432 AND ABOVE EME NEWS
FEBRUARY/MARCH 2014 VOL 42 #2

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CONDITIONS: Despite very cold weather (WX) and snow, the end of Jan/beginning of Feb provided some fun times off the Moon. The annual 1296 SSB EME Funtest clearly generated the most interest, and it appears that OK2DL will be the Top Fun Maker for 2014 with 30 QSOs for 638 points! But, this could change as I may not yet have received all the logs. [I actually slightly topped Merek's score with 27 QSOs but more sectors for 714 points, but am disqualified from the award as the contest scorer/monitor.] On 432, the scores as is to be expected are lower; OK1CA has the top reported score with 78 points. Franata also has the top score thus far for the DUBUS 70 cm CW completion with 23 QSOs. All contest scores throughout this NL are color shaded for easy comparison. There is nothing to report dxpedition wise this month. I have learned that Arzebaijan should be on 432 in April – see 4K report below, along with T88/DF8DX on 23 cm also in April and 6W/PE1LL on 70 & 23 cm in May as reported in the last newsletter (NL). **Coming up on 8/9 March is the 13 cm DUBUS EME Contest. This contest is growing and is now second in turnout to the 23 cm contest.** There is no 70 cm CW activity time period (ATP) scheduled for March.

4K/DL8YHR: Frank dl8yhrfrank@aol.com reports that he and DM1CG will be operating from Arzebaijan between 4 and 30 April. Their main focus will be on 144, but as in the past they plan also to be active on 432 for a day or 2 depending on demand. They will have a single yagi and some power for 432. [As more details are announced, I will keep you informed.]

9A5AA: Dragan dragan9a5aa@gmail.com reports on the EME SSB contest on 23 cm -- I was only QRV on 2 Feb. On 1 Feb my dish was under ice and I spent a lot of time to defrost it. But it was worth the effort. I QSO'd at 1040 PI9CAM (59/55) JO, 1100 UA3PTW (57/55) KO, 1114 DL6SH (57/55) JN, 1129 SP6JLW (56/54) JO, 1335 OE5JFL (55/54) JN, 1340 HB9Q (57/55) JN, 1345 OK2DL (57/55) JN, 1423 LZ1DX (53/55) KN, 1510 F5SE/p (54/42) JN, 1655 LX1DB (57/55) JN, 1706 K2UYH (56/55) FN and 1721 OK1CA (55/54) JO. All contacts were 2XSSB for a score of 12x2x5 = 120 points. My rig is a 2.4 m offset dish expanded to 3.5 m with 10 mm mesh, square septum feed with octagonal flare, G4DDK LNA, and 250 W SSPA. I plan to be QRV in DUBUS 13 cm contest in March. I will work on 2320 and for the first time on 2304.

9A5AA's 2.4 m offset dish expanded to 3.5 m & septum feed with octagonal flare

DJ8FR: Juergen juergen@dj8fr.de reports on the 23 cm SSB EME contest -- This was my very first EME SSB contest and I enjoyed it very much. My station on 23 cm is a 5 m mesh dish, RA3AQ feed with 300 W at the feed and a HB9BBD preamp. The Moon was in good condition, so the date was chosen right. I worked all the stations I could hear. QSO'd were F5SE/p, OE5JFL, PI9CAM, OK1CA, DL6SH, UA3PTW, OK1CS, UA4HTS, DL1YMK, HB9Q, RA3AUB, DG5CST, OK2DL, SP6JLW, LX1DB, K2UYH and CT1DMK. All QSOs were 2-way SSB for a score of 17x2x6 = 204 points.

DG5CST: Seb dg5cst@googlemail.com was pleased with his results on 1296 during the SSB contest -- I operated with my modest setup of 5 m dish, IMU feed and about 100 W. QSO'd were at 0853 SP6JLW (55/54) JO, 0905 UA3PTW (56/55) KO, 0924 DF3RU (55/56) JN, 0930 PI9CAM (59/54) JN, 0948 RA3AUB (53/52) KO, 1229 DL1YMK (53/52), 1306 DJ8FR (53/53) JO, 1322 OK2DL (57/55) JN, 1325 OE5JFL (57/56) JN, 1338 OK1CA (56/55) JO, 1344 OK1CS (56/54) JO, 1350 UA4HTS (55/54) LO, 1354 HB9Q (59/55), 1436 F5SE/p (56/43) JN, 1503 DL6SH (56/56), JN, 1603 LX1DB (56/55) JN and 1635 K2UYH (55/44) FN for a total of 17 2-way SSB QSOs in 5 sectors for a score of 170 points.

DL7APV: Bernd dl7apv@gmx.de reports on his operation during the 70 cm SSB and DUBUS CW contests – I was not able to be very active during SSB contest and only made 2 QSOs with UA3PTW and OK1CA. On JT, I added two initials with RU1AA who has 2 x 29 el yagis and 120 W and PY1UNU who is running only 50 W and a 3 m dish on 70 cm. In the DUBUS CW contest Murphy had no mercy sending high winds coupled with rain/wet feed lines that degraded my VSWR, generally bad condx and finally my SSPA blew! So I only completed 2 QSOs, again with UA3PTW and OK1CA.

F1PYR: André andre_f1pyr@yahoo.fr was QRV on 24 GHz in Jan with a 3.5 m and 20 W – [see last month's report]. He had an easy random QSO with OK1KIR on CW random and then JT. Andre is looking for skeds and notes he need 22 to 25 ° el and 90 to 180° AZ to operate.

F5SE/p: Franck reports on his 23 cm SSB contest operation -- I was active from local moonrise to local moonset, with a three hour break for lunch time. The low declination was a problem. All QSO's made between moonrise time and about 1000 were made when the Moon was behind my tree shield (about 5 or 6). Therefore, I missed DF3RU, JH1KRC, VK5MC and PA3DZL. When the Moon went above the trees, it was already too late for Japan and Australia, and the two EU guys seemed to have gone QRT... Once again, good activity from Europe, but to my great surprise, neither Italian nor Swedish stations were heard, and no OZ as well. On the other hand a few more US stations than last year were worked, with only one missed, N2UO, who never came back to my various calls. During the contest, I was still using a single 500 W SSPA at "ground level" and my old W2IMU feed. The septum feed is now almost completed, and should be installed and tested during March. I worked during the SSB fun contest (in alphabetical order) 9A5AA (JN), CT1DMK (IN), DG5CST (JO), DJ3FI (JO), DJ8FR (JO), DL1YMK (JO), DL6SH (JN), G4RGK (IO), HB9Q (JN), K2UYH (FN), LX1DB (JN), LZ1DX (KN), N8CQ (FM), OE5JFL (JN), OK1CA (JO), OK1CS (JO), OK2DL (JN), OK2ULQ (JN), PA3CQE (JO) for initial #154, PI9CAM (JO), RA3AUB (KO), SP6JLW (JO), UA3PTW (KO), UA4HTS (LO), W6YX (CM), W7JM (DM) and WB2BYP (FN). I made a total of 27 QSOs of which 25 were 2-way SSB and 2 CW-SSB with 10 multipliers for a total of (25x2+2)x10 = 520 points.

