signal (on one occasion) using his 1.8 m dish. UA4HTS and DL7YC also reported being able to easily detect my single tone transmissions. One unforeseen problem occurred when trying to use the SDR as a second receiver for split frequency operation. It seems that on transmit, noise from the SDR was being mixed in the PC with the tones generated by WSJT, which degraded my transmitted S/N and made transmissions more difficult to decode on occasions! A couple of issues were found with WSJT during the QSOs. My use of a "Type 1 Compound Callsign" led to the more sensitive correlation decoder being unable to decode messages from some lower ERP stations containing reports and/or RRR. WSJT-X's automatic averaging came to the rescue during the QSO with OZ1FF – his report to me was finally decoded with the convolutional decoder as an average over three periods, and his RRR by using a single tone "message". I also noticed that clicking on decoded messages to generate the report automatically, the TX3 message (R + report) was incorrectly selected and TX2 had to be manually selected. This also appears to be due to the use of a compound callsign. Both issues have been reported to the WSJT development team. I hope to be able to operate again from JN86. Next time I plan to use an IC735 plus transverter for the 144 MHz IF, so Doppler compensation can be done using WSJT-X as we normally do at home. Hopefully this will also help reduce the frequency uncertainty (+/- 500 Hz with the IC202 system), and avoid any added noise problems on transmit. [Ref: <http://www.2ingandlin.se/10GHz%20septum%20feeds%20for%20EME_A.pdf>].

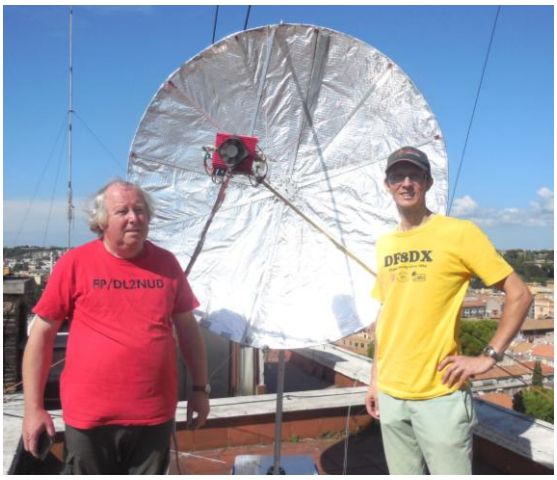
HB9Q: Dan (HB9CRQ) dan@hb9q.ch reports on his group's recent activity -- We are now QRV on 6 and 3 cm. Both stations run very well, although there definitely is room for improvement. The 5760 equipment is MKU 57 G3 professional transverter, MKU GaAs FET 100 W SSPA, MKU LNA 571 B (0.58 dB NF), dual mode circular horn feed built by PE1RKI and 10 m solid dish with a 0.43 f/d. The 10368/10450 equipment are MKU 10 G3 professional transverters, MKU GaAs FET 60 W SSPA, MKU LNA 102 S-EME (0.61 dB NF), horn with three-ring choke, septum circular polarizer by PE1RKI and 10 m solid dish. On 6 cm we measured on 2 Sept Sunnoise of 19 dB and Moonnoise of 2.9 dB. We did our first RX tests the same day and heard right away UA3PTW calling CQ and worked him (559/579). During the MW EME Contest we worked UA3PTW (559/579), SM6FHZ (579/579), G3LTF (579/579), IK2RTI (579/589), OH2DG (579/579) and SV3AAF (559/579). Unfortunately there was not much activity on 6 cm. The following day we worked JA4BLC (559/579), JA6CZD (579/599), SM6CKU (559/579), S59DCD (429/339), JA1WQF (549/589) and JA4BLC (559/579) for a total of 11x8. We are now at initial #11. On 3 cm we measured on 2 Sept Sunnoise of 16.5 dB and Moonnoise of 2.7 dB. We did our first RX tests the same day and heard right away OK1KIR testing. What a thrill! We worked OK1KIR (559/559) on CW and using JT4F (3DB/12DB), followed by OZ1LPR (579/579). On 4 Sept, we worked HA/G3WDG with JT4F (11DB/10DB) and OK2AQ (12DB/12DB) - both were audible. During the MW EME Contest we worked OK1KIR (579/579), JA4BLC (579/569), JA6CZD (559/569), JA1WQF (539/549), OZ1LPR (599/579), YO3DDZ (439/559), UA4AAV (539/549), UA4HTS (529/569), F5IGK (429/539), YO2BCT (579/569), OH2DG (539/449), IK2RTI (549/559), W6YX CW (O/O), W5LUA (559/559), DL0EF (559/559), WA6PY (539/559), WA3LBI JT4F (6DB/12DB), VK7MO JT4F (13DB/ 11DB), OK1CA (449/579), F5JWF (559/579), OZ1FF (339/549), IW5BHY JT4F (13DB/12DB), DL7YC (539/559), F6DRO (O/O), OK2AQ JT4F (11DB/13DB), IW2FZR (O/O) and VE6TA (O/O) for a total of 27x 17. We now up to initial #28. On 13 cm during the MW EME Contest we worked 26 stations. Initial QSOs were SP3XBO (559/569), W6YX (559/599) and K1DS (559/549) to bring us to #132. We are now also QRV crossband 2320-2400. We worked in the MW Contest JA4BLC (599/579) and JA8IAD (579/579). 2400 is somewhat less noisy here than 2424. We are very interested to work QRP stations (on any band) to challenge the limits of our station. We are QRV JT4F on 6 and 3 cm and we can do Doppler-correction for our own signal and also for a QSO partner, so no need to care about Doppler at all. We are still in the learning-mode and there is probably room for improvement. For the time being we gather experience and enjoy making QSOs. We are now available for skeds by email and of course on our logger when QRV.

HB9Q's feeds (23, 13,9, 6 & 3 cm offset mounted on his 10 m

HK0/DL2NUD: Hermann will be QRV from San Andres Island (EJ94) between 19 Nov and 29 Nov on 2 m, 70, 23, 13 9 and possibly 6 cm. The operator for 144 and 432 will be Joachim (DL9MS). QSLs for QSOs on both these bands should be sent to him. Hermann will operate the GHz bands. QSLs for these QSOs should be sent to DL2NUD. Equipment on 70 cm will be a 12 el yagi and 400 W. A 1.5 m dish will be used on the higher bands with on 1296 200 W (at feed), on 2320 300 W (at feed), on 3400 100 W (at feed), and on 5760 55 W (at feed). However operation on 6 cm is not likely because of tracking problems – see the 5B/DL2NUD report.

