

432 AND ABOVE EME NEWS MAY 2012 VOL 40 #4

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CONDITIONS: This month's news is dominated by 10/24 GHz leg of the EU (DUBUS) EME Contest and the recent dxpedition activity. From the reports it appears that activity was reasonably good although not spectacular on 3 cm and if anything a little down on 24 GHz. Based on the NL reports, there are two contest leaders: OK1KIR with a score of 23x23 and F2TU also with 23x23, and thus both tied for first place. **Congratulations go to W5LUA for completing the second WAC on 6 cm** back in Jan. There were successful dxpeditions in March/April to ITU on 70 cm, Guinea Bissau on 70 cm and Vietnam on 70 and 23 cm – see reports below. Coming up are even more dxpeditions in April/May. **EY8ZF** (Tadjikistan) will be on 432 between 27 and 29 April, **HB0/DF1SR** (Liechtenstein) on 13, 9 and 6 cm between 28 April and 3 May, **5XIEME** (Uganda) on 432 from 25 May to 3 June [See the last NL for details of these dxpeditions], and DL1YMK will be at a location to yet be announced between 17 and 31 May – see his report below. Between the dxpeditions will be the EU (DUBUS) 13 cm EME contest on 28/29 April and 23 cm contest on 26/27 May. This same weekend will also be the ARI's New Modes (JT) EME Contest. **70 cm CW Activity Time Periods (ATPs) are scheduled for 22 April from 0600 to 0800, and from 1400 to 1600; and for 20 May from 0500 to 0700 and from 1300 to 1500.**

ON0EME MOON BEACON: Eddy (ON7UN) [ejespers\(x\)telenet.be](mailto:ejespers(x)telenet.be) sends news that a new 1296 EME Beacon is now QRV -- Many of the active 1296 stations have noticed a signal at 1296 sending "de ON0EME" 4 times followed by 10 seconds of pure carrier and 20 seconds of silence. What they are hearing is an automatic station tracking the Moon. It is QRV when the Moon is $>10^\circ$ at its location. The idea started in Orebro, Sweden during the EME meeting in May 2011. A discussion was going on how to promote our hobby. One of the ideas was a beacon transmitting a signal to the Moon to encourage people to try receiving EME signals. On our way back, HB9BBD, ON4BCB and I discussed the possibilities. We found that we had a lot of the needed hardware already. We initiated a search for a suitable location, started the process of obtaining the required high power license, and began to build the station. After about 11 months of intensive work, the baby was born, and ON0EME was transmitting in the direction of the Moon. ON0EME's total EIRP is about half a megawatt. The antenna is a solid 3.7 m dish. The system is completely automatic. The beacon starts when the moon is on the east side $+10$ degrees, by turning the antenna from the point where it stopped the last Moon pass (Moonset at $+10^\circ$). The frequency is GPS locked at 1296.000 with an accuracy of 3 x 10⁻¹¹. The timing is also GPS controlled. The beacon will start transmitting at the minute. The amplitude of the signal is constant within ± 0.2 dB. Antenna pointing is updated every 0.4°. We have complete remote monitoring and control of the beacon with indication of voltages, power and temperatures. Users can check the operational status and beacon parameters at <http://www.on0eme.org>. You can immediately see if the beacon is active. Reports have been received from some small stations receiving the beacon. Please post reports on "moon" or the "moon-net" reflectors. The beacon is located in the north of Belgium and has good Moon visibility at both high and low declination for the complete Moon pass.

4U1ITU: Rene (PE1L) [hasperrene\(x\)gmail.com](mailto:hasperrene(x)gmail.com) reports on the results of his guest EME operation at the ITU on the weekend of 24/25 March. He was joined by PA2CHR, PA3FPQ and PE1LWT. The station was a single 23 el QD yagi, a 100 W brick (at antenna) and an SSB preamp (TNX LZ1DX) and concentrated on JT65B. Unfortunately, they struggled with huge QRM due to the height of their operating location in downtown Geneva and only managed to work 8 stations: HB9Q, LZ1DX, OK1DFC, UA3PTW, DL7APV, SK3WG, WA4NJP and JA6AHB. Rene's next location will be EY8ZF with DL8YHR on 432 (and 2 m) from Tadjikistan (grid MM48jn) on 28 April on 432.090 JT and .040 on CW. Check the HB9Q reflector for last minute info.

DJ3JJ: Andreas [dj3jj\(x\)gmx.net](mailto:dj3jj(x)gmx.net) was active again on 70 cm on 15 April with 4 x 15 el YU7EF yagis. He QSO'd at 0915 SM6FHZ (O/O) for an initial (#) after his CQ and at 0941 DL7APV on JT followed by a (549/549) CW contact.

