432 AND ABOVE EME NEWS
NOVEMBER 2003 VOL 31 #11

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CONDITIONS: There appears to be almost universal agreement (at least in the Northern Hemisphere) that the Oct leg of the ARRL EME Contest was a good one! The Spitzbergen dxpedition really turned around the activity on 432 producing comments as "the best contest weekend in 10 years!" SM2BYA and SM2LTA have the gratitude of the entire EME community for a great dxpedition. We need more like this one for the future. Condition wise 432 was not at its best. There was considerable polarization spreading and the effects of high geomagnetic activity. (A gigantic occurred about a week after the contest – see VK3UM's observations in a separate report.) Although 432 had the spot light, there was still plenty of activity on 1296 and above. Judging by the comments the momentum will continue into Nov!

HIGH CONTEST SCORES: On 432 the highest score is of course JW/SM2BYA with 125 QSOs, but this is with a non-amateur owned dish. In the ham category the field is lead by OH2PO with a score of 84x35. Unfortunately, the truth is we can't be sure since many of the "big guns" have chose not sent in their scores this year. I don't know if this is because the reflectors are now adequately providing this information and there is no need for a summary here, or a fear exists that revealing the first weekend score will give an advantage to the competition. The situation is similar on 1296 where OE9XXI has the lead with 60x25 followed by LA8LF 42x20. On 10 GHz we have only one score from I5PPE with 5x5.

F2TU: Philippe F2TU.Philip@guideo.fr does not say much about his Oct results, but does say -- I will be QRV all bands 70, 23, 13, 6, 3 cm in the 2nd part. Stations should contact me for windows on the bands > 23 cm. Currently, there are problems with f2tu.philip@guideo.fr. If this address is not QRV, please send to querieux@wanadoo.fr.

F6DRO: Dom Dominique.DEHAYS@enac.fr (JN03) is now QRV on 70 cm EME -- I worked very hard to get 4 x 21 el F9FT ready for the JW expedition. I build an N6CA preamp and loaned a 3CX800 PA from a friend. My place is very windy and thus the antenna mount needs to be very strong. I often see pictures in the NL of 432 EME arrays that won't stay up longer than a week or two here! Murphy struck on the Friday afternoon before the contest. Each time I added a piece of equipment, I had a problem, but after several hours fighting all went ok. Unfortunately the WX was very bad with wind of > 100 km/h. There was no way I could QRV during the 1st night. On Saturday morning there was a period where the wind calmed down a bit, and I was able to work my first 70 cm EME QSO with JW/SM2BYA, followed quickly by HB9Q and K1FO. Then the moon was setting. I used Saturday afternoon to improve the rig. The night from Saturday to Sunday was again very windy. I risked my antenna's life by being active a few hours and worked DL9KR, DK3WG, OH2PO, DL7APV and a partial with SM2CEW - all on random. As the antenna was twisting too much in the wind, I decided to QRT before loosing it. I had a really very short time to operate. With no wind, I'm sure that many more stations would have been worked. Heard/CWNR were JL1ZCG, F6KHM, DF3RU, G3LTF, K5GW, OE9ERC, N9AB, KU4F, DJ6MB and N2IQ. After the contest I easily worked K2UYH on schedule. There is lots of room for improvements. I could easily lower my TX line loss to less than 1 dB instead of around 3 dB at the moment! I will use the same array for the second leg, but will add 4 more yagis in Dec. I also need a PA.

G3LTF: Peter 100633.1656@compuserve.com reports -- One of the best contest weekends for some years. There was good WX and lots of activity. Condx on 432 were very variable with a lot of polarization spread. I am building a good multiband score with 79 QSOs so far. On 13 cm 7x7, 23 cm 36x20, 70 cm 34x22 and 2 m 2x2. On 13 cm on 18 Oct I worked the following (some were cross band 2320/2304) OZ4MM, F2TU, G3LQR, OE9ERC, HB9SV, SM4DHN and W5LUA. CWNR was JA4BLC. Where is the US activity on 13 cm these days? On 1296 on 18 Oct I worked JA6CZD, HA5SHF, OZ4MM, F6CGJ, OH2DG, LA8LF, HB9BBD, JA6AHB, DF3RU, SM3AKW, G4CCH, HB9Q, OK1CA, F2TU, W2DRZ, K5GW, F5VHX, DL1YMK, OE9XXI, PA0SSB – It was great to hear Jan again, K5JL, F1ANH, WA6PY, DL3HRT for initial #196, OZ6OL, OM6AA #197, JH5LUZ, IK3COJ and IK2MMB, and on 19 Oct HB9SV, F6KHM, G3LQR, W2UHI, W9IIX, W7GBI and OE9ERC. CWNR were JA8ERE, K2UYH, OZ9AAR, W7SZ, W7BBM and DL8OBU. On 432 on 17 Oct I worked JW/SM2BYA for initial #375 (a great effort!), on 18 Oct SM2CEW, DF3RU, OH2PO, DL7APV, JW/SM2BYA, K0RZ, SM3AKW, HB9Q, N9AB, F2TU, KU4F, K1FO, and n 19 Oct JLIZCG, DJ6MB, DL9KR, SM2ILF #376, OH2DG, OE5EYM, UA3PTW, DK3WG, I5CTE, DJ3FI, S52CW, EA3DXU, K2UYH, DL1YMK, HA1YA, SP6JLW, WA4NJP, VE6TA, G4YTL, G3LQR, ON5OF and K5GW. CWNR were G4RGK, YU1EV and OK2BDQ; heard were HB9JAW, SK0CC and K4EME. On the technical front, I replaced the homemade connectors on my 1 5/8" 50 m feeder and improved the VSWR on the higher bands. I also re-matched the dual dipole feed when in the dish - details to follow for a future Technote.

SM5IOT's new 12 x 25 el yagi array – Look for Chris on 70 cm in Nov

G4RGK: Dave g4rgk@hdeng.freeserve.co.uk made it back on for the contest-- The main part of my building work is now finished. I have now been able to move back into the shack and re-route all the cables (~ 40) including a couple of runs of 7/8 Heliax. I managed to get the EME station back up and running the Friday evening before the contest start. Most of the DC cables were *bodged* together with terminal blocks and crocodile clips (bad move). Over the summer, the antenna has been repaired and all the damaged feedlines have been remade using 3/16 aluminum rod and stainless steel fixings. There was no real chance to do any RX checks, no time and all the various bits have been lost in the shack chaos. I was only able to operate for a limited time due to other commitments. My first QSO was with JW/SM2BYA at 0018. Who had an excellent signal and seemed to be hearing exceptionally well. This was followed by F6KHM, SM3AKW, DK3WG and DL9KR. I was lucky to complete this last contact, as I managed to kick the croc clips off the sequencer, which resulted in smoking my preamp. As it was the middle of the night, I gave up and went to bed. The next morning I replaced the MGF1302, fixed the sequencer and got back on at 1030 to work K2UYH, K1FO, OH2PO, SM2CEW and N9AB before I had to QRT at 1000. It is difficult to comment on conditions as the station was obviously performing below par. I will be back on next month with more time and a hopefully an improved set up.