HV0A: Bodo (DF8DX) df8dx@gmx.de reports that he and Herman (DL2NUD) had a good time operating from the Vatican -- After travelling all night long from a business trip in Saudi Arabia, I drove 9 hours down

to Rome. We arrived on Thursday evening and started to set up our station Friday morning. We first assembled the feed for 6 cm. A short test in SSB with IK0USO was successful. We then pointed the antenna to the moon, but we had no lsuccess in hearing anyone. After a frustrating 4 hours of trying, we decided to change to 23 cm. The moon was gone by time we were QRV on 23 cm. Saturday morning we returned to the shack and operated 23 cm from moonrise to moonset. The following stations made it in our log IK0USO (tropo on SSB), JA6AHB, OK1DFC, UA4HTS, UA9YLU, VK4CDI, UA3PTW, OK2DL, HB9Q, OK1KIR, ES6RQ, I1NDP, DG5CST, DF3RU, RA3AUB, DL6SH, YL2GD, ES6FX, LZ1DX, IK3COJ, DK0SF, PA3CQE, G4CCH, G4RGK, PA7JB, SM4IVE (CW), DJ9YW, PA0BAT, PA3CSG, PY2BS, PA3DZL, K2UYH, ZS6JON, W5LUA and I5YDI. This made a total of 35 QSOs, 34 via EME. A nice bonus was working all continents. Sunday morning was used to prepare for 13 cm activity. We started at moonrise and worked OK1DFC, UA3PTW, IK3COJ, OK1KIR, HB9Q, PA3DZL, PY2BS, PA0BAT, PA3CQE, UA4HTS and PA7JB. However, operation after our dinner break was not successful. We unfortunately didn't copy anything from NA. Anyway, at least 11 EME QSOs are in the log. We were very lucky with the weather. We had only light or no wind and it stayed dry at our location. The support from IK0FVC and IK0FTA was essential for this operation. The credits should go to them. They were very interested in this operation and prepared the place very well. Please send your QSL cards directly to Francesco, IK0FVC. In case someone is using Lotw, the logs are uploaded with the mode JT65.



Hermann (DL2NUD) & Bodo (DF8DX) with HV0A 1.5 m dish

I0NAA: Mario mario.natali@gmail.com is on the air and making QSOs on 1296 -- I completed the set-up and was able to make my first QSOs using JT65C with I1NDP, HB9Q and PA3FXB. Signals were very strong and I could clearly hear the modulation on the loudspeaker! I expect to complete a CW QSO soon. I measured with an SDR-IQ 16 dB Sun noise vs. 17 dB predicted from VK3UM performance calculator, so I am quite happy. I was also able to see my echoes with only 3-4 W! I have some mechanical stability problem and will need to reinforce the antenna mounting bracket. Otherwise, I have some annoying oscillation when I stop the dish movement and when there is wind. This is not influencing much the EME, but it makes it difficult to point exactly to cosmic radio sources. I am very happy with my "stealth" antenna system. I am able to go on air in about 15 minutes from the resting position to being fully operational.

ON4BCB (L) visits I0NAA (R) and his 5 m stealth dish

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp enjoyed ARRL EME MW Contest – I was QRV on 13 and 3 cm. On 13 cm I made 8 QSOs including 5 NA stations. In last the last ten years, this is the best worked from NA on 13 cm in the ARRL contest! It was only 3 in 2012. I thus concluded that our move to 2400 is a great successful! I worked HB9Q (579/599), G3LTF (579/559), DL7YC (569/579), KL6M (559/539), WD5AGO (O/O), WA6PY (O/O), W5LUA (559/569) and W6YX (559/559) for initial #65 for a total of 8x7. Heard was JA8IAD. On 3 cm, I worked JA1WQF (559/569), OK1KIR (569/559), HB9Q (569/579) for initial #29, OZ1LPR (579/569), W6YX (559/O) #30 and WA6PY (559/559) for a total of 6x5. Heard were YO2BCT and JA6CZD. I had planned to QSY 5760 on Sunday but the rain prevented me from changing the feed. On 27 Aug I worked JA6CZD (569/569) on 10450. On 6 Sept I was pleased to work on 1296 my old friend Max, XE1XA (549/539) for an initial on 23 cm. We first QSO'd on 432 in 1988. I worked on 6 cm, on 9 Sept HB9Q (579/559) for initial #32. I also tried circular pol on 3 cm using PE1RKI septum feed. JA1WQF and JA6CZD also modified their feeds for circular pol.
We worked each other on 20-21 Sept with good success. The first ever out of JA station worked circular-circular was IW5BHY (O/O) on 30 Sept and my initial #31 on 3 cm. On 4 Oct, we (JAs) tried circular with W5LUA (559/559) and had good success. I hope we all move to circular.

JH1KRC: Mike jh1krc@syd.odn.ne.jp tried to get back on 6 cm for the MW ARRL Contest without success –- I had previously used WR-137 waveguide with my 4.4 m dish on 6 cm. But, because of maintenance problems, I decided to switch to NOS DF4-50A coax. I now use this line to both the RX port in the shack, and my 250 W PA (WG out) at the foot of the dish pedestal. Unfortunately I had the wrong adapter (SC, not an N) to connect to my PA. I am now also using an AGO round septum feed (bought at 2010 EME Conference) with my LNA by the feed. I listen on Sunday during my EU window, but did hear a single echo. I am not sure why. My RX frequency is accurate. My Sun noise was only 8 dB (with a badly cloudy sky), but this should have been sufficient to copy some signals. I plan to participate in MUD 2015 in San Diego and hope to get some ideas there.

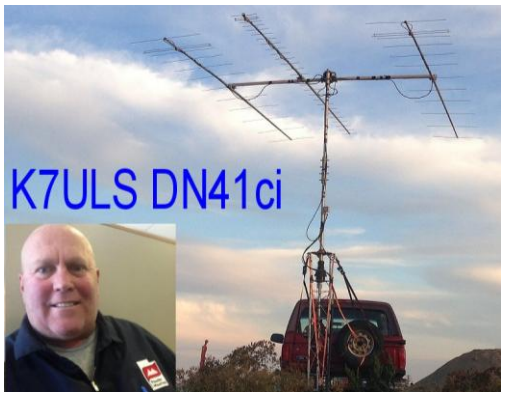
K1DS portable 13 cm EME station

K1DS: Rick rick1ds@hotmail.com made his debut on 13 cm EME during the ARRL MW Contest -- My station, which is fully portable, includes a 3 m dish, silvered septum feed with a scalar ring from WD5AGO, DEMI preamp at the feed with protection relay, a DB6NT 13 cm transverter feeding receive to an ICOM 821 that is able to tune both 144 and 160 to hear the EU 2320 signals. On the transmit side, I used a TS2000X to the