DK3WG: Jurg [dk3wg\(x\)online.de](mailto:dk3wg(x)online.de) reports in March on 432 a CW QSO with SP7DCS, and JT65B contacts this WC7V, YO8RHI, WQ0P and 4U1ITU for his 102 DXCC.



HB9BBD, ON4BCB & ON7UN by ON0EME Beacon they created

DL1YMK: Michael and Monika [DL1YMK\(x\)aol.com](mailto:DL1YMK(x)aol.com) are planning another May surprise dxpedition to coincide with the 23 cm part of the DUBUS EME Contest — We are preparing for our next EME dxpedition. We will set out for our destination just after having returned from the Swedish EME Meeting. We hope to reach our destination in time and to be QRV on Thursday, 17 May on 23 cm, followed by 70 cm on 18 May. On Saturday, 19 May, we will be on 13 cm and on Sunday again on 23 cm. 13 cm will be run with a significant increase in power and full 2424 coverage. For the first time during an EME dxpedition, we intend to be operational on 6 cm with our old, but proven stressed dish and a new superb WD5AGO feed. 6 cm will have an experimental character despite some 100 W out, as we couldn't test it thus far. We are hoping the under-illuminated dish will work up that high in frequency, so keep your fingers crossed! Our plan is to give it a try on Monday, 21 May. Also, we intend to get active on 3 cm with a separate solid dish, which of course is a lot smaller. Last weekend, we made our first tests with LX1DB. The tests were not yet satisfying, so our friend Willi right now is trying to help us out with some substantial development aid! During the DUBUS contest on 26/27 May, we will of course be active on 23 cm in order to boost activity. Our last day of operation will be Thursday, 31 May. A detailed schedule for the days from 21 May onwards will depend on our progress with 10 GHz.

F2TU: Philippe [f2tu.philippe\(x\)orange.fr](mailto:f2tu.philippe(x)orange.fr) reports on his recent microwave EME activity – I QSO'd on 5760 on 25 March PA3DZL (529/529) for initial #51, W5LUA (55/55) on SSB and F1PYR (549/549). During the DUBUS 10 GHz Contest on 31 March/1 April I made 23 QSOs with ES5PC, R3YA, HB9SV, G4NNS, OK1KIR, DL7YC, PA7JB, OH2DG, LX1DB, DL0EF, IK2RTI, PA0PLY for initial #69, W5LUA, SM7FWZ #70, WA6PY, W7CJO, VK3NX, F5JWF, OK1CA, IZ2DJP, UR7D, F1PYR, SV3AAF and W7CJO. Heard for a short time was SP7JSG. After the contest on 4 April, I worked on random W5LUA (559/559) and W3SZ (529/559) #71.

G3LTF: Peter's [g3lft\(x\)btinternet.com](mailto:g3lft(x)btinternet.com) EME report for March-April -- Not so much to report this month. On 24 March I worked LA8LF on 3400 for initial #37 and the first LA-G QSO on 9 cm. On 25 March, I was on for the 432 ATP, but I had a lot of interruptions and conditions were terrible. I only worked OK1DFC, SM6FHZ, K2UYH, K5GW, LX1DB, SM2CEW and SM4IVE. DG1KJG was lost, which shows what things were like. On 30 March I ran a test with PA3DZL on 5760, but the libration spread was so bad that I couldn't copy my call fully. We tried again the next day at an earlier time (less spreading) and made the QSO for initial #34. On 1 April, I was on 1296 and heard WA1ZMS (569), but he could not copy my call. He has a bad receiver problem. I don't know if he has fixed it yet. On 2 April, I was again on 1296 and monitored the HB9Q logger. YO2BCT asked me for a CW test and we made an easy QSO for initial #351 followed by IK3GHY and then UA3TCF #352, who was easily readable with his 100 W and 1.8 m dish. Later, I worked PA2DW #353 and then IZ2DZP and N4PZ. I've resumed work on my 3 cm dish, 2.4 m offset, and have now got the feed support structure built. The new selsyns on the 6 m dish are working FB, and I can now point the dish to a 1 degree accuracy, which means I can now get straight to the moon on 6 and 9 cm. Recent Sun noise measurements are on 432 (SF 104) 15 dB, on 1296 (SF 106) 20.4 dB, 2320 (SF 105) 18.2 dB, and 3400 (SF 101) 15.6 dB.



