432 AND ABOVE EME NEWS
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CONDITIONS: There is lots of news this month. Besides the SSB Contests reports that follow, RW3BP reports reception of the first EME echoes on the 77.5 GHz band. See Sergei's report, which is very encouraging. There are also a number of firsts on 24 GHz in the reports. Coming up this weekend (16/17 March) is the DUBUS 432 CW EME Contest (also on 144). You can find the full rules at http://www.marsport.org.uk/dubus/eme.htm along with last year's results. If you have an interest 432 CW EME, it is imperative that you support this contest to keep activity on this band alive. In April there are two dxpeditions offering operation on both 70 and 23 cm. See the 5H1DX and 9G5EME announcements below. Also in April, on the 13th/14th will be the DUBUS 3 cm and up contest, the next 70 cm CW ATP on 21 April 1430-1630 and 2230-0030, and the ARI's new modes contest on 20/21 April.

RW3BP's little feed used to receive 77.5 GHz Moon echoes

SSB EME CONTESTS HIGH SCORES: **On 1296** the activity was intense and at times the band sounded like 20 m. This year there appears no question of the chief fun maker. It is I5NDP with 1520 points. This is one of the highest scores ever reported for this contest, and I believe this was Nando's first time operating the contest. On 432, the picture is quite different. Although at the time of the APT, activity seemed quite reasonable, and I found conditions quite good, there are only a few reports and none impressive. I (K2UYH) have the highest reported score with 45 points. Although this newsletter (NL) is filled with SSB Contest reports, I cannot be 100% sure we have all the highest score. So stay tuned for next month's NL.

5H1DX: Bodo (DF8DX)df8dx@gmx.de has another exciting dxpedition planned for both 70 and 23 cm -- I will be in Tanzania between 20 and 28 April. I have the call 5H1DX and besides my HF activities (of course in CW only) from several IOTAs, I will take equipment for 70 and 23 cm EME. Since I am travelling on my own, EME equipment is limited to single yagi and 100 W for each band. Unfortunately it is rain season there, so it might be hard to predict exactly when I will be QRV. Its most likely that my first activity will be on 20 April from Dar es Salaam from 2000 to 2200. I will send updates regarding operating times to www.mmmonvhf.de.

9G5EME: Rene (PE1L) hasperrene@gmail.com sends an update on his group's (PA3CEE and PE9DX) Ghana 432 and 1296 operating plans -- our schedule is to be on 23 cm on 19 April, and 70 cm on 21 April. We will operate *Bodo style*. We will TX first, and RX at our own echo frequency. On 1296, we will have 100 W and a 59 el SHF yagi, and TX on 1296.090. On 432, we will have 100 W and a 23 el DK7ZB yagi, and TX on 432.090. We will be located in IJ95gb on the beach in the town of Ampenyi near the city of Cape Coast. If we have Internet, we will be on the HB9Q logger for last minute freq changes, etc.

DL7APV: Bernd dl7apv@gmx.de writes that he was disappointed by the turnout in the SSB contest on 432 –_ I was QRV in the SSB Contest, but heard no one at all in my eastern window. Sadly, I could not be on for my western window due to family affairs. The new big tower is now turning in AZ & EL with readouts working, but I no idea what antennas I should put on it. I will be on for DUBUS 70 cm CW EME Contest and hope for better results.

F5SE: Franck kozton@free.fr reports on the 23 cm SSB EME Contest -- During the contest I was active most of the time the Moon was available. I made 26 QSOs and 9 multipliers, 4 QSOs were mixed CW/SSB to give a score of 432 points. I added one initial, YO3DDZ (54/55) for #136. Due to tree screening, I missed VK and JA. I heard with faint signals and CWNR VK5MC and JA1WQF. When the Moon finally got above trees, it was too late. During the contest most of signals were good, but starting around 2100 they began to drop drastically. It was as if the Moon was already setting behind the trees. At that time, the Moon was still between 30° and 25° high, well above my tree level. I first suspected some water might have leaked into the horn or into the preamp (or both), but after checking the following day, no humidity was found, and the ONØEME beacon, as well as my own echoes, were back to normal. So I think the absorption was mainly due to a cloud layer much thicker than usual. This is the first time I notice such a phenomenon. Has anyone also experienced the same effect, either during the contest or in the past? At around 2200, the attenuation was so strong that I decided to go QRT, two hours before local moonset.

F5SE/p's big dish in snow

F2TU: Philippe is not doing that well. Franck (F5SE) writes, based on several week old information from F2TU's neighbor (F1FIP) that Philippe has left the Nancy's hospital and is now back at the hospital in Saint-Dié, his home city. Due to swallowing problems, not yet solved, he is still being fed through a tube. He is not expected to be released anytime soon. It is hoped that if the feeding problem gets better, he will be able to go home in possibly one or two months. As of this writing, private visits are still forbidden. Only his wife and close family are allowed to stay with him.