transverter to feed a 160 W Spectrian SSPA. During the contest I copied W5LUA in QSO with WA8RJF. We tried, but he didn't hear me. Then I tried with HB9Q, and after a while we got the dish aimed on the moon and exchanged (559/549) for my first QSO on 13 cm EME! Then W5LUA saw and heard me and we worked (O/O), although Al's signal was better when I was more focused on the moon. I notice that it is a lot harder to keep the beam on the Moon as we move up in frequency and the accuracy of the Yaesu 800 rotor dial is not great. The elevation digital readout works fine, but the bracket holding the sensor was loose and it was giving me a 2.5 deg error. I also heard HB9SV, and tried with PY2BS, WAJRJF, W6YX and WD5AGO, but had no good exchanges with them. Thus, two official CW QSOs on my first try on 13 cm! Now that I had the dish up for the day, I tried to calibrate with sunnoise and see if I could reposition the feed to optimize signal. I measured 9 dB of sunnoise, which is as predicted by the VK3UM program. My next task is to be able to point the dish at the Moon more accurately and then add some signal display. Lots of lessons learned, and more improvements to come. In re-evaluated my 13 cm activity, I realize that I could do better Moon tracking with a big compass rose and a camera, which I will try the next time I set up the station for 13 cm. I also had my 13 cm preamp re-measured and found it did not have as good a NF as I had thought. It will be replaced with one that has a 0.6 dB NF. I will hopefully be on 23 cm for the next weekend of ARRL contest with my portable 10' dish.

K4EME: Cowles candrus@mgwnet.com has now completed some QSOs on 1296 with his new EME system consisting of a polar mounted 10' dish and about 450 W output. The station is working well. Because of the polar mount he is limited to higher northern declinations. Look for him in the ARRL EME Contest. [Cowles also sends good news on his battle with 3rd stage cancer. After Chemo and radiation his 2 1/2" tumor completely disappeared without surgery and even the scar tissue seems to be gone!]

K7ULS: Mike k7uls@yahoo.com has put UT back on 432 EME -- Here's what I have worked with just a single 9 wl (28 el) yagi, 70 W Icom 910h and AG-35 mast mounted preamp using JT65B: on 8 Aug at 1014 NC1I (22DB) and 0741 OK1DFC (27DB), on 29 Aug at 0212 WA4NJP (26DB), 0218 DL7APV (29DB), 0300 DK3WG (28DB) and 0354 NC1I (27DB), and 30 Aug at 0014 OK1KIR (18DB) and 0055 UA3PTW (18DB). I also had a near miss with JA6AHB (21DB). I am now at initial #8.



K7ULS EME station

K6ICF: Don don.rea@verizon.net is making progress on 1296 EME -- Construction and basic testing of the station is almost complete. Some work remains to be done on the T/R sequencer. I have a single M2 35 el yagi, PE1RKI 100 W SSPA and G4DDK LNA right on the N connector of my yagi. There is 8' of low-loss cable to the SSPA. I expect my total TX losses will be < 0.8 dB. RX NF will be about 0.5 dB. I hope to do echo testing in Oct.

KN0WS: Carl carlhasbargen@q.com will be QRV on 70 and 23 cm from MN during the EME contest and has made great progress with his 23 cm system -- I wanted to share my excitement this past weekend (10/11 Oct). I was scheduled to work, but decided it was my only chance to try my new 3.6 m stress dish on 23 cm before the end of the month, so I went for it. I still have not finished the details for pointing and such, but the north star was visible when I arrived at the site at 3 am LT. So I lined up my portable polar mount. After fixing a short to my preamplifier and some initial troubles with my BEKO, I was able to complete using JT65C with NC1I (13DB), PA3FXB (23DB/23DB), OE5JFL (15DB/14DB), ES6RQ (19DB/24DB) and ES6FX (19DB/O). I heard ON0EME (18DB), RA3AUB (21DB) - his moon set before we could work, ZS6JON (22DB) - he had to shut down before we completed and DK3WG (22DB) - clouds moved and caused pointing troubles. All-in-all a good start for the dish and my never-before-tried septum feed. The dish is flimsy enough that it won't handle much wind, but I have now officially retired by 4 x 70 el yagi array in favor if this "little" dish. I hope to use it for the second ARRL weekend, but might also use it for the second day of the first weekend, depending upon how the activity is on 432 with my 6 m dish. (I now have 2 dishes, one for 432 and the other for 1296).

KN0WS 6 m used 70 cm & new 3.2 m stress dish for 23 cm

LU8ENU: Juan lu8enu@gmail.com is now on 10 GHz and giving South America for WAC -- I am QRV on EME on 3 bands 70, 23 and 3 cm. My station is small due to my limited backyard space. On 3 cm, I am using a solid 2.3 m dish, a horizontal linear feed, WR90 waveguide to my LNA, and about 25 W. I use the same dish on 23 cm. I can make a quick change to 3 cm in a few minutes. I still have a lot of work to do to optimize the station. But based on my first results, I'm feeling in a good way. I had planned to remotely control the pol of my feed, but DF1OI has me thinking of trying his circular feed design, which seems easy to build. At this point, I'm not sure which would be best. So far I have worked using the JT4F mode on 16 Sept W5LUA (20DB/16DB), on 17 Sept OK1KIR (13DB/12DB) and W5LUA (21DB/15DB), on 18 Sept HB9Q (16DB/12DB), on 25 Sept OZ1LPR (11DB/20DB) and OZ1FF (14DB/16DB), on 27 Sept WA3LBI (20DB/12DB) and DF1OI (20DB/16DB), and on 3 Oct G3WDG (17DB/12DB). I want to thank PA7JB for help getting my TWTA and especially to LU6KK and W2NNN for their invaluable collaboration.

LU8ENU's 2.5 m dish with 3 cm feed

N0KE: Phil vailphil@sopris.net reports on his start at 432 EME -- I'm in western CO, less than 100 miles from UT and in DM69em. I just finished putting up my 2x17 el KLM yagis on a south facing deck and can Armstrong rotate to follow the Moon if it is visible. If clouds, I'm out of luck. It is less than 25' from the antennas to the rig and I have 100 W. I am hoping to make my first 432 QSO soon and am interested in skeds.

