

432 AND ABOVE EME NEWS JULY 2009 VOL 37 #7

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CONDITIONS: We need a new standard to judge EME activity by! Each month there is more and more happening! I am running out of "!!!". It is hard to know where to begin for May/June. Certainly the Echoes of Apollo (EOA) celebration with three big dishes (> 25 m) in Holland (PI9CAM), SRI (KR6R) and at the University of Tasmania (VK7MO) all active at the same time on 1296 was extraordinary. I'm sure a new record for EME SSB was set. This newsletter (NL) has only part of the story as all the reports have not yet been received, but it was spectacular. Then there was MI/DL1YMK's highly successful first 5 band EME expedition to Northern Ireland – see Michael's report. It set a milestone for what an EME expedition can be! And there was the 9 cm activity weekend (AW) on 20/21 June, and 5N0EME's continuing EME activity from Nigeria. The only negative was that the June 70 cm CW Activity Time Period (APT) was pretty much swamped by the EOA activity that occurred at the same time. The next ATP is on 25 July from 1000 to 1200 and 1700 to 1900. Coming up in July is the E7/OK1DFC's expedition to Bosnia and Herzegovina (144 to 3400) starting on 13 July and the C37DXU expedition to Andorra that will be QRV on 432 on 26/27 July. There will also be another big dish event on 18/19 July when the 25.6 m dish at the Onsala Space Observatory will be on 23 cm EME using the call SK6OSO – see the following reports. It is also reported that Jodrell Bank will be having their own EOA celebration on 19 July (starting around 1200) during which they will bounce signals off the Moon – no details were given on frequency or on any amateur radio involvement.

WHO WAS WHO: As part of the EOA activities there were many special/memorial calls, and in some cases multiple guest operators calls used. The use of multiple calls makes keeping track of initial QSOs difficult. Here is a list of some of the multiple calls in use: W1M = K1RQG, W5J = K5JL, K5J = K5SO, N0O = N0OY, W1O = K2DH, K0C = K0YW, W2LTI = K2UYH, N2NQi = WW2R (XYL), W5HN = W5LUA, W6XX = KR6R = K6MYC = N6NB = W6TE = AA6EG = N6JMK = W6SRI (SRI dish).



8J1AXA - EOA/science outreach in JA

5N0EME: Bodo 5n0och@atgmx.net continues to provide Nigeria and has some good news for those who have not yet worked him -- In June I was active on 2 m, 70 cm and 23 cm again. On 70cm I worked K2UYH and DK3WG as my #7 and #8 initials. I am happy to have worked 8 stations on 432 with my very small setup. I have only a 21 el yagi without a preamp and 100 W. For 23 cm it was a successful month as well, even though I was only on for two hours. I QSO'd PA3CSG, G4CBW, GW3XYW, RD3DA, DJ9YW, K7XQ, ES6RQ and OE9ERC. OE9ERC was happy to work me in JT65 and on CW. I heard another station calling in CW but could not copy the entire call. I hope he will try again next time. I have now worked initial on 2 m #130, on 70 cm #8 and on 23 cm

#26 (5 on CW). The good news for EME is that I will stay in Nigeria until end of Oct. This will hopefully fill my log more and more, especially on 23 cm. I think there are still many stations to be worked. My next activity on 23 cm is most probably on 24 July from 1700 to 1900. I will be calling on 1296.090 in JT65c first. Please drop me a mail if you wish a sked. I will be in Switzerland between 30 June and 2 July, and going back to Abuja on 3 July. All direct QSL requests that I have so far will be answered before I leave. After that I am not sure if I will be able to answer direct QSLs before Oct. So, please hurry up or be patient.

8J1AXA: Mike JH1KRC jh1krc@syd.odn.ne.jp sends news on JA EOA activities -- We had an EME exhibition to school children, some 35 and their parents, to celebrate EOA. We had an excellent presentation and instruction. Thanks to K1QG, K2UYH and others who provided demonstration signals. Unfortunately operation was on 70 cm as we do not yet have authorization for 23 cm operation. It takes time for the construction, testing the interference to neighbor dish, and licensing for high power. Next time we hope to operate on 23 cm as well.