HB9BBD has remounted his dish for a better window to the west

J52EME: Lucio (I3LDP) from Guinea Bissau in grid IK21dt reported that they had some problems with their 70 cm station because of an interference with security alarm in near a nearby hospital. They were QRV on 4 April and QSO'd at 2101 HB9Q (23DB), 2131 DL7APV (27DB), 2206 LZ1DX (27DB), 2207 OK1DFC (27DB) and 2224 OZ4MM (29DB). They operated JT65B on 432.090 1st period using 18 el LFA yagi and 600 W.

N4GJV: Ron [qstdemb\(x\)yahoo.com](mailto:qstdemb(x)yahoo.com) write on his March 70 cm activity -- I encountered rather poor overall conditions, during the 25 March CW ATP. All but the strongest signals were difficult to copy, due to the presence of deep, rapid QSB. The activity level was reasonably good, however, and I enjoyed logging QSOs with K5GW, SM4IVE, DL9KR, K2UYH, OK1DFC, and OZ4MM. LZ1DX, SM2CEW and LX1DP were CWNR. A cockpit error resulted in my reply to SM2CEW being at the QRP level, as I forgot to increase the transmit power back to normal, after reducing it, to "spot" my transmit frequency! I will be looking forward to good activity during the 22 April ATP.

OK1CA: Franta [stihavka\(x\)upcmail.cz](mailto:stihavka(x)upcmail.cz) was QRV for the 3 cm part of the DUBUS EME Contest -- The weather during the contest was very bad. I had high winds and rain with snow on Saturday. The situation was better at Sunday. I worked first QSO at 1400 on Sunday with F2TU, followed by OK1KIR, F5JWF, F1PYR for initial #45, SM7FWZ #46, OH2DG #47, LX1DB, DL0EF, UR7D #48, PA7JB #49, ES5PC, DL7YC #50 and finally very strong WA7CJO. The 6 initials and 3 new countries was a good treat. I used my 3 m dish with 23 W output at the feed.

OK1DFC: Zdenek [ok1dfc\(x\)seznam.cz](mailto:ok1dfc(x)seznam.cz) had a good month -- I worked on 432, on 25 March ZL4TY (26DB) on JT65B for a DXCC 81. Bob was using a barefoot TS790 and a 22 el Yagi. A few days later on 1 April, I added on 432 XV4HP (20DB - speaker copy) for DXCC 82. And a little later I also worked XV4HP on 1296 for a new DXCC. For my ZL4TY QSO, I used a new LNA by WA2ODO. I had previously used an ATF54143 LNA with a 0.46 dB NF. The new LNA has an NE334S01 with 0.18 dB NF. (Both LNAs measured here on HP NF meter with calibrated noise source and 10 dB Anritsu calibrated attenuator in front of noise source. My Sun noise on 432 is now 1 dB better for the same SFL. For more info see http://www.ok1dfc.com/EME/mereni/other_sources.htm. I also have a new 1296 LNA from WA2ODO. (Pete has also supported my EME dxpedition - TNX!)

