432 AND ABOVE EME NEWS
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CONDITIONS: The 3 cm DUBUS/REF CW EME contest was a great success with good conditions and turnout. OK1KIR appears to have nosed out TM8PB for the top score (33x31 vs. 34x30). The final jewel of the DUBUS contest series is on 6 cm and is coming up 13/14 June. It shall be interesting to see the growth of this EME band, which is the only one above 23 cm where we can all operate on the same frequency. The June 70 cm CW activity time period (ATP) is again on the weekend of the DUBUS Contest, 14 Jun from 0300 to 0500 and 1200 to 1400. Unfortunately many of those operating the DUBUS CW contests also support the CW ATPs. These conflicts are a *killer* of the ATPs and should be avoided in the future if possible. The ARRL's June VHF Contest also is taking place this weekend (13/15 June) with W/VE stations looking for EME QSOs that are valid for the contest. The 7Q7EME dxpedition to Malawi was a great success – see their report below. Coming up is SW8YA (Greece) who is to be QRV on 70 cm from Thassos island from 2 to 22 July and Samothraki island (both KN20) between 13 and 22 July using a 12 el yagi and legal power - (using ON4KST chat). NC1I is also planning 1296 WAS dxpeditions. If all goes well they will be on from CT on 19-21 June – see Frank's report. The Swedish EME Conference at Orebro, which focuses on CW EME also took place this month, and has received the most glowing reviews. Lars, SM4IVE deserves the highest praise for the great job he has done in organizing and leading this conference.

Some of the crew at the EME Conference in Orebro

SUMMER MICROWAVE EME ACTIVITY WEEKEND: The following activity weekends (AWs) have been proposed by G3LTF: 20/21 June for 3 cm, 11/12 July for 13 cm, 18/19 July for 6 cm and 8/9 Aug for 9 cm.

7Q7EME: Rene (PE1L) renehasper@gmail.com, Hermann (DL2NUD) and Eltje (PA3CEE) have done another truly outstanding job from Malawi! They QSO'd on 432 DF3RU, DK3WG, DL7APV, DL8GP, DL9KR, ES5PC, G4FUF, G4RGK, HB9Q, JA6AHB, K2UYH, LZ1DX, NC1I, OK1DFC, OK1KIR, OK2DL, ON4AOI, OZ4MM, PI9CAM, PY2BS, UA3PTW, UT5DL, UX0FF, WA4NJP and ZS6JON for a total of 27, on 1296 DF3RU, DG5CST, DJ9YW, DK0SF, DL6SH, ES5PC, ES6FX, ES6RQ, G4CCH, G4RGK, HB9Q, I1NDP, IK3COJ, JA1WQF, JA6AHB, K2UYH, LX1DB, LZ1DX, NC1I, OE5JFL, OK1DFC, OK1KIR, OK2DL, OZ4MM, PA0BAT, PA3CQE, PA3CSG, PA3DZL, PA3FXB, PY2BS, RA3AUB, RD3DA, UA3PTW, UA4HTS, W5LUA, YL2GD and YO3DDZ for a total of 38, on 2320 ES5PC, HB9Q, IK3COJ, OK1DFC, OK1KIR, OZ4MM, PA0BAT, PA3CQE, PA3DZL, PA3FXB, PY2BS, UA3PTW, UA4HTS and W5LUA for a total of 14, and on 3400 ES5PC, HB9Q, K2UYH, OK1KIR, PA0BAT, PA3CQE, PA3DZL, PY2BS and W5LUA for a total of 9, and to bring them overall to 500 with 144! The full story of the dxpedition with very interesting details can be found on their web page http://www.emelogger.com/malawi. QSLs should be sent to PA3CEE, vE Veen, WIRDUMERWEG 35, 9917 PB WIRDUM GN, The Netherlands.

7Q7EME 23 el DK7ZB yagi used on 432

9A5AA: Dragan dragan9a5aa@gmail.com reports on his recent activity on microwave EME – I was QRV on 3.4 GHz on 28/29 March (DUBUS Contest) and QSO'd OK1CA, K5GW, DL7YC, ES5PC, SP6OPN, HB9Q, PY2BS for an initial (#), DF3RU (#), OH2DG (#), PA0BAT and W5LUA for a total of 11x11. I worked on 1296 on 25/26 April (also DUBUS) HB9CW, S53MM, ES5PC, OK1KIR, OE5JFL, SP6JLW, DL6SH, G3LTF, OH2DG, I1NDP, SM2CEW, UA3PTW, DG5CST, PI9CAM, DL3EBJ, RA3EC, OH2AXS for an initial (#), ON5RR (#), F5SE/P, PA3DZL, SP7DCS, IK3COJ, OZ6OL, DF1SR, I5MPK, NC1I, OK2DL, K2UYH, W4OP, W5LUA, G4CCH, JA6AHB, OK1CA, SP6ITF, IW2FZR, DF3RU, OZ4MM, DJ8FR (#), LX9IARU (#) [? – same as LX1DB], SM7FWZ, OK1DFC, OK1CS, YL2GD, S59DCD, PA3DZL, W6YX, WA6PY and VE6TA for a total of 48x46. On 10 GHz, I added on 19 May OZ1LPR (#), VE4MA (#), and on 24 May PA0JB (#), OZ1LPR, PA0BAT (#) and W5LUA (#).