G3LTF: Peter g3ltf@btinternet.com is getting close to completing his 6 m dish repairs -- I had been making great progress, but the weather pattern has changed back to high wind with strong gusts (35 mph) and rain so not much progress lately. I have now fitted the covering to 10 of the 16 sections, not fixing them completely out to the rim, only to the 4th ring. When I cut the mesh off the fallen dish with an angle grinder, in 2 section pieces that obviously left a gap, which I will have to bridge by soldering a strip of mesh across, but my first target is to get all 16 sections in place so that the weight is even. I have given up

on the idea of covering the centre 2.4 m with a finer, lighter mesh, it was eye-wateringly expensive. I use a pulley to haul the mesh up into position before pop-riveting. One good thing, anyone whose done this job knows how many ties you need to put in on the rings to hold the mesh... when you refit a large piece it already has the right shape so far fewer are needed. I still hope to be back on in February, but it all depends totally on the weather.

G3LQR's 80th birthday party, L to R are G3LTF, G4FSG (chair EME2012) XYL G4HUP , XYL G3LTF, G4DDK and G3LQR.

G4BAO: John john@g4bao.com has been active on 13 cm – I had a nice 2320 CW QSO on 14 Jan at 1800 with ES5PC. I am running a 1.9 m dish with a Septum feed, 180 W and VLNA2. I can also copy 2304 and am interested in skeds. Email me or hook up with me on HB9Q.

HB9BBD: Dominique dfaessler@bluewin.ch was active on 23 cm CW in Jan/Feb and worked SP6ITF (579/579), RN3A (579/559), I5YDI (569/539), DG5CST (529/559), RL22OG (579/589), RL22CW (539/579) and UA9YLU (529/559).

I1NDP: Nando i1ndp.nando@gmail.com reports poor conditions during the DUBUS 432 CW EME Contest and that he was rained out for both SSB contests -- I was ready for the SSB contests but pouring rain for the whole of Saturday made operation on 70 cm impossible, and when I was making ready for the 23 cm session my AZ encoder refused to work. I found that my readout was full of water and the signal on the encoding disk wiped out by the moisture. I am now waiting for a replacement from US Digital. I was able to be on the air during the CW contest on 70 cm for few hours, but could complete only 13 QSOs. The activity was very low. In addition to the usual noise and spurious signals were bad, and I had some problems with my antenna not performing as it should. I have serious maintenance planned for when weather will be better.

JA4BLC: Yoshior ja4blc@web-sanin.co.jp was active on the microwave bands – I worked on 12 Jan on 2320/2424 SM6CKU (559/559) for initial #61. I appreciate PA3DZL's in getting a 2424 converter to Ben. On 10450, I worked on 12 Jan LX1DB (559/569), on 14 Jan JA6CZD (O/O), on 4 Feb (10450/10368 XB) G3WDG (559/549) and F1PYR (O/O) on random. I was also heard on 3 Feb by EA3XU, but was not able to not listen for Benjamin.

JH1KRC: Mike sends news on his activity in the 1296 SSB Funfest and his missing the 70 cm CW DUBUS Contest –- My SSB operation was on 23 cm from grid QM06 with my 4.4 m dish, OM6AA septum feed with a super choke, 1 kW TX, HB9BBD LNA and IC 970D with audio filters. Because of the Moon's low declination and my own window limitations, I QSO'd only into EU with at 0852 OE5JFL (56/55) JN08, 0902 OK1CA (55/55) JO, 0924 SP6JFL (54/52) JO and 0953 PI9CAM (54/55) JO. I also hear UA3PTW (56). My final score was (4x2)x2 = 16 points. Unfortunately we had stormy weather with heavy snow here in Japan at the time of the 70 cm EME contest that prevented me going to my EME shack. I am sorry that I could not take part.

K5QE Marshall k5qe@k5qe.com sends his report of my 432 EME operation in support of W1AW/5 celebration of the ARRL's 100th Anniversary -- I was only able to operate 432 for two days on the weekend of 8/9 Feb. On Saturday I made 13 QSOs. All were from EU except for W7MEM. Signals were extremely loud that day. I have never heard 432 signals that strong in the past. I had one station at (6DB)! Many others were at (8DB ~ 9DB)- big fat traces and signals that you can hear in the speaker. On Sunday, I worked 7 more for a total of 20 EME QSOs. I have never made over 13 contacts on 432 in any of the contests. I don't know if there are just very few operators on 432 or whether the 432 ops just don't want to give out contacts in an ARRL VHF contest. Anyway, I thought I was going to break my 13 contact jinx, but the Moon was lost in EU before I could finish that 14th contact. AAAaaaaRGH - maybe someday!

KL6WE: Ed kl7uw@acsalaska.net has both good news and bad -- I was able to get my dish with re-installed LNA/relay box at the feedhorn in operation, and with 50 W was on for the SSB contest weekend (1/2 Feb). I copied some SSB stations (023), but not quite well enough to get calls. Later I heard a strong CW station (019) and another not so strong station he was working. Then I moved up to 1296.070 to try working ZL2IP, but I did not find his trace. VK2JPS copied my signal, but reported I was sending in LSB? That is crazy as the K3 operates in Data-A in USB. It took a little tuning on both are our parts; and I then received VK2JPS (23DB) in JT65C and was hearing Dave's tones, but could not decode until I noticed he was TXing back on LSB. (The LSB situation never repeated so I suspect some kind of ionospheric disturbance made my signal distorted enough to sound LSB.) Dave had to leave at this point, so we never resolved why he heard my signal on LSB. I noticed that my noise floor was about 4 dB above expected, which I discovered was do to my amp PTT being in the TX mode. Activity appeared to die about 0100. The next day, 3 Jan, I finally made some 23 cm QSOs on JT65C. I worked at 0037 VK4CDI (22DB/19DB) and about 0045 VK2JDS (15DB/15DB). These QSOs tell me that my 50 W is not good enough for CW with 3 m dish station. The bad news is the following week the WX turned very bad with winds up to 73 mph in some local areas and lots of damage. Fortunately the dish survived any major issues. I will be QRT for a few days until I get everything checked out and any repairs done. I should be on for the March activity.