OK1KIR: Tonda & Vlada [vladimir.masek\(x\)volny.cz](mailto:vladimir.masek(x)volny.cz) report on March/April EME – On 24 March on 70 cm we QSO'd on JT65B at 1038 OK1DFC (4DB/8DB), 1513 WQ0P (24DB/O) for digital initial {#71} and the state of KS, 1529 W7IUV (21DB/13DB) {#72} and WA state. On 1 April, unfortunately a terrible noisy background swallowed up the weak signals from the 4U1ITU and XV4HP dxpeditions. Similarly, we were disappointed in attempts with J52EME due to decoding problems on both sides. We captured just few traces during several hours of trying and no one decoded. We had better luck on 1296 where on 31 March we worked CW at 1308 YO2BCT (O/O) for initial #329 and then at 1338 XV4HP (24DB/24DB) on JT65C for digital initial {#109}, OK field and first XV-OK QSO on 23 cm. We used a linear rotatable feed and found the maximum from Herman at +60 degs polarization off-set as predicted. On 14 April at 0210 we worked them again from a second grid under the call 3W4TC (27DB/24DB) {#110} followed at 0223 VK2AMS (22DB/19DB) and 0250 RA0ACM (22DB/16DB) {#111} - all QSOs were with a rotatable linear EIA feed. After switching to our circular pol, septum feed, we QSO'd at 0535 PY1UNU (19DB/16DB) {#112}. On 5760, on 24 March, we had good echoes, but nil in a sked with VE6TA. On the band were heard F1PYR and F2TU. On 28 March we contacted at 1809 W5LUA (569/569), 1841 PA3DZL (M/O) for initial #55 and 1905 F2TU (569/569). Our Moon noise was 1.1 dB. On 10 GHz, on 29 March we had a sked with VK3XPD but heard nil from Alan. He had unexpected RX problems. We did QSO at 0953 F2TU (549/559). In the DUBUS Contest, we worked on Saturday 31 March at 1512 ES5PC (549/569), 1525 G4NNS (559/579), 1531 F2TU (569/569), 1604 DL7YC (559/569), 1613 R3YA (569/569), 1620 HB9SV (559/569), 1632 DL0EF (579/239), 1652 SP7JSG (559/559), 1705 OH2DG (549/559), 1758 PA7JB (549/559), 1815 PA0PLY (549/559) for initial #65, 1843 LX1DB (579/579), 2001 IK2RTI (559/569), 2044 SM7FWZ (549/559) #66, 2115 W7CJO (589/579), 2145 SV3AAF (O/O), 2203 WA6PY (549/569) and 2213 W5LUA (569/569), and on Sunday 1 April at 1230 VK3NX (549/539), 1340 F5JWF (559/569), 1408 OK1CA (549/579), 1416 F1PYR (559/559), 2211 UR7D (549/559) and 2234 DUP W5LUA (569/569) for a total of 23 QSOs x 23 multipliers for 59,200 points. On Sunday Sun noise was 18.2 dB (SF 105), Moon noise 2.6 dB with an almost clear sky. We were also on 24 GHz on Sunday 1 April around maximum libration time and contacted at 1831 LX1DB (559/569), 1908 G4NNS (O/O) and 2120 W5LUA (O/O) for 3 QSOs and 3 multipliers for 900 pts. Moon noise was 2.2 dB (high RH during late eve). The Spectran waterfalls of all 3 stations worked on 24 GHz can be found at www.ok1kir.cz.

PA0PLY: Jan [pa0ply\(x\)pa0ply.nl](mailto:pa0ply(x)pa0ply.nl) is now QRV on 3 cm -- I had my first ever 10 GHz EME QSO with LX1DB on 27 March, and then prepared for the 3 cm DUBUS EME Contest. My measured RF power was only 10 W. This was quite disappointing as I expected approximately 50 W from a Thompson TH3902H. It turned out that I used a 14 GHz isolator, which blocked a serious amount of power. After replacing it with a WG17 H-bend, the power went up to 30 W. (I had to reduce the input power to keep the Helix current down from the trip

point.) I also had problems with my IN3HER tracking software and had to track the Moon manually using Moon noise. During the contest, I found a "crazy crowd" 3 cm band! Something I never experienced before. I heard more stations than stations could copy me. Most were around 100. QSO'd were OK1KIR, F2TU, DL0EF, DL7YC, W5LUA and VK3NX. CWNR were F5JWF, OH2DG and UR7D. During the first Moon pass, I was on during moonset; while the second Moon pass, I was active during moonrise. I found signals during moonset were more aurora like and noisy, while during moonrise there was much more audible tones. My station is 3 m Andrews prime focus dish, 25 W TWTA and 1.5 dB NF LNA. My Moon noise is 1.3 dB. I am looking for information on my TWTA power supply (pn TH22902H). Can anyone help?

UA3PTW: Dmitry [ua3ptw\(x\)inbox.ru](mailto:ua3ptw(x)inbox.ru) worked in March/April on 70 cm CW WA9KRT and F6HZL, and on JT65B WA0ARM, YO8RHI and 4U1ITU. On 1296, he added a new DXCC with XV4HP on JT65C.

UA3TCF: Alex [ua3tcf\(x\)mail.ru](mailto:ua3tcf(x)mail.ru) reports on his recent 1296 operation – Since the end of Feb, I have made quite a few initial QSOs. Using JT65C, I added PI9CAM, PA3FXB, IK3COJ, OK1DFC, JA1WQF, G5WQ, OK1KIR, OE5JFL, YO2BCT, YO2LEL, DF3RU, VK4CDI and VK3AXH. On CW I added PI9CAM, OK1DFC, G4CCH and DF3RU. I have now extended my 1.8 m dish to 2.2 m and switched to a circular pol Septum feed.

UR7D: Vlad (UZ5DZ) [uz5dz\(x\)mail.ru](mailto:uz5dz(x)mail.ru) and Vyacheslav (UT5DL) are now active on 10 GHz with 3.7 m dish, 50 W TWTA and 0.7 dB NF LNA. They report copying VK3NX and were active in the DUBUS Contest.