DK3WG: Jurg dk3wg@web.de has upgraded his 23 cm EME station to a 3 m dish and 100 W – I made my first 1296 EME CW QSOs in May with I0NDP for initial #1, G3LTF #2 and G4CCH #3. On JT65C, I added initials with UN6PD for DXCC 36, G4FUF (2 x 49 el yagis and 130 W), PY1UNU, ZS6JON DXCC 37, VE3KRP DXCC 38, UA4LCF, PA7JB, LU8ENU DXCC 39, TI2AEB DXCC #40, PA3CQE, PA2DW, IK5QLO, KL7UW DXCC #41, K5DOG, RN4AT, VK3AXH and VK3WRE. I was also on 70 cm and using JT65B added initials with 7Q7EME for DXCC 119 and ON4AOI.

DL9KR: Jan Bruinier@t-online.de writes that he is keeping his 70 cm system reliably operational -- It's nice that most dxpeditions can also work CW with their increasingly good outfits. I added QSOs on 27 March with S79EME for CW DXCC 131 and on 15 May 7Q7EME CW DXCC 132 and initial #964.

G3LTF: Peter pkb100@btinternet.com writes that he does not have a lot to report for May -- On 16 May, I tested with DL8DAU on 432, but although he was good copy he couldn't hear me on CW at all. I changed to 1296 and was pleased to work on CW DK3WG for my initial #404 and ES6FX #405, who I had heard in the DUBUS contest but not worked. I looked for the 7Q7EME on 23 cm, but at best I could just see their trace on my SDR. I then tried to see what power I needed to transmit at the feed to see my echo at the same level. The answer was 1 W. Based on the difference in antenna gains would indicate that they were transmitting with only 16 W. It is not clear why there was such a difference as they were easily working on JT much smaller stations than me. I am completely puzzled by this. I was at the Swedish EME meeting in Orebro, which was great with lots of good technical hardware descriptions and discussions. Many thanks to Lars, SM4IVE for organizing this outstanding event! I plan to be QRV on 6 cm for the DUBUS contest with 40 W and my 6 m dish.

I0NAA: Mario mario.natali@gmail.com is almost ready with his 5 m *Stealth* dish -- I was finally able to connect everything and received immediately the ON0EME beacon without any adjustment! I also heard a few very strong JT65 stations much higher in the band. Unfortunately, I still have a problem. The counterweight is not enough and so the antenna is not able to move up and down on its own. I need to help manually as the motor does not have enough torque on its own. I am working on a solution. I expect to be QRV on 23 cm this month. [I had the pleasure to meet Mario and his family at K1JT's QTH. He was in Princeton to visit his daughter, who was doing research for her doctorate at the university.]

I0NAA's 5 m *Stealth* dish

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp enjoyed microwave multi-band operation during April-May -- I was on 10 GHz testing a V-pol feed and worked on 10 April JA1WQF (449/559) in the rain, on 15 April JA6CZD (559/569), on 19 April WA6PY (559/559) XB (10368/10450) for initial #23 and JA6CZD (559/569), and on 23 April W5LUA (O/O) #24 with feed twisted to a 45 deg pol angle. I then changed the feed to 24 GHz with a 60 deg pol and tested W5LUA. On 24 April I heard Al every period but he did not copy me. We tried again on 25 April and Al was again (O) every transmission, but this time he found my signal on his DSP screen right on frequency. However, the window between W5LUA and me is very short, only 20 minutes because of blockage by my house and we were unable to complete a QSO. On 25 April, I worked on 1296 in the DUBUS contest JH3EAO, ES5PC, OK1CA, SP6JLW, OH2DG, SP6ITF, OK1KIR and G3LTF. I had a problem with my AZ motor and had to stop operation after only 8 QSOs. The following week I purchase a spare motor by email. It worked OK on the bench but failed when I placed it on the dish. I then installed gears from my junk box and a new 40 W induction motor. It is running very successfully with ten minutes per rotation. I then worked on 3 cm, on 14 May JA1WQF (559/579) and JA6CZD (569/569) with a horizontal pol feed, and on 13 cm, on 15 May UA4HTS (559/569) XB (2400/2320) to test his new 2400 receiver. I was active in the DUBUS 3 cm EME Contest and worked on 15 May OK1KIR (559/559) XB, UA4HTS (559/569) XB and PA3DZL (559/559) XB for initial #25, and on 16 May VK3NX (559/549) XB, OK1CA (569/569) XB, ES5PC (559/559) XB, JA1WQF (559/559), OH2DG (569/559) XB, PA0BAT (569/569) XB, TM8PB (569/559) XB, IK2RTI (559/559), JA6CZD (569/579) and WA6PY O/O XB for a total score of 13x12. In the contest Japanese stations operated around 10450.050 and asked EU stations to call us on around (not on) 10368.050, as is normal on 13 cm to avoid the QRM. This rule seems to function well on 3 cm. Only one station TXed right on 10368.050, but with a huge signal. Thanks to the EU stations for their cooperation. I will be looking for everyone next month on 6 cm.