GW4DGU: Chris gw4dgu@blaenffos.org (x- G4DGU) in IO71sv is set up for 432 EME again -- I was last on 432 EME between 1978 and 1982 using my old G4DGU call. Work, a couple of other avocational interests and a series of radio-unfriendly houses have kept me off the Moon. I have now moved to a new QTH where I have ten acres of Welsh countryside, and am resolved to get back on! Finding the NL on-line (I remember the old blue cyclostyled NL!) and encouragement from GW3XYW and G3SEK have been very important in getting me active. I started a few months ago on 144 with a modest single 15.6 dBi yagi and 600 W SSPA, and now have 30 initials using both CW and JT44, but my heart is still with the higher frequency bands. I've acquired a very nice 2.4 m offset dish and fixed mount, which I'm modifying for az-el drive. Once that's done, I should appear on 10,368 EME fairly quickly. I have most of the electronics (including the SSPA) to put together a little 10 W system. 1296 will probably follow. I've been looking at the possibility of extending the dish to make it a semi-offset reflector at the lower frequencies. I had bad experiences with a small 4 m dish on 432 back in the 1980's. I'm just getting myself back on 432 with a yagi system. I designed a 17.3 dBi, 4 m boom yagi with what should be a good G/T ratio. My first tropo QSO with it was EA8BPX at 2800 km! I'd planned to have a group of six of these yagis (I have a six way combiner in my junk-box!) operational last weekend, but a minor health/mobility problem got in the way, and I ended-up with just two. I connected-up a temporary 230 W PA (a pair of 100 W pep 220 MHz SSB trunking PAs using 28 V D-MOSFETS, modified for 432, and combined between quadrature hybrids). JW/SM2BYA came straight back to my first call (529/519/) giving me my first 432 EME QSO since working HB9SV on 4 Dec in 1982! I also managed to work HB9Q who had a huge signal even on 2 yagis. I also called N2IQ and OH2PO, who both came back with QRZs and heard K5GW. I was only able to be on for a couple of hours, but should be on with 8 yagis and 700 W for the Nov leg. In time, I will probably expand to 16 yagis.

HA5SHF: Csaba kiraly.csaba@ln.matav.hu wrote before the contest that his group planned to be active on 1296.030. During the 1st leg they worked OZ6OL, HB9BBD, G4CCH, OE9XXI, LA8LF, OZ4MM, F6CGJ, OH2DG, G3LTF, OE5EYM, K5JL, OK1CA, SM3AKW, K5GW, K2UYH, HB9Q, PA0SSB for an initial (#), IK2MMB, F6KHM, HB9SV, OE9ERC, DF3RU #, F2TU, ON5RR, W2DRZ # and I0UGB for a score of 26x17 and 3 initials. They found conditions good, but with lower than normal activity in the US. They acquired a new PA using 4 x BLV958s, which provides 180 W at the feed of their 3 m dish. They are working on a new tracking system (from IN3HER). More information can be found on their web page at http://web.axelero.hu/ha5shf01/.

HA5SHF's 3 m dish on 1296

HB9Q: Dan hb9crq@hb9q.ch sends his group's results for the 1st half of the ARRL EME Contest -- We were QRV on 144, 432 and 1296. All QSOs were on random and CW. Conditions on all bands seemed to be quite ok. We only spend 5 hours on 1296, and feel we can do more there. 432 was our mayor focus. We worked many new stations (23 initials!). Several of these were most probably QRP stations. Activity seemed to be quite high due to the JW/SM2BYA dxpedition. Our total score is 206x93. We enjoyed very much all the QSOs and apologize to stations calling us without success. Please try again in November! Our RIG worked with no technical problems, which is really unusual. We made some improvement before the contest to our 432 system. HB9BBD helped us with the preamp and the PA. We now have full legal power on 432 and 300 W on 1296 (unchanged). For the detailed logs see the band pages on our homepage at www.hb9q.ch. We will be active again in Nov, QSYing back and forth between 432.020 and 1296.016. If there is QRM we will move up several kHz.

I5PPE: Alex (IK5WJD) and Pietro (I5PPE) Giusti@everyday.com report on 10 GHz contest activity by the Toscana EME Team – During the entire 18 Oct moon period we had strong north winds that made it impossible to move the dish without risking the destruction of our entire system. On the 19th, the wind was lower. We were able to hear very good echoes and worked starting at 0805 IQ4DF (559/549) for an initial (#), OK1UWA (529/539), DL0SHF (449/449) #, PA0EHG (539/559) and W5LUA (O/539). F2TU was heard but not QSO'd. At 1030 Murphy happened! Our waveguide TR relay failed and we did not have a spare. We were thus forced to QRT after only about three hours of activity. If the weather and Murphy permits, we will be QRV on 10 GHz again next month.

JA9BOH: Kimio ja9boh@po5.nsk.ne.jp is alive and QRV on 432 EME -- I was on for ARRL competition on 432 with 2 yagis and worked 9 stations. QSO'd on 18 Oct were N2IQ (569/559), KL6M (O/O), JL1ZCG (559/439) and DL9KR (O/O), and on 19 Oct HB9Q (O/O), OH2PO (O/O), JW/SM2BYA (529/519) for initial #302, VK3UM (O/539) and K5GW (559/559). The strongest station was N2IQ. CWNR were HB9JQW, DK3WG, JH0WJF and DL7APV. On 26 Oct I expanded to 4 yagis (2.81 m boom) with horz pol. I copied (M-O) echoes with 1 kW output and could detect marginal echoes at 250 W output by ear. I believe that with JT44, that I will be able to QSO stations with less than 20 dBd of antenna and medium power. I plan to be active again in Nov.

JH1KRC: Mike jh1krc@syd.odn.ne.jp tells of his success on 1296 EME -- My first EME QSO on 23 cm was made with K5GW. Gerald's echoes were the first heard on this band, except my own - Hi! The population for the JA window seemed to be very low. I QSO'd on 18 Oct K5GW (579/579) for initial #1 and JA6AHB (559/559) #2, and on 19 Oct HB9BBD (579/559) #3, OE9XXI (589/559) #4, G4CCH (559/539) #5, F6KHM (569/339) #6, OE9ERC (579/569) #7, partial DF3RU (539/nil), HB9SV (589/569) #8, F6CGJ (559/559) #9, K2UYH (549/549) #10, W2DRZ (339/439) #11, K5JL (579/559) #12, W7GBI (559/539) #13, WA6PY (O/O) #14. My equipment is a 4.4 m TVRO dish with f/d = 0.32, WA6PY feed, DL9EBL TH327 cavity with K5JL and JH1KRC modifications giving 500 W output at TX into 12 m of RG-17/U coax, WA6PY cavity type LNA to IC-970D transceiver with 250Hz CW filter and JE1BMJ audio smoothing filter. I still have manual tracking and a CCD video camera. I can hear my echoes (559).

JJ1NNJ: Kouichi's BYD01531@nifty.ne.jp contest report follows -- I worked on 70 cm on 18 Oct JW/SM2BYA, DL9KR, OH2PO, HB9Q, JL1ZCG, K1FO, KU4F, N2IQ, JH4JLV, UA3PTW, KL6M and OZ4MM and on 19 Oct DL7APV, DK3WG, K5GW, VK3UM and N9AB. I very much appreciate JW/SM2BYA operation.