W1QA: Bob [eme\(x\)w1qa.com](http://eme(x)w1qa.com) [operator at NC1I] is making up a list of states (USA) that stations need for WAC -- My primary purpose for doing this is to support an effort underway to build a 70 cm portable EME station that I hope use in RI and VT. I figured if people needed other states, I'd consider adding those to future expeditions. Initially I was going to make the survey for only 70 cm, but I've extended it to include 23 cm (and lower bands). The survey can be found at <http://www.surveymonkey.com/s/EMEstates1>. [Bob's initial response indicate that the top needed states on 432 are HI, ND and UT. WY6G still has a 550 W PA, longest M2 yagi, I left with him from when I was on from his QTH. Possible someone can arrange to set up from there.]

W5LUA: Al [w5lua\(x\)sbcbglobal.net](mailto:w5lua(x)sbcbglobal.net) reports on his 2012 first quarter Moon activity -- On 6 Jan, I worked PY1KK on 5760 to give me WAC. I received my 5760 WAC certificate (dated 20 March). I also worked on 5760 SP6GWN for initial #49. I worked on 26 Feb on 5760 F1PYR for initial #50 and DL7YC #51. On 3400, I worked on 2/3 March OK1KIR, PA3DZL for initial #42, DL7YC #43, OK1KIR (on WSJT), OK1CA, PA3DZL, K5GW, WA9FWD, OZ6OL, S59DCD, K2UYH #44, VE6TA, DL1YMK, G3LTF, DL7YC, WD5AGO, WA6PY and WW2R. On 25 March, I added LA8LF #45. I also worked on 5760 on 25 March F2TU, on 28 March OK1KIR and PA3DZL #52. On 30 March, on 1296, I worked WA1ZMS for his first EME QSO and my initial # 353. The same day, on 10 GHz, I worked K2UYH for initial #82, also on 10 GHz, on 31 March, I QSO'd DL0EF, OH2DG, F2TU, G4NNS, W7CJO, R3YA #83, IK2RTI, LX1DB, PA0PLY #84, OK1KIR, SM7FWZ #85 and DL7YC. On 1 April, I QSO'd on 24 GHz OK1KIR, LX1DB and G4NNS. Also on 1 April on 10 GHz, I worked OK1KIR, ES5PC, DL7YC, UR5D, WA6PY, F1PYR and F2TU. Recently K5GW and I tested some surplus TWTs on 3 cm and it looks like we have about 150 W output for each of these tubes, so now it is on to build a self contained power supply to run them. Presently I run about 50 W at the feed on 3 cm. I will be retiring from Avago Technologies on 30 April, so I should have more time for fun stuff!

W8WA: Lee [w8wa\(x\)torchlake.com](mailto:w8wa(x)torchlake.com) is coming back on 70 cm EME after a many year break -- I recently acquired a FT-847 and plan to use it to become active on 432 EME. It will give me 50 W to drive my old 2 x 4CX250 PA. I plan to put up 4 long yagis to start and be QRV by the summer.

WA6PY: Paul [pchominski\(x\)maxlinear.com](mailto:pchominski(x)maxlinear.com) was QRV on 13 March/1 April in the EU-DUBUS Contest -- I shared time between 144 and 10 GHz. On 10 GHz, I QSO'd DL7YC, ES5PC, F1PYR, F2TU, OK1KIR, R3YA, UR7D, W5LUA and W7CJO - extremely strong. I heard IK2RTI, DL0EF -- very strong, SM7FWZ and SP7JSG. I had bad luck with DL0EF. I heard him in QSO with someone, but could not find him on the band later. The low declination shorten my EU window. I also had winds, but my tracking system did a good job keeping my dish relatively well aimed. Moon noise was varying from 1.7 down to 1 dB, this might create some QSB.

WC8VOA: Mike (KA8ABR) announced that he and N8ECI would be demonstrating the 10 GHz EME station at the Voice of America site near Cincinnati, Ohio (EM79) on 3 April around 1200. They have about 60 W to a 24' dish. They ran tests at the start of the DUBUS contest, but no one else was

on at the time, but the equipment was working properly and produced strong echoes. [I have received no reports of QSOs with the WC8VOA group during this test.]