K4EME: Cowles candrus@mgwnet.com is adding 1296 EME to his 70 cm capabilities -- I have been making slow but steady progress on my 23 cm EME station. I now have a 10' dish mounted with a VE4MA (original) feed. I am copying the ON0EME beacon loud enough that my wife now hears the beeps. (She still thinks I am crazy doing this EME thing; and she is always correct - Hi!) There is still much work to do. I am using a TM-1300 transverter, which currently has a weak birdie at 1296 MHz and at 500 kHz intervals. I will be doing a simple modification to the transverter that the designer suggested to reduce or eliminate the birdies. I also plan to run the transverter in split mode allowing a slightly better NF and saving one relay when I plan to TX. I have made progress on my 23 cm PA. I will probably start with 200 W, as the hybrid I have on the feed to generate circular pol is limited to this power. I plan to change to the same type of hybrids I use for the PA combiner made from Rogers 4003C material that should handle over 500 W. The four 150 W modules are finished, but not completely tested. I am still working out the details for combining the 4 modules and all the sequencing and relay switching required for proper operation. Also the protection network for wiring up the power supplies need to be completed along with some fail safes. I have most of the parts, just need to get them together properly. I also need to construct an environment proof enclosure, dog house, to place the PA in next the the base of the dish. I am using a modified polar mount, which is hard to aim without a visible moon. I also have a lot of pine trees blocking me from the east side; so I may have to do some tree trimming.

K4EME's new 10' dish for 23 cm EME

K4MSG: Paul Phbjr@aol.com sends his May EME report -- Some station improvements have been considered for 432 MHz EME, specifically a higher-power PA, but activity has been so slim on 432 for the past year or more that it doesn't seem worth the effort or expense, especially since 1296 seems to have become "the place to go" once an EMEer wants to move on from 144. My 432 EME has not yet enabled me to garner enough additional Grid locators to qualify for VUCC, and my attempts at a 432 WAC have fallen short due to a lack of larger active stations in Africa. One can only accomplish so much with a small station on EME, and I've run up against the "need to be bigger to do more" limitation. As a result, I am currently in the first stages of building up a homebrew 2.1 m

"stressed dish" for 1296. My ultimate goal is a dish with a septum feed, LNA and a 200-300 W PA to be located at the dish. Once the dish and feed have been constructed, the LNA will be installed and RX tests can commence. After that, the PA will be added and full operation begun. No specific time frames have been set for completion. I am still struggling with the best approach for home-brewing the septum feed and integrating it with a light-weight stressed dish design, especially since I have no prior experience with dish antennas. [1296 is a great EME band, but PSE don't give up on 432. I would like to see more CW activity on 70 cm, but there still seems to be plenty of JT activity and new stations continually showing up.]

K5QE: Marshall k5qe@k5qe.com will be again looking for EME QSOs on 432 during the ARRL's June VHF Contest -- The contest is on 13/14 June this year. We will be running on 432.080 using the 2nd sequence. Several folks mentioned that there were some serious birdies on .070, so we will try to help them out by moving up a bit. Our moonrises is at 0950 on Sunday morning. We will be on full time while the Moon is up on Sunday. On Saturday the contest does not start until 1800 and the moon is far to the west by then. So there will not be a EU window on Saturday. We will call CQ and watch the waterfall for any possible Oceania callers on Saturday. This year, we can post on the N0UK EME-1 page, so we will be watching that full time. In addition, we will be watching chat.n5tm.com (login and click on the K5QE tab at the top). This is the chat page that we used for our VP8 dxpedition and it worked very well. We will also be on 2 m EME.

K6ICF: Don don.rea@verizon.net is setting up EME on 1296 -- I've been working on putting together a QRP EME setup for 23 cm. My goal is to eventually be able to complete JT65 QSOs with some of the larger stations. I have a single yagi (35 el. M2) mounted on my 14" telescope for tracking. Right at the feed is a G4DDK LNA, which drives an ICOM IC R-7000 receiver. I also have a Funcube for receive too. Presently the station is located at my mountain cabin near Idyllwild CA. This location has some nice advantages but there is considerable blockage from trees both on the east and west side. From moonrise it takes about 4 hours to clear the trees. I'm planning to be listening the weekend of 13 June and would appreciate hearing from stations who will be QRV during my limited moon widow.