N4GJV: Ron badl79@yahoo.com was QRV for the DUBUS CW EME Contest -- I was QRV on both 2 m and 70 cm during the contest. I experienced extremely poor conditions, on 70 cm during my first Moon pass when I was QRV. Signals from normally strong stations were very weak and QSB was severe. Signals were extremely difficult to copy. However, much of what I perceived to be poor conditions, may have been due to a very unfavorable and non reciprocal polarity alignment. I base this impression on my impression that many QSO partners seemed to be hearing my signals better than I was hearing their signals. Conditions were generally better during the remainder of the event, and a number of very strong signals were heard. However, "one way propagation" was very often a very serious problem. I replied to CQs from a number of stations that had very strong signals with no response, whatever. On the other hand, the one way propagation apparently prevented me from ever hearing a number of "big signal" stations that I would later learn had been active and I struggled mightily to copy the cross polarized signals from others. I received a couple of replies to my CQs that I failed to id, before the calling station gave it up. This one way propagation issue was often very evident, on both bands. On 432, I logged VE6TA, W1AW/4, JA6AHB, VK3UM, OK1CA, UA3PTW, SP7DCS, NC1I, ES5PC, and DL9KR. Stations CWNR'd included OH2DG, SP6JLW, I1NDP and IK2OFO. My QSO numbers were very low, which was no great surprise. Some stations were unable to be QRV due to the bad WX that plagued much of the northern hemisphere, and the Moon was nearly at apogee. Nevertheless, I greatly enjoyed the fun, and I would like to thank all participants, with special thanks to those that persisted when I struggled to copy their cross polarized signals. Last, but not least, many thanks to the guys at DUBUS and the REF, for sponsoring this enjoyable, fun event!

N4PZ: Steve n4pz@live.com was disappointed to miss the SSB EME Funtest this year but notes that his polar mount does not allow operation at declinations of 0 and below – I worked on 1296 CW on 3 Feb NC1I and PA3FXB, and on 5 Feb N6OVP (559/559). This was David's first 1296 EME QSO. He has a 2.2 m dish and 400 W through a long run of coax line, which he plans to shorten. I plan to be QRV on 1296 when I have Moon looking for CW QSOs.

N6OVP: David n6ovp@pacbell.net is very excited have made a 1296 EME QSO --
I work N4PZ tonight (5 Jan). Steve did sound good here and gave me a (559)! I plan to move my dish in the next few weeks to a location where I will have a better Moon window to the east. I am interested in additional QSOs and skeds via email. I will also check HB9Q.

NC1I: Frank frank@NC1I.COM sends his Jan activity report -- Bob (W1QA) and I made noticeable improvements to our 23 cm receive performance in Jan and are now able to work more of the 3 m and smaller low power station on CW. Probably our best CW QSOs were with PA3CQE (3 m and 90 w) and UA9YLU (4.5 m and 50 W). When we started thinking about what to build for a 23 cm station, our primary goal was to be able to work stations on CW that were using 3 m dishes and about 250 W. It appears we have easily met that goal and I believe there is still room for some minor improvement with our receive capabilities. Our next step is to try adding a scaler ring to our square septum feed. Due to a very busy schedule over the next couple of months, it will probably be spring before we get that done. The following stations were worked