G3LTF: Peter g3ltf@btinternet.com was not very active this past month -- Due to bad WX and then holidays, I have little to report, but I shall be on for the DUBUS 432 CW Contest. I plan to operate a bit higher in the band, 030 and up to get clear of the QRM that some experience lower in the band. I am pretty clear here, but we are fortunate to be out in the countryside. I did have some nice QSOs on 10 March on 23 cm with SM7FWZ, I1NDP, OK1CS SSB - excellent copy, IK5QLO, I5MPK and SM2CEW. Because of winter WX and vacation, these were my first EME QSOs this year. I measured Sun noise as 21.2 dB with an SF=116 and Moon noise 0.65 dB. I also measured 432 Sun noise as 15 dB. My antenna is 6 m dish.

I1NDP: Nando i1ndp.nando@gmail.com did extremely well in the SSB Contest on 1296 -- I had great fun and found good participation in the contest on 1296. QSO'd were VK5MC (55/53) QF, LZ2US (56/56) JN, OK2DL (56/56) JN, SP6JLW (57/57) JO, SP7DCS (55/57) JO, OK1CS (55/56) JO, G4CCH (57/57) IO, UA3PTW (56/57) KO, YO3DDZ (55/55) KN, F5SE/P (57/55) KM, SV3AAF (56/55) JN, DF3RU 55/57) JN, IK3COJ (55/55) JN, PA3FXB (54/54)JO, I5MPK (56/57) JN, LX1DB (58/58) JN, ON5TA (44/55) JO, LZ1DX(55/56) KN, PA3DZL (55/55) JO, SM7FWZ (55/55) JO, 9A5AA (57/56) JN, LA9NEA (55/55) JO, IZ1BPN (58/59) JN, ZS5Y (43/43) KF, YO2BCT (559/55) KN, DJ3FI (43/43) JO, G4RGK (559/55) CW-SSB IO, SV1CAL (439/55) SSB-CW KM, N2UO (55/57) FM, CT1DMK (55/55) IN, VE3KRP (55/58) EN, IK5VLS (55/55) JN, W7JM (55/55) DM, VE6TA (56/55) DO, W6YX (559/55) CW-SSB CM, WB2BYP (55/53) FN, VA7MM (559/55 CW-SSB CN, N0OY (56/58) EM, PY2BS (57/57) GG, K2UYH (57/57) FN, KL6M (569/54) CW-SSB BP, N4PZ (57/57) EN and OZ6OL (55/55) JO for a total score of 80x19 = 1520. I tried to listen 70 cm on Sunday, but I was not able to copy a single SSB signal on band (very sad). I was out of the picture in any case because my PA is out of service from a big bang and flash over inside the tube. I lost the tube, the G1 supply and the MOSFET driver.

IK3COJ: Aldo ik3coj@gmail.com sends his log for the 1296 EME SSB Contest – I worked on 16 Feb SP6JLW (54/53) JO, I1NDP (55/55) JN, OK2DL (56/57) JN, F5SE/P (54/53) JN, LX1DB (56/56) JN and UA3PTW (53/55) KO for a score 6x2x3 = 36 points. I also heard on SSB I5MPK, LZ2US and CT1DMK. I used a 3.8 m dish with a 400 W PA.

JA6CZD: Shichirou ja6czd@mx35.tiki.ne.jp reports making the first JA – NA QSO on 24 GHz on 2 Jan and again on 17 Jan with W5LUA (549/559) for his initial #3 on the band. He worked on 26 Jan F2CT (529/529) #4 after several skeds failed due to poor WX. This contact was the first F-JA QSO. On 24 Feb he also worked LX1DB (559/559) #5 on 24 GHz and the 1st ever LX-JA QSO. Shichirou was on 6 cm on 17 Feb and worked F1PYR and DL7YC. [TNX JA4BLC for forwarding this report.]

KB7F: Gerald geraldjdaily@hotmail.com is now QRV on 432 EME and interested in skeds. He only has 2 x 12 el yagis and 75 W at the antennas, and so far all his QSOs have been on JT65B, but he is expanding to 4 yagis and plans to put on more power. He worked on 20 Jan NC1I, on 26 Jan K2UYH and on 23 Feb JA6AHB.

KB7F's 2 x12 el yagi array used with 75 for 70 cm EME

KD7YZ : Bob KD7YZ@ARRL.NET is getting very close to getting KY QRV again on 432 EME. He now has 4 x 18 el LFA yagis AZ/EL mounted with an SPID-RAS 1.0 degree accuracy rotator. All he needs is a high power to be ready to go. [I plan to visit Bob in the next 2 months. I will bring a high power amp for 70 cm and gear for 1296 EME.]

KL7UW: Ed kl7uw@acsalaska.net writes that he is making good progress on getting back on 1296 EME. He has rebuilt of the feed for his 4.9 m dish and should have it re-installed by the time you read this. Both his AZ-EL encoder recalibration and the installation of his 60 W PA at the dish still need to be done, but are not involved and he should be QRV.