AL7RT: Dan dpahunt@alaska.net is back on 23 cm after a little break. He had a problem with his transverter, but thinks he now has it repaired. During the 23 cm contest, he worked VK3UM, K5SO, K1RQG and others. Dan also has had several earthquake rattled things a bit. The epicenter of one was only about 5 miles away, but no damage.

C37DXU: Salvador (EA3AVW) sfalcon@falconradio.es announces that Andorra will be QRV on 70 cm as part of a memorial expedition organized by EA3BB. Operation on 432 will be on 26/27 July with 4 long yagis and 1 kW - (The expedition will be active on 144 between 22 July and 25 July). The Web page for the Andorra expedition is <http://www.emc2008.org/c37dxu/>.

DL4MEA: Guenter guenter.koellner@nsn.com reports on his June 9 cm activity -- Despite conflicting family activities I found some spare time and worked G3LTF, OK1KIR, G4NNS for an initial (#), LX/F2TU (#), OK1CA, K5GW (#), W5LUA and VE6TA (#) and G4NNS a second time as the first time was not certain. VE6TA showed that with patience it can be done even when conditions are marginal. While I wasn't able to copy even parts of the calls for a long time, suddenly I got the whole in one string. Condx in general seemed near perfect; I never received such strong echoes before. My station is 4.5 m dish, round septum Chapperal feed, 1 dB NF DJ9BV preamp and a 50 W Toshiba PA.

E7/OK1DFC: Zdenek ok1dfc@seznam.cz writes -- We will be leaving on 12 July for Bosnia and Herzegovina and expect to be setting up the equipment on 13 July. I will be joined by OK3RM and OK3VM. We have good local support and have approval for QRO operation on 144, 432, 1296, 2320 and 3400 with the calls E7/OK1DFC or possibly E7DX. Approval for E7EME still has not been received. Operation is planned for the July EME window. We will use 1 min periods (E7 first) on all bands because of the necessity to coordinate transmissions as we will be operating on 144 at the same time as the higher EME bands. On 70 cm up, we will use my 3.2 m dish and a 1.5 kW PA on 70 cm, 800 W PA on 23 cm, 300 W PA on 13 cm (operation on 2304 and 2320, and possibly on 2424 for JAs – not confirmed), and either 150 W or 45 W PA on 9 cm. I have new control system for AZ-EL and the tripod is now more stable. We will have lot of time and it will be possible to change feed during an operation window. We need about 30 mins to change bands. We will operate both CW/SSB and JT modes. We expect to have an Internet connection and will use HB9Q's reflector for skeds and QRG coordination. Last minute info can also be found at <http://www.ok1dfc.com/Peditions/E7/e7.htm>.

F2TU: Philippe f2tu.philippe@orange.fr reports good conditions but with strong wind causing an offset of +/- 0.5 ° on his dish during the 1296 part of the DUBUS Contest. He missed working G3LQR, N2UO and VA7MM because of QRM. He also missed K2DH because of the low declination that was giving him 5 dB of excess noise with the moon behind the trees.