on 23 cm CW starting on 10 Jan at 2000 PA3FXB (539/559), 2010 OK1CS (569/579), 2018 G4CCH (579/589), 2031 I5YDI (O/O 529), 2044 IK5QLO (O/O 559), 2057 DL6SH (569/579), 2120 PA2DW (O/O), 2157 PA3DZL (549/569) and 2205 DG5CST (559/579), on 11 Jan at 0538 JA6AHB (579/589), 2017 I1NDP (589/589) and 2024 IK5VLS (529/549), on 11 Jan with W1QA operating JT65C at 2258 PA3DZL (11DB/8DB), 2304 PA3CQE (16DB/8DB), 2312 G4CCH (9DB/5DB), 2324 DL6SH (8DB/7DB), 2332 K5DOG (20DB/12DB) and 2340 PA2DW (23DB/14DB), on 12 Jan at 0010 PY2BS (10DB/6DB), 0016 IK5VLS (13DB/7DB) and 0052 DK0SF (12DB/7DB) - I am assuming DK0SF is the same station as DL6SH, and on CW at 2250 LX1DB (589/589), and on 14 Jan on CW at 2309 PA3CQE (O/O) and 2335 UA9YLU (O/O). During the time period that I worked PA3CQE and UA9YLU both my echoes and the ON0EME beacon were by far the loudest I have heard them. On 18 Jan I called CQ on CW for nearly 3 hours starting shortly after my moonrise and only heard one station reply (TI2AEB), but was unable to complete. I called CQ again on 18 Jan for a little over an hour during my Asian window without any luck. On 19 Jan, we switched between modes and found activity starting at 0217 RM22DU (12DB/5DB), 0233 RL2JT (15DB/O), 0312 UA9YLU (22DB/O), 0405 N4PZ (579/589), 0417 RL22OG (569/569), 0607 DF4PV (18DB/O), 0637 ES6FX (23DB/12DB), 0658 SP4MPB (O/O CW), 0707 VE6TA (569/579) and at 0735 WB2BYP (579/559). I would appreciate some clarification on the R22 call signs for counting initials. [I am afraid long ago it was agreed that special call signs do not count as initials.] No stations were worked on 432 in Jan. On 19 Jan I got on for the 0330-0530 ATP, but heard nothing. I called 10 or 12 CQ's and listened frequently, but only heard my own echoes. This was very disappointing. My polarity rotation failed during this time period. It's hard to believe, but 2014 marks the 20th year my current 432 array has been up. To be honest I never thought it would survive this long here in New England. It has survived several blizzards and many severe thunderstorms some with winds exceeding 70 mph. Considering the array is centered at 47 feet (about 15 m) above ground, weighs nearly 2000 pounds (900 kg) and with the mount and is close to 125 square feet, I am amazed it's still up and working. I worked on 23 cm on 4 Feb at 2106 N4PZ (569/569), on 6 Feb at 1825 I added DG5CST (539/559), on 7 Feb at 1936 SM7SJR (539/559), 1942 YL2GD (539/559), 2003 PA3FXB (539/559), 2013 RN3A (559/559) and at 2027 N4PZ (589/589) – this was the loudest I have ever heard Steve, on 8 Feb at 0210 WA3GFZ (O/O), 1928 DF3RU (539/559) and 1935 OK1CS (559/579), I then switched to JT (this was the first time I have ever operated JT) and added at 2108 PA3FXB (16DB/09DB), 2117 K5DOG (25DB/14DB), 2132 IK5VLS (16DB/09DB), 2142 PA2DW (21DB/14DB), 2156 UA4LCF (23DB/23DB) and 2254 RA3AUB (12DB/6DB), on 09 Feb at 0525 VK4CDI (17DB/14DB) and (O/O) on CW, 2050 SM7SJR (17DB/08DB), 2124 PA2DW (20DB/O) and 2135 PA3FXB (15DB/09DB), on 10 Feb at 2306 PA2DW (23DB/14DB) and 2324 N4PZ (539/579) on CW, on 15 Feb at 0223 RD3RA (12DB/04DB), 0318 TI2AEB (20DB/12DB), 0341 W4OP (569/579) on CW and 0427 TI2AEB (529/539) on CW, and on 16 Feb at 0050 DL6SH (569/579) - Slawek called me 10 minutes later using just 35 W (CW) and was a solid (O) copy, 0120 YO8RHI (20DB/O), 0135 RL22OG (10DB/04DB) and 1014 N6OVP (O/O) on CW. I found Feb conditions on 23 cm mixed at best and NA activity seemed extremely low. I made it a point to get on for the DUBUS 432 contest and found conditions extremely good. My polarity was stuck at horizontal so that probably cost me at least a few QSOs. It will probably be late spring before I can get the rotatable polarity repaired. I worked during the contest on 8 Feb at 1816 SP6JLW (579/579), 1820 DF3RU (569/579), 1823 UA3PTW (589/559), 1830 OK1CA (589/589), 1835 SP7DCS (569/599), 1855 I1NDP (569/589), 1900 DL5FN (559/579), 2305 LZ1DX (579/589), 2311 VE6TA (579/589), 2318 PA2V (549/429), 2329 IK2OFO (559/559), and at 2333 N4GJV (569/589), and on 9 Feb at 0613 VK3UM (589/569), 1856 SM6FHZ (559/559), and finally at 1940 ES5PC (549/559) for 15 QSOs with a multiplier of 15. I know I missed other stations that were active, but even so the activity level on 432 CW, especially from NA continues to disappoint. Signals are just so strong - PA2V was a solid (549) with his single yagi. It's really a shame there is not more activity. Unfortunately I have a very busy schedule in March and April so my activity will be limited. W1QA will do his best to activate the station, but Bob will focus primarily on JT, if/when he gets here. If I am able to get on at all, I will focus on CW.

OK1CA: Franta strihavka@upcmail.cz has sent his log for EME SSB Contest -- I was QRV in SSB Contests and worked on Saturday during the 70 cm contest VK3UM QF, UA3PTW KO, LZ1DX KN, DL7APV JO, DF3RU JN, K2UYH FN and SM2CEW JN on SSB/CW for score of (6x2+1)x6 = 78 points. The activity on 23 cm on Sunday was better and I worked UA3PTW KO, OE5JFL JN, JH1KRC QM, F5SE/P JN, PI9CAM JO, SP6JLW JO, OK1CS JO, DL6SH JN, DL1YMK JO, RA3AUB KO, DJ8FR JO, PA3DZL JO, UA4HTS LO, G4RGK IO on CW/SSB, DG5CST JO for initial #299, OK2DL JN, LZ1DX KO, HB9Q JN, DJ3FI JN, OK2ULQ JO, K2UYH FN, CT1DMK IN, 9A5AA JN (2.4 m dish and 200 W) and DK0SF JN for (23x2+1)x8 = 376 points. I had a problem with changing the feeds from 70 to 23 cm because of the ice on my antenna, but otherwise it was fine EME weekend. I was QRV for the 70 cm part of the DUBUS EME Contest during the second Feb weekend. I worked a total of 23 QSOs and had initials with OK1TEH, DL7UDA, F6HZL, DL5FN and JE1NTL for initial #167. CWNR was IK2OFO and PA2V and I heard VK4EME. The conditions were good at Saturday, but I had problems with polarization alignment on Sunday and worked only W1AW/4 operated by WA4NJP.

OK2DL: Marek ok2dl@seznam.cz was active is the EME SSB contest on 1296 and QSO'd at 1305 DL1YMK (55/57) JO, 1307 OE5JFL (57/57) JN, 1312 UA3PTW (57/58) KO, 1313 UA4HTS (57/56) LO, 1316 DJ8FR (57/58) JO, 1319 RA3AUB (57/56) KO, 1322 DG5CST (55/55) JO, 1323 SP6JLW (58/59) JO, 1328 G4RGK (559/57) IO CW/SSB, 1337 LZ1DX (559/58) KN CW/SSB, 1339 PA3DZL (559/56) JO CW/SSB, 1346 9A5AA (55/57) JN, 1347 OK1CS (57/58) JO, 1349 OK1CA (58/58) JO, 1350 PI9CAM (58/58) JO, 1359 OK2ULQ (53/56) JN, 1402 DJ3FI (55/56) JO, 1411 HB9Q (59/59) JN, 1416 PA3CQE (53/54) JO, 1419 F5SE/P (57/57) JN, 1420 DL6SH (57/59) JN, 1440 G4CBW (53/55) IO, 1456 N2UO (55/55) FM, 1534 DK0SF (57/57) JN, 1540 K2UYH (57/57) FN, 1559 LX1DB (57/57) JN, 1635 CT1DMK (57/57) IN, 1651 IZ2DJP (53/55) JN, 1709, W7JM (53/55) DM, 1738 W6YX (53/55) CM for a total of (28x2+2)x11 = 638 points.

ON0EME: Walter (ON4BCB) on4bcb@gmail.com sends the follow beacon reports for Jan/Feb -- DL6EDF reports receiving the beacon just before it shut down at 10° with a 55 el yagi and a FT-736. DF4PV also reported excellent copy of the beacon with his 10 m dish and says that it is stronger than his own echoes with 80 W.