LX1DB: Willi wbauer@pt.lu was QRV on the microwave bands and on 23 cm for the SSB Contest this past month – On 24 GHz I QSO'd on 24 Feb in less than 10 minutes JA6CZD (559/559) with a nice signal during a during snow shower. The temp was -3°C and dew point -4°C. CS/G noise was normal at 3.2 dB, but the Moon noise was only 1.7 dB; the normal is 2.3 dB - certainly due to WX conditions. Shichirou was exactly on frequency. We were both using SSPAs. JA6CZD has 30 W and I have 42 W at the feed. In the 23 cm SSB Contest I worked 29 SSB contacts and 4 SSB-CW contacts. I also worked on 6 cm on 17 Feb VE4MA/W7 (O/O). I plan to be QRV on 432 CW for the DUBUS contest.

LZ1DX: Ned lz1dx@lz1dx.org has sent in his log for the 1296 SSB EME Contest – I worked HB9Q (57/55)JN, YO3DDZ (55/55) KN, OK2DL (56/55) JN, OK1CS (56/55) JN, LX1DB (56/55) JN, I1NDP (56/55) JN, IZ1BPN (55/53) JN, SP6JLW (56/54) JO, SP7DCS (55/53 JO, UA3PTW (54/55) KO, F5SE/p (55/53) JN and M60CH (55/55) for a score of 12x2x5 = 120 points. I used a a 5 m dish with 220 W at the feed.

LZ2US: Marko lz2us@dir.bg was QRV for the 1296 SSB Contest – On 16 Feb, I operated the SSB Contest with my friend, LZ2ES. As happened last year, we discovered water inside the preamp box. My CS/G ratio was 3 dB; usually it is around 7.5 dB. After I raised the dish to 80 degs elevation, things started to improve. It seems the water changed its position and had less harmful effect. After 10-15 minutes the RX side was almost back to normal, but unfortunately not as good as it has been. After an hour of listening, we decided to try to make some QSOs. (We had no time to open the preamp box. I will fix this problem in the spring when the weather is better. During about 4.5 hours of operation we made 12 SSB QSOs.

N4PZ: Steve n4pz@live.com worked only 7 stations on SSB during the contest -- I never heard N2UO. Much of my problem is due to deterioration in my hearing. I have gone to hearing aids, but it seems no matter how I adjust my RX, I have great difficulty understanding SSB unless the signal is very loud. QSO'd were K2UYH (55), W7JM (54), VE6TA (55), KL6M (569) CW/SSB, UA3PTW (54), LX1DB (57) and I1NDP (57). VK5MC and JA6AHB were worked on CW. I'm still trying to repair all the failures I have had in the last month. After the contest my declination actuators broke. I have a new pair ordered and hope to get them before the next moon pass. Please look for me on 1296.020 calling CQ. I am there whenever possible.

NC1I: Frank frank@nc1i.com was not active in Feb, but will be on for the DUBUS 432 Contest -- We were on a family vacation in Florida for much of Feb and not home during either high declination weekend. W1QA was very busy at work, so unfortunately neither of us were able to activate the station. We will be active in March including the DUBUS contest. It will not be a major contest effort but, we will make it a point to get on for a few hours each day.

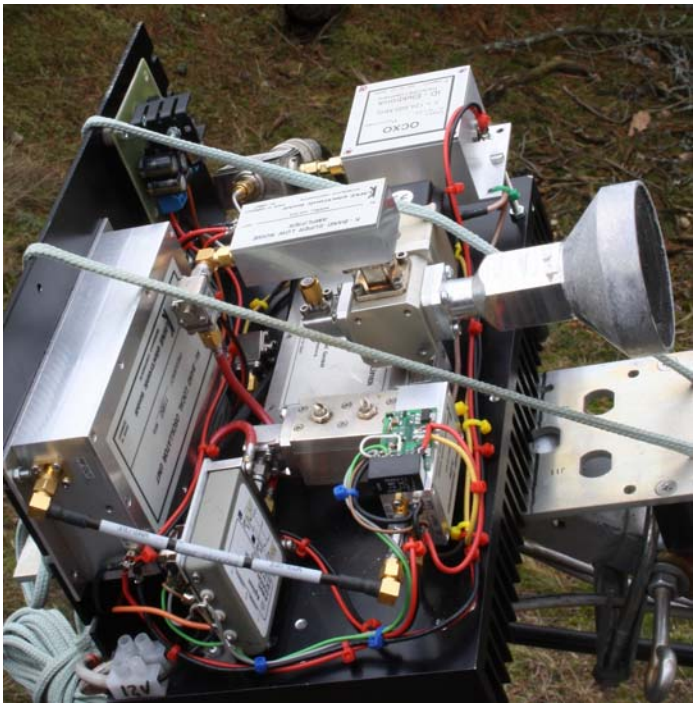
OK1CS: Emil emil.ok1cs@gmail.com was active during the 1296 SSB Contest – He worked on 16 Feb HB9Q (58/55) JN, SP6JLW(54/53) JO, OZ4MM (57/55) JO, UA3PTW (55/55) KO, SP6JLW (55/53) JO (DUP), OK2DL (56/55) JN, I1NDP (55/55) JN, SP7DCS (54/53) JO, F5SE/P (56/53) JN, LX1DB (57/55) JN, IZ1BPN (56/53) JN, G4CCH (56/55) IO, YO3DDZ (55/54) KN, DF3RU (55/55) JN, LZ1DX (55/55) KN, CT1DMK (44/55) IN, N2UO (55/55) FM, VE6TA (56/55) DO, K2UYH (56/55) FN and I5MPK (56/56) JN for a total of 19x2x9 = 343 points.