JW/SM2BYA: Gudmund sm2bya@telia.com has sent a initial report on the dxpedition -- This is just a quick summary as I must leave for a trip to the US. JW/SM2BYA and JW/SM2LTA worked a total of 151 QSOs. There were quite a few more dupes than we thought at first and so the actual number of initials is only 125. Most were worked by –BYA. -LTA worked two or three unique initials. QSO'd in alphabetical order were 7M2PDT, CT1DMK, DA0ED, DB6NT, DF3RU, DF6NA, DF9QX, DG1KJG, DG6SYL, DJ3FI, DJ5MN, DJ6MB, DJ7GK, DJ8MS, DK0WZ, DK3BU, DK3FB, DK3WG, DK5MV, DK7OM, DK8VS, DL0AO, DL0SWG, DL1SUN, DL1YMK, DL2OM, DL4KG, DL4MEA, DL4SUN, DL5LF, DL7APV, DL7UDA, DL8OBU, DL9KR, EA3DXU, F2TU, F6DRO, F6KHM, G3LQR, G3LTF, G4ALH, G4FUF, G4RGK, G4YTL, GM4ISM, GW3XYW, GW4DGU, HA1YA, HB9JAW, HB9Q, I5CTE, JA2TY, JA4LKB, JA6AHB, JA9BOH, JH0WJF, JH4JLV, JJ1NNJ, JJ3JPF, JL1ZCG, JR9NWC, K0RZ, K1FO, K2UYH, K4EME, K5GW, K6JEY, KE2N/4, KJ7F, KL6M, KL7HFQ, KU4F, LA9DL, N1BUG, N2IQ, N9AB, OE3JPC, OE9ERC, OH2DG, OH2PO, OH3AWW, OK1DFC, OK1KIR, OK1KZE, OK2BDQ, OM1TL, ON4KNG, ON5OF, ON7NH, OZ4MM, PA0PLY, PA2CHR, PA3CSG, PA3DZL, PA5DD, RA3LE, RW3PX, S51CL,S51ZO, S52CW, S53J, SK0CC, SK4BX, SK7MW, SM2CEW, SM2ILF, SM2LKW, SM3AKW, SM5IOT, SM5LE, SP6GWN, SP6JLW, SP6OPN, SV1BTR, UA3PTW, UA9FAD, UT3LL, WA4NJP, VE6TA, VK3UM, VK4AFL, YO2IS, YO4FRJ, YU1EV and YU1JB.

K0RZ: Bill's WMccaa@aol.com 432 EME report for Oct – My contest operating time was very limited, but I did manage to accumulate a score of 29x21. I had 70 cm QSOs with CT1DMK, DF3RU, DL7APV, DL9KR, F6KHM, G3LTF, HB9Q, JA6AHB, JH4JLV, JR9NWC, JW/SM2BYA, K1FO, K4EME, K5GW, KE2N/4, KL6M, KU4F, N2IQ, N9AB, OE9ERC, OH2PO, ON5OF, OZ4MM, SM2CEW, UA3PTW, VE6TA, VK3UM, VK4AFL and WA4NJP. I plan to be QRV again on 70 cm in Nov.

LA8LF: Anders milcom@tiscali.no brings us up to date on his 1296 EME activity – In Aug I was only active on 1296 for a short time and worked on 23 Aug HB9Q (569/539) for an initial #135 and W2DRZ (559/539) #136. I was more active in Sept and QSO'd on 20 Sept G3LTF (569/559), SM3AKW (559/559), DL4PV (559/539), OE9XXI (589/559), IK2MMB (549/559), G4CCH (569/559), and on 21 Oct ZS6AXT (549/559) and GW3XYW (559/559). During the ARRL EME contest I used my Plisch TH-327 HPA for the first time since 1998. I just started it up. It needed no retuning at all! I worked on 18 Oct F1ANH (549/549) #137, HB9BBD (589/579), IK2MMB (559/569), OE9XXI (589/569), JH5LUZ (449/559), OZ6OL (449/549), HA5SHF (439/559), G4CCH (569/569), OZ4MM (559/559), JA6AHB (549/559), SM3AKW (559/559), OH2DG (559/549), DF3RU (559/559), G3LTF (569/559), HB9Q (579/559), OK1CA (559559), F6CGJ (569/569), IK3COJ (449-449), DL4MUP (449/559) #138, F2TU (569/559), PA3CSG (569/559), K5JL (589/589), K5GW (589/589), WA6PY (549/549), N2UO (549/559), W7SZ (549/549) #139, W2DRZ (449/549), W7BBM (549/559) #140, I0UGB (559/559) #141, OZ9AAR (559/559) #142, OE5EYM (559/559), F5VHX (449/569), K2UYH (579/589), DL1YMK (549/549) #143, DL3HRT (549/559) #144, OM6AA (O/O) # and PAOSSB (579/589) #145. CWNR were JA6CZD and IZ0CUL/0. Worked on 19 Oct were ON5RR (O/O), F6KHM (579/549) #146, W7GBI (569/559), W2UHI (569/569) and OE9ERC (589/569). CWNR were JH1EFA, PY5ZBU and W9IIX. My total was 42x20 and 11 initials. My right shoulder is giving me problems from a torn muscle and therefore I was not able to operate more than 1 hour on Saturday evening and 2 hours on Sunday afternoon. Surgery will be on Friday the 14th. Nov. Consequently I do not know if I will be able to operate in the second part of the contest; maybe only on the 2nd day. If I can be on, small stations should give me longer calls, preferably 2.5 minute calls, and not give up as long as I call QRZ! Remember I run 1300-1500 W to the feed with only a 3.8 m dish. Most stations can hear me much better than I hear them! I probably lost 4-5 stations during the contest because they called only for only 30-60 seconds.

N2UO: Marc lu6dw@yahoo.com was QRV on 1296 for the contest -- I had a great time during the ARRL contest. I worked on 23 cm HB9BBD, G4CCH, OH2DG, OE9XXI, K5JL, G3LTF, LA8LF, K5GW, K2UYH, F6CGJ, HB9Q, W2UHI, OK1CA, F6KHM, OE5EYM, F2TU, OZ4MM, PA3CSG, OE9ERC, PA0SSB and DF3RU. Signals were good, and I worked almost everyone I heard. There are still lots of stations to work during the second leg. This was a nice comeback to EME after about three months of not being QRV. I have been busy with mode L/S AO40. A few days after the contest I worked PA0SSB on the satellite, and had a nice chat with him. The only incident during the contest was a punctured dielectric in one of my PA cavities. This occurred probably because I replaced one of the tubes and I likely damaged the Kapton. The bang took out the fuse, the fuse holder, and a couple of series resistors. Because I have large capacitors (about 240 uf), the energy stored is tremendous. I have improved the fuse holder and current limiting so I expect to have a less destructive protection next time! For those who have interest, I have a web page at www.qsl.net/n2uo with pictures of my 100% homebrew EME/AO40 station.

