

## 432 AND ABOVE EME NEWS SEPTEMBER 2016 VOL 44 #8

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@ EME2016 - Thanks for your participation; CU all in The Netherlands for EME2018!

**CONDITIONS:** The 17th International EME Conference was the big news in Aug. The ARI leadership group chaired by Giulio, IW3HVB [IK3COJ's son] set a new standard for EME conference excellence that future conferences will strive to match. Everything was top notch from the accommodations, to the food/refreshments, to the technical program... How can you do better than Venice? The questions raised such as the trades between linear and circular pol on 3 cm, or do you keep the voltage on your GaAs FET preamp during TX will be debated for months to come. This conference was not one you wanted to miss; but if you had to, the streaming video and the immediate availability of the conference digest made it less painful and shows what 21<sup>st</sup> century Internet technology can offer!

There is much more news: **the 6 cm microwave activity weekend (MVAW) almost matched the 10 GHz AW in turnout. OK1KIR made 27 QSO vs. 30 on 3 cm. Not bad, considering the proximity to the conference.** 5760 with worldwide activity is truly a rising star of the EME bands! There is another MVAW this month for 13 cm on 17/18 Sept. Although there was no dxpedition activity in Aug, there are many opportunities coming up. First is K5QE, who with N5TM will be QRV on 432 in LA on 13 and 14 Sept, MS on 15 and 16 Sept, and AL on 17 and 18 Sept. – see their report later in this NL. Then in Oct S9YY will be on 432 from Sao Tome & Principe and XT2AFT will be on 70, 23 and 13 cm (+ 2 m) from Burkina Faso. KB7Q/7 will also be QRV on 70 cm from NV in Oct. Reports on these dxpeditions all appeared in the Aug NL. On 19 Nov E44CM will be on 70 cm from Palestine with 27 el DK7ZB yagi, pol rotation and 400 W. I'll have more detail next month. Coming up in Sept are two major contests. The ARRL Microwave EME Contest weekend (bands 2300 and up) will be on 24/25 Sept. This same weekend is also the autumn part of the ARI's EME Trophy Contest. This contests covers all EME bands (thu 10 GHz) and modes. It counts CW/SSB and digi QSOs as separate contacts. The ARRL EME Contest continues for bands 50 thru 1296 on 22/23 Oct and on 19/20 Nov.

**DJ3JJ:** Andreas [dj3jj@gmx.net](mailto:dj3jj@gmx.net) writes about his 1296 EME plans -- I am working on a 2.5 m dish for 23 cm. It will be my first MW EME band. I still have a lot of mechanical work to do but I am making continuous progress.

**DK3WG:** Jurg [dk3wg@web.de](mailto:dk3wg@web.de) was active on 432 and 1296 in Aug – I added initial QSOs on 432 with N4QWZ using JT65B and on 1296 with OK1IL and N5BF using JT65C.

**G3LTF:** Peter [g3lft@btinternet.com](mailto:g3lft@btinternet.com) sends his Aug EME report -- For the 6 cm MVAW, I was only able to be active on part of Saturday as we had a family gathering. I worked SV3AAF, HB9SV, I13EME (our 3rd band), SM6CKU, OK1DFC for initial #58, UN6PD #59, OK1KIR, SQ6OPG, UA3PTW, SP6PGP and OZ1LPR. I also heard UA3TCF. All QSOs were on CW. Although I could not make the EME Conference this time, I

watched several of the lectures on the video streaming. I particularly enjoyed DJ5HG's analysis of JTxx's "Deep Search" capability, G4DDK's work on LNA survivability and G3WDG's paper on CP experiments on 3 cm. I was sorry to learn from K1DS's paper that self spotting and use of a side-channel (Internet) to facilitate QSOs will remain a feature of ARRL EME contests. I will be on for the microwave leg of the ARRL EME Contest on 24/25 Sept, and I will try and be active on 13 and 6 or 9 cm operating random CW.

**JA4BLC:** Yoshiro [ja4blc@web-sanin.co.jp](mailto:ja4blc@web-sanin.co.jp) reports on his recent activity-- I worked on 3 cm (10450) on 2 Aug JF3HUC (O/449) and JA1WQF (559/559) and again on 3 Aug JF3HUC (O/549) and JA6CZD (559/569). I then changed the feed to 6 cm and worked on 10 Aug JA1WQF (549/559) and JA6CZD (559/569), on 16 Aug JA6XED (O/449), and on 24-25 Aug I had trial with UA3TCF (12 W PA) without success, but worked JA1WQF (559/559) and JA6CZD (559/569). During the 5760 MVAW I worked on 27 Aug OK1KIR (559/559), OK1DFC (O/549) and JA8IAD (559/549), and on 28 Aug JF3HUC (559/569), JA8ERE (569/569), JA1WQF (559/559) and OH2DG (569/569).