OK1CS dish used in the SSB Contest

OK1DL: Mark ok2dl@seznam.cz reports on the fun contest – I worked on 23 cm I1NDP 56/56)JN, OK1CS (55/55) JO, VK5MC (55/55) QF, SP6JLW (57/57) JO, UA3PTW (57/57) KO, SP7DCS (56/57) JO 2, SV3AAF (55/55) KM, F5SE/P (59/56) JN, YO3DDZ (55/55) KN, DF3RU (59/56) JN, LZ2US (55/55) KN, IK3COJ (57/56) JN, I5MPK (57/59) JN, JA1WQF (55/55) QM, LZ1DX (55/56) KN, ON5TA (559/57) CW-SSB JO, PA3DZL (55/55) JO, 9A5AA (55/57) JN, SM7FWZ (55/55) JO, YO5LD (55/56) KN, LX1DB (59/59) JN, LA9NEA (59/56) JO, DJ3FI (55/55) JO, IZ1BPN (58/58) JN, CT1DMK (58/55) IN, N2UO (57/57) FM, VE6TA (57/57) DO and W7JM (55/55) DM for a total (27x2+1)x11 = 605 points. My equipment was a 6 m HB dish with 900 W at the feed and 0.1 dB NF preamp.

ON0EME: Eddy (ON7UN) ejespers@telenet.be reports that the 1296 moonbeacon was off the air for almost a week at the end of Feb/March -- We had some problems with the controller. Walter (ON4BCB) upgraded the controller and we re-installed the equipment back in the beacon box. We now have more accurate readout of the telemetry to check the beacon's health. The CW sequence has been slightly changed. The pause between the characters have been lengthened as asked by VK3UM, the key down is now 15 seconds and the beacon is now silent for the last 15 seconds (before it was 20 sec)of the minute. We also changed the output boards of the power amplifiers. Before we used Rogers 4003 for the outputs of the FETs and Rogers 5870 for the output couplers. Now the complete output board is in Rogers 5870 (Teflon) board. The beacon has back online with its nominal power, since 8 March after being down for one week.

OZ1FF: Kjeld oz1ff@mail.dk sends news of the first OZ 24 GHz QSO with NA -- On 11 March I worked W5LUA (O/M) on 24 GHz CW after several unsuccessful attempts. This was my initial #5 with my tiny setup, which consists of a 1.8 m Prodelin offset dish, W1GHZ 10/24 GHz dual band feed with 10 W at feed and a NF <2 dB. Weather conditions were temp -2 degs C, 40% RH and light clouds. The Moon noise was 1.1 dB with degradation of 1.1 dB. The elevation was 17 degs. My transverter is build from DB6NT modules around a Spinner WG-switch with very low insertion loss. Feed, SSPA and LNA are bolted direct on the switch to minimize losses.

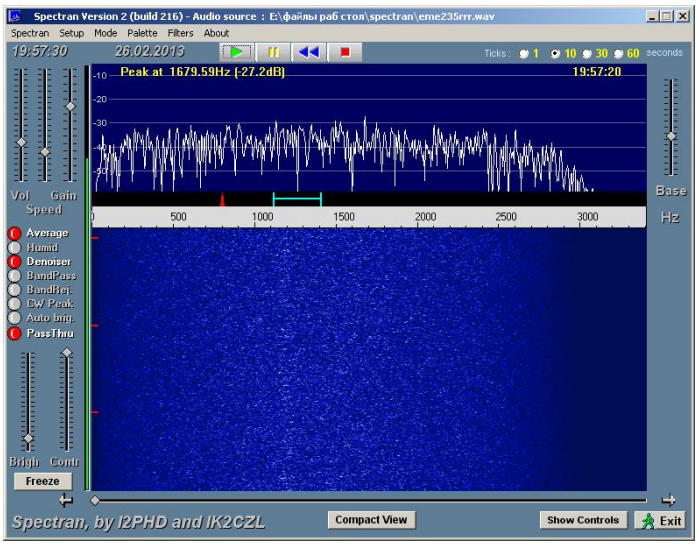


OZ1FF dual band feed and transceiver/SSPA for 24 GHz

OZ4MM: Stig vestergaard@os.dk was QRV on both 70 and 23 cm during the SSB Contests – I worked only few stations in the SSB contests because of other conflicting commitments. I did manage to be QRV on Saturday moonrise on 1296, and on Sunday for moonset on 432. There was great activity and solid signals on 1296, but activity was more problematic on 432 during my limited operating hours. I QSO'd on Saturday, on 1296 SP6JLW (57) JO, VK5MC (55) QF, OK1CS (57) JO, UA3PTW (57) KO, SP7DCS (57) JO and YO3DDZ (55) KN for 7 stations in 4 sectors and a score of 56 points. On Sunday, on 432, I worked UA3PTW (56) KO, SP7DCS (55) JO, DF3RU (56) JN and K2UYH (55) FN for 4 stations in 4 locators and a score of 32 points. My intention is to be on for some part of the 432 DUBUS contest.