N1VT: Frank (NC1I) frank@NC1I.COM sends news on dxpedition plans -- All is still a go for activating Vermont on both 70 cm and 23 cm late in Oct to 1 Nov. We plan on setting up 70 cm on Sunday 25 Oct and if all goes well, we expect to be operational for a couple of hours starting at our moonrise around 2100. We will probably only be on until around 0000 (26th). Our intent is to calibrate everything and confirm the equipment is all working properly. Hopefully a few EU stations will be around to help us test out the station. We will return to Vermont and resume 70 cm operation around 2330 (moonrise) on Wednesday night 28 Oct. We will stay on 70 cm for all of Wednesday night/Thursday and Thursday night/Friday. During the day on Friday, we will take down the 432 array and put up the 2.4 m dish for 1296. We will be on 23 cm throughout the ARRL contest weekend. Around 1500 on Sunday 1 Nov (our moonset) we will take everything down and leave the site. This is a very ambitious schedule and we are still trying to recruit some additional help to make this all come together. If anything should change, we will post updates on MoonNet. We expect to have full internet access and will be logged into the HB9Q logger. Please note we will be using the call N1VT (thanks WA1ZMS). On 432 we will have 4 x FO25 yagis and 900 W at feed, on 1296 we will have a 2.4 m dish and 600 W at feed. We apologize for the delay in sending cards from our W1E CT operation on 23 cm this past June. We have had difficulty getting the high resolution images that we wanted to use on the QSL cards. We now expect everything to go to the printer by the end of Oct and should be able to get the cards out sometime in Nov. If anyone feels they need a card before then, they can contact me and I will make up a unique QSL card and send it to them. We do not expect to encounter this kind of delay for the VT cards and should be able to mail those out in Dec. We appreciate everyone's patience. These operations have taken far more of our time than we ever expected (it sure was easier 25-30 years ago when we were in our late 20's and early 30's). I would also like to reassure everyone that we still plan on activating RI on both 70 cm and 23 cm; however this will not happen until spring of 2016.

NC1I: Frank's frank@NC1I.COM late Aug/Sept Activity -- I have had very limited time for EME operating during the past month. Most of my free time has been utilized to prepare for the upcoming EME expedition to VT – see the N1VT report. Since my last report, I worked on 432, on 30 Aug at 0309 PY2BS (6DB/7DB). 0332 K3GNC (25DB/27DB), and 0356 K7ULS (21DB/27DB), on 31 Aug at 0234 PA2V (6DB/10DB), 0249 HV0A (17DB/O) and 0336 K7ULS (20DB/O), on 5 Sept at 0713 PA2V (12DB/O), on 6 Sept at 1058 UT6UG (11dB/8DB), 1105 PA2V (11dB/10DB), 1137 PA2V (24DB/10DB) – who was running 20 W for this QSO and 1153 G3LGR (24DB/19DB). I worked on 1296, on 30 Aug at 0504 XE1XA (559/569) on CW, on 5 Sept at 0613 OK2DL (7DB/6DB), on 27 Sept at 0204 LZ1DX (9DB/9DB), 0218 WA3RGQ (12DB/10DB), 0234 VA7MM (10DB/9DB), 0253 W7MEM (16DB/11DB), 0337 EA8DBM (18DB/10DB), 0417 PY2BS (5DB/4DB) and 0442 K2UYH (5DB/12DB), on 6 Oct at 0821 5B/DL2NUD (23DB/15DB), and on 10 Oct 1131 YL3AEV (21DB/11DB), 1151 IK3COJ (12DB/9DB), 1203 PA3FXB (14DB/9DB), 1209 KN0WS (21DB/O) with severe drift, 1234 ES6FX (10DB/8DB), 1245 RA3AUB (9DB/O), 1306 VE3KRP (16DB/9DB), and 1605 VE6TA (569/579) on CW. All QSO were on JT unless noted. Due to the upcoming VT expedition I do not anticipate being very active from home until Dec. It may be Jan before I return to 432 from the home station.

OK1CA: Franta strihavka@upcmail.cz was QRV on CW in ARRL EME Contest – On Saturday I was on 13 cm and 6 cm. I worked on 13 cm 26x18. My QSOs included an initial with W6YX for #131. The activity from EU was low, but I worked 7 stations from NA. I worked only UA3PTW and SM6FHZ on 6 cm. I was QRV on 3 cm at Sunday and worked 15 stations including an initial with HB9Q for #74. Overall score was 43x30. The problem MW part of ARRL EME Contest this year was the conflict with the date of the VHF Region I IARU Contest in EU. The active EU EME stations were lower than last year. I plan to be QRV on 70 cm and 23 cm in the next part of ARRL EME Contest.

OK1DFC: Zdenek ok1dfc@seznam.cz reports completing 1296 DXCC with a QSO with XE1XA! The day was also the 10th anniversary of putting his 10 m dish on the air. Look for Zdenek in the ARRL EME Contest.