**K1DS:** Rick [rick1ds@hotmail.com](mailto:rick1ds@hotmail.com) writes that if things go right that he will operate the ARRL MW EME Contest from home on 2304 -- I have no great expectations as the leaves are on the trees and the trees have grown since last year; consequently my moon time may be somewhat limited. The system will consist of my 3 m dish, 160 W SSPA and a 0.5 dB preamp. I have just acquired a small box that gives me tracking of azimuth. I will do elevation manually. I plan use SDR Dongal to copy signals on 2320 and possibly 2400. I will be on CW, but will also have JT65 capability.

**K5QE:** Marshall [marshall@k5qe.com](mailto:marshall@k5qe.com) and N5YA will be QRV on 432 from Louisiana, Mississippi, and Alabama -- We will be in LA on 13 and 14 Sept, MS on 15 and 16 Sept, and AL on 17 and 18 Sept. The rig is a 2 x 28 el M2 yagi (vert pol) and 500 W. If we have Internet, we will use N5TM chat pages at [chat.n5tm.com](http://chat.n5tm.com) – (look for a chat page titled K5QE EME or something similar; and just login with your call, name, and 6 digit grid) and then select the correct chat). Since there are only two of us, we will not be able to stay up all night for 6 days in a row in addition to moving from state to state and setting up and tearing down. Thus if you are in Asia/Oceania, please contact me to arrange a sked. Additional details may be found at MMM on VHF. We will also be QRV on 432 EME from TX (EM31cj) in the ARRL Sept VHF Contest on 10/11 Sept on both JT65b and CW. Our contest station is 16 x 28 el M2 yagis (horiz pol) with 600 W and a tower mounted preamp. We will operate on 432.080, always on Second Sequence. [Unfortunately this information arrived too late for the last NL].

**K6JEY:** Doug [drzarkof56@yahoo.com](mailto:drzarkof56@yahoo.com) sends news on his ARRL Contest plans -- I was disappointed not able to get to the EME Conference in

Venice. I have always had an excellent time and very much appreciative that the proceedings are available digitally. I will be on for the ARRL contest this fall [1296] and look forward to working all. I am also glad to see K5BF on 432 EME. Courtney has been one of the JEY group helpers for some time.

**KNOWS:** Carl [carlhasbargen@q.com](mailto:carlhasbargen@q.com) had some nice results at the end of Aug -- My work schedule continues to keep me busy on weekends, but I was finally able to try out my new 4.8 m dish on 30 Aug. I got out of bed at 0200 to drive to the property by 0400 to set up gear. I had planned a sked with PY2BS, but he had an unexpected meeting, which pushed the timing earlier in the morning. I had hoped to see the sliver of 3% moon before sun-rise, since I had yet to see the moon for pointing purposes since building the dish. Unfortunately, it was cloudy, but I saw ON0EME at -21 dB and then Bruce was on the Moon. We was an easily QSO (17DB/21DB) – Bruce was my first QSO on 70 cm with the new 6 m dish in 2013 and now my first QSO on 23 cm with this dish! I caught a brief glimpse of the moon for about 3 seconds and it appeared that my declination may have been off about 2 degs. As the morning went on, the ON0EME signal increased to 12DB, so it seems my tracking was variable. Over the next 4 hours, I was thrilled to have another 10 initials at 23 cm with I1NDP (11DB), UA9YLU (21DB), IZ5TEP (27DB), I13EME (17DB), VA6EME (25DB), TI2AEB (20DB), K5DOG (26DB), F5EJZ (24DB), PA3DZL (15DB) and DF2VJ (26DB). Eleven initials in 5 hours was a good initiation for this dish. At some point I hope to have my encoder and Arduino controller installed, but for now I will make do with the hope of periodic views of the Moon and the use of my 555-timer circuit which runs my geared motor at the base of my polar mount for 5 seconds out of every 100. MY next trip to the dish will be the weekend of 24-25 Sept. I had considered trying to listen to 13 cm activity that weekend, but the ARI Fall contest is also that weekend, so I may be on 70 cm one moonpass and 23 cm the next.