PY2BS: Bruce py2bs@me.com reports on his fun on 23 cm during the SSB Contest -- Due to a family commitment, I arrived home quite late on Saturday. Even so, I has very happy making half a dozen SSB QSOs. Worked were I1NDP (57/57) JN 2, IZ1BPN (55/55) JN, LX1DB (57/58)JN, SP7DCS (54/55) JO, CT1DMK (55/55) IN and K2UYH (56/55) FN for a score of 6x2x4 = 48.

RW3BP: Sergei rw3bp@yandex.ru made history again on 17 Feb by receiving the first EME echoes on 77.5 GHz -- The weather was good for the test. No clouds, temperature -7 degs C and humidity 85%. The transmitted signal was simply the "E" letter - 25% on and 75% off with 0.7s period. Three periods for transmit and a five period pause to switch TX/RX and to receive. Echo signal was -20...-22 dB under noise in ref to a 3 kHz BW. To detect the echoes, I used my MWCW program. The signal was easily seen after 1 min of averaging. The test was at elevations from 30 to 50 degs. The Moon noise was about 0.4 dB. The following week, the weather was again cooperative and I continued the testing. Totally, I ran about fifty echo tests. After some optimization, the echoes had improved to where they were marginally audible, and could be seen directly on Spectran. It was observed that the signal's libration width is reduced about 5 times by the narrow beamwidth of my antenna. The antenna is a 2.4 m aluminum offset dish with a 0.12 deg beamwidth. Output power of the TWTA is about 60 W. The RX NF is about 6 dB. It is clear that EME QSOs are realizable on the 76–80 GHz band. For a -3 degs C temperature and 70% humidity (no clouds), it was possible to hear echoes even at 17 degs of elevation. Winter is better for EME on this band because of low level of water vapor density. This is in contrast to the 47 GHz band where oxygen attenuation of atmosphere is dominate and winter time is even worse than summer time.



RW3BP – 77.5 GHz echoes at 14 degs elevation

SP6JLW: Andy sp6jlw@wp.pl and group report their SSB contest results -- SP6OPN, SQ6OPG and I operated the SSB contest on 1296 as a team. We QSO'd SP7DCS (55/56) JO, UA3PTW (55/55) KO, OZ4MM (57/55) JO, VK5MC (53/55) QF, OK1CS (53/55) JO, I1NDP (57/57) JO, OK2DL (57/57) JN, G4CCH (55/56) IO, SV3AAF (54/55) KM, IK3COJ (53/54) JN, F5SE/P (54/54) JN, I5MPK (54/56) JN, LZ1US (55/55) KN, IZ1BPN (54/55) JN, LX1DB (59/57) JN, YO3DDZ (53/55) KN, LA9NEA (559/56)CW-SSB JO and LZ1DX (54/56) KN for 18 QSOs. We ended with a score of (17x2+1)7 = 245 points. We used 6.5 m dish, 16xBLV958 1 kW SSPA and a VLNA by SP9WY.

SP7DCS: Chris sp7dcs@wp.pl had a great time on both 23 cm and 70 cm in the contest – I worked on 1296 UA3PTW (55/55) KO, SP6JLW (55/55) JO, OZ4MM (57/55) JO, I1NDP (57/55) JO, OK2DL (57/56) JO, G4CCH (57/55) IO, OK1CS (53/54) JO, HB9Q (57/56) JN, LZ2US (55/45) KN, LX1DB (57/56) JN, F5SE/p (57/53) JN, IZ1BPN (57/54) JN, LA9NEA (52/559) SSB-CW JO, LZ1DX (53/55) KN, YO3DDZ (55/55) KN, 9A5AA (52/55) JN, DF3RU (55/55) JN, CT1DMK (55/54) IN, N2UO (55/54) FM, VE6TA (55/55) DO, VA7MM (559/559) CW only CM, I5MPK (55/55) JN, K2UYH (55/55) FN, N4OY (55/55) EM and PY2BS (55/54) GG for a score of (23x2+1)12 = 564 points. The following day on 432 I added QSOs with OZ4MM (55/44) JO, UA3PTW (55/55) KO and K2UYH (55/55) FN for a score of (3x2)3 = 18 points. We used my 6 m dish on both bands with on 23 cm 300 W and on 432 500 W.