KD3UY: Bob kd3uy@comcast.net is having fun on 1296 EME – I have been doing well with my new OK1DFC Septum feed horn. I now am up to digital initial {#20}. 1296 is great!

KL6UW: Ed kl7uw@acsalaska.net says that he is now fully QRV on 1296 -- My 4.9 m dish with 125 W at the feed is working well. I am up to initial #23. I worked in March G4CCH, G3LTF (CW), NC1I, TI2AEB and W2LPL, in April PA3FXB, ES6FX and W5LUA, and in May DK3WG, OE5JFL, HB9Q, PA2DW, KD3UY and W7EME. All on JT65C unless noted. W7EME was the hard one. I was not able to see his trace until he did some rework of his feed with the help of VE4MA. W7MEM is running 50 W to 4.9 m dish. I need a minimum elevation angle of 10 degs. This delays my moonrise for working into Europe - the higher declinations are needed. I can work US and Pacific stations below zero declination. So far, I have been primarily running JT65C as my CW abilities need some work to be able to copy weak EME (not a system issue). When I worked HB9Q, I had the volume turned up and could easily hear his -3 dB signal. Dan gave me -6! I have another W6PQL 150 W amp remaining to build, so eventually I will have more power. I am also working on a Toshiba amp for 3400.

LA8LF: Anders anders@la8lf.com sends on RX report for the 3 cm DUBUS Contest -- I was in RX mode both day and heard 25 calls. The strongest were OZ1LPR and DL0EF, both (599)! Per's beacon was also (599) and I presume he was running in high power mode. The weakest station was SM6CKU (M) but he is running CP and starting 3 dB down. My full log is available at www.LA8LF.com. I was using my 4.6 m NEC dish, original Cassegrain feed and WG LNA with 0.58 dB NF. I am tracking on Moon noise with an SDRIQ and SpectraView. Moon noise is 2.8 dB and Sun noise is 17.9 dB at a 119 SFI.

NC1I: Frank's frank@NC1I.COM May activity report -- I was not very active on EME in May. Just about every weekend W1QA and I worked on putting together our portable 23 cm system. At this point it is nearly complete and it is our hope to be active on 23 cm from CT on 19/20 June and perhaps a few hours on the 21st. Updates will be posted on Moonnet. The following 23 cm QSOs were made in May. We worked on 13 May at 0905 7Q7EME, on 16 May at 1219 PA3FXB, 1250 VE3KRP, 1302 ZS6JON, and 1314 TI2AEB, on 17 May at 1307 EA3EMG, and on 25 May at 2108 W7MEM. We were QRV on 70 on 15 May and QSO'd at 0943 7Q7EME and at 0952 ON4AOI. I am off 70 cm for the next 6-8 weeks, while I repair the polarity prop-pitch assembly.

OK1CA: Franta strihavka@upcmail.cz sends his report to the NL -- I was QRV in DUBUS EME Contest on 23 cm during the 4th weekend of April. On Saturday I could be on for only 4.5 hours and worked 35 QSOs. I continued at Sunday and ended with a total of 71x59. I added initials with JA6XED, ES6FX, NC1I and N8CQ to bring me to #313. I also heard OK1YK, W4OP and VE4SA, but could not get their attention. I was QRV in DUBUS EME Contest on 3 cm during the 3rd weekend of May. The contest activity was high, and I worked 31 QSOs. Initials were OK2AQ, DF1OI, VE6TA, JA1WQF and OH2AXH for initial #72. I only heard S57NML and WA3LBI. The conditions were better at Sunday. My score is 31x30. I also made 3 cm QSOs outside of the contest using JT4F with OK2AQ (14DB/12DB), WA3LBI (13DB/16DB) for digital initial {#6}, VK7MO from QF22 (16DB/16DB) {#7} and UA4HTS (12DB/12DB) {#8}.