F5SE: Franck kozton@free.fr writes that his big dish receive only tests were very promising -- I finally managed to partly solve the elevation drive problem and have been able to listen to part of the 23 cm MI/DL1YMK expedition on 28 May. Signals were great. Michael was peaking to (549) a (53) on SSB. I also heard PAØBAT (529/539), RW3BP (549), OK3RM (539/549), G4DDK (519/529), K1RQG bombing through on both CW and SSB (55/56) and K2UYH (539). I was also listening during the "Echo Of Apollo" on 27 June from 1430 until 2130. I must confess I did not expect so many stations with so strong signals! I had in my mind the signals received some 35 years ago on 432, which were most of the time only readable on CW. Here is the list of all the stations I heard. They are in alphabetical order. The first set is on CW: CT1DMK (529), F5JWF (529), G4CCH (559), IK3COJ (419), LA9NEA (519), RK3WWF (519), SM6FHZ (529), SP6JLW (569), KØYW (539) and W4OP (529), and on SSB: CT1DMK (52), DF3RU (53/54), ES6RQ (53), F2TU (51/52), G3LTF (53/54), G4CBW (41), GW3XYW (53), HB9MOON (53/55), HB9SV (57), IK3COJ (41), IQ4DF (56), IZ1BPN (41), LX1DB (57/58), LX1WB (57/58), OE9ERC (57/58), OH2DG (52), PI9CAM (53/55), PY2BS (52), RK3WWF (41/51), SM2CEW (51), SM6FHZ (52), SP6JLW (55/57), SV3AAF (52), VE6TA (41), KD5FZX (53), KJ5U (55), KØC (41/51), W1M (55/57), W1O (53), W2LTI (53/54), W5J (55), W6SRI (53), W6XX (53/54) and W7BBM (51). A total of 39 call-signs were heard, but only 38 real stations because LX1DB and his daughter LX1WB were operating the same setup. My feed (W2IMU dual mode horn) is mounted as close as possible to the geometric focus, but it has not been possible to properly check its position. I noticed that the feed is not correctly aligned with the dish axis leading to some squint. When checking sun noise, the maximum of noise is slightly off centered compared with the shadow of the horn on the bottom of the dish. I am also hampered by QRM from the local military air base radar, which is operating on 1290 using some kind of broad band pulse modulation. My next task will be to assemble the power stages for the TX part and put the assembly up in the tower just below the dish. I will use the call sign F5SE/P instead of F5SE as my home station is located in Reims (JN29af) and the big dish is in JN19xh. As it is in different grid, QSOs with it will count as initials even for those who may have worked me from Reims.

G3LTF: Peter g3ltf@btinternet.com had a very busy (and good) time on EME during May/June -- During the DUBUS 1296 EME Contest, I worked 58 stations despite a somewhat restricted window. Conditions seemed excellent with very little or slow libration fading. The stations that I CWNR'd were K5JWF and S59C. I also copied W7UPF, W9IIX, UT5JCW, RW6AG, PA3FXB working others, but did not hear calling CQ, so there was no chance to QSO them. I also heard bits of VA3TO's signal when he was QSOing K1RQG. If anyone called me with no reply, I would like to hear from them. On 20/21 June we had another excellent weekend of activity on 3.4 GHz with lots of interesting QSOs made and many new initial contacts. On 19 June I worked G3LQR and had a half QSO with G4RFR as they got their system together. I worked on 20 June OK1KIR, G3LQR, DF9QX, DL4MEA, G4RFR for initial #22 and VE6TA, and on 21 June OE9ERC, G4NNS, PA0BAT, K5GW #23, W5LUA, VE4MA and WW2R. I also ran a test with JA4BLC who copied my signals on a horn and receiver mounted inside his 23 cm feed on his 6m dish! I was sorry to miss OK1CA and LX1DB on 20 June when we were away from home. My equipment on 9 cm is a 0.375 f/d 6m dish with circular septum feed with super VE4MA choke, W5LUA ATF36077 0.58 dB NF LNA and 25 W at feed. Sun noise is 14.4 dB with SF of 68 and moon noise is 0.9 dB. As happened last year, we had a follow up of activity in the following week. On 25 June I worked G4NNS, G3LQR, OZ6OL and VE4MA. Then it was into the EOA weekend. All the following QSOs were on 23 cm SSB unless otherwise noted. I QSO'd on 26 June VK3UM, VK5MC, JA4BLC, LX1DB CW, W1M, KR6R Stanford dish for initial #303, OE9ERC, W4OP, K8EB CW #304, N6MB and W6TAI (Stanford again), and on 27 June VK3UM, HB9MOON, DF3RU, PI9CAM, SP6JLW, CT1DMK, RK3WWF CW, W1M CW, SM2CEW, LX1WB, VE6TA, KØC, W2LTI, F2TU. The loudest signal on SSB was LX1DB. I had about 400 W at the feed and was using the speech processor. I also had a very interesting half CW QSO with SM6CSO who was using 70 W to a 2.3 m dish and whose signal was about equal to noise in 50-60 Hz. He hopes to be on soon with a much bigger signal. Finally on 28 June I worked PY2BS on SSB for #305. The Stanford gang certainly generated a lot of good publicity for our hobby and encouragement for youngsters to get involved with science and engineering - well done all. It was particularly nice for me to work them as my first QSO with that dish was on 25 Sept 1965 on 432. I made a few improvements to the dish profile, which seem to have had a good effect on 9 cm. So, I am now planning to test the centre 4 m on 6 cm with a feed designed for a 0.5 f/d. I am also continuing work on the mount for the solid 2.4 m dish which will work on 6 and 3 cm. It is a pity that there is not more activity on 9 cm from N America. I wonder what can be done to improve that situation.