TI2AEB: Armando aebonilla@ice.co.cr ends news that his 23 cm station is back on the air -- I rented a welding machine and some help as I can't go on the

roof for another two weeks because of my eye operation. They welded the shaft of the dish's body. Now there is no more slips between the dish and shaft, and since at the end of shaft there is a screw that has a circle scale calibrated in degs vertical angle, hopefully no more errors in pointing. (A camera sends the images to my PC). I am pleased to report the moon beacon is again at -13 to -14 dB. I am again looking for skeds and contacts.

VA7MM: Mark (VE7CMK) and Toby (VE7CNF) va7mm@rac.ca were active on 1296 during the SSB contest –– On 16 Feb, we made 5 random cross mode contacts with I1NDP, LX1DB, IZ1BPN, K2UYH and G4CCH. This gave us a score of 5x1x4 = 20 points. We also worked KL6M on CW. We intend to operate next in the 1296 DUBUS EME Contest in May, and are otherwise available anytime for scheduled contacts. Please contact us via email.

VE3KRP: Eddie eddie@tbaytel.net reports working during the 23 cm SSB Contest LX1DB, I1NDP and N2UO. Later in the month he QSO'd OZ6OL and PY2BS for his initial #80 on 23 cm. Eddie also worked N4PZ.

VE4MA/7: Barry ve4ma@shaw.ca is now up to 125 W of output on 6 cm. He had a partial with W5LUA and ran with K5GW at Apogee. Gerald was (O) copy, but received Barry (T). Barry plans to change to 7/8 Heliax from ½ inchand is starting to think he may have to put the full 10' dish on a pipe instead of 3/8 as an offset. [On 14 Feb, Barry did work LX1DB (O/O) on 6 cm – see Willi's report.]

VK3UM: Doug tikaluna@bigpond.com sends his dismay at missing the SSB contest -- Sorry guys; I could not get on for the SSB contest activity. I had a heard of steers break though a gate and ended up in a neighbor's place a couple of km away. I had to cut another fence to get them back and in the process of mending things copped a bit of heat stroke. It knocked me about a bit. (It was 40+ degs C and I did not take any water with me – (Bev's wrath was even worse!).

W2LPL: Les has a new N4QH dish in operation and has already made some contacts using a loop feed. It is 2.2 m and was built N4HQ as his serial #1 demonstrator. [TNX to N4QH for forwarding this info.]

W5LUA: Al w5lua@sbcglobal.net had another extraordinary month on microwave EME -- Since our success on 10 GHz, I have been running numerous tests with VK7MO on 24048 MHz. Rex upgraded his 24 GHz system from an 18" inch dish to a 30" dish. The 30" (77 cm) dish was used on 10 GHz to provide several of us numerous EME contacts. Using JT-4F, Rex was able to decode my transmissions on 24 GHz. I have been able to see Rex on my waterfall, but I still have been unable to decode his JT-4F signal. Rex is only running about 10 W. In earlier tests with Rex, I was able to dial up 24048.1 MHz, and Rex did all the frequency correcting for both receive and transmit based on the mutual Doppler between our 2 stations. Recently, I have been using a tracking program written by K5GW, which does both transmit and receive frequency correction. The program works very well and updates the frequency of my Flex 5000 once a second. As a point of reference, the mutual Doppler on 24 GHz can vary up to a cycle or two per second so this sort of frequency correction is mandatory in order to keep the WSJT tones at a constant frequency over an entire transmit period. I was very pleased to work VK3XPD on 24048 MHz on 14 Feb. We were both using the latest WSJT program on the JT-4F mode. We exchanged -22 dB reports both ways. Alan was quite visible on the waterfall. Alan was running a 3 m prime focus dish and a TWTA running 15 W at the feed. I was running a 2.4 m offset fed dish and 100 W at the feed. Alan and I had a repeat 24 GHz QSO on 15 Feb where we swapped -21/-22 dB reports. This QSO was a result of a lot of work by VK7MO in conjunction with K1JT to optimize the JT-4F mode for signals with significant spreading. Having run numerous schedules with VK7MO on 24 GHz, Rex was able to supply Joe with numerous wave files to help Joe optimize the JT-4 program for 24 GHz. Special tanks to K1JT for his fine work on the WSJT program, and thanks to Gerald for his frequency tracking software. On 12 Feb, I was able to work 9A5AA (539/559) on 3400 for an initial. On 17 Feb, I worked G3WDG (O/O) on 10 GHz. I added another initial and first on 10 March by working OZ1FF on 24 GHz CW. It was new moon and the separation between Moon and Sun was only about 4 degs!