OK1KIR: Vlada & Tonda vladimir.masek@volny.cz report their club's EME activity in May – On 70 cm, while waiting for the 7Q7EME dxpedition to Malawi, we worked on 15 May at 0643 ON5AOI (15DB/19DB) for digital initial {#128} and 0734 7Q7EME (22DB/O) {#129}. On 23 cm we QSO'd on 11 May at 0824 G4FUF (20DB/12DB) for digital initial {#217} and on 12 May at 0738 7Q7EME (15DB/16DB) {#218}. On 13 cm we QSO'd on 15 May at 1006 7Q7EME (19DB/17DB) digital initial {#29}. On 9 cm we worked on 14 May at 0914 7Q7EME (24DB/25DB) for digital initial {#11} and the 1st 7Q–OK QSO on 9 cm, 1054 PA3CQE (15DB/12DB) {#12} and 1121 K2UYH (9DB/14DB) {#13}. On 3 cm we contacted on 15 May at 1133 OK2AQ (14DB/12DB) and 1155 WA3LBI (17DB/17DB) - strong signal but unfortunately they were unable to operate CW, on 16 May at 0330 VK7MO (16DB/14DB), and on 17 May at 0459 JA1WQF (12DB/12DB) for digital initial {#63} and new continent with JT. In 3 cm part of the DUBUS EME Contest we worked using CW on 16 May at 0330 OH2DG (549/549), 0403 JA4BLC (559/559), 0414 SP6JLW (569/559), 0434 VK3NX (559/569), 0440 UA4HTS (559/569), 0453 ES5PC (559/569), 0500 JA1WQF (559/569), 0524 JA6CZD (569/579), 0547 SM6CKU (549/559), 0605 F1PYR (559/569), 0659 TM8PB (549/559), 0736 OH2AXH (559/559), 0743 OK1CA (559/579), 0748 DL0EF (579/569), 0806 PA7JB (549/549), 0815 PA3DZL (559/559) for initial #95, 0824 G4NNS (559/559), 0831 OZ1LPR (569/569), 0852 F6KEH (559/519) #96, 0901 DF1OI (569/559) #97, 0937 DL7YC (569/559), 0949 LX1DB (579/579), 0955 PA0BAT (569/569), 1105 HB9SV (569/589), 1148 IW2FZR (549/559), 1148 SM2CEW (M/O), 1309 VE4MA (559/569), 1318 HB9BHU (559/559), 1424 WA6PY (559/569) and 1554 VE6TA (549/559) #98 and DO field, and on 17 May at 0529 OK2AQ (O/O), 0555 YO2BCT (579/549) and 1308 IZ2DJP (559/569). Heard were WA3LBI, S57NML and YO3DDZ. Our total score was 33 x 31. Due to uncertain activity on 24 GHz, we did not change bands on Sunday and was thus not active on 24 GHz in the contest. We also ran a 3 cm test on 17 May at around 0730 with DF3RU (6 m dish with 1 dB of Moon noise, 13 dB Sun noise, but only 5 W) using JT4F that was not successful. Karl got one decode, best (24DB) with an older version of WSJT.

OK2AQ: Mirek mirek@kasals.com reports on his activity for the several days around DUBUS 10 GHz Up CW EME Contest -- My small setup consisting of a 1.8 m dish and a 20 W SSPA at the feed is not really competitive for contesting, but number of stations welcomed the opportunity to test their equipment with me. I also tested new WSJT-X software including JT4 modes. On 13 May, I worked G3WDG for our first WSJT-X QSO (10DB/16DB). The next day, I added W5LUA for digital initial {#9}; my first with WSJT10 (13DB/14DB) and then WSJT-X (7DB/12DB). We could see much better measured signal levels with WSJT-X. On Friday, I worked on CW OZ1LPR (569/O) for initial #4, OK1CA and OK1KIR both JT4F (12DB/14DB). On Saturday in the early morning, I attempted with VK7MO using WSJT-X, but ended with only several syncs but I did decode later by post-processing. In the 10 GHz contest I made 3 CW QSOs with OK1CA (O/O) #5, OK1KIR (O/O) and F1PYR (O/M) #6. Outside of the contest, I worked using JT4F UA4HTS and VE4MA {#8} both with (13DB/14DB) reports. After contest I worked using JT4F PA0BAT (O/O) {#9} and ES5PC (O/O) {10}. On the last day of the month, 19 May, I added with JT4F OZ1LPR (12DB/20DB) {11}.

OZ1LPR: Peter oz1lpr@hotmail.com was active in the 3 cm contest and is interested in skeds -- I am now using a 2.4 m dish with 350 W at the feed. I did not get a report below (559) in the 3 cm contest and ended with 31 QSOs. Most reports were (579).

I am limited to the west to elevations of > 18degs and a max azimut of 270 degs.

PA2V: Peter p.gouweleeuw2@kpnplanet.nl is just about back in business on 70 cm -- Since I lost the array in the heavy storm on 31 March, I have redesigned and rebuilt the system. Thanks to the EME ham community, I have repaired the elevation and made the frame much stronger. I still have new cables to install; now will be LCF12-50. Compared to the old Ecoflex15, I will gain at least 1 dB. The preamp and relay are already in place. The antennas will again be 24 el LFA yagis from Innovantennas. I expect to be back on by the end of June.

PA3DZL: Jac pa3dzl@ziggo.nl is QRV on 10 GHz with an improved station – My 3 cm station is now a solid Andrew 3.7 m dish, 0.7 dB NF LNA and ~ 60 W @ feed. I made my first QSO on 10 GHz with my old mesh dish and 3 W @ feed with LX1DB in 2013 for initial #1; it was also my only QSO – Hi. Now with the new rig I have worked 15 stations on random. QSO'd were JA4BLC XB (10368/10450), OZ1LPR, ES5PC, UA4HTS, OH2AXH, SP6JLW, DLØEF, TM8PB, PAØBAT, OK1KIR, OK1CA, G4NNS, OH2DG, DF1OI and DL7YC. I´m now up to initial #16. Also heard were F1PYR and HB9SV. The conditions were very nice with good to very good signals. The strongest signals were from OZ1LPR, SP6JLW, DLØEF and PAØBAT! After 4 hours I had to stop because my TWT power supply went QRT. I would like to thank my friends PA7JB, PAØBAT and JA4BLC (10450 conv.) for their help getting the station running. The TWT power supply is now repaired, so I am QRV again.