WQ0P: Greg [lykethat\(x\)gmail.com](mailto:lykethat(x)gmail.com) in EM19vf is now QRV on 70 cm EME -- In March of 2011, I worked DL7APV and UA3PTW with my 2 X M2 13 wl yagis on my tower at 65' on my moonrise. That was fun! At the same time my good friend, WA0ARM was just getting his 432 EME antennas going. I watched Bill work DL7APV on my waterfall, and thought that was great! It took one year, until March 2012 before I worked another 432 EME station. This time WA0ARM let me borrow his tower trailer for the March DUBUS Contest. On 4/5 March, I worked DF3RU, W7MEM, W7AMI on JT65B and SM4IVE on CW. Between then and 10 March, I added K3MF, PY1KK and JA6AHB, all on JT. I QSO'd using JT on 24 March IINDP, DK3WG, LZ1DX, G4RGK, DL5FN, ES6RQ, OK1KIR, NC1I, WA4NJP, W7IVU and K2YUH, and on 25 March G4FUF, W7AMI, NC1I and OK1DFC. I now am up to mixed initial #22*. My station is a Kenwood TS-790A into a WB0TEM built K2RIW amp running 2 X 8930s running only 400 W due to limitations of the preamp. I don't want to burn it up AGAIN! A pair of M2 13 wl (38 el) yagis are on the tower trailer. The antennas are mounted with a 45 deg polarity shift to the right as viewed from behind. This was done to try to minimize interaction with the aluminum cross boom. I am using Bill's Yaseu rotor for AZ and a Kenpro 500 for EL. My preamp is an SSB SP-70 only 7' from either antenna - (it used to be 30' from the antennas). I am having a blast. I have a WA2ODO preamp with a 0.24 dB NF and two more M2 13 wl antennas to improve the system and mount on a 20' tower in my south yard, but everything comes with time. I need to design and build a good elevation rotor system for the 4 antennas before I go any further. I hope to borrow Bill's tower trailer for another month, before I disassemble the antennas and return the trailer. Not all has gone smoothly. I burned up 2 GaAs FETs in preamps, and lost one of my 8930 tubes. The PA suffered from low air flow. I found that the input air filter was 95% blocked! I cleaned it up, installed another tube, and all started running much better than before!



WQ0P's 2 x 13 wl M2 yagis used on 432 EME

XV4HP: Hermann (DL2NUD) and Peter DJ4TC were successful in putting Vietnam on 70 and 23 cm EME between 28 March and 20 April. They operated from two locations using exclusively JT65. From grid OK10, on 70 cm **XV4HP worked** DL7APV (13DB), DK3WG (21DB), DF3RU (14DB), G4RGK (22DB), HB9Q (9DB), IINDP (22DB), JA6AHB (18DB), LZ1DX (22DB), OK1DFC (17DB), OZ4MM (23DB) and UA3PTW (17DB), and on 23 cm DJ9YW (26DB), G4CCH (23DB), HB9Q (23DB), OK1KIR (24DB), OZ4MM (25DB) and UA3PTW (31DB). From grid OK20, they worked on 70 cm as **3W4TC** DL7APV (14DB), DK3WG (18DB), HB9Q (18DB) and UA3PTW (18DB), and on 23 cm as **3W4TC** DF3RU (26DB), G4CCH (24DB), JA6AHB (25DB), OK1KIR (24DB) and UA3PTW (28DB), and as **XV4HP** HB9Q (16DB), OK1DFC (22DB) and OK2DL (19DB). On 432 use a 38 el yagi, DB6NT preamp and 50 W. On 1296 they used a 62 el yagi, DB6NT preamp and 400 W SSPA.

K2UYH: I [a.katz\(x\)jeece.org](mailto:a.katz(x)jeece.org) was disappointed by my results this month. I was unable to QSO any of the expedition stations. None seemed to be active during my window except 4U1ITU. Rene and company were very cooperative (TNX!), but I never detected a trace from them. Later, I discovered that my polarization rotator was not working -- a broken wire. Fortunately I already had the ITU on 70 cm. Both the J52 and XV would have been new. Having to be away on business between 1 and 4 April did not help with J52EME. I particularly wanted