**N5BF:** Courtney [courtney.duncan.n5bf@gmail.com](mailto:courtney.duncan.n5bf@gmail.com) is now QRV on 23 cm and made some QSOs [including K2UYH and DK3WG] -- The setup is a HamRFDesign 3 m dish and septum feed with an AlfaSpid rotator at 20', and Klitzing Electronics (W6PQL) PA giving 400 W to its output connector. After some 7/8 inch Heliax and LMR-400 around the rotator, I get 302 W on the feed. This is driven by an FT-817 to a SG Labs Bulgarian transverter <<http://www.sg-lab.com/TR1300/tr1300.html>> and a MacBook Pro running WSJT through a SignLink USB. My LNA is from G4DDK <<http://www.g4ddk.com/G4DDKVLNA2B3.pdf>>. I appear to be getting 6.5 dB of sunnoise. I am interested in CW, SSB, and JT mode QSOs, and will be checking the HB9Q logger when I'm available. I also plan to be QRV in the ARRL EME Contest.



N5BF's 3 m dish with 1296 feed

**N6OVP:** David [n6ovp@pacbell.net](mailto:n6ovp@pacbell.net) writes that he remains QRV on 1296 – I wish more stations would wait around for my limited window to EU from CA. In the future I plan to remind stations on the HB9Q website to wait around until I have Moon.

**OK1DFC:** Zdenek [ok1dfc@seznam.cz](mailto:ok1dfc@seznam.cz) reports that he was QRV for the 6 cm MVAW with his portable setup on 13 Aug – I was only able to be active on Saturday, but have to say that the activity was great! With only my small portable station, I was able to work 8 CW QSOs and 6 JT QSOs. I worked OK1KIR, JA1WQF, JA4BLC, UN6PD, UA3TCF, SM6CKU, G3LTF, SQ6OPG, OZ1LPR, UA3PTW and G4NNS. I also heard HB9Q, but we did not contact due to low elevation. The Moon was already behind a house. I am sorry I was not able to work anyone from NA but my moonset made this difficult. [Zdenek was also activity as SP/OK5EME earlier in the month – see following report].

**OK1KIR:** Vlada and Tonda [vlada.masek@volny.cz](mailto:vlada.masek@volny.cz) sends news on their clubs operation in Aug – On 6 cm, there was excellent activity during the MVAW with QSO on 27 Aug at 0028 JA8IAD (559/539), 0041 JA4BLC (559/559), 0048 JA1WQF (559/559), 0112 OK1DFC (549/559) for initial #92, 0203 UN6PD (549/O), 0345 UA3TCF (O/O), 0455 JA6XED (559/559) #93, 0503 SV3AAF (549/559), 0517 SP7JSG (549/579), 0721 I13EME (O/519), 0733 SQ6OPG (569/569), 0814 G4NNS (559/569), 0828 SM6PGP (559/559), 0852 G3LTF (569/579), 0902 OZ1LPR (569/579), 0922 UA3PTW (559/569), 1000 HB9SV (559/569), 1006 PA3DZL (569/569), 1134 SM6CKU (559/559) and 1245 HB9Q (589/599) - 20 stations during only the first moonpass, and on 28 Aug at 0121 JF3HUC (569/569), 0135 JA8ERE (569/579), 0303 JA6CZD (569/569), 0350 OH2DG (579/569), 1046 WA9FWD (O/O), 1124 K2UYH (559/569) and 1306 VE6TA (O/O). Also heard on Saturday was IK2RTI (569). Overall we collected CW QSOs with 27 stations; very close to the 30 made on during the 3 cm AW. In addition we worked using JT4F on 27 Aug at 0103 OK1DFC (13DB/15DB) for digital initial (#24), 0139 UN6PD (13DB/11DB), 0311 JA1WQF (12DB/15DB) and 0327 UA3TCF (27DB/28DB) and on 28 Aug at 0734 SV3AAF (13DB/13DB) (#25). On Sunday during a longer pause of our 5.6 GHz WiFi QRM, we measured Sun noise at 16.7 dB (SF-85) and Moon noise at 1.6 dB. Special appreciation to 7 Jas for the activity and G3LTF for initialization of the MVAWs. 13 cm we worked on 27 Aug at 0603 IK5QLO (559/559) on CW for initial #149 and at 0613 IK5QLO on JT65 (12DB/18DB) for digital initial #42. On 3 cm we contacted on 12 Aug at 1629 SP/OK5EME (16DB/88DB) for digital initial #101 during OK1DFC dpxpedition to SP.