SM2CEW: Peter sm2cew@telia.com sends news on 13 cm from Sweden -- I recently received a high power license for 2320. It is specified for 6 months, but it sounds like there is a possibility to have it extended when it expires. Apparently there is no activity from the company that bought our old 13 cm band. I will be QRV during the coming months, hoping to work a number of stations. At the Orebro EME meeting we were talking about scheduling a 13 cm activity weekend – [see dates for MW AWs at beginning of this NL.]

SM6CKU: Ben ben@sm6cku.se is QRV on 3 cm with a 4 m dish, 18 W and circular pol – During the first moon pass of the 3 cm contest, I worked SP6JLW, OK1KIR, OH2DG, DL0EF, F1PYR, OZ1LPR and OK1CA for a total of 7x6. I heard and called a number of other stations and got some QRZ's. The propagation did not seem that good. I also had some tracking problems. One of my encoders seems to have a problem. With my new SDR, I saw up to 10 stations at the same time. [Ben was planning to be on for the second pass, but I did not receive his report.]

G3LTF (r) visited SM6CKU (l) after Orebro conference

SP6JLW: Andy sp6jlw@wp.pl reports that his group had a great time in the 10 GHz DUBUS Contest – We QSO'd on Saturday OH2DG, ES5PC, OK1KIR, VK3NX, OK1CA, F1PYR, UA4HTS, YO2BCT, SM6CKU, OZ1LPR, OH2AXH for an initial (#), TM8PB, PA3DZL (#), DL7YC, HB9SV, G4NNS (#) and new DXCC, DF1OI (#), F6KEH (#), DL0EF, PA0BAT, LX1DB, HB9BHU, VE4MA, WA6PY, IW2FZR and VE6TA (#), and on Sunday DL0EF on SSB, OZ1LPR on SSB and IZ2DJP for a total of 27x26. Also heard was F4GMD. The others operators SP6OPN and SQ6OPG.

TM8PB: Guy (F6CT) F2CT@wanadoo.fr reports on 10 GHz activity of the ORPB Society during the May DUBUS Contest – Our first tests on 3 cm EME were made with our Cassegrain 13 m PB8 dish with a non optimized linear feed. During the 2014 REF-DUBUS contest some QSOs were achieved, but the echoes were only around 6 dB/noise. After some investigation, we found that the feedhorn was not optimized and not at the focal point. We decided to design a new feed with the help from Jean Pierre Blot, an antennas engineer, OM6AA and PE1RKI. We ended with dual (C and X) band) circularly polarized septum feed with a 50 W SSPA and 10 GHz to 432 transverter. On RX we had the capability to copy on 10,368 and 10,450. We were QRV on both 16 and 17 May, but had some tracking problems on Saturday, which limited our Moon time. We QSO'd DF1OI, DL7YC, DL0EF, G4NNS, VE4MA, VE6TA, OZ1LPR, OZ1FF, EA3HMJ (on JT), ES5PC, WA3LBI, WA6PY, F1PYR, F6KEH, PA0BAT, PA3DZL, PA7JB, IZ2DJP, IW2FZR, JA1WQF, JA4BLC, JA6CZD, LX1DB, OH2AXH, OH2DG, YO2BCT, YO3DDZ, UA3PTW, UA4HTS, SP6JLW, SM6CKU, HB9SV, HB9BHU, OK1CA, OK1KIR and OK2AQ all on CW unless noted. We worked on SSB DL0EF, F1PYR, LX1DB and OZ1LPR. The loudest stations were DL0EF, OH2AXH, SP6JLW, OZ1LPR, DL7YC, LX1DB, OK1CA, OK1KIR, PA0BAT and UA4HTS. Overall 34 stations (34x30) were QSO'd and 41 identified. We plan to test soon on 24 GHz, but still have work to do on the automatic tracking system that needs an accuracy of better than 0.05 degs. We will also participate in the 6 cm DUBUS Contest. My thanks to the ORPB Society teams for assembling and making the 3 cm system work so well.

UA3PTW: Dmitry ua3ptw@inbox.ru was QRV off the Moon in May. He added initials on 432 using JT65B with ON4AOI and 7Q7EME, on 1296 using JT65C with G4FUF and 7Q7EME, and on 2320 using JT65C with 7Q7EME. [TNX to DK3WG for forwarding this report].

UA9YLU: Rakov remains active on 1296 from Asiatic Russia. He added initials in May using JT65C with ZS6JON, VK3WRE and RN4AT, and on CW with G4FUF, S59DCD and I5MPK. [TNX to DK3WG for forwarding this report].