to work the XV4HP on 23 cm, and spent a lot of time calling during our very short common window to my west, but I do not believe they were ever on during this time. I also had a short window to the east, but this was unworkable because of my tree blockage. I did QSO on 24 March on 432 at 1650 WQ0P (25DB/19DB) JT65B for mixed initial #835*, 1702 KE7NR (19DB/O) JT65B, 1720 WC7V (26DB/23DB) JT65B #836*, on 25 March on 1296 at 1515 I5MPK (569/579) – also copied on SSB, and on 432 for the ATP at 1535 I1NDP (579/559), 1547 G3LTF (559/559), 1553 SP7DCS (549/559), 1607 SM4IVE (589/569), 1613 DL9KR (589/579), 1623 OZ4MM (579/559), 1630 N4GJV (559/559), 1644 OK1DFC (589/569), 1659 SM2CEW (559/559)– no 73?, 1704 K5GW (559/559) and 1726 LX1DB (559/569). It was after the ATP that I felt something had to be wrong on 70 cm RX, and I discovered the pol rotator problem. The following weekend (31 March/1 April), I wanted to be on for at least part of the 3 cm leg of the DUBUS EME Contest. I teamed up with K2TXB. Because of my business trip, I could not be QRV on 1 April, but was hoping Russ might be able to operate on Sunday, but Russ was even more limited by social commitments than me. As I had equipment problems the last time I tried to use the 3 cm gear, we decided to run tests on Friday afternoon. I had thought the TWTA had gone bad, but discovered the real problem was a bad cable between the transverter and the TWTA. Russ had changed the physical mounting arrangement of the horn (he eliminated my duct tape – Hi) giving us more adjustment, but in the process we had lost our reference for the feedpoint. It took us a couple of hours of moving the dish on and off the Moon, and to the ground for adjustment of the feed position before we finally found the right spot. Once we found the optimum position, we were able to hear good echoes, but with very wide, 100 to 150 Hz of signal spread. By this time, the EU stations were gone, but W5LUA came on and we were able to work AI at 0035 W5LUA (O/O), although the spreading made copy difficult. I had planned leave the 3 cm equipment in place at the feed overnight and operate the next day. But the WX turned bad, and I decided to play it safe and remove the gear. Unfortunately, the rain and wind continued all day Saturday, giving me no chance to operate again. After my trip, I was QRV on 432 and worked on 5 April at 0445 K6CLS (19DB/12DB) JT65B and 0510 WC7V (26DB/O) JT65B, and on 6 April at 0200 WQ0P (18DB/12DB) JT65B, 0210 K3MF (12DB/8DB) JT65B and 0430 K6CLS (19DB/12DB) JT65B. Nil was heard from J52EME.

NETNEWS: **K5GW** was active during the March ATP and report excellent conditions. He is having problems with his 10 GHz TWTA and thus was only an SWL during the DUBUS Contest.

FOR SALE: **WA8WZG** is moving to Arizona (right after the Dayton Hamvention) and wants to let the EME community know that he has a 28' Kennedy dish for sale. It is fully disassembled and ready for pick up. Everything is with it including the feed horn supports and the feed. Tom also has an Andrew 5 m dish for sale. It is assembled, but easy to take down. He will have an auction on everything that is in his barn/shack including ham equipment, towers of various sizes and types, antennas, Bird slugs, TWTs and TWT power supplies, cables and jumpers, Heliac line and waveguide, connectors of all types, etc. Everything must go. The auction will start at 10:30 am on Saturday 12 May. All will be displayed under a 30' by 60' tent. What does not sell in the auction will be on display/sale until Wednesday the 16th. He will then go to Dayton. Any questions please email to [wa8wzg\(x\)wa8wzg.net](mailto:wa8wzg(x)wa8wzg.net). Tom's phone is 419-656-1600 and the address of the auction is 4641 East Port Clinton Eastern Rd, Port Clinton, Ohio 43452. His flea market spots at Dayton are FE 3437 thru 3440. **LUBENU** looking for a linear feeder for 3 cm to use with a dish of 0.312 f/d. Contact Juan at [lu8enu\(x\)gmail.com](mailto:lu8enu(x)gmail.com).

TECHNICAL: Microwave Linear Polarization Tutorial – The 3 cm Contest activity raised questions on the positions of linear feeds. 10 and 24 GHz remain the only microwave EME bands where linear polarization is still widely used. Vlada from OK1KIR writes: For EU-NA case [and also JA-EU], the difference between spatial off-sets on both sides around the middle of mutual time window is quite high, almost close to 90 degs. It mutually compensated a 90 deg difference between horizontal polarization (typical used in US) and vertical polarization (standard in EU), i.e. the EME signals are almost co-polarized. However, when you get closer to Moonrise or Moonset the spatial off-sets on both ends become quite close to each other, and the "standard" polarization positions results in near perpendicular (cross pol). The result is quite evident and high attenuation will impact the signal levels. Actually, the effect is quite sharp, so it is not as easy to observe until the mutual polarization gets very close to 90 degs. Tests on 3 cm organized by G4NNS with DK0SB, IQ4DF, LX1DB and OK1KIR back in the spring of 2006 verified that this behavior does occur in practice. In real life, on 10 and 24 GHz, one must just take care only when the spatial offsets of the interested parties get close each other (assuming linear pol). At OK1KIR, we have rotatable linear polarization, so we do not need to be aware of this effect. We can and do easily compensate even any small spatial off-set differences. Nowadays more stations are going CP, like e.g. OH2DG. So will have to see what the future brings.