55 el yagi used to copy 23 cm EME beacon by DL6EDF

OZ4MM: Stig vestergaard@os.dk writes on his EME status – I have very little to report from here as I am still struggling with the damage to my dish back in Oct. I missed the SSB contests and the 432 part of the DUBUS Contest, as well regular operation. I will soon start on the serious repair of the dish. My first priority is to strengthen the mounting structure, and rebuild the elevation readout. Later some work has to be done with adjusting the dish surface. I am not sure how the damage will affect the higher frequencies. The challenge will be to see around the rim when the dish is in the birdbath position at 90 degs. Already it seems there is some slag in dish structure when it is elevated from zero to 90 degs. When this dish is at 8 m above ground, it is not very easy to adjust; taking the dish to the ground with crane is out of the question.

PA0OEH: Hans h.v.alphen@planet.nl reports receiving the DL0SHF 10 GHz beacon with a 50 cm dish – I was able to hear the audio in my headphones (M-O) copy. This was in the high power mode. In low power mode (50 W), it was not possible to hear the beacon. The beacon has added JT transmission which should give more margin.

PA3DZL: Jan's pa3dzl@planet.nl 23 cm SSB EME Contest report -- I worked during the contest OE5JFL (55/55), PI9CAM (55/55), UA3PTW (55/55), OK1CA (55/54), HB9Q (57/55), DL6SH (55/56), OK2DL (56/559) on SSB/CW for a total of (6x2+1)x3 = 39 points. I other Jan activity on 1296, I worked in Jan ES6FX for initial #203, IK5VLS, PA3FXB, NC1I #204, G4CCH, DG5CST, PA3FXB, JA6AHB, IK5VLS again, RL22CW (regular call UA4AAV), RN3A, VE3KRP #205, PA2DW, PY1UNU, PA0SSB #206, NC1I again, K5DOG #207 and RM22DU (regular call RD3DA). The station remain a
3.7 m dish, VE4MA feed, <0.3 dB NF G4DDK preamp, SSPA with 400 W @ feed (8 x XRF286S watercooled).

SP6JLW: Andrzej sp6jlw@wp.pl reports that he and SP6OPN and SQ6OPG operated the 23 cm EME contest –- We QSO'd at 0841 UA3PTW (56/57) KO, 0850 DG5CST (54/55) JO, 0900 OE5JFL (57/57) JN, 0903 DF3RU (56/57) JN, 0917 OK1CS (54/56) JO, 0919 UA4HTS (54/55) LO, 0924 JH1KRC (53/54) QM, 0927 RA3AUB (55/57) KO, 0933 PI9CAM (58/57) JO, 0958 F5SE/p (57/56) JN, 1034 OK1CA (57/57) JO, 1036 DL6SH (58/57) JN, 1047 DL1YMK (53/55) JO, 1106 LZ1DX (53/56) KN, 1129 9A5AA (54/56) JN, 1324 OK2DL (59/58) JN, 1340 DJ8FR (55/55) JO, 1424 HB9Q (58/57) JN, 1503 OK2ULQ (55/58) JN, 1555 K2UYH (55/55) FN, 1602 G4RGK (559/55) IO CW/SSB, 1620 LX1DB (59/57) JN, 1644 W7JM (54/55) DM and 1713 CT1DMK (55/55)

IN for a score of (23 x 2 + 1) x 10 = 47x10=470 points. The station was 6.5 m dish with 1 kW SSPA (16 x BLV958) and DG0VE VLNA.

UA3PTW: Dmitrij ua3ptw@inbox.ru was active on 23 cm in Jan on 1296. He added on CW DG5CST and SP4MPB, and on JT65C ES6FX and IW5BHY. [TNX DK3WG for forwarding this report.]

UA4HTS: Anatoly tolygaz@gmail.com had good results in the 23 cm EME SSB Funtest – I QSO'd at 0636 VK2JDS (QF), 0722 UA4AAV (549/53) LO on CW/SSS, 0724 UA3PTW (56/56) KO,0845 OE5JFL (55/55) JN, 0901 DF3RU (55/55) JN, 0921 SP6JLW (55/54) JO, 0942 PI9CAM (58/55) JO, 1011 OK1CS (55/54) JO, 1020 F5SE/P (56/54) JN, 1043 RA3AUB (55/55) KO, 1056 DL6SH (55/55) JN, 1111 OK1CA (55/55) JO, 1144 DJ8FR (55/55) JO, 1158 HB9Q (59/54) JN, 1242 DL1YMK (52/52) JO, 1258 G4RGK (559/55) IO CW/SSB, 1313 OK2DL (58/57) JN, 1351 DG5CST (54/55) JO, 1413 LZ1DX (53/549) KN SSB/CW, 1623 LX1DB (58/56) JN and 1651 K2UYH (57/559) FN CW/SSB for a total of (16x2+4)6 for 216 points.

UA9YLU: Rakov is a new station on 1296 EME from Asiatic Russia. He worked in Jan on JT65C, RL22CW, RL22OG, JA1WQF, RL22JT, SV1CAL, IW5BHY, ES6FX, PA2DW, PA3CQE, RN3A, ES6RQ, NC1I, RM22DU and VK4CDI. [TNX DK3WG for forwarding this report.]

VA7MM: Mark (VE7CMK/VA7MM) and Toby (VE7CNF) va7mm@rac.ca report on their teams 1296 EME SSB Contest results – We were active on 1296 for the first 2 hours of the contest and had random contacts with K2UYH (FN) and VK3UM (QF) for a contest total of 8 points. We also had CW QSO with VK5MC. Unfortunately we were not available during the EU window. We intend to operate next in the DUBUS 1.2 GHz EME contest in May, but are otherwise available anytime for scheduled contacts. Please e-mail for organizing scheduled contacts.

VE6TA: Grant ve6ta@xplornet.com was active in the 432 CW weekend of the DUBUS EME Contest -- Despite the minus 25-30 deg C weather, I activated the station for the 432 contest. Activity was lower than previous years and an elevated K index disturbed conditions. The following stations were worked: N4GJV, ES5PC, VK3UM, JA6AHB, I1NDP, OK1CA, UA3PTW, SP6JLW, LZ1DX, NC1I, DL9KR and SP7DCS for 12x12 score. Huge signals were heard from DL9KR, NC1I, UA3PTW, OK1CA, and VK3UM despite the disturbances and apogee conditions. I called W1AW/4 and received QRZs, and heard the following with no opportunity to call, DL7APV, DF3RU, PA3? and IK2OLO (?). Overall it was a fun weekend and nice to hear some of the big signals make it back from the Moon. I also managed to work WA4NJP as W1AW/4 prior to the contest period. I will be on for the 13 cm contest next month, WX permitting.