UN6PD: Nickolay un6pd@inbox.ru was on 1296 in May using JT65C and added initials with UA9YLU, G4FUF and DK3WG. [TNX to DK3WG for forwarding this report].

VE3KRP: Fast Eddie's eddie@tbaytel.net May EME report follows -- I was on 23 cm and worked using JT65C on 16 May LU8ENU, PA3FXB, I1NDP, ZS6JON for a new mixed initial (#*), G4FUF (#*) and DK3WG (#*), and on 17 May DK3WG, IK5VLS and ON5GS (#*). This was 4 initials in one weekend! Due to high winds and my lack of tying the dish down, a shear pin for the AZ drive broke. It has since been repaired and I am back in operation.

VE4MA: Barry ve4ma@shaw.ca was only QRV on 10 GHz in the 3 cm up contest – Heavy rain and bad WX prevented operation on 24 GHz. I worked 12 on Saturday, but missed about 5 stations, and many more weak ones. I was twice called "VE6TA" and with one strong station, I called 3 separate times but could not get it corrected! With VE6TA on 10 GHz and VE4SA about 1 km away on 23 cm, it's important to listen carefully! [I do not have a report from Barry for his Sunday results.]

VE6TA: Grant ve6ta@xplornet.com is now QRV on 10 GHz with a separate10' dish and 20 W at the feed -- I discovered good activity on the 3 cm band during the DUBUS Contest. The level from EU was very good and I ended up with many more QSO's than expected for my small station. My original goal was to make a single QSO on my tenth CW EME band. 10 GHz has always been regarded by me as one of the most challenging. It's a real thrill for me to hear those echoes come back after the long journey to the Moon. Bad WX and high winds on Saturday made pointing an antenna with a 0.6 deg beamwidth a real test. However there were many stations with good receivers and I managed to work the following fine stations: DL0EF, SP6JLW, OK1CA, VE4MA, OK1KIR, VK3NX, OZ1LPR, ES5PC, WA6PY and TM8PB for a total of 10x10. All

were initials except VE4MA who I have worked the day before. I heard the following stations as well: PA0BAT, PA7JB, UA4HTS, F1PYR and WA3LBI. After the contest, I completed schedules with PA0BAT and W5LUA to bring me to initial #12 on 3 cm. Every contact was special to say the least. Thanks to all those stations who dug through the moon noise to hear my flea power.

K2UYH: For me alkatz@tcnj.edu May was very special in a number of ways. One of the biggest was completing 1296 DXCC thanks to the Atleticoteam. I worked on 11 May at 0720 DC9UP (12DB/15DB), 0744 RA3DA (11DB/5DB), 0751 DG5CST (11DB/5DB) and 0840 G4FUF (24DB/10DB) for mixed initial #495* - all were on JT65C, on 12 May, the big day, at 0757 7Q7EME (21DB/23DB) for #496* and DXCC* 100. On 14 May, I was able to catch them again on 9 cm at 1108 7Q7EME (21DB/O) for my first JT QSO on the band, mixed initial #40*and DXCC* 24 followed by my second JT QSO at 1120 OK1KIR (14DB/9DB). I was at Dayton the next day and missed their 13 cm activity, but I was on 16 May to work them on 432 at 1158 7Q7EME (22DB/O) on JT65B for mixed initial #885* and DXCC* 122. I learned that they were also on 13 cm, but my switching of feeds was delayed by heavy rain shower. By the time I had the feed in place they had lost the Moon. I did QSO on 13 cm at 1437 G4RGK (23DB/16DB) on JT65C XB and mixed initial #73*. Shortly afterwards I had to leave for a trip. Because of my travel, I was not able to get on for 3 cm contest. I added after my return on 1 June, on 1296 at 0126 KD3UY (20DB/15DB) JT65C #497*, and on 6 June, on 432 0613 DL1RPL (28DB/21DB) JT65B #886* - this was Peter's initial 70 cm EME QSO and 0618 ONAOI (21DB/14DB) JT65B 0623 #887*. The 432 dual dipole feed that I have used for more than 40 years failed during this QSO, but Guy was able to copy my Rs before I had to QRT. I am working on a repair, but the feed does not appear to be reusable. I plan to be on for the 6 cm contest.

NET/REFL/CHAT NEWS: **JA1WQF** worked 10 stations on CW plus one on JT during the DUBUS 3 cm contest. **JA6CZD** worked 10 stations on CW during the DUBUS 3 cm contest. **K6JEY** is now QRV on 1296 on both CW and JT with his 10' dish and 300 W. **ZS6JON** is now active on 23 cm and interested in skeds john@sygonnex.co.za.