W6YX: John (K2YY) johnhill5000@gmail.com sends an update from the W6YX team – The team put together a last minute limited effort for the 23 cm EME SSB Contests with 200 W at the feed into our 6 m dish. Our sequencer is not setup for microphone use, so we sent computer generated CW and received SSB only. This is one of the easiest EME modes to operate, as all hams can type and understand voice. Our software defined radio feeding Linrad proved once again to be an invaluable tool; far better than any internet based spotting service. Linrad multicasts the SDR's 96 kHz bandwidth across our network. Team members can plug in their laptops into the network and run Linrad clients, just as if they were on the main station. This allows team members to decode SSB, CW and JT65 signals anywhere on the band, independently of the main receiver, with their own preferred filters, settings, etc. The popular $20 RTL E4000 SDRs work great with Linrad in this capacity. The SSB event did have its share of issues. The first hour after moonrise was lost due to software CW keying issues. Once this was resolved, I1NDP was a quick QSO. Next up was the loudest station on the band, LX1DB. Unfortunately we lost our LNA mid-QSO. The only replacement on hand was our 144 station's AD6IW MMIC wide-band LNA, which still provides 0.9 dB NF/15dBG at 1296. With this compromise LNA, and a blow to morale, we managed to work three more stations, ending up with: I1NDP JN, LX1DB JN, IZ1BPN JN and K2UYH FN. All were on SSB/CW for a score of 4x1x2 = 8 points. OK2DL was easily heard, but not worked. VE6TA and W7JM were "lightly" heard working larger stations. With our NF limited backup LNA, it was a big help when stations used the standard NATO phonetic alphabet http://en.wikipedia.org/wiki/NATO_phonetic_alphabet. It is much, much easier to identify "November" rather than having to guess whether Nancy", "Norway", "Normandy", or "November" was heard. We were often confused by non-standard phonetics, which effectively degraded the readability of a signal 2-3 dB. It's almost certain everyone's scores will go up if we all use the standard NATO phonetic spelling alphabet. The next time we'll be QRV will likely be either during the ARI New Modes and/or DUBUS CW contests.

YO2BCT: Liviu yo2bct@yahoo.com reports making 2 QSOs in the SSB contest. Both were on CW/SSB and with HB9Q (56/559) JN and I1NDP (56/559) JN – My station is a 3 m dish with a 200 W PA. I am QRV on both 23 and 13 cm and interested in skeds. My AZ maximum is limited to 230 degs.

YO3DDZ: Dan dan@nemoexpres.ro is QRV on 23 cm with a 5 m dish and 400 W – This was my first 1296 EME contest. The WX was bad with rain, snow and overcast all the time, so it was a real challenge and a struggle for every SSB contact. My targets were to finish the contest with a least 10 contacts and no technical damage to my station. Both were accomplished. Now I'm looking forward for the next one. In the meanwhile, I will start improving my setup's performance. There is always room for improvement. QSO'd during the contest HB9Q (55/54) JN, OZ4MM (55/54) JO, OK2DL (55/55) JN, I1NDP (55/55) JN, F5SE/P (55/54) JN, SP6JLW (55/53) JO, LX1DB (57/56) JN, IZ1BPN (55/55) JN, SP7DCS (55/55) JO, UA3PTW (52/55) KO, OK1CS (52/55) JN, LZ2US (56/54) KN, DF3RU (55/55) JN and CT1DMK (42/55) IN. My score was 24x2x5 = 140 points.

ZL4PLM: Simon gm4plm@hotmail.com is now QRV on 1296 with a good sized dish (he does not indicate the size – I do not believe it is ZL3AAD's 7.5 m dish, which Simon acquired in Sept) with an OK1DFC septum feed and 650 W at the feed. Unfortunately Simon was having relay problems and destroyed his preamp during the first few tries. He should have this problem corrected very soon and making QSO before the next NL.

K2UYH: I a.katz@ieee.org, despite a conflict with family activities, still had a very good time in the SSB Contests. On 23 cm I was able operate right at the start during my VK/JA window, but had only limited time during the EU part of my window. I worked N4PZ (55/55) EN, W7JM (55/55) DM, KL6M (54/55) BP, VE6TA (55/55) DO, JA6AHB (559/55) PM CW/SSB, VK5MC (54/54) QF, F5SE/p (55/55) JN, OK1CS (55/56) JO, IZ1BPN (55/57) JN, N2UO (55/56) FM, CT1DMK (55/55) IN, SP7DCS (55/55) JO, I1NDP (57/57) JN, N0OY (55/55) EM, I5MPK (55/55) JN, G4CCH (56/56) IO, PY2BS (55/55) GG, W6YX (559/55) CW/SSB CM, VA7MM (559/55) CN, DF3RU (55/55) JN, PA3FXB (549/54) CW/SSB JO and OZ6OL (55/55) JO for a score of (18x2+4)15 = 600. Not my best by far. The next day on 432, I worked JA6AHB (559/55) PM, KL6M (55/55) BP, UA3PTW (55/44) KO, OZ4MM (55/55) JO, SP7DCS (55/55) JO and a partial with N4GJV (559/-) due to a switch error – we actually worked on CW before I switched to SSB. I spent more than an hour trying to fix a preamp that was not broken in really bad WX. By the time I realized what was going on and got back on the Moon, everyone was gone. My score was (4x2+1)5 = 45 points. On 2 March I ran a listening test on 23 cm at 1145 ZL4PLM (-/559) and (8DB) on JTJ5C and after worked at 1200
1200 VK2CBD (14DB/8DB) JT65C, and on 9 March had a partial at 1900 ZL4PLM (559/559). Simon lost his preamp. I have a major conflict for the 432 DUBUS CW EME Contest on Saturday, but plan to operate on Sunday. I may be on at moonset on Saturday.