**PA3DZL:** Jac [PA3DZL@planet.nl](mailto:PA3DZL@planet.nl) plans to be QRV for the 13 cm MVAW and all ARRL Contest weekend. In Aug he QSO'd on 2320 I13EME (559/559). This is the EME special call sign issued for XVII EME Conference Venice. Jac can listen on 2304 and is interested in skeds.

**SM6CKU:** Ben [ben@sm6cku.se](mailto:ben@sm6cku.se) was QRV for the 6 cm MVAW -- Returning from a nice conference in Venice, it was good to get back to 6 cm after a long break. I am now using a KX3 as IF and it is a joy. On 5760 I worked on Friday 26 Aug HB9SV and G3LTF, on Saturday 27 Aug G3LTF again, OZ1LPR, I13EME, OK1DFC, SV3AAF, UN6PD, SM6PGP, HB9SV again, OK1KIR and IK2RTI, and on Sunday 28 Aug OH2DG, SQ6OPG, WA9FWD, K2UYH and VE6TA. I also worked SM6PGP by rain scatter (RS) while pointing our antenna at the Moon. I could hear his RS signal on my echo, but I could also see his moon echo some 9 KHz away. Normally we do not hear each other when pointing antennas to the moon. I end the weekend with a total of 15 stations worked including 8 initials.



SP/OK5EME operating location

**SP/OK5EME:** Zdenek (OK1DFC) [ok1dfc@seznam.cz](mailto:ok1dfc@seznam.cz) had problems during his short EME dpxpedition with very bad conditions -- The Moon was very low -20° declination and the spread was 180 Hz, and I equipments issues with my test support at home. I was able to work

several stations on both bands. On 3 cm, I QSO'd using JT4F OK1KIR (18DB/18DB), OZ1LPR (17DB/20DB), HB9Q (14DB/20DB) and UA4HTS (12DB/19DB). I was only able to achieve a partial QSO with PA3DZL. On 6 cm, I worked HB9Q (12DB/17DB) JT4F, HB9Q (O/O) CW, UA3PTW (15DB/14DB) JT4F and OZ1LPR (21DB/17DB). Due to the low Moon declination, I had also very short Moon window. Near moonrise with 12 degs elevation, I still had 5 dB of CS/G noise and on moonset was block by Kralicky Sneznik and Cerna Hora mountains. As a result, I was not able to work anybody from NA. I hope to have chance to organize more expeditions in the near future at more locators.

**UA3PTW:** Dmitry [ua3ptw@inbox.ru](mailto:ua3ptw@inbox.ru) reports recent QSOs on 70, 13 and 6 cm -- I worked on 432 initials using JT65B with N4QWZ and RA9CHL. I added on 2320 ZS6EME using JT65C, and on an 5760 ZS6EME also with JT65C, I3EEME on CW, SP/OK1DFC with JT4F and OK1DFC on JT4F. [Thanks to DK3WG for relaying this report].

**UA3TCF:** Alex [ua3tcf@mail.ru](mailto:ua3tcf@mail.ru) was active again on 6 cm in Aug - I worked on 5760 on 5 Aug PA3DZL using JT4F for mixed initial #6\* (12DB/14DB) and UA4HTS (14DB/16DB) JT4F #7\*, on 6 Aug PA0BAT (15DB/14DB) JT4F #8\*, and on 7 Aug PA7JB (14DB/14DB) JT4F #9\*. **During the 6 cm MVAW I added on 27 Aug OK1KIR (15DB/14DB) JT4F and (O/O) CW, OK1DFC (12DB/21DB) JT4F #10\* and UN6PD (14DB/16DB) JT4F #11, and on 28 Aug HB9Q (559/449) CW. Heard on CW were G3LTF (449), SM6CKU (339), JA4BLC (449), JA6CZD (559), JH3HUC (449), OH2DG (449) and SQ6OPG (339), and copied on JT4F JA1WQF (13DB) and SV3AAF (13DB).** I also worked on 29 Aug JA1WQF (12DB/20DB) JT4F #12\*. For my JT4F QSOs, I used the WSJT10 software. All the stations worked with JT4F produced signals strong enough to be heard by ear. My rig is a 3 m dish with CP feed and a 12 W SSPA. My sunnoise is 13 dB with a flux =74, moonnoise is 0.6 dB, and I hear my own echoes (T) report.