N3FTI: Steven n3fti@yahoo.com reports on his progress toward 3 cm EME – I just got the AZ-EL mount back from the machine shop. It is going to the commercial sandblaster today. I tried to sand blast it with my little home system and decided it would just take too long as my compressor just can't keep up! After some additional thought, I have decided to mount the xverter, LNA and TWTA at the feed instead of using waveguide to feed the dish, and have ordered another DEMI xverter kit. I have also started construction of the feed and mounting the electronics package. The project should speed up once the dish and mount are up!

OE9XXI: Peter's riml@aon.at EME report -- On 1296 I had my first experience with JT44 during the summer using it to work ES8X (thanks to Tom and his crew) and then DL3OCH during his dxpedition to locations in TK and IS0 (many thanks to Bodo). On 18/19 Oct during the ARRL EME Contest, I achieved a score of 60x25. Initial contacts were DL3HRT (439/559), JH1KRC (559/589) initial #300, JR4ZZS (559/579) and ON4QQ (439/559). My standings now are at initial #302 and DXCC 50 on 1296 EME, initial #63 and DXCC 23 on 2300 EME. For many EMEers initial counting seems to be a big problem because of the multiple callsigns used by some stations, especially during competitions. Also the callsign changes of the last few years and the anniversary activities do not make it easy. In many cases there is no information available. I think some kind of info-box/list, possibly on the Internet, would be helpful to keep the rules of initial counting agreed several upon years ago (remember we count stations, not callsigns) accurate. I will try to update my long list of "uncountables". [This is a real problem. I have tried to provide information in the NL. But, it is not always clear. For example does anyone know about DL3HRT? Keeping track of stations that have moved can cause confusion. To count as a new station, the move must be to a new grid, or other significant geographic change as a new country or state.]

OH2PO: Jukka (OH6DD) jukka.sirvio@vesatel.fi sent me a brief report with his group's score for 1st leg of the contest on 70 cm. It is 84x35.

OK1CA: Franta ok1ca@ges.cz has sent a report for the first part of ARLL EME Contest – I operated on 23 cm and scored 39x22. I worked 6 initials: OZ9AAR, OM6AA (new country and first EME QSO OK-OM on 23 cm), DL3HRT, PA0SSB, JA8ERE and N2UO to bring me to initial #114. I plan to be primary QRV on 13 cm during the second part of ARRL EME Contest, but I will be on 23 cm also.

OK1DFC: Zdenek ok1dfc@tesmail.cz was on 432 for the 1st part of the contest and has sent his report -- I made 3 QSOs during the 1st of the contest. QSO'd were JW/SM2BYA (539/559), K1FO (O/O) and HB9Q (O/O). I heard JL1ZCG well at my moonrise, but received no answer to my calls. He was peaking up to (529). Because my new 10 m dish is not still finish, I used only the single 38 el yagi that I normally use for tropo propagation. Other equipment was my FT1000MP, xverter and 2x3CPX800A7 K1FO PA with an ATF 53144 LNA. I hope to finish the dish by spring and will be back in full force on 432 and 1296. I have tested JT44 EME on 144 and made 3 QSOs there.

ON4BCB: Walter Walter.crauwels@skynet.be writes – I finally have my dish up on the tower and to be fully QRV by next year. You can find more details on my Web site at www.qsl.net/on4bcb.

PA0EHG: Hans pa0ehg@amsat.org was QRV during the contest on 10 GHz EME — My station consists of 3 m Andrew dish, 0.7 dB NF LNA and 150 W at the feed. Further information can be found at my website at http://home.planet.nl/~alphe078/ehgoneme.htm. Sked proposals are welcomed.

PA0SSB: Jan janottens@zeelandnet.nl is QRV again on 1296 after many years -- What a surprise last weekend, working so many stations off the moon! A month ago I put myself the question of whether to scrap my old dish or to put new mesh on it and bring it back to life again. I choose for the latter, luckily! The dish was built in 1971 and was not used for about 15 years. It was built according to specifications in the EME letters of W2IMU and the mechanical design is of my own design. It was featured in the Eimac EME Notes and I think gave many people ideas of how to built a dish. In the weeks before the contest, I put new stainless mesh on the dish and repaired everything that had to be repaired. There was a lot of corrosion on many of the mechanical parts, which had to be cleaned and renewed. I also had to clean and oil the motors and the read-out syncros. The dish is on a 9 m tower and the lifting system was fully blocked due to corrosion. So it had to be overhauled too. A lot of work, but we had beautiful weather and it was worthwhile as last Saturday and Sunday proved! Two weeks ago I lifted the dish for the first time in 15 years and pointed it in the direction of the sun: 16 dB! Not bad after so many years, but I think improvements can be made there with a better FET. The pre-amp is at least also 15 years old. In the shack I was able to bring the old rig to life with minor problems, and though the UPX 4 had not been on for at least 15 years, it worked from the first time with about 500 W output. The last 10 years, I have been busy designing and building homemade transceivers and used one of them now for EME. It performed very well. I also used a DSP, but the only advantage I found is the noise-cancelling possibility. The narrow filter does not give me any real improvement in readability. But I have not followed the latest developments in weak signal CW reception and will up-date myself as soon as I can. I was very pleased to hear so many well-known good friends and many very strong signals. Most of them were absolute Q5! To the west my moon window is limited due to a tree that was not there 20 yeas ago, HI. I will do some cutting soon to bring them down to EME-proportions. The stations worked were OE9XXI, HB9BBD, G4CCH, K5GW, K5JL, K2UYH, SM3AKW, G3LTF, IK2MMB, OH2DS, WA6PY, W2 DRZ, HB9Q, OK1CA, LA8LF, JH5LUZ, HA5SHF, F2TU, OE9ERC, JA6AHB, HB9SV, F6KHM, OE5EYM, OZ4MM, PA3CSG, F5VHX, F6CGJ, N2UO, G3LQR, W7SZ, OZ6OL, W2UHI and VE7BBG - so many good old friends! I plan to be on again during the second part of the contest and hope to be able to work to moonset in the west.

PE1ITR: Rob rob@itr-datanet.com has now completed his first 70 cm EME QSO. He worked on 17 Oct K2UYH (-17/-22 dB) and a second on 19 Oct OE9ERC both using JT44. Rob also had a partial with JA6AHB (JT44) on the 16th. They heard each other, but did not complete a QSO. During the contest weekend, Rob heard lots of CW stations but only a few JT44 signals. He does not say anything about additional QSOs.