G4NNS: Brian brian-coleman@tiscali.co.uk proposes a 5.7 GHz AW -- Following the very successful 3.4 GHz AW organized by G3LTF, is anyone

interested in a 5.7 GHz AW? Possible dates include 15/16 Aug and 13/14 Sept. Or are there any other suggestions? If you're interested please email me. On 5,7 GHz, I am running a 3.7 m dish and 25 W from IO91ff.

G4RFR: John (G0API) jfell@tesco.net reports his club, Flight Refueling ARS is now QRV on 3.4 GHz from IO90as -- 4 weeks ago we did not have an EME system for 3.4 GHz, but thanks to inspiration/arrangements by G3LTF and help from G4NNS, we were able to do test the day before the 3.4 GHz AW. G4RFR has not been QRV since 1994 when we mounted a 3.4 m dish with 0.43 f/d on an AZ/EL mount and made the first ever inter - G 10 GHz EME QSO with G3WDG. We also worked several others including WA7CJO and SM4DHN with good SSB from both. For the AW we converted for EME a terrestrial contest system, built by M0EYT and G0API. It consisted of a DEMI transverter driving a pair of Spect SSPAs (85 W) to Septum based circular waveguide horn feed with VE4MA choke. For RX we loaned a DJ9BV preamp that was mounted to an isolation relay on horn TX port. We also had an SDR-IQ with a 144/28 MHz converter or separate analogue diode noise meter. We initially measured 10 dB of Sun noise, but something degraded and later dropped to 8.7 dB. CW echoes were fine by ear and on screen. Since then we have found 0.2 db loss between RX port and first preamp. We worked on 19 June G3LTF (529/539), and on 20 June G4NNS (O/O), G3LTF (539/559), OK1KIR (539/449), W5LUA (O/O) and ? (539/559). We did hear other stations calling but never got the calls. QRM around 3400.100 was a problem. This is why we had to operate at 3400.450, which was mainly clear. We will QSL all stations worked. Ops were M0EYT, G0API, G3YGF, G4JNT, G3PFM and several other club members.

HB9BBD: Dominique dfaessler@bluewin.ch reports on his May activity -- On 22 May on 1296 I worked LZ2US on CW and SSB for initial #293. The next day while checking out my system to act as beacon for MI/DL1YMK dxpedition, I heard a weak signal. DL3EBJ came back to make his first EME QSO ever (569/589) for my initial #294. At 1210 I had an easy QSO with MI/DL1YMK (569/579) #295.

HB9MOON: Christoph (HB9HAL) hb9hal@hb9gr.ch on his club's EOA activity -- First many TNX to all who helped us by talking to our non radio amateur visitors and children. Special Thanks to VK3UM, who had to answer many questions about the crocodile in his shack. More than 300 visitors, many families, Swiss Television and news journalists joined our science outreach party. We also had ON4BCB on board, many Swiss radio amateurs and the youngest HB YL too. 45 Children took their turn to send a short message to the Moon. And a few did a great job and learned very quickly how we communicate. Who knows maybe one of them may be a Ham one day. Swiss Television ran their report on EOA from HB9MOON on Monday evening during Primetime! It was an unforgettable event for us!