**UA9YLU:** Victor [ua9ylu@mail.ru](mailto:ua9ylu@mail.ru) added initials on 1296 in Aug using CW with F1PYR, nd with JT65C with I3EEME, OK1IL, DF2VJ and KN0WS. [TNX to DK3WG for relaying this report].

**VE6BGT:** Skip [macaulay.skip@gmail.com](mailto:macaulay.skip@gmail.com) has made grat progress on his new dish -- I finally got all the mesh on the surface and with some help from local ham friends the dish was winched up a ramp onto pallets, and then lifted over to the dish mount frame. The whole dish assembly and mounting hardware was then winched up into position. When the dish was almost at the end of its travel while being winched up the tower, the weight of the dish shifted over during the last few inches, as it was to swing into position on its own, and slammed into the tower with quite a smack! A little later on when using my custom built elevator lift to work on the dish and install the counter weights, we discovered that the *hard* stop had cracked the casting on the pillow block bearing in the elevation actuator, and that the dish had fell a few inches when the bearing let go. Luckily there was no damage and nobody was hurt. I have since replaced that bearing with a strong *Timken* tapered bearing and a massive bearing holder. Unfortunately the existing mounting hardware for the counter weights now does not put the weights far enough out to lift the heavy weight of the dish. I have determined what I need and the dish has been lowered to the ground for the addition of new hardware for the counter weights to do their job. Otherwise, all has been going well. I am very pleased with the dish support tower and the tip over winch system for raising and lowering the 21.5' dish. I am hoping to have it back in the air in a week.



**VE6BGT's new 21.5' dish going up**

**VE6TA:** Grant [ve6ta@xplornet.com](mailto:ve6ta@xplornet.com) reports on 6 cm MVAW -- I was on 5760 for the MVAW in Aug. But it was very windy on Saturday and as a result I could only be QRV on the Sunday. I managed to work OZ1LPR, SM6CKU for initial #32, OK1KIR, and K2UYH all on CW. I also tried a sked with WA9FWD, but only copied John weakly. I plan to be active during the ARRL MW Contest in Sept.

**W5LUA:** Al [w5lua@sbcglobal.net](mailto:w5lua@sbcglobal.net) reports on his mini dpxpedition to demonstrate 3 cm EME at the CSVHF Conference in MN back in July -- I operated on 10 GHz from EN34sb in Rochester, MN during the annual Central States VHF Society conference. The goal was to help promote small station EME on 10 GHz. I used a 1 m offset fed dish and a 50 W SSPA with a Qorvo GaN MMIC as described by G3WDG in DUBUS magazine. [Thanks to Charlie for his help]. My sun noise measured 7.7 dB and I had about 0.4 dB of moonnoise. I spent the Thursday before the conference just working on the setup and calibration issues so that it would be ready the following morning at 6 AM. Our WIFI was spotty out in the parking lot, so I set up several skeds in advance. My request was that all stations adjust their mutual Doppler to our EN34sb location. This allowed me to transceiver on 10368.050 and never have to move the dial. On Friday of the conference, 29 July, I started with a sked at 1200 with OZ1LPR. I was happy to see OZ1LPR show up early and sending calls. Between 1151 and 1157, I completed our first contact (12DB/17DB). At 1217, I was pleased to see HB9Q calling and we QSO'd (14DB/11dB). G3WDG was next at 1230. Charlie started out by sending a single tone, which is always good for demo purposes and gave onlookers an idea of how well we have conquered the frequency drift issue due to mutual Doppler. Charlie then went to calls and a (13DB/17DB) QSO was complete at 1236. At 1245 I worked OK1KIR (13DB/12DB) and we repeated at 1306 for demonstration purposes. On the second day, 30 July, I started the day with a second QSO with OZ1LPR at 1059. The intensity of the tones from Peter gave the audience a sense of how strong signals can be off the Moon on 10 GHz and also a real good idea of the spreading at 10 GHz due to libration. At 1200, I QSO'd WA3LBI in FN20 (18DB/14DB). Then the OK1KIR club showed up again to give a repeat QSO at 1219. The demonstration proved to be a great success with a total of 8 QSOs on JT4F. It provided first Minnesota contacts on 10 GHz to all. Since the weekend was also a 10 GHz MVAW weekend, we heard and called SP6JLW on CW for some time, but with no success. The loud CW signal from SP6JLW was also a real eye opener for the crowd. Special thanks for all their help to my good friend WA8RJF, who rose at 5 am for 3 days straight to help me set up in darkness; and other good friends for getting up early to give me support! I apologize to all that we did not have time to work. Our operating windows were narrow due to conference activities. The MN area is home to the Northern Lights Radio Society, which has a significant number of 10 GHz weak signal rover stations, many of which can be EME capable with a little bit of work. Our next planned EME demonstration will be at the Microwave Update conference in St. Louis, MO on 14 and 15 Oct. We hope to see you there.