VK3UM: Doug tikaluna@bigpond.com has some very interesting and unusual observations to report -- Stations worked during the 1296 SSB Contest (1/2 Feb) were at 2131 W7JM (54/55) DM, 2236 K2UYH (55/57) FN, 2242 VA7MM (44/55) CN, 2247 W6YX (44/56) CM and 2330 VK5MC (55/55) QF for 7x2x7 = 98 points. Unfortunately, I was unable work my normal EU window due to a hydraulic interlock failure. On 432, on the previous day, I only QSO'd at O750 UA3PTW (55/55) KO and OK1CA (55/55) JO. However, the BIG event for the whole period occurred during the 432 SSB Contest. It was what we now believe to be a scintillation event (occurred on 31 Jan) whilst working K2UYH. In well over 30 years, I have never come across what I witnessed that morning on 432 off the Moon. During moonrise my echoes were T9 and solid (~+20 dB and equal in polarity), although I had about 6 dB of Sun noise from the first side lobe of the dish. I though the ground noise was 'elevated' a tad more than usual! That was my first quandary along with why we had a pea soup fog in the middle of summer! When Al called me on SSB at 2150 his signal sounded very distorted and I struggled to get the report and square, but we finally got there. Then he went totally unreadable. I mentioned to Al at the time that it sounded almost like auroral. I was not wrong. When I went back to CW my echoes sounded totally like aurora, something that I have never heard before. Note that Al reported that there was no effect on my signal, which now becomes the intriguing part that needs to be explained. The anomaly ended abruptly at 2235. Although a little earlier, I was getting the occasional T6 echoes. The corresponding antennae heading was 92-83 degs azimuth and an elevation rising from 9-21 degs. At this latitude and heading, I have never heard anything like it before off the Moon. I checked 23 cm several times during the event and signals were perfectly normal (T9). It probably is more common for those in the Northern Hemisphere to hear Aurora on Moon signals, but for me it came as quite a surprise. (In my first posting on Moonnet, I believed it may have been due to a plasma bubble, but now discounted after discussions with scientists in the Australian Radio and Space Weather Services. I now believe it was due to scintillation. I have a most similar Moon-Sun (and possible Plasma bubble) relationship that will occur on 1 March; I will see if I can duplicate the effect - this time with the recorder running!) SSB EME is hard enough on 432 without picking a weekend when my side lobe sees the Sun and then adding 'Aurora' to the equation… We (K2UYH) did make it a few minutes before the contest had began, but the QSO did not count! That really is Murphy in action! Results of the DUBUS 432 CW Contest on 8/9 Jan were very poor. Sure there were storms in the UK, snow in JA and W , but only 12 stations on in my windows was very disappointing. In the past, I would have worked 40+! Those QSO'd were N4GJV, VE6TA, JA6AHB, OH2DG, OK1CA, SP6JLW, LZ1DX, UA3PTW, SP7DCS, ES5PC, NC1I and DL9KR. In addition, I worked on 1296 on 1 Feb at 0722 RL22OG on both CW and SSB. This station (UA4HTS) was commemorating the XXII Winter Olympics and XI Paralympic Games in Russia.

W6YX: John (K2YY) johnhill5000@gmail.com send news on the Stanford Group – Our team was QRV for the SSB Funtest operating our 8 m dish with a 225 W SSPA inside the shack. We only operated for a few hours at a very leisurely pace as our Moon time was also spent improving the syncro readout algorithm in our DIY dish controller. It was a productive weekend as we now have excellent auto-tracking, and managed to work six stations. QSO'd were at 2228 K2UYH (57/55) FN, 2248 VK3UM (56/44) QF, 1738 OK2DL (56/ 53) JN, 1747 PI9CAM (44/ 55) JO, 1818 F5SE/p (55/42) JN and 1920 WB2BYP (55/ 55) FN for a score of (6x2)x4 = 48 points. We heard many more stations as SSB signals are very easy to spot on the Linrad's waterfall, even with an inexpensive E4000 based RTL software defined radio in linearity mode with a passband filter in front of it. A partial list of SSB stations heard include VA7MM, VK5MC, JH1KRC and W7JM. We have several gigabytes of Linrad.raw files from 1296.000 to 1296.080 containing several more stations. All contacts were 100% random using only information passed through our feed. During this event, we also reported to LiveCQ spots from JT65C stations that choose to call CQ at http://www.livecq.eu/1296/latest.asp using MAP65/Linrad. Thank to all the participants that toughed through the null in activity until CA got Moon. We had a great time and look forward to operating this event again next year. We plan to be active next for the DUBUS 1296 CW Contest weekend at the end of May.

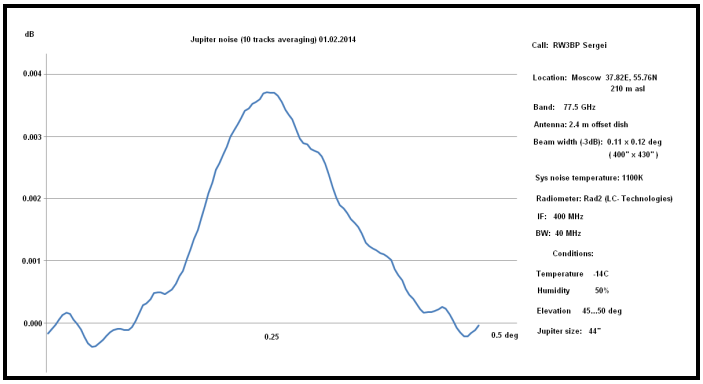
WA6PY: Paul's pchomins@san.rr.com Jan/Feb EME report -- I had bad luck on 70 cm with much higher noise that averaged about 20-30 dB above normal. When I looked closer, I found subcarriers every 900 Hz. I went to my lab and connected a short yagi to the spectrum analyzer and I found that the noise was caused by a 1 MHz wide OFDM signal centered on 432.0. I had very similar type of QRM few years ago during one of the contests. Fortunately later this QRM disappeared. So, no 432 activity during this part of the DUBUS contest. I hope it is not a permanent signal.