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp writes -- Even though there is no spectrum allocation on 9 cm in Japan, I ran an SWL sked with G3LTF on 21 June. G3LTF was copied (449) very easily and OE9ERC (339) working G3LTF after the test. My system was a DEM 3456 - 144 transverter and homebrew 88 - 28 MHz converter with a square septum horn for an f/d of 0.5. My 6 m dish produced 9 dB of sunnoise. I had no preamp and the converter NF is 2.5 dB. On 30 May I worked on 23 cm, K1RQG, K5JL, JA6AHB, KØYW, VE6TA, VK3UM, JA6CZD, VA7MM, OH2DG, UT5JCW, OK1CA, RK3WWF, ES5PC, JA8ERE, OZ4MM, F2TU, IK3COJ, OK1KIR, LZ2US, SP6JLW, SV3AAF, SD3F, DL4MEA, IW2FZR, MI/DL1YMK, ON7UN, HB9SV and HB9MOON. I was no QRV on Sun because of travel.

JA6AHB: Toshio ja6ahb@plala.to reports a 23 cm distance miles stone. On 26 June at 1304 he succeeded in making a long path EME QSO of 18,853 km with PY2BS (O/O) for a second time. This time the QSO was on CW. The first QSO was on JT65c.

KØYW: Bruce k0yw@frontier.net was QRV on 23 cm in May/June. During the 23/24 June AW, his QSOs included MI/DL1YMK, HB9HAL, K5JL, LZ2US, K1RQG, VE6TA, DL3EBJ and SP6JLW. He also CWNR W9IIX. During the contest weekend on 30/31 May, Bruce worked 15 the first night. He also had a 4 way SSB QSO with K5SO, K1RQG and K5JL.

K1RQG: Joe k1rqg@aol.com was active during on both 70 and 23 cm in May/June and playing a key part in the EOA activity -- I worked on 23 May on 23 cm HB9IZ/HB9MOON, LZ2US on CW and SSB, KØYW, NOØY and G3LTF. I heard K2DH. I put the 70 cm feed in for MI/DL1YMK and worked Michael after most of the dust had settled from the Eur stations. There was lots of activity on the band. It rained most of the day, but just at dark, I changed the feed back to 23 cm for my west window and had a lot of fun. I do want to apologize to VA3TO for the QRM on his frequency. He was calling CQ; I answered him for another random CW contact with Hugh. He had an excellent

signal, and then a number of stations called me as we finished. I did work two of them, but then moved off frequency. During the 30/31 May activity weekend, I made many contacts on 23 cm in the contest. In the beginning of June, I had an excellent 4-way SSB QSO on 1296 with K5JL, K5SO and K0YW. On 20 June, I was again on the Moon on 23 cm and worked SP7DCS, K2DH on CW and SSB. We were joined by W7BBM to make it a 3-way. We had a great SSB roundtable as practice for the EOA weekend the EOA weekend, which produced even more SSB activity and much fun.

K2DH: Dave k2dh@frontiernet.net was active on 1296 and worked on 23/24 May RK3WWF, LZ2US and MI/DL1YMK. Dave heard HB9IZ and VE3KRP. He was also QRV but only for a limited time during the DUBUS Contest weekend, 30/31 May, because of a conflict with a local hamfest, and during the EOA celebration.

K5JL: Jay k5jl@hughes.net was QRV on 23 cm in May/June. He worked during the 23/24 May AW on 1296 K2DH, MI/DL1YMK and CWNR W9IIX. He was also active for the DUBUS Contest week and later had some fun on 23 cm EME with 4 way SSB round table with K5SO, K1RQG and K0YW, and during the EOA activities.