OK1KIR: Vlada &Tonda vladimir.masek@volny.cz report of their club's Sept/Oct EME results – We worked on 70 cm using JT65B on 30 Aug at 2056 RN6MA (29DB/16DB) for digital initial {#130}, 2128 HV0A (22DB/O) {#131) new DXCC, 2158 EA1PVC (23DB/27DB) {#132}, 2228 G3LGR (29DB/24DB) {#133} and 2238 G6HKS (17DB/15DB), and on 26 Sept at moonset using JT65B at 0015 K7ULS (28DB/18DB) {#134} in UT for our 46th state and at 0031 W1PV (26DB/18DB) {#135}. (To complete WAS on 70 cm we still need AR, HI, MO and SC). We worked on 23 cm using JT65C on 19 Sept just after our moonrise at 1218 HV0A (23DB/O) digital initial {#222} for a new DXCC and 1649 ZS6JON (23DB/O) {#223}, on 26 Sept at 1836 EA8DBM (13DB/O) {#224} and DXCC 107 (104 on EME only), and on 7 Oct at 0212 5B/DL2NUD (16DB/16DB) {#225}. On 13 cm we worked on 20 Sept using JT65C at 1309 HV0A (22DB/23DB) for digital initial {#32} and a new DXCC – heard even before moonrise, followed at 1325 VK3NX (13DB/13DB) {#33}, 1451 PA3CQE (10DB/12DB) {#34} and 1507 IK3COJ (22DB/15DB), and 8 Oct at 0258 5B/DL2NUD (21DB/22DB) {#35} for 1st 5B-OK on 13 cm and our last continent for digital WAC on 13 cm, and using CW at 0355 5B/DL2NUD (O/O) for initial #144. We QSO'd on 9 cm using JT65C on 9 Oct at 0500 5B/DL2NUD (24DB/26DB) for digital initial {#18} and 1st 5B-OK on 9 cm, KM field and completion of WAC on 9 cm digital (second after HB9Q), 0529 OH2DG (13DB/13DB) {#19} and 0613 OK1CA (13DB/O) {#20}. We were on 6 cm on 18 Sept looking for HV0A, whom were not able to get their system to function off the Moon, and ended up working at 1105 HB9Q (579/579) CW for initial #81, 1205 OK1CA (12DB/12DB) JT4F for digital initial {#10}, 1236 HB9Q (18DB/15DB) JT4F {#11}, 1315 UA3PTW (24DB/22DB) JT65C {#12} and 1400 HB9Q (55/54) on SSB, and on 10 Oct while waiting from early morning for 5B/DL2NUD using JT4F at 0436 VK3NX (13DB/13DB) {#13}, 0447 G3WDG (13DB/08DB) {#14} and 0510 OH2DG (13DB/12DB) {#15}. We QSO'd on 3 cm on 2 Sept using CW at 2128 HB9Q (559/559) for initial #100 – their first 3 cm QSO, and on 3 Sept at 0644 HA/G3WDG (M/M) for CW initial #101. Using JT4F we worked on 2 Sept at 2141 HB9Q (13DB/3DB) for digital initial {#68}, and on 3 Sept at 0533 HA/G3WDG (14DB/10DB) {#69} – this was the first 3 cm EME QSO from HA, 0544 repeated HA/G3WDG (13DB/9DB) and 0644 OK2AQ (13DB/13DB), on 4 Sept again HA/G3WDG (14DB/12DB), and on 10 Oct at 1142 G3WDG (12DB/9DB) with his new portable 1.2 m dish and 50 W. In the MW part of ARRL EME Contest, we worked on 3 cm using CW on 5 Sept at 0015 JA6CZD (569/569), 0035 HB9Q (569/579), 0046 OZ1LPR (579/579), 0054 JA1WQF (559/569), 0058 JA4BLC (559/569), 0125 UA4AAV (O/O) #102, 0152 YO3DDZ (549/559), 0205 YO2BCT (549/569), 0314 F5IGK (549/559), 0521 OH2DG (569/569), 0703 W5LUA (569/569), 0908 W6YX (559/559) and 0930 DL0EF (569/559), and on 6 Sept at 0422 IW5BHY (O/O) #103, 0504 F5JWF (559/569), 0527 OK1CA (569/579), 0625 OZ1FF (559/559), 0643 IW2FZR (O/O), 0748 IZ2DJP (O/579), 0807 DL7YC (569/569), 0949 F6DRO (O/O) - with horz pol, 1009 WA6PY (559/569), 1035 G4NNS (559/579) and 1134 VE6TA (O/O); and using JT4F on 5 Sept at 0223 UA4HTS (12DB/12DB), 0302 UA4AAV (12DB/13DB) {#70}, 0734 IW5BHY (13DB/12DB) {#71}, 0755 W6YX (13DB/13DB), 1008 WA3LBI (14DB/12DB) and 2250 VK7MO (14DB/11DB) with horz pol, and on 6 Sept at 0911 HA/G3WDG (14DB/11DB). Also heard in JA band on CW was IK2RTI. Our total score on 3 cm was 29x17. We were copied by UN6PD (10DB) and OZ5G (11DB). Moonnoise changed during the contest from 2.8 dB (in rain) to 3.2 dB on Sunday morning. Observation of DL0SHF beacon (JT4G) showed at WSJT10 signal from 9 to 10 dB, while at WSJTX from +2 dB to -1dB. Levels respond to the higher sensitivity and linearity of WSJT10 at low signal levels whereas with WSJTX signal levels moved higher. We did not suffer from high winds during contest weekend; however having in mind F2TU's accident, we refused to participate in the multiband chaos during one weekend. This decision is furthermore supported by a growing number of MW stations. A sked with LU8ENU on 16 Sept was disappointing. No signals were found despite trying different polarization settings. The next day, however, on 17 Sept we QSOd at 1417 LU8ENU quickly (13DB/14DB) {#72} for the 1st LU-OK on 3 cm and our 5th continent. We utilized automatic Doppler compensation with LU8ENU staying on the same QRG TX=RX.

OK2AQ: Mirek mirek@kasals.com wrote that the ARRL MW EME Contest was a good opportunity for EME experiments because of the increased activity -- I wanted to test a new system for Doppler shift compensation. On the 3 cm band, very weak signals that are below the hearing level are also very difficult to notice on a waterfall display. Thus the ability to operate on a precise frequency, on the order of tens of Hz,

is important. For this reason I have built a transverter for 148/18 MHz with the DDS synchronized by a rubidium frequency standard. The control program allows compensation of Doppler shift for RX as well as TX. I worked on 30 Aug OZ1LPR (14DB/20DB), on 3 Sept WA3LBI (15DB/15DB) for digital initial {#12} and OK1KIR (13DB/13DB), on 4 Sept HB9Q (12DB/13DB) {#13} and on 8 Sept OZ1FF (14DB/14DB) {#14}. I was also active in the MW contest and QSO'd on 5 Sept OK1KIR (13DB/17DB), and on 6 Sept OK1CA (13DB/18DB), HB9Q (13DB/11DB) and OZ1LPR (14DB/15DB) for a total of 4x3. The mode of all QSOs was JT4F.

ON0EME: Eddy (ON7UN) ejespers@telenet.be reports that 1296 EME Beacon was off the air several days -- I got a report from EA5DOM and EA3HMJ that the antenna and moon position in the beacon monitoring and control were showing different positions. I checked and tried to move the antenna remotely, but the position did not move and stayed at the last moonset position. It seems that the power supply for the AZ and EL motors had failed. I was at my EA5 location at the time, and was not able to return to Belgium until the following week (29 Sept). When I got back to the beacon, I found one of the Astec 24 VDC supplies that powers the tracking motor was the problem. The Moon Beacon is now tracking again and all seems nominal.

OZ1FF: Kjeld kjeld@oz1ff.dk sends his activity report for Sept – The following stations were worked on 10 GHz during Sept: I QSO'd on CW W6PY, HB9Q, OZ1LPR, OK1CA, OK1KIR, DL7YC, IW2FZR, SP6JLW, DF1OI and YO2BCT, and on JT4F IK5BHY, HA/G3WDG, OK2AQ, LU8ENU and DF1OI. My station consists of a 2.4 m Prodelin 1244 offset dish with linear vertical feed and 50 W SSPA. I plan to be QRV during the 24 GHz AW 24/25 Oct.

OZ4MM: Stig vestergaard@os.dk updates us on his station -- In the microwave part of ARRL contest, I worked 20 stations on 13 cm in few hours activity. There were great signals and even very good activity from the states. Back in Aug, the HV0V dxpedition had a outstanding signal here (12DB) on JT. Unfortunately, I didn't have time to wait for them to switch to CW. It would have been an easy QSO. I hope to have more time during fall for EME, but right now I am occupied with QRL and related traveling. [Stig did catch Hermann in 5B on both 23 and 13 cm].

PA2DW: Dick gtc@kpnmail.nl is now QRV on 1296 with an improved station – The main improvement is the dish; it is now 2.4 m. The neighbors were a bit less enthusiastic than me, so I postponed my request to cut some of their trees - hi! I also fixed the tripod in the ground with concrete to prevent the dish from blowing over. It will now stay put. I have also increased my power to about 400 W at the feed (2 x PE1RKI SSPAs). I now hear my own echoes very loud and readable in CW. I could not do this before! I could see them in JT, but never heard them except an occasional letter. I QSO'd PA3FXB on CW easily and am looking for other stations to sked.