NETNEWS: **W2CNS** should be on 70 cm now that the temperature is up. **VE3KRP** worked on 1296 in Feb/March N4PZ and heard VE4SA. During the SSB contest, Eddie QSO'd on LX1DB, I1NDP and N2UO on SSB. **VE5KKZ** has 150 W on 1296 and will be QRV just as soon as it warms up enough to get his SSPA mounted out at the feed of his dish. WA1ZMS/4 in VA expects to be QRV on 23 cm soon. Brian is also slowly building up 5760 as his next EME band. **WB7QBS** is still looking for 70 cm CW skeds. **WA6PY** reports that

unfortunately he will be away during the DUBUS 432 contest weekend. **VE6TA** reports 18 QSOs on SSB during the 1296 Contest. **W1AIM** is working toward returning to EME after years of inactivity. **DJ8FR** has his new 5 m dish about ready to go and will be on during the upcoming DUBUS EME contest in May.

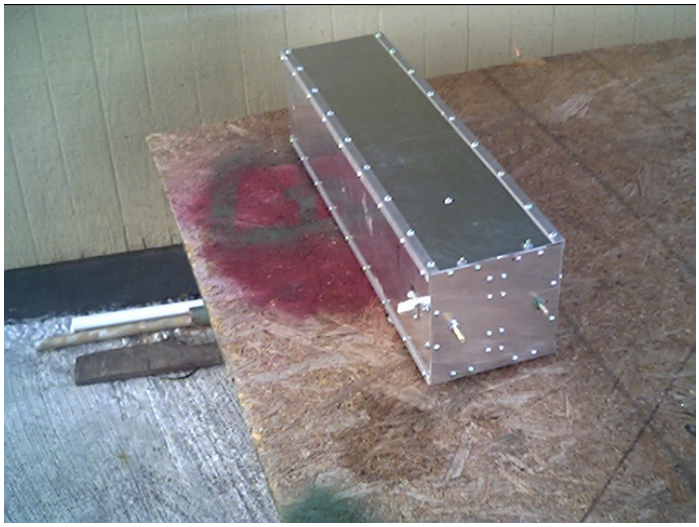
FOR SALE: **W1SMS** has taken over Lunar Link Products and is accepting orders for existing products and working on new ones. They plan to exhibit at Dayton. For more information contact Steve at lunarlink@manitousys.com or tel 203-733-2110. **N6OVP** is looking for a PA to use on 23 cm EME. He has a dish but no power. Contact Dave at n6ovp@pacbell.net. **K2DH** is looking for a 12' TVRO dish for 1296. **DL1YMK** is loking for 90° ellbow DIN 7/16 with male/female connectors. Contact Michael at dl1ymk@aol.com. **WW2R** has for sale an unused PA7TA GS35B 432 cavity amplifier assembly with tube for $450+shipping (USA only). See item #43 at http://g4fre.com/sale.htm for more info. He also has a TH328 PA for 23 cm available. Contact Dave at eme_ww2r@g4fre.com. **N4QH** besides dishes, now has 1296 spetum feeds for sale. Contact Lyle at lylen4qh@aol.com. **OZ1LPR** is looking for WR90/WG16 waveguide switch. Contact Peter at <PH@Focon.dk>.

FINAL: The May Swedish EME meeting is getting close. This is a meeting if you can make, you do not want to miss. SM4IVE sm4ive@telia.com reports that peoples have started to pay. Lars wants to inform you that if you arrive on Friday and are participating in the Friday night dinner at 2000 local that even if you arrive 30 min late, they will fix your dinner. The total amount is 2985 SEK for whole weekend.

WA8RJF invites all the EME gang going to Dayton to attend the 18th VHF Weak Signal Group dinner to be held on Friday evening 17 May at the Dayton Grand Hotel (Formerly the Doubletree Dayton Downtown Hotel) at 11 South Ludlow Street, Dayton, OH 45402. The cash bar opens at 6:15 PM with plenty of room to mix and mingle with VHFers from all over the country and around the world. Dinner will be served at approximately 7:15 PM. The guest speaker is Jeff Klein K1TEO - VHF Contester Extraordinaire. Prizes will be drawn at 9 PM. Reservations are required. Cost per person is $40.00 and includes dinner and a prize ticket. Seating is limited to 125 and spouses are welcome to join us and are eligible for the prize drawing. For tickets please send $40.00 per person and an SASE to: Tony Emanuele WA8RJF, 7156 Kory Court, Concord Township, Ohio 44077-2221. Please include the names and calls of all attendees as well as an email address. {Dayton this year conflicts with the DUBUS 6 cm Contest.]

I shall be looking for you off the Moon on 432 in the contest (see my reprot) and on the higher bands. 73, Al – K2UYH

OZ1FF's dish used on 24 GHz EME



N4QH's septum feed