SM2CEW: Peter's sm2cew@telia.com NL report for the first contest weekend -- I operated mainly on 432 and found the activity to be very high. Conditions

really suffered from the high geomagnetic activity and Faraday was all over the place, producing fast and deep QSB. The stations running circular were actually stronger on vertical polarization for long periods, especially when I was beaming right into the aurora (Az >270 deg). This I have not seen before. The following stations were worked: JW/SM2BYA for initial #399 and DXCC 70, K5GW, OH2PO, UA3PTW, DJ3FI, HA1YA, EA3DXU, DL1YMK, GW3XYW, N9AB, DK8VS, OE3JPC, S52CW, OZ4MM, YU1EV, DL9KR, DL0AO, DF3RU, K9SLQ, SP6JLW, KL6M, F6KHM, K1FO, N2IQ, OE9ERC, DL7APV, SM3AKW, G3LTF, K0RZ, S51ZO, S53J, SK0CC, F2TU, PA2CHR, KU4F, KJ7F, HB9Q, OK2BDQ, N1BUG, VE6TA, DJ6MB, K4EME, DK3WG, I5CTE, WA4NJP, SM2ILF #400, ON5OF, G4RGK, K2UYH, G4YTL, DB6NT, KE2N/4, DL8OBU, IN3KLQ, CT1DMK and OE5EYM. I did not operate during the night, therefore no JA or VK in the log so far. On 1296 MHz I was just on for a brief moment as I had some preamp problems, but I worked F2TU, F5VHX and IK3COJ. It was a real pleasure to operate as activity was so good. 432 sounded like it did during the 'golden days' some 10 years ago. When I look back at my logs from those days I see virtually the same callsigns as today. This can only mean that the interest is still there and the stations are kept fully operational and this is a good sign. The negative sign is that there should be more newcomers, but I guess 432 EME is not really where people start their EME career these days. 144 or 1296 seems to be their choice for different reasons. A big Thank You to SM2BYA and SM2LTA for an excellent EME operation from JW, well done!

VE2XX: Stuart enduro@cam.org has acquired a home brew cavity for a 8792 tube which seems to be similar for the 7213. Pictures can be found at www.trailriders.cc/Fn25/432. He is planning to get back on 70 cm EME and is looking for information on the cavity and 7213 PA operation in general. Any ideas from EME builders would be appreciated.

VE6TA: Grant's ve6ta@telusplanet.net first pass results -- I was active only on 70 cm for the first part of the ARRL contest. The anticipation of JW/SM2BYA seemed to increase activity, which is very refreshing. I managed to work the following stations this weekend: JW/SM2BYA for an initial #98, OH2PO, HB9Q, UA3PTW, N9AB, RA3LE, DF3RU, DL9KR, F6KHM, HA1YA, N2IQ, KU4F, OZ4MM, K0RZ, K1FO, WA4NJP #99, VK4AFL, JL1ZCG, KL6M, SM2CEW (moon in the trees!), K5GW, DL7APV, G3LTF, OE5EYM, K9SLQ, K2UYH, JA6AHB and VK3UM. This was some of the best activity I have heard on 432 from this location. My thanks to SM2BYA for the wonderful signals from JW/SM2BYA during the weekend. I am currently stuck at 99 initials on 432, so who will help me with a sked to reach the magical 100? I plan to change feeds back to 23 cm for the next leg of the contest, weather permitting.

VK3UM: Doug tikaluna@ycs.com.au had a very limited moon window and WX problems during the contest – If we picked a higher northern declination moon for Contests then, down here, I will be working with permanent ground noise! Unfortunately it was not much of a first weekend for me as I had moon set 13 minutes after the contest started and my second active Eur window did not start until after the contest finished. I also had gale force winds which prevented me getting on for the first NA window and then again for only one hour during my only (second) Eur window. All up, I had a less than 4 hours operating for a score of 30x17. The good news is that I have plenty of stations left to work during the second half! The only new station worked (apart from Gudmund at JW) was KJ7F. During the only real period I had into Eur, the polarity was a little different from what I would classify as normal. This was probably due to the high declination of the moon. It seemed that my signal was quite down on normal (although echoes seemed normal) and I ended up doing the chasing instead of being chased! A novel experience for me! I would guess that Faraday, etc. left my signal into Eur at 45°. I noticed on Saturday that Gudmund was totally vertical incoming (like all Eur except HB9Q [circ]). (I think he is circular pol?) This seemed to be the case on Sunday when his transmissions were equal in both hor and vert pol as I expected. I was transmitting hor for all Eur QSOs. The NA window was, however, pretty normal. A little libration on moonrise (Sunday), but all except VE6TA, were coming in vertical (USA and JA) and I was transmitting vertical as well. What with all the wind (over 80 kph) and the frustration of not being able to get on, I entertained myself by watching the various loggers. I don't know whether to be amazed or disappointed at the audacity of many "QSOs" seen taking place. One nice thing was that I did not see one on 70 or 23 cm. It will be interesting to see the eventual ARRL logs. I have cut and pasted the call signs and comments for enlightenment! Spotting, however, seems to have got out of hand and I was somewhat relieved to not find myself "spotted". Again a lot of fun and frustration with for the most part great CW operating, but please remember what YYY means! It saves so much time for those with limited windows!

W2DRZ: Tom w2drz@madbbs.com was is QRV again on 23 cm and sends some notes about some of the fixes and problems he found in his system in preparing for the contest – K2TXB came here to help with the Oct contest operation. We will be on again in Nov if all goes ok with hope more power. I'm working on a 500 W amp with 4 x 7279s. I have a few things to debug before it is finished. Maybe the following comments can be of help to someone having some of the same trouble we were having here. Back in Aug after fighting with a poor receiver performance, I discovered that the TX PA (1800 V on plate in standby) was providing more than about 6 dB of diode noise in the stand by mode. The PA was connected directly to the feed and the noise coupled to the RX port when in stand by. [N2UO reported a very similar problem.] This problem was fixed by adding a TX relay to the PA to disconnect it from the feed when in receive. This improved RX by a bunch! Before the contest, I made changes to my receive system. The dish is over 200' from the operating position. Three 1296 cavity preamps are installed in the RX line to over come the line loss. Saturday morning we discovered a loss of EME signal strength when pointed south. A 50 kW FM broadcast station is 1/2 mile south of our location. I added a 3-stage cavity to the end of the line before the 2 preamps in the equipment housing. This appeared to cure this problem. Before the start of contest, I measured 16 dB of sun noise. I also believe my feed is too close to the dish as signal strength drops quickly for a small changes in dish position. There is much more testing to be done here. I plan to move the feed out ½ to 1" and do more sun noise testing.

K2TXB on side of W2DRZ dish used on 1296

WW2R: Dave robinda@nortelnetworks.com could not be on for the Oct part of the EME contest – I am not returning from a 2 month work assignment in BY until Oct 21, but I aim to be QRV on 432 for the 2nd leg of the contest with 4 x 25 el yagis and 1500 W. I want to comment on G3CCH's passing. John's station was my first ever exposure to EME. This was when I was a teenage SWL. I went to collect an FR50B receiver from one of John's locals, who took me to see his dish and station... the interest still lives!

YO4FRJ: Adrian arghiropol@infoploiesti.ro is a new station on 432 EME in KN34aw -- Just want let you all know that I've started operation in 70 cm EME. I was on for the first time during the ARRL EME Contest. I manage to work JW/SM2BYA for my first ever 70 cm EME QSO. For this first leg, 2 m operation was my main focus. My 70 cm operation was limited to 1.5 hours and operation was close to 432.100 because of spurious coming from a nearby UHF TV station. I also worked HB9Q, DL9KR, OE9ERC, OH2PU and DF3RU to bring me to initial #6. My system is 4 x 33 el DJ9BV yagis (10 wl), 1.2 kW PA and ARR MGF1302 preamp to an FT847. My 70 cm EME antenna system was nested inside the 2 m EME 4 x cc17B2's array. Considering this configuration, city noise and 60 m straight-line distance from the UHF TV transmitter, I assume that I will have to work around my RX problems. For the second leg the contest, please look for me close to 432.097. I will CQ on 432 every half an hour for 5 min, watching the band and then move back in 2 m if there is no response. Because of job issues, I won't be able to take EME CW skeds for 70 cm band until the beginning of Dec. This is a good reason to watch for my CQ during the contest.