K2UYH: I a.katz@ieee.org had more now this year than in more than 10 years. I cannot operate when my dish is filled with snow as its weight disrupts the balance, and I fearful of overstressing the mount. Fortunately we had a short period of warmed WX during the time of the SSB contests and I was able to operate. NE2U and K2YY joined me during part of the 1296 contest. I started on 31 Jan on 432 before the contest start at 2153 VK3UM (44/53) SSB, but was not able to repeat the QSO after the official contest start at 2200 – only QRZs. I originally attributed this problem to increased noise on 70 cm due to the lower elevation, but Dough had experienced very unusual propagation – see VK3UM's report. After moonrise the next day, I worked at 1556 SM2CEW (559/55) KP SSB to CW, 1600 OK1CA (55/55) JO, 1635 LZ1DX (559/579) – would not respond to my SSB (not a contest QSO) and 1708 WA4NJP (55/54) EM for a score (2+1)x3 = 9; one of my poorest showings. I did better on 1296 and contacted starting on 1 Feb at 2218 VA7MM (44/55) CN, 2225 W6YX (55/57) CM, 2234 VK3UM (55/57) QF and 2240 W7JM (55/55) DM, and on 2 Feb at 1526 PI9CAM (55/58) JO - still in the trees, 1539 OK2DL (57/57) JN, 1553 SP6JLW (55/55) JO, 1604 LX1DB (56/57) JN, 1610 OE5JFL (56/56) JN, 1617 G4RGK (449/44) IO CW/SSB, 1625 DG5CST (44/55) JO and initial #347 and mixed #459*, 1636 F5SE/p (56/55) JN, 1642 OK1CA (56/56) JO, 1643 OK1CS (55/57) JO, 1648 DJ8FR (55/57) JO, 1649 UA4HTS (559/57) LO CW/SSB, 1652 DL6SH (55/57) JN, 1656 CT1DMK (55/55) IN, 1705 9A5AA (55/56) JN, 1709 DL1YMK (55/56) JO, 1715 OK2ULQ (55/55) JN, 1727 LZ1DX (45/57) KN, 1803 DK0SF (57/55) JN, 1824 WB2BYP (55/55) FN, 1913 I5YDI (O/O) CW (not a contest QSO), 1952 N8CQ (55/55) EM, 2030 LU1CGB (559/55) GF and 2055 WA3GFZ (17DB/O) on JT (not a contest QSO). I ended with a score of (24x2+3)x14 = 714 points. Unfortunately the WX turned cold with even more snow and consequently I was unable to be QRV for the 70 cm CW DUBUS Contest. It is now getting warmer again and I am hoping to be QRV for the 13 cm DUBUS EME weekend.

NETNEWS: **JA8IAD** worked on 6 Feb SM6CKU on 2424/2320 – [TNX JA4BLC for this info]. **WA4NJP** was QRV as W1AW/4 on 432 from 5 Feb through 11 Feb. Ray planned to operate primarily on 432.072 JT65B using his

36’ dish and several hundred watts. **G3LQR** plans to get back on 432 EME soon with a rotatable feed in his 3.7 m dish.

TECHNICAL: JUPITER NOISE ON 77 GHz -- RW3BP notes that evaluating RX system quality (G/T ratio, etc.) can be a major problem on 77 GHz. On the lower bands it is possible to check Sun or Moon noise, but on 77 GHz the angular size of Sun and Moon is too big in comparison to antenna beam widths. So we can check system noise temperature (T), but cannot check antenna gain (G) and related G/T. My idea was to use Jupiter as a noise source. Unfortunately this is not easy test. With my system, Jupiter noise was only about 0.0035 dB! I used the wide band radiometer module by CT1DMK but even with a 40 MHz BW, it was impossible simply to point antenna by maximum of noise in real time.



77 GHz Jupiter noise measured by RW3BP

FINAL: The originally proposed dates for the 2014 ARRL EME Contest caused quite an up roar! (I liked G3LTF’s comments on his XYL’s pleasure.) For once sanity ruled and the dates were quickly revised to 11-12 Oct for 2300 and up, and 8-9 Nov and 6-7 Dec for the 50-1296 weekends. There are really no good weekends this year as can be seen from F5SE’s 2014 Moon Charts that appear at the end of this NL – TNX frank.

The DL0SHF 10 GHz Beacon is still in regular operation on 10368.025 at 50 W. Per is offering a high power mode (500 W) on advanced request. He has also added operation on JT4G with 1 min on CW and 1 min on JT4G.

SSB EME Contest -- DJ3JJ feels the 70 and 23 cm SSB Funtests are a big success, and recommends that the idea be expanded to a 13 cm and 9 cm SSB Funtest weekend. 13 cm is similar to 23 cm and appears to be another good band for EME SSB. I suggest before we try an actual contest we try a SSB time period during one of the summer Activity weekends.

The EME2014 Web site is up and running and preparation for the conference is moving along well. Now is the time to get your registration/bookings made. **Booking will be closed on 30 April.** You also need to submit your talk/paper. (All contributors will receive a 10% discount on package prices). A special program is planned on measurements and EME tests with the PB8 13.5 m dish. Testing with the big dish on 10 and 24 GHz is to take place during 5/6 April REF/DUBUS Contest. At the conference interesting talks about EME propagation, Faraday, libration, spreading, Moon geophysics, feed systems, SDR, weak signals decoding, radio astronomy, etc. will be presented by CNET engineers. Two lab rooms have been reserved for NF tests up to 47 GHz.

EME OLYMPIC GAMES SOCHI Awards for EME has been announced by the Amateur Radio Union of Russia (SRR) and the Russian branch of SRR. These awards are the first in history to be dedicated to the Olympic Games. Diplomas will be issued for working two-way communications with amateur stations operating with reflection from the Moon (via the earth-moon-earth path). Contacts are counted with all stations operating from territory of Russia by their callsigns and special callsigns, which are issued to the Days Activity Winter Olympics. The Diploma has three degrees and it is awarded depending on amount of earned points at days of the activities: BRONZE – 500 points, SILVER – 1000 points and GOLD – 2014 points. The points awarded for QSOs on 432 are 600 for Russian stations with regular calls, 900 for headquarters stations (RK22WG, RO22WG), 800 for RO22AA – RO22ZZ, RC22AA – RC22ZZ, RK22AA – RK22ZZ, RM22AA – RM22ZZ calls, and 700 for other special call sign blocks. For QSO’s on 1296 the points are respectively 250, 650, 450 and 400 for the same call categories. Contacts via the Moon will be counted from 7 Feb to 31 Feb by all modes. Repeated QSOs count on different bands and on one band in different modes CW, SSB and DIGI. Applications for diplomas should contain all radio contact data and be emailed to Nikolay (UA6AGE) at ua6age@bk.ru.