FOR SALE: **AF5CC** have for sale a set of 4 end mounted 10 el (6.5') 70 cm yagis with H frame and phasinglines/power divider. The array has been used for 70 cm EME with good results. He prefers pick up, but can ship. If you are interested contact John at af5cc@fidmail.com. **K6PF** has an RF deck for a 432 HPA consisting of a 8938 in a Eimac cavity. (This does NOT include the metering, blower, filament xfmr, or HVPS). You will need to furnish these & build a blower box of approx 11" x 12" for this cavity to fit on. The PA puts out in excess of 1.5 kW. Included is the 8938 & Eimac UHF Cavity (CV-2410) technical data brochures. Pictures are available. Asking $950 or BO. It is ready or shipping. He also has some 432 FO yagis, power dividers and related hard ware available. Contact Bob at k6pf@sbcglobal.net. **PA3CMC** has for sale a commercial Rohde & Scharz SSPA modified for 70 cm. For 10 W in it provides 1250 W out. It includes all protection circuits (working) but not the PSU - perhaps can get one. Lins is asking 1000 Eu. He also has a 2 m SSPA for sale. Contact him at pa3cmc@martensmilieu.nl.

TECHNICAL – DOPPLER: This material is primarily intended for JT stations. CW operators normally listen on their echo frequency. As JT has grown in popularity, the value of listening on your echo seems to have been lost. In the case of a SKED, you need to decide in advance what rules will apply. Many of the 23 cm dxpeditions are now listening on their echo. I have come to the conclusion that this is the best procedure for everyone to follow. But, it is far from universally agreed upon. In addition there is the further question of where should you TX. In the case of dxpedition stations that are listening on their echo freq, they will normally TX on the announced sked frequency. (They should make this clear, but usually do not.) Assuming they TX on Fsked, this leaves it to the other stations to TX so that they are heard on the DX station's echo freq. To do this, you should TX on Fsked + MD + SD, assuming you have not yet heard them. [MD is the mutual Doppler freq and SD is your self Doppler freq given in the astronical box of JT.] If you are copying the DX (or sked station) you should of course TX on the frequency that you copy them + SD. I recommend the DX station TX so that his echo falls on the Fsked. In this case his TX freq is Fsked - SD (his). He accomplishes this by putting his SD in his RIT and listens on the Fsked. He should of course hear his echo there. He should also hear your signal there, if you follow the same procedure, i.e., put your SD in your RIT and listen on Fsked. This is all you need do, if his and your calibration are correct. When calling CQ, you need to make clear where you are listening (and where you are TXing). Unfortunately some stations will reply so that they are heard on your actual TX freq. Others TX back right on the frequency they hear you with no Doppler correction. I recommend that everyone TX so that their echoes fall on the same frequency they hear a station, and that the CQing station sets his TX freq so that his echoes fall on the announced frequency of the CQ, i.e., everyone keeps their RIT set to their SD. The same procedure as was recommended above for the DX station. If everyone kept their SD in their RIT, there would be no problem. Respond to where a station is heard or with your RX set to operating freq.

TECHNICAL - REASONABLY PRICED SHAFT ENCODER: BRIAN, G4NNS reports he an encoder suitable for Azimuth or RA indication with a resolution of about 1/10 deg on Ebay. See http://myweb.tiscali.co.uk/g4nns/ for more details.

FINAL: I am afraid there is more sad news this month. Two noted EMEers passed away in May. W7CS, who most recently was active on 1296 EME has joined the list of SKs. Chuck is a VHF/EME pioneer and well known for his many technical contributions under call WA6MGZ. He is believed to have made the first SSB EME QSO. The other is WB0GGM. John is a 432 EME old-timer. He was my first QSO with someone running relatively low power off the Moon. He was a regular with 4 yagis and 100 W back when everyone operated CW EME. He continued operation even as his health deteriorated. Both Chuck and John will be greatly missed. May they rest in peace.

The Orebro 2015 presentations can be found at www.moonbouncers.org. SM6CKU has put a video of this very excellent conference at https://www.youtube.com/watch?v=H2SUe5DiRio.

The 10 GHz beacon has been running, but Per (DK7LJ) had problems with his high power TWTTA and can presently only activate the low power mode. He also is not normally operating the beacon when the Moon is below 20 degs. This means it will not be on at low declination. If you need a low declination test signal, he asks that you email him.

EME2016 in Venice is well and its organizing committee is busy. Giulio (IW3HVB) iw3hvb@gmail.com writes that in a month or so the website should be ready.

For those of you in the north east, the Pack Rats' Mid-Atlantic States VHF Conference will be on 2-4 Oct. This is an excellent area conference with several EME focused talks, NF testing, a microwave oriented flea area and more. For detailed info see http://dataandwireless.com/packrat/2015_vhf_registration.php.

MUD 2015 is in San Diego on 15/16 Oct. See mud2015-registration@ham-radio.com for details and registration.

That is the news for this 29. Please keep the reports and especially the technical ideas/notes coming. I plan to be QRV for the 6 cm contest and the 10 GHz AW. I hope to see you off the Moon. 73, Al – K2UYH

7Q7EME's 1.5 m dish with 1296 feed as seen from thir operating position