ZS6AXT: Ivo's zs6axt@global.co.za Oct Contest reports -- It was one of the worst weekends for me with the heavy cold front hitting us here. The temperature dropped from over 30 C to 6 C on Saturday and Sunday with gusty winds and rain. On Saturday my EL drive refused to operate, thus I gave it up. It

was in fact just a burned over current protection circuit in the motor PSU. On Sunday, I tried for over an hour to get the dish on the moon at 13 cm. I gave it up, as the dish was moving more than +/- 1 degree in AZ and EL! Signals were too *chopped*. It worked on 23 cm where with difficulty I worked HB9BBD, OE9ERC, F6CGJ, DL1YMK, OE9XXI, F6KHM, F2TU, ON5RR, OE5EYM, G4CCH, HB9SV, SM3AKW, HB9Q, OK1CA, F5VHX, DK0ZAB, F1ANH, K5JL, W2DRZ, OZ4MM, OH2DG, IK3COJ (he did not get my report), OZ6OL, K2UYH and PA3CSG. CWNR were JR4ZZS and heard PA0SSB, G3LQR and N2UO. Even in the contest, the strong stations should operate bit more carefully. I often found that after my CQ, there was somebody calling CQ just 500 Hz from my frequency. This is not very good operating nor courteous. Since I do not a competitor in the contest, no problem for me, Hi. I hope for better WX for the Nov weekend. If so, I will be on 6, 13 and 23 cm for those interested.

W3ZZ operating K2UYH during the EME contest

K2UYH: I had a good time and a good month. On 70 cm I added 3 initials not to mention a new country, and 2 initials on 1296. Before the contest I worked 16 Oct at 0500 PE1ITR (420/O) using JT44 for initial #664. This was Robs first EME QSO. His JT44 signal could be heard in my speaker and thus he should also be workable on CW by the bigger stations. After the contest I worked on 23 Oct at 1300 F6DRO (O/O) on CW. I was joined by Gene, W3ZZ for the contest. Gene has operated EME before, but this was his first EME contest. He did most of the operating, while I kept the station working. We had several technical problems. A diode string shorted in the power supply of my 70 cm 4CX250 driver. While pulling out the supply (originally built when I was in high school), I shorted some wires in my control board and blew a few transistors. Fortunately, this all occurred toward the end of the 1st Eur window. Repairs took several hours during which we were off both 432 and 1296, but not at *prime time*. A major change from previous years was the ability to switch rapidly between 432 and 1296. We used this to advantage after connecting with JA6AHB on 70 cm. We asked Toshio to QSY to 1296.020. He replied in 5 minutes and was right there! My moon window to the west is now blocked by trees (on my neighbors property), so it is import to catch stations early before the noise degradation from the trees is too great. We QSO'd on 18 Oct on 432 at 0554 DL9KR (579/579), 0609 HB9Q (589/549), 0615 F6HKM (569/559), 0622 N2IQ (579/569), 0629 OH2PO (569/549), 0632 K5GW (559/559), 0639 OZ4MM (559/549), 0653 JW/SM2BYA, (569/569) initial #665 and DXCC 81 – tnx Gudmund, 0658 UA3PTA (559/559) and 0720 K4EME (549/559), then switch to 1296 at 0747 K5GW (558/569), 0754 SM3AKW (559/569), 0757 HB9BBD (589/589), 0809 OM6AA (449/559), 0814 G4CCH (569/569), 0817 W2DRZ (559/559), 0824 DL3HRT (559/559), 0837 K5JL (589/579), 0843 OE5EYM (579/559), 0847 IK2MMB (569/569) 0852 W7SZ (559/559), 0856 OK1CA (559/569), 0900 DF3RU (559/559), 0904 OH2DG (559/569), 0910 N2UO (559/559), 0913 OE9XXI (589/579), 0917 PA0SSB (569/589), 0924 LA8LF (579/579), 0933 HA5SHF (559/559), 0942 F6CGJ (569/569), 0951 F5VHX (559/579), 0958 DL1YMK (559/559) and 1004 F2TU (589/569), back to 432 at 1029 K1FO (579/559), 1041 G4RGK (559/459), 1050 DF3RU (559/559), 1056 KU4F (569/569), 1104 DL7APV (559/559), 1108 K4EME (559/559) DUP, 1115 KL6M (559/569), 1120 SM3AKW (569/559), to 1296 at 1518 W2UHI (559/559) and 1537 JH5LUZ (559/569), to 432 at 1606 N9AB (O/O) and 1645 JL1ZCG (459/559), 19 Oct on 432 at 0717 F2TU (449/459), 0735 G3LTF (559/559), 0738 DJ6MB (579/539), 0743 IK1HWG (459/449) and 0803 ON5FF (549/559), then to 1296 at 0846 ZS6AXT (569/579), 0853 PA3CSG (579/559), 0903 F1ANH (559/559), 0908 OZ4MM (569/569), 0952 OZ6OL (559/559) and 1003 F6KHM (559/449), to 432 at 1014 WA4NJP (559/559), 1024 SM2CEW (559/559), 1040 HA1YA (559/569), 1058 YU1EV (559/559), 1107 I5CTE (449/559) and 1126 VE6TA (449/559), moved to 1296 at 1147 WA6PY (569/449), 1220 W9IIX (O/559), 1225 W7GBI (559/559), 1247 VE7BBG (549/559) and 1255 F6KHM (55/52) DUP on SSB, to 432 at 1408 DL3YMK (559/559) and 1445 KE2N (549/559), back to 1296 at 1552 JH1KRC (549/559) for initial #216, to 432 again at 1610 JA6AHB (559/559), and back to 1296 at 1620 JA6AHB (569/559), and return 432 at 1655 JH4JLV (O/O) and 1729 VK3UM (449/559) for a score of 35x22 on 432 and 37x24 on 1296 for an overall total of 72x46. We plan to be on again in Nov with Bob, N4HY joining Gene and I, and with fewer leaves and possibly an additional band (13 cm or even 3 cm).