PJ7/PE1L & TO2EME: Rene (PE1L) renehasper@gmail.com reports that he, K5QE, PE1LTW and PA3FPQ will be QRV from Saint Maarten in locator FK88. There is both Dutch and French parts of the island that count as different DXCCs. They will operate from the Dutch part first as TO2EME. They will be on 432 only on 23 Oct; on 1296 on 23, 24 and 26 Oct; and on 2320 on 25 Oct. From the French part as PJ7/PE1L they will be QRV on 432 on 30 and 31 Oct; on 1296 on 29 and 30 Oct and 1 Nov; and on 2320 31 Oct. Equipment on 432 will be a 23 el DK7ZB yagi with rotatable pol and a ITALAB PA; on 1296/2320 a 1.8 m dish, ok1dfc feed and SSPA. More details can be found at the website http://www.emelogger.com/fs. Donations are appreciated.

SM3BYA: Gudmund SM3BYA@wannberg.net was on 13 cm for the ARRL MW EME Contest -- The rig had been standing unused since early summer, so the weekend before the contest I felt I had to check it out. The RX side worked just fine, but on TX I couldn't get any power at all. It turned out that the 28 MHz TX IF rig had failed while just standing there. My 13 cm system is double conversion: 28 to 144 to 2304/2320. The high frequency LO generates 2160 MHz (for 2304) and 2174.4 MHz (for 2320). So to TX on 2320.100, the 28 MHz exciter must be tuned to 29.700; working above 2320.100 requires that the exciter can transmit above 29.700. To handle this, I've been using a Radio Shack HTX 100, so-called "ten meter transceiver", as the TX exciter. It has been "unlocked" as per instructions found in many CB homepages and can TX anywhere between 26 and 30 MHz. After some troubleshooting, it became clear that the 10.6975 MHz carrier crystal and the TX mixer were both bad. No chance to repair the rig in time for the contest. So instead I had to use my FT-817 QRP rig as the TX IF. This can also be unlocked, but I had no time to do it. The consequence was that in the 2320 segment I could only transmit up to 2320.100 and was thus unable to reply to the many stations calling CQ well above that frequency. My results reflect this situation. I made a total of 20 QSOs, 16 of those in the 2304 segment. I added 5 initials - OH1LRY, OH2AXH, ON5RR, KL6M and W6YX; bringing me to 60 initials on this band. Working KL6M was the real highlight. We have a very short common window on my moonrise, 45 minutes at high declination for two~three days per month. We copied each other marginally in the DUBUS event in March, but couldn't complete a QSO. We have been trying skeds in vain almost every month since then, but have been frustrated by equipment failures and scheduling conflicts. Our common window opened 2245 on Saturday night. At about 2250 I set my TX to an arbitrary frequency a couple of kHz from 2304.100 and called Mike in the blind for a minute or two - and he came right back! A very easy QSO. Thanks Mike! I now have a time limited permit for 3400 and am collecting equipment. I am getting lots of help from SM6PGP and hope to become QRV during the spring.

UA3PTW: Dmitry ua3ptw@inbox.ru was active off the Moon in Sept/Oct and QSO'd on 432 using JT65B initials with DH1WM/P, K9MRI, RK9CXM, SM7SJR, OK2AQ, M0ABA, RN3F, ZS6JON, RA9LR, PY1UNU, DK3SE, K7ULS and HV0A. On 1296, he added initials using JT65C with G4EZP, VK3XDK, LU1CGB, HV0A, EA8DBM and VK5FA, and CW XE1XA. On 13 cm Dmitry QSO'd using CW SM3AKW, WD5AGO and W6YX, and using JT65C OH3LWP and HV0A. On 6 cm he worked using CW HB9Q and IK2RTI.

UA9YLU: Victor ua9ylu@mail.ru is now QRV on 1296 with an excellent signal from Asiatic Russia in MO92hx. He is using a 4.5 m dish with RA3AQ feed and 300 W. He worked during Sept/Oct using CW OZ6OL, SP6ITF, ES5PC and VK3UM, and using JT65C HV0A, I0NAA, EA3HMJ, VK5FA, EA8DBM, OK1CS, YL3AEV and G4BAO.

VE3KRP: Fast Eddie eddie@tbaytel.net report on his Sept/Oct 1296 operation – Between outside yard work to be ready for my annual dance with the snow blower - hi, I have been watching 23 cm. Sept was a bit slow, I did work on 13 Sept K2UYH on JT65C - Sun was close to the Moon but didn't bother us. Oct was better. I QSO'd on 3 Oct using CW XE1XA for an initial (#) and a new country, on 4 Oct using JT65C G4CCH, on 10 Oct using JT65C IK3COJ, YL3AEV, PA3FXB, SP3XBO mixed initial (#*), NC1I, DC9UP and DK3WG, and on 11 Oct using JT65C IK5EHI, RA3AUB and VE3NXK (#*) and a new province. I also copied a new station, KN0WS using JT65 but observed a bad drift about half way through the sequence.

VE6TA: Grant ve6ta@xplornet.com has been remeshing my dish, but did manage a few contacts – I was on for a few hours during the ARRL MW Contest using my 10' dish on 10 GHz. I worked HB9Q for initial #13 and OK1KIR. I called OZ1LPR a few times but only received QRZ's in return. The following weekend my son and I managed to re-install the 18' dish with new mesh. I haven't been able to test on sunnoise, but echoes are definitely better on 2.3 and 3.4 GHz. With the 13 cm feed in on 27 Sept, I was able to test with VE6BGT and worked him easily (559/559) for his first QSO on this band. Skip has done a great job of assembling a new amp and feed. I then put the 9 cm feed in to try a couple of skeds with Phil VK4CDI. Nothing heard in the first sked but the second one on 30 Sept went very well and we worked easily (O/O). On 3 Oct I switched to 1296 and managed to catch UA9YLU and XE1XA for two new countries. Both were very easy QSO's. I plan to be on 432 and 1296 for the next ARRL EME Contest legs.

VK5FA: Van vk5fa_1@adam.com.au is QRV on newly QRV on 1296 with a 1.8 m dish -- I copy the ON0EME beacon with a very good signal (about 16 dB in a 2.5 kHz bandwidth). The audio is weak, but I got the callsign easily. [Van has QSO'd several stations since this report].