The XX ARI EME CW/SSB 2013 Contest results are posted at http://www.eme2008.org/ari-eme/XX%20CONTEST%20CW%202013% 20Score.pdf.

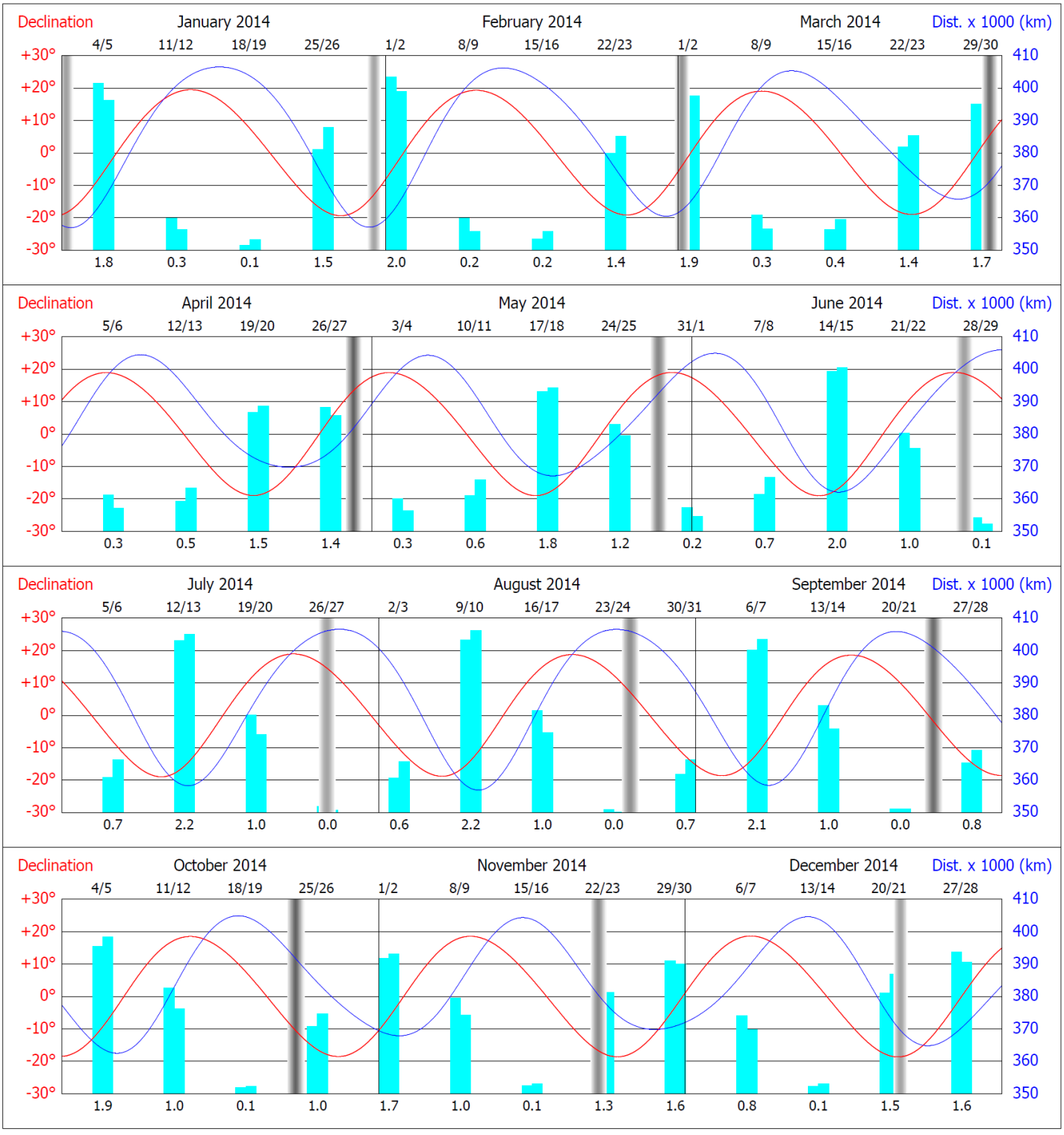
An updated Version (1.85) of VK3UM EME Planner is now available that includes Moon distance in the home planner screen and the expansion of Sky noise to cover from 50 MHz to 47 GHz. Please note that the values are only approximate for frequencies below 400 MHz (interpolated) as the amount of accurate data available is quite limited. Home suburban noise situations can make it all superfluous, but they have now been included for completeness. For accurate stellar noise source values please use the VK3UM Noise Sources program.

I hope to CU you off the moon and on 13 cm in the DUBUS EME Contest. Please keep the reports and technical material coming. 73, Al – K2UYH

First Wedding by EME at PI9CAM - The couple names are Marit and André. André is the chairman of the CAMRAS foundation. We did a wedding ceremony and the couple exchanged their ‘I do’s’ via SSB EME on 23 cm!

Happy couple in front of dish controls. PI9CAM dish shown below.

Moon Ephemeris Overview for the Year 2014, by Franck F5SE



- Vertical blue bars show the overall "quality" of each week-end for EME. The higher the bar, the "better" the week-end.
- Figures below bars show expected signal improvement, in dB, referred to apogee path loss, for Sundays at 00:00 UTC.
- Full scale span: 2.4 dB. Scale step: 0.4 dB per division. 0 dB level = Band path loss figure at apogee, as quoted below:
- 144 MHz: 252.8 dB, 432 MHz: 262.3 dB, 1296 MHz: 271.8 dB, 2.3 GHz: 276.9 dB, 3.5 GHz: 280.4 dB, 5.7 GHz: 284.8 dB,
- 10.4 GHz: 289.9 dB, 24 GHz: 297.2 dB, 47 GHz: 303.0 dB. Data computed for an apogee around 406500 km.
- To get the week-end path loss on a given band, subtract to band apogee figure the value printed under the week-end bar.
- The shading pattern below shows how close the Sun is to the Moon, at any time - the darker, the closer.
- Shading is only visible around New Moon date, appearing as a vertical gray bar.