**W5LUA/0 3 cm portable station in MN at CSVHF Conference**  
[Pix by KOMHC]

**W6YX:** Gary (AD6FP) [ad6fp@lbachs.com](mailto:ad6fp@lbachs.com) sends news that the Stanford Club is preparing for the upcoming ARRL EME contest -- Much of the

station has been rebuilt and refurbished, not the least of which is the building housing the equipment. Over the years the shelters' roof had started leaking causing high humidity, mold and generally unacceptable conditions for humans as well as RF equipment. A new roof was built, the interior was gutted, cleaned, painted, new lighting and power were installed and things are back to usable. A second big project was the relocation of the 4.6 m 10 GHz dish from AA6IW's driveway to the W6YX site. The relocation, installation and testing of the 10 GHz station took the help of a dozen people over several months to complete. Were looking forward to being back on the Moon after this hiatus and putting in a big effort in the ARRL contest.



**W6YX site: 4.6 m 10 GHz dish (L), 2 m EME array (C), 8 m 13/23 cm dish (R)**

**WA9FWD:** John [jstefl@wi.rr.com](mailto:jstefl@wi.rr.com) was also QRV for the 6 cm MWAUW on Sunday -- I was rained out on Saturday, but on Sunday, 28 Aug, I was able to be active. I worked OK1KIR on random, then OZ1LPR for initial #13, K2UYH #14 and SM6CKU #15. I was unable to complete with VE6TA. I plan to be operational for the ARRL contest. I will most likely start on 13 cm and possibly go to 6 cm the second day.

**YO8RHI:** Adi [adiyo8rhi@yahoo.com](mailto:adiyo8rhi@yahoo.com) is now QRV on 10 GHz RX – Although you have not heard much from me lately, I have not been idle. I have been working on 3 cm EME and now have my first results. I had to change antennas because my old dish did not work well on 10 GHz. Last week I made my first reception of 10 GHz EME signals from WA3LBI – TNX Jim. We were both using circular polarization. I do not yet have a 3 cm PA; but in short time, I will be able to TX too.



**YO8RHI's new dish for 3 cm**

**K2UYH:** I [alkatz@tcnj.edu](mailto:alkatz@tcnj.edu) (my XYL Sally) had a wonderful time at the EME conference in Venice and later visiting with IONAA, Mario and his XYL Marina. They were terrific hosts. K1JT, Joe and his XYL Marietta travel with us. We all had exceptionally great time. We had the opportunity to see Mario's stealth dish and discuss his plans for EME and the reception of Pulsars. Because of the trip, I did not have much time for EME operation. Just before leaving 17 Aug on 1296 MHz, I was able to give at 0243 N5BF (16DB/12DB) on JT65C his first EME QSO and my mixed initial #531\*; we then worked on CW at 0256 N5BF (559/559) for my initial #347. The day after I returned, on 28 Aug I was QRV for the second day of the 5760 MWAUW and QSO'd on CW at 1125 OK1KIR (569/559), 1134 OZ1LPR (569/569), 1145 WA9FWD (O/O) for initial #48, 1227 SM6CKU (569/559) and 1325 VE6TA (O/O). I plan to be QRV multiop for the ARRL MW EME Contest and the weekend before the 13 cm MWAUW.

**NET/REFLECTOR NEWS: 4X1KS** is working 4 yagis and 500 W on 432 – see Mark's report in the last NL. **G4NNS** was QRV for limited time on Saturday and Sunday during the 6 cm MWAUW. **W1PV** plans to be QRV for the ARRL EME Contest on 23 cm with a 6' stressed dish and a KL6M septum feed. **W3SZ** [and many others] sends his thanks and congratulations to IW3HVB and the entire EME2016 crew for putting on an extremely well organized and successful conference.