W5LUA: Al's w5lua@sbcglobal.net Sept and Oct EME report -- During the ARRL MW EME Contest on 5/6 Sept, I was QRV on 13, 9, 6 and 3 cm. On 3 cm I worked HA/G3WDG, OH2DG, OK1KIR, OZ1LPR, F5IGK, UA4HTS, W6YX, WA6PY, HB9Q, VK7MO, WA3LBI, JA1WQF for a total of 11x10. On 6 cm I worked only SM6FHZ. On 9 cm I worked ES5PC and VK4CDI. On 13 cm I worked SV3AAF, K5GW, WA9FWD, WD5AGO, F5JWF, G3LTF, K2UYH, OK1CA, OH1LRY, W6YX, OZ4MM, HB9Q, KL6M, JA4BLC, SM3BYA, HB9SV, WA8RJF and K1DS for a total of 17x17. For all band my total was 31x30. I had all feeds mounted on the dish. The 3 cm feed is in the middle; the 6 cm is offset to the left. The 9 cm is offset to the right and the 13 cm feed is offset above. All offsets are

entered in to the K5GW tracking program and as I change bands the program automatically corrects the pointing of the dish. On 16/17 Sept, I worked LU8ENU on 3 cm for my first South American on 3 cm. [I believe this was the first WAC on 3 cm]. On 19 Sept, I worked HV0A on 23 cm for a new country. On 20 Sept, I worked K2UYH on 13 but had no luck with HV0A. I changed my A-32 LO board in my 3 cm transverter to cover both 10368 and 10450 MHz and on 4 Oct, I worked simplex on 10450 MHz with JA2WQF, JA6CZD and JA4BLC. All had good signals. I was fortunate to work 5B/DL2NUD on 23 cm, 13 cm and 9 cm. The 5B/DL2NUD gives me WAC on 9 cm. I also worked on 9 cm OK1DFC on CW and JT plus DF3RU on CW and SSB.

WA6PY: Paul pchominski@maxlinear.com sends his ARRL MW contest report -- On 2304, I QSO'd F5JWF, G3LTF, HB9SV, JA4BLC, K2UYH, KL6M, OK1CA, OZ4MM, SM3BYA, UA3PTW and WD5AGO for a score of 11x11. On 5760, I worked SM6FHZ, who was a strong beacon for few hours. I've got more power at the feed with RW248 and my echoes were better than ever before. On 10 GHz, I QSO'd HB9Q, IW2FZR, IZ2DJP, JA4BLC, OK1CA, OK1KIR, OZ1LPR, W5LUA and W6YX for score of 9x8. I plan to be QRV on 432 and 1296 during the remaining contest weekends. Regarding 6 cm, I was able to get up to 40 W out of my RW248 TWT. This tube is designed for the 3.6 – 4.2 GHz range. Including losses, I have now about 30 W at the feed. I can mount this tube little bit closer to the feed horn, but due to the weight, decided to leave were it was during my initial experiments.

WA6PY new 6 cm feed with TWTA on support pole

WA9FWD: John jstefl@wi.rr.com writes about his MW contest efforts -- I started operating in the MW portion of the ARRL contest on 2304/2320. I managed to work G3LTF, K5GW, W5LUA, SM3AKW, WD5AGO, OK1CA, OZ4MM, K2UYH and SM3BYA before the computer that I use for tracking decided to quit. It took three hours to find and configure another computer and become operational again. I then worked KL6M and W6YX before my window ended. For the second pass, I decided to stay on 2304, as I knew that I missed many stations. I managed to work HB9SV and OH1LRY for a total of 13x12, but the band had gotten very quiet. Toward the end of my window, I switched over to 3400, but didn't manage any contacts there. This was a very disappointing result for me. The good news is that I may soon again have a western window. The tree that is blocking me is scheduled for removal! Hopefully the tree will be gone by the second contest weekend.

XE1XA: Max general.manager@corix.us has been very successful the past month on 1296 EME – Operating on CW with both random and skeds I worked in Aug HB9Q (569/589), G4CCH (559/569), JA1WQF (529/559), PA3CQE (539/549), OK1DFC (579/559), NC1I (569/559) and IZ1BPN (579/559) - running half power due to water in my feed connector, in Sept JA4BLC (539/449), N4PZ (549/549), K2UYH (549/569), VK4CDI (O/O), OH2DG (569/559), DL6SH (559/569), ES6FX (549/559), IK3COJ (549/O) at apogee, G3LTF (569/569), PY2BS (569/579), UA3PTW (579/589) – super signal, PY2BS (54/55) on SSB and DK3WG (539/549), and on 3 Oct UA4HTS (569/569), ES5PC (579/559), VE3KRP (439/449), JA6AHB (559/569), UA9YLU (539/559) and VE6TA (559/559). I'm very satisfied with my system, but soon will try a Choke/collar on my square septum feed to see if I can improve the G/T ratio.

K2UYH: I alkatz@tcnj.edu am pleased to report that I have received 1296 DXCC #4. I still need to complete 1296 WAS and have lots of challenges on the higher bands. As reported last month, I had to be away on business the weekend of the ARRL MW Contest. K1JT also has conflicts this year. K2UYH was QRV on 13 cm with NE2U at the controls and QSO'd on 5 Sept at 0801 UA3PTW (559/579), 0812 ON5RR (579/549) for initial #76, 0821 OK1CA (559/559), 0844 F5JWF (569/569), 0849 WA6PY (569/569), 0855 SV3AAF (559/559), 0902 OH1LRY (549/559) #77, 0912 SP7DCS (O/O) #78, 0921 WA9FWD (559/559), 0947 W6YX (559/569) #79, 0956 W5LUA (569/569) and 0959 SM3BYA (559/569). All QSOs were on CW. George had planned to be on the other bands, but had a problem with the dish drive that caused him to cut short his operation. He still scored 12x11. K2UYH will be active during the remaining two contest weekends on 70 and 23 cm. I also worked on 432 using JT65B on 31 Aug at 0326 HV0A (17DB/28DB) for mixed initial #890* and DXCC* 123, 0345 partial DG1V (21DB/-) – he could not find me and 0356 K7ULS (24DB/20DB) #891*, and on 13 Sept with Sun and Moon very close (3 degs) at 1502 DL8DAU (19DB/O) and 1509 UT5UG (16DB/15DB) for mixed initial #891*; on 1296, on 25 Aug using JT65B at 0000 W3HMS (16DB/10DB), on 29 Aug using JT65B and linear pol at 0130 KN0WS (O/28DB) for mixed initial #500* and one of the states I worked but missing QSLs, 0211 TI2AEB (16DB/9DB) and 0745 VK3XDK (27DB/O) #501*, on 12 Sept using CW at 1400 G3LTF (569/559) and 1730 XE1XA (569/549), on 13 Sept using JT65C at 1545 VE3KRP (16DB/10DB), 1738 HV0A (21DB/15DB) #502* and DXCC* 105, 1817 I5YDI (16DB/7DB), 1940 ZS6JON (18DB/12DB) #503* and 1945 DG5CST (54/57) on SSB, on 27 Sept using JT65C at 0407 EA8DBM (16DB/O) #504* and DXCC* 106, 0425 WA3RGQ (14DB/10DB) #505* and 0441 NC1I (5DB/12DB), and on 4 Oct using JT65C at 1137 VE3NXK (20DB/13DB) #506* – we also tried CW without success. Please look for K2UYH during the ARRL contest; this will be first time we will be on in the contest with this call in many years.