TECHNICAL: The recent solar flares greatly affected sun noise. The following are some observations by VK3UM: Sun noise measurements were made 28/29 Oct between 2300 and 0430 using my 10 m dish (30.5 dBi gain at 432, system noise temp 97.2°K, reference 10.7 cm SFU of 130 for a sky temp 15°K produces a 19.7 dB Sun Y factor). During the above period of measurement sky temp was 35°K, so the adjusted Sun Y factor should have been 18.8 dB for a SFU of 130. In brief the minimum Sun Y recorded was 23.5 dB and averaged around 25 dB. Notable peaks were recorded at 2322:55 of 32.5dB and from 0026:07 to 0032:05 were prolonged periods peaking 34.5 dB. No peaks (bursts) were recorded from 0250-0430 where levels were about 28 dB +/- 3dB. The received noise power seemed equal in both horizontal and vertical polarizations. The waveform (demod baseband at 15 MHz) showed a distinctively random (but repetitive) very short and high magnitude pulses overlaying the background Sun noise. These were somewhat similar in characteristic to those I received from Jupiter during its encounter with Shoemaker Levy. I used my Moon echoes as a means of relating what I consider "normal" absorption to the disturbed conditions at the time. I had expected to record a significant decrease in received signal. My received echoes are normally about +18 dB and at the declination of the Moon at the time I would expect to see little or no polarization or Faraday offset. The received echoes were in fact "normal" in peak level, but significant short term fading was evident. This was directly attributable to a large polarization change. I would estimate that it was varying greater than 90° over periods of seconds to minutes - (definitely not normal). At no stage were my echoes not fully audible in either horizontal or vertical polarization, but the rate of change was significant. Libration fading was evident for short periods, but no more than is normally experienced. There seemed to be no preference (advantage) of either vertical or horizontal polarization. My conclusions: One hell of a storm that had a distinctive peak (whilst I was tracking) at 0028 on 29th Oct. I also have to revisit my software as it does not compute accurately for such huge SFU numbers!

I2COR Memorial Italian EME Contest Results for 432 and above: Please excuse the delay in posting these scores. They should have appeared in last month's NL. Tnx to I1ANP, mancini@tamnet.it contest manager for sending them in. Mario reports that the prizes and certificates will be delivered during next Italian EME meeting in 2004. Stations not present should send a postal address for mailing.

BAND	Class	Place	Call	Score	Antenna
432	A)	1°	JA9BOH	4- 40	2 x 2.8 m JA9BOH
432	B/C)	1°	EA3DXU	7 - 70	2 x 38 el M2
432	B/C)	2°	K6JEY	6 - 60	4 x 25 K1FO
432	B/C)	2°	SK0CC	6 – 60	8 x 2.5 m
432	B/C)	4°	UT3LL	2 - 20	6 x 27 el DJ9BV (36 m)
432	D)	1°	F2TU	17 - 170	8 m dish
432	D)	2°	JA6AHB	14 - 140	7 m dish
432	D)	3°	SP6JLW	8 - 80	8 x 32 el DJ9BV
432	D)	4°	JA4BLC	6 - 60	6 m dish

BAND	Class	Place	Call	Score	Antenna
1296	D)	1°	F2TU	22 3 283	8 m dish
1296	D)	2°	G4CCH	24 2 282	5.4 m. dish
1296	D)	3°	WA6PY	10 1 121	2.4 m dish
1296	D)	4°	JA6AHB	2 - 20	7 m dish

Band	Place	Call	Score	Antenna
2304	1°	JA4BLC	5 - 50	6 m dish
2304	1°	F2TU	5 - 50	8 mt. dish
10368	1°	F2TU	2 - 20	8 m dish

Band	Class	Place	Call	Score	Antenna
1296	I Station	1°	IK2MMB	17 - 170	Dish
1296	I Station	2°	IK3COJ	12 - 120	3 m dish

FINAL: There are again no skeds or netnews this month. Joe, K1RQG's has been putting in very long hours at work and recently had his mother passed away. I know Joe has the sympathy and condolence of the whole EME community, which he has served for so many years.

Plans for the Trenton 2004 International EME Conference are moving along. This is one conference that you will not want to miss! As reported last month, the hotel reservation information is on the conference web site http://www.qsl.net/eme2004/index.htm. We are preparing a list stations planning to attend. Please let us know your plans. We are also looking for presenters and papers for the conference proceedings.

The SETI EME Beacon has been off the air due to problems in the solid state PA, and did not make it back on for the first part of the contest. Four of the 16 M57762 modules in the amplifier failed. Repairs have now been made and the beacon should be back on the air for the Nov part of the EME contest. After the contest, they plan to take it off the air for a short period during which they want to rework the PA improve reliability and get some additional output power. The SETI League welcomes donations from the EME community of any spare M57762s, which anyone may have on hand. These will be used to avoid extended off periods should the PA fail in the future. They also want to remind everyone that QSLs will be sent for reception reports of the beacon. See http://www.setileague.org/eme/status.htm.

I have included a list of call to look for use in the contest. It is far from complete and needs work, but it is a good starting. Perhaps someone would like to work on it and bring it up to date for the next contest.

Thanks again to SM2BYA and SM2LTA for the dxpedition efforts!

I hope everyone had as good a time as I did operating the first part of the contest. I am looking forward to the second weekend and am hoping to QSO some of the stations missed during the first leg. Please keep the reports and technical material coming. 73, Al – K2UYH