FINAL: Time is getting very short to get your reservations in for EME 2012 Cambridge (the 15th International EME Conference). Go to www.eme2012.com and complete the form. You don't want to miss the conference. To help with EME2012 Conference costs, the conference organizing team is offering the following special housing deal: We are now offering a limited number of single "standard rooms". These have a wash basin, but with shared toilet and shower facilities located nearby. For 2-night Package C the saving is £40. The total cost for a delegate taking the two day Package C in a standard room will be:- £15 for registration £215 for accommodation including refreshments and lunch on both days, and Friday dinner. The Gala dinner on Saturday is £45 extra – so a total of £275 gives you the whole conference experience, with only your bar bill to add!

The EME2012 preliminary program is now available. Talks include: W5LUA on 24 GHz and Up, HB9DRI on The IQ+ Dual Channel Receiver a Practical Implementation Against Faraday Rotation, K2UYH on Simple and Low Cost Solutions for High Gain on 70 and 23 cm Using Offset Dishes, G4NNS on Some Simple Hydrogen Line Astronomy, G3WDG on Application of GaN Transistors to SSPAs for EME Use, G3WDG on A novel 13 cm Receive Converter, Daniella on Visual Moonbounce Moonbouncing Images as a New Practice in Moonbounce Technology, G4HUP on Stresses on Ropes and Cables When Raising and Lowering Towers, WW2R on Control and Monitoring of EME Solidstate Amplifiers, David on Detection of Extra Galactic Radio Source Virgo A, VK3UM on Inaccuracies that Will Lead to a Deficiency in your EME Systems Performance or Why the Other Guy Does Better than You!, K6JEY on A Comparison of Wattmeter Accuracies at 432 MHz and 1296 MHz, ON7UN on ONOEME 1296 Moon Beacon, ON4KHG on Ground Gain, SM2BYA on The 2.3-2.45 GHz Spectrum Situation and Current Threats in Sweden, Europe and Worldwide, OE5JFL on Gaining Extra dBs From a Small Dish, GM3SEK & GM4ZNX on Noise Figure Measurements: A Reality Check, DF1VH on Solid-State Broadband Un-cooled Noise Generator with Noise Temperature Below Room Temperature, SM6FHZ on Unexplored Areas of 432 MHz Feeds, G6LVB on Taking Software Defined Radio into the Mainstream, PA3FXB on P19CAM History and Restoration, K1JT on MAP65: A Wideband Polarization-Matching Receiver for JT6, G4BAO on Converting Surplus 1900/2100MHz SSPAs, DL7YC on For a Few Dollars - 40 more Watts at 3400 MHz, JH1KRC on A Brass Bar and a Rotation Mechanism for MAB25 Encoders, G6JYB on Frequencies & Beacons for EME, MOEYT on Amateur Deep Space Reception - Equipment and Techniques, W1GHZ on Horns and Septum Feeds - Construction Tolerances and Sensitivity, G3LTF on How Good Were the Systems of the 60s and 70s?, G4DDK on An Update on the VLNA, OK1DFC on EME Dxpediton to ISO/OK5EME, OK1DFC on Loop Feed for 432 and 144 MHz.

F2TU is working on a listing of 2011 ARRL EME Contest CW Scores for 432 & Up as he had done in 2010. He needs information from multi-mode stations giving only your CW QSOs and multipliers (multipliers for digital QSOs removed). If you have not done so already, please send Philippe, [f2tu.philippe\(x\)orange.fr](mailto:f2tu.philippe(x)orange.fr), a summary of your ARRL contest log amended for CW only. Those who sent only mono band scores should send a summary of all bands worked "432 MHz & Up". Philippe asks that you send your information to him by the end of April!

PSE Help – I still need someone to gather the Netnews. You can see how short the Netnews section is this month. The Netnews editor gathers information from the Reflectors and the 20 m Net to add to the regular NL reports.

In May, don't miss in EU the Swedish EME meeting on 12/13 May and the Dayton Hamvention in the USA on 18/19/20 May.

This pretty much covers the 432 and Up EME News for this month. As you can see there no lack of activities! It is really an incredible time. There real problem is how to fit everything in. PSE, PSE keep the tech info and reports coming. I shall be looking for you off the Moon in the 13 cm EU (DUBUS) EME Contest, the April ATP and on the other bands. 73, AI – K2UYH