NET/REFLECTOR NEWS: **PA2CHR** will be QRV in the ARRL EME Contest on 70 cm from my home QTH with 4 x 38 el yagis and about 400 W. **G4YTL** is now QRV on 23 cm and working stations on CW and JT. **9A5AA** will NOT be QRV during the Oct/Nov ARRL EME Contest weekend. **KL7UW** will be QRV on 1296 during the ARRL contest weekends. Ed is also near ready for skeds on 9 cm EME. **N4PZ** will try to be on 1296.020 calling CQ on CW after his moonrise when the Moon is at GHA 30 degs. He is running a 4.9 m dish and 1.5 kW. **PI9CAM** was active on 26 Sept in the ARI contest on 23 cm with 120 W and 70 cm 400 W (@ feed). [I have received no announcement for the ARRL Contest]. **SP6JLW** was active in the ARI EME contest. **WA3QXP** is just about QRV on 1296 EME with a 12' dish and 100 W into 85 feet of 1 5/8 Heliax all in place. **VE4MA** will be QRV for the Nov 24 GHz AW. **WA2FGK** is now QRV on 13 cm with a 3 m dish.

WA2FGK's 3 m dish and feed for 13 cm

FOR SALE: **K3MF** has for sale a TAPR HPSDR system. This is a complete SDR radio contained in the Pandora enclosure. System was mainly used as transverter for 432 EME. $1,200 shipped to lower 48. Contact Wayde at k3mf@aol.com if interested. **SM4DHN** has 2 x 1 kW SSPAs for sale complete with high power output combiner. SSPA requires 50 VDC PSU. 500 W versions with 12 W input give 620 W out.

For more info contact Lars-Bertil at sm4dhn@labetech.se. Also see LABETECH webpage with info on their 23 cm 1 kW and 500 W SSPAs at http://www.labetech.se/en/.

REQUEST FOR YOUR INPUT ON THE ARRL EME CONTEST FROM K1DS rick1ds@hotmail.com**:** As the first weekend of the ARRL EME contest is over, I want to solicit your feedback on two issues for potential publication in QST with the contest results. I will be writing up the commentary on the contest. Firstly, did you have any unusual QSOs, interesting happenings, or Murphy (problem) issues? Secondly, did you use the EME loggers, Internet or other means of setting up QSOs for the various microwave bands and how effective do you think this was? Did it change the number of contacts? Did it enhance your satisfaction with being on the air? How do you think it impacts this contest overall? Please contact me directly with your thoughts and I will try to include them in the reporting of the contest results.

FINAL: I am very sorry to report PA3CEE is an SK. Eltje was a member of the Atletico dxpedition team. An although primarily a 2 m EMEer helped make possible operation on the higher bands in dxpeditions as 5Z4EME, 3B8EME, C56EME, 5X1EME, 9G5EME, 6W/PE1L and 7Q7EME.on the higher bands. He died from heart failure. RIP Eltje.

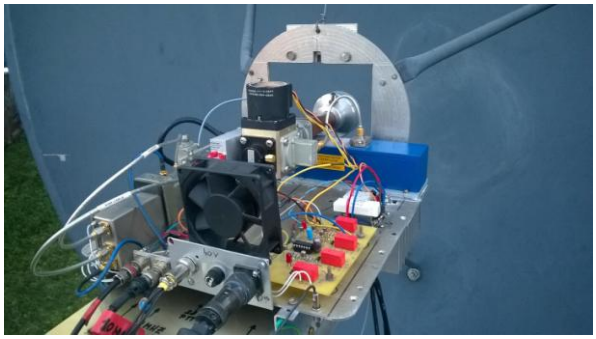
YU7XL send a correction to the report on MX0CNS/M0ABA's 432 QSO with UA3PTW using on 10 W. I referred to the antennas used as `quagis`, Boban, their designer, points out that they are really inverse of quagis. He referes to them as `hybrids`. Unlike N6NB's quagis that use a quad radiator and reflector with all directors in the form of 1/2 WL elements, the hybrid 1/2 WL yagi elements for the radiator and reflector and quad loop for most of the directors. Boban reports that his hybrids are better than the same length yagi/quagi antennas; better by 0.4 to 0.5 dB typically. I see another big advantage of the hybrid. It should be easily converted to XPOL. Boban reports that an array of such XPOL hybrids is already very successfully in use by YU7AA on 2 m.

The DK7LJ beacon was off the air for a few days in Sept because of equipment problems and for special tests, but overall has been very reliable. Remember it is also off at low declination.

EMECalc Ver 11.04 is now available from www.vk3um.com. Doug (VK3UM) writes that NOAA have not corrected their site as yet. Learmonth is consequently not available, but it is available from my direct option. I also see that Learmonth is not providing the interpolated frequencies as they did previously nor are their history data files where they used to be. I sincerely hope that the future of Learmonth is not in jeopardy as some rumors tend to predict. I want to thank VK5DJ for all his help and suggestions in the upgrade. A new version of the 2015 DUBUS/REF EME Contest 2015 results has been published and is available on the DUBUS EME page at www.dubus.org/eme.htm.

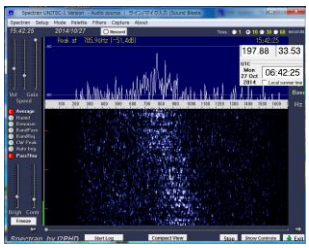
My apology for not announcing the autumn leg of the ARI EME Trophy 2015 on 25/26 Sept. (The reminder arrived just after the Sept NL was sent out). This contest is responsible for a considerable part of the activity reported in this NL.

This month the response was tremendous. Thank you! PSE keep the news and tech stuff coming! I have more to include, but it will have to wait until next time as I have run out of time. You would think with computers and email that it would take less time to produce this NL then when it began. It actually takes several times longer! I hope to QSO all of you in the ARRL EME Contest. Let's keep the Moon warm with RF during the 31 Oct/1 Nov weekend. 73, Al – K2UYH



LU8ENU's 3 cm TWTA behind feed

WA3QPX in DE now has dish ready for 1296 EME



JA6CZD on 24 GHz

View of HV1A dish with Rome in the background