**FOR SALE: DL1YMK** needs an absolute encoder MAB25 12 bit SSI interface. Anyone have one to sell. **G4HUP** has updated the hupRF website to include details of installing the Panoramic Adaptor Tap (PAT) board in the ICOM IC718 rig. Go to <http://huprf.com/huprf/pat-board/> and scroll down to the Links to Instructions table. **W8BYA** has 2 K&L high selectivity 70 cm bandpass filter for sale. The have N connectors and generate a stop-band attenuation reaching 80 dB. He is asking \$US220 plus shipping. Contact Gedas at [w8bya2@mediacombb.net](mailto:w8bya2@mediacombb.net) for more details.

**EME 35 & 25 YEARS AGO BY PETER, G3LTF:** 35 years ago in Aug 1981 ZE5JJ reported that he was now listening on 23 cm on his beautiful HB 32' dish (see <http://www.ka9g.net/moonbounce-notes/ZE5JJ%20EME%20Antenna.%20The%20-%20Eimac.pdf> for a description. He was getting 0.5 dB of moonnoise with a 0.5 dB NF and an W21MU dual mode feed horn. K2UYH describes how to build and calibrate your own noise diode head and there were engineering drawings for a 2 x 3CX100A5 PA for 23 cm with higher efficiency than we were getting from the older sheet metal cavity designs. 17 US stations had reports on 432 and 1296. K5JL completed the third 432 WAS with a QSO to Nevada [one of the two states G3LTF still needs for WAS]. 25 years ago in Aug 1991 high activity on 432 was reported due in part to a very successful dxpedition to GJ by F6KSX (16 long yagis as I recall) and another to UC2 (now EU-EW) by UB4LL. IK3COJ reported receiving signals on 1296 and there was rapidly growing activity on 2304 centered around W4HHK and OE9ERC with his new 7.8 m dish. Erich worked 11 stations with only 10 W at the feed. ON4UV was also getting started on 1296 with a 5.3 m dish and 250 W and asked for "no skeds" as he wanted to make his first 23 cm QSO on random! (How did we manage with no loggers and no SDR's?... we called CQ and tuned +/-). Finally DL9EBL reported hearing his echoes on 9 cm with 30-40 W to his 12 m dish and was receiving 16-17 dB of sunnoise.

**FINAL:** The 17th International EME Conference, [www.eme2016.org](http://www.eme2016.org), has a download section on its website, <http://www.eme2016.org/index.php/file-repository/>. In this section is a digital copy of the proceedings, the presentation slides, and the audio/video files used during the technical sessions. Recording of the sessions have been uploaded to Youtube. If you have photos taken at the conference please send them to IW3HVB. He is putting together a photo gallery on the website for everyone's enjoyment. [Thanks to Giulio and his staff for a truly outstanding event!]

EME 2018 will take place at Hotel Zuiderduin in Egmond aan Zee (the Netherlands) on 16-19 Aug. Plans already include on Thursday (16 Aug) an excursion to the Dutch waterworks to show some of the technique used to keep Holland dry. The waterworks are both impressive as well as beautiful; Friday (17 Aug) an excursion to P19CAM and the 25 m Dwingeloo dish and the 14 dishes of the Westerbork array; Saturday (18 Aug) EME Lectures/Conference and for partners excursion for a 'Typical Dutch' and all the closing dinner in the beach-pavilion on the beach; and Sunday (19 Aug) morning conference activities/talks, for partners a trip in and around Egmond aan Zee, and for all an extended lunch for goodbyes.

In May 2017 the Swedish EME conference will return. SM4IVE has confirmed the conference will take place at the Scandic Hotel with very little price change from 2015. The preliminary agenda will be on the web very soon at <http://sm4ive.com/ememeetingmay.php>. This is another conference you do not want to miss.

K1DS is working to get the ARRL to accept electronic logs for the EME Contest. [DJ3JJ writes that he has been submitting his logs in Cabrillo format for several years and that they have been accepted].

As already noted, the EME was wonderful! Now my focus has shifted to the ARRL EME Contest. I hope to find many of you off the Moon during the MW Contest weekend and will during contest weekend in Oct and Nov. Sally and I will be in London for the EU Microwave Week and trying to arrange a gathering of EMEers possibly on 6 or 7 Oct. Please keep the reports and tech info coming. 73, AI – K2UYH