70 cm EME CALLS LIST

4X1IF	EA3UM	JA3SGR	K8UK	OH3LWP	UR4LL	WA4LBT
7M2PDT	EA6FB	JA4BLC	K8VP	OH5IY	UR5LX	WA4NJP
9M2BV	EA6SA	JA5NNS	K9BCT	OK1CA	UT1PA	WA4OFS
A22BW	EA8FF	JA5OVU	K9HMB	OK1DFC	UT3LL	WA4ZTK
AL7OB	F/G8MBI	JA5YJS	K9KFR	OK1DIG	UT5DL	WA5ETV
CT1DMK	F/ON5OF	JA6AHB	K9ZZH	OK1KIR	UT5EC	WA6BJE
DB6NT	F1CH	JA6CZD	KA0RYT	OM1TL	VE1ALQ	WA6KBL
DF0EME	F2TU	JA6DZI	KA0Y	ON4KNG	VE1ZJ	WA6PY
DF3RU	F5AQC	JA6XED	KA3WSZ	ON4UV	VE3DEW	WA7CJO
DF4MAA	F5FEN	JA6ZHR	KB0HH	ON5OF	VE3FAC	WA7TZY
DF4UE	F5FLN	JA7BMB	KB0VUK	OZ4MM	VE4MA	WA8VPD
DF5LQ	F5KDK	JA8ERE	KB2AH	OZ6OL	VE6AFO	WA8WZG
DF6NA	F5SE	JA8PL	KB3PD	OZ7UHF	VE6TA	WA9FWD
DF6WE	F6CGJ	JA9BOH	KB4WM	PA0AVS	VK1VP	WB0DRL
DF8LC	F6DRO	JF3HUC	KB8RQ	PA0PLY	VK2BE	WB0GGM
DF9CY	F6HYE	JH0YSI	KC6A	PA2CHR	VK2FZ/4	WB0TEM
DF9QX	F6KHM	JH1EFA	KD1DU	PA3CSG	VK3UM	WB2VVV
DF9UX	F9FT	JH1OFX	KD4LT	PA3DZL	VK4AFL	WB4BKC
DG9NCL	G0BPU	JH1XUJ	KF0M	PA4FP	VK4KAZ	WB5APD
DH3NAN	G3HUL	JH3EAO	KJ7F	PE1ITR	VK5MC	WD5AGO
DH5NAH	G3LQR	JH4JLV	KJ7OG	PY5ZBU	W0AH	WE2Y
DH9SAV	G3LTF	JH7PAV	KL6M	RA3LE	W0HHE	WE7P
DJ3FI	G3SEK	JI3GER	KL7FB	RA3YCR	W0KJY	WL7U
DJ5MN	G4ALH	JJ1NNJ	KL7HFQ	RV4AQ	W0RRY	WW2R
DJ5NV	G4ERG	JL1ZCG	KN6DD	RW1AW	W0SD	XE1XA
DJ5RE	G4ERP	JO3JJN	KR5V	RW3BP	W1JR	YL3AG
DJ6MB	G4KUX	JO3RNL	KU3T	RW3PF	W2PGC	YO2IS
DJ7FJ	G4RGK	JR1EUX	KU4F	RW3RW	W2SZ	YO4FRJ
DJ9BV	G4YTL	JR1RCH	LA3WU	RZ3BA/1	W2WD	YV5ZZ
DK0MM	GD4IOM	JR4AEP	LA8AE	S51ZO	W2WD/2	ZL3AAD
DK0TU	GM0ONN	JR9NWC	LA8LF	S52CW	W3VH	ZS6AXT
DK3BU	GW3XYW	JS3SIM	LA9NEA	S57Q	W3XS	ZS6JO
DK3FB	GX4NOK	K0DAS	LU4HO	S57RA	W4DEX	
DK3WG	HA1YA	K0RZ	LX1DB	SK0CC	W4RDI	
DK4JN	HB9CVD	K1FO	LY2BIL	SM2BYA	W4TJ	
DK5AI	HB9JAW	K1OR	LY2WR	SM2CEW	W5RCI	
DK8VS	HB9Q	K1RQG	N2HLT	SM2CKR	W5ZN	
DL0GC	HB9SUL	K2AH	N2IQ	SM2EKM	W6TE	
DL1DWI	HB9SV	K2DH	N3FA	SM2ILF	W6WE	
DL1YMK	HP3XUG	K2OS	N4GJV	SM2LKW	W7ALW	
DL3EAG	I5CTE	K2UYH	N4PZ	SM3AKW	W7BBM	
DL3YEE	I5MPK	K3LFO	N4UK	SM3BYA	W7CI	
DL4KG	I6PNN	K4AR	N6OVP	SM4DHN	W7CNK	
DL4MEA	I6QGA	K4EME	N7LQ	SM4IVE	W7CS	
DL4XX	IK0BZY	K4QI	N8AXA	SM5GEP	W7EME	
DL5FN	IK1HWG	K5AZU	N8ZAT	SM6CKU	W7FN	
DL5LF	IK1MTZ	K5GW	N9AB	SM6EUP	W7GBI	
DL5YET	IK2EAD	K5JL	N9KC	SP5CJT	W7ID	
DL6NAA	IK4DCX	K5WXN	NA4N	SP6JLW	W7KK	
DL6WU	IK5WJD	K6DV	NC1I	SV1BTR	W7MEM	
DL7APV	IK6EIW	K6IBY	NF7P	UA3PTW	W7QX	
DL8OBU	IN3AGI	K6JEY	OE3JPC	UA3TCF	W7SZ	
DL9EBF	IN3KLQ	K7LNP	OE5EYM	UA4API	W7TVF	
DL9EBL	IZ5EME	K7WUP	OE5JFL	UA4NM	W7ZRC	
DL9KR	JA0VI	K7XC	OE9ERC	UA6LGH	W8IDU	
DL9NDD	JA2JRJ	K7XD	OE9XXI	UA6LJV	W8MQW	
EA2LY	JA2KRW	K7XQ	OH2AXH	UA9FAD	W8TN	
EA3DXU	JA2TY	K8ISK	OH2DG	UA9XEA	W9IP/2	
EA3PL	JA3IAF	K8UC	OH2PO	UR3EP	WA3FFC	

23 cm EME CALLS LIST

4X6UJ	I6PNN	NA6E	W7CS
9H1ES	I6QGA	NL7F	W7GBI
CT1DMK	IK2MMB	NP4B	W7QX
DC6UW	IK2RTI	OE5EYM	W7SZ
DF3RU	IK3COJ	OE5JFL	W7VQQ
DF4PV	IK3GHY	OE9ERC	W8ATH
DF5JJ	IK4DCX	OE9XXI	W9IIX
DF6WE	IK6EIW	OH2AXH	WA1JOF
DF9QX	JA2JRJ	OH2DG	WA4NJP
DG9NCL	JA4BLC	OK1CA	WA4OFS
DH0OAH	JA6AHB	OK1DFC	WA6KBL
DH9FAG	JA6CZD	OK1KIR	WA6PY
DJ5MN	JA7BMB	ON4QQ	WA6ZKY
DJ7FJ	JA8ERE	ON5RR	WA7CJO
DJ9YW	JF3HUC	ON6JY	WA8WZG
DK5MV	JH1KRC	OZ4MM	WA9FWD
DL0SHF	JH1OFX	OZ6OL	WA9OUU
DK0ZAB	JH3EAO	PA0SSB	WB0DRL
DL1YMK	JH5LUZ	PA3CSG	WB0TEM
DL3HRT	JL1ZCG	PA3DZL	WD5AGO
DL3YEE	JR4AEP	PY5ZBU	WL7U
DL4MEA	JR4BRS	RW1AW	YL3AG
DL6LAU	JR4ZZ	RW3BP	ZL3AAD
DL6YDH	JR9NWC	S51ZO	ZS6AXT
DL8OBU	K0YW	S53WW	
DL9EBL	K2AH	S57Q	
EA2BK	K2DH	S59DCD	
EA2LY	K2UYH	SM2CEW	
EA3UM	K3AX	SM3AKW	
EA8/LA8	K4QI	SM4DHN	
LF	K5AZU	SM5CFS	
F1ANH	K5GW	SM5DGX	
F1CH	K5JL	SM5QA	
F2TU	K6DV	SM6CKU	
F5AQC	K7WUP	SM6FHZ	
F5HRY	K7XW	SV1OE	
F5PAU	K9BCT	UA3TCF	
F5PL	K9KFR	UR5LX	
F5VHX	K9ZZH	VE1ALQ	
F6CGJ	KA1OTP	VE1ZJ	
F6ETI	KB0HH	VE4MA	
F6KHM	KB3PD	VE6NA	
F6KSX	KD0GT/7	VE6TA	
G3LQR	KD4LT	VK1VP	
G3LTF	KD5FZX	VK2BE	
G4CCH	KL6M	VK2FZ/4	
G4DZU	KN6DD	VK5MC	
GM0ONN	LA8LF	W0KJY	
GM4ISM	LU6DW	W1QC	
GW3XYW	LU8EDR	W2ETI	
GX4NOK	LX1DB	W2UHI	
HA1YA	N2IQ	W3XS	
HA5SHF	N2UO	W4AD	
HB9BBD	N4MW	W4RDI	
HB9BHU	N6ECG/7	W4TJ	
HB9JAW	N6TX	W5LUA	
HB9Q	N7ART	W6HD	
HB9SV	N8DJB	W7BBM	
I5MPK	NA4N	W7CI	