K5SO: Joe k5so@valornet.com was on 23 cm for the DUBUS Contest and worked about 18 stations the first day. In June he had a 4 way SSB contact with K1RQG, K5JL and K0YW, and was on for the EOA celebration during which Joe relayed an interview with Astronaut Bill Anders to the SRI dish. In early May, Joe was away on a European trip.

K6JEY: Doug doughhelen@moonlink.net reports that he has scaled back his 70 cm up activity and operating on 2 m EME while he and Rein (W6SZ) refine their 23 cm dish feed system. Doug asks if anyone has run an antenna range plot on a septum feed? [There are lots of examples – search the Internet]. They did not participate in EOA as originally planned, but Doug did take a group of students on a tour of the OVRO dish. He says OVRO is doing some very interesting work with SDR radios that might be of interest. Most of this material can be found at http://www.ovro.caltech.edu/~dwh/correlator/pdf/ESC-446Paper_Hawkins.pdf.

K8EB: Erv mrdxcc@sbcglobal.net sends news that he now has the UHI dish back up. He still has work to complete, but during the 23 cm contest weekend was able to make some temporary connections on the RX and do a quick alignment. Erv heard 6 stations right away including K1RQG with a nice signal. Three were on CW and 3 on digi. Even WW2R with a 3 m dish was real easy copy. Erv hopes to be QRV very soon.

LA9NEA: Viggo la9nea@online.no was QRV for the 1296 leg of the DUBUS Contest – I only had a short operating time period, but everything worked fine. I QSO'd K5JL (569/549), HB9MOON (559/559), K0YW (549/559), G3LTF (549/439), OZ4MM (559/449), SP6JLW (549/449), OK1CA (559/549), F2TU (559/549), ON4BCB (539/529) and WA6PY (O/O). [Viggo was also active on 13 cm, but I do not have his report].

LX1DB: Willie wbauer@pt.lu conducted test of different feeds for 9 cm in 10 m dish. He first tried a square septum feed (normal feed) and measured 15.5 dB of Sun noise, then a round feed with Chaparrell ring and got 15.0 dB, finally a W2IMU feed read 16.2 dB. He also tried a 3 m dish with the round septum feed with Chaparrell ring and measured 10.5 dB. The big dish is 10x10 mm mesh of 0.3 mm dia. wire. Its f/d 0.45. The f/d of the 3 m is 0.3. Willie (and his daughter LX1WB) were QRV on SSB for the EOA activities. During the first part they QSO'd VK3UM and SM6FHZ on SSB and heard VK5MC on CW, but had to QRT because of thunderstorms.

MI/DL1YMK: Michael DL1YMK@aol.com sends the following report on his very successful 2009 dxpedition – The M & M team was on the road again; this year's destination was Northern Ireland, which never before been QRV on microwave moonbounce. The event took place from 24 May to 2 June. When we arrived on the evening 23 May after a 2 days trip by car and ferryboat. The site was inspected immediately and the skeleton of our 4 m stressed dish was completed in the night by the shine of a strong lamp. Very quickly it became clear to us that the location of our holiday home was far from being ideal for moonbouncing! Early morning on Sunday, 24 May, we installed the mesh panels and were operational on 23 cm by noontime. We knew that we had to compensate the limited moon window of the site by increased activity – we tried our best! On the first shot, we worked 20 stations, all random, including K1RQG on SSB. In the following days all bands from 70 cm up to 9 cm were activated, the higher bands, especially 9 cm, were difficult. During some of the operating time, the winds were so vigorous that we could not track the moon. Because of the very narrow beamwidth of the dish at 3.4 GHz, we had to cease operation and tie down the dish. The Irish weather showed all its capabilities, as already

experienced in EI during the 2005 dxpedition. HB9BBD, LX1DB, OK1CA and G3LTF once more served as beacons for us - TNX for this invaluable help. A highlight surely was the 70 cm and 23 cm QSOs with VK3UM, where our window was so short that one third of the dish was obstructed by the corner of the house. When the 70 cm and up part of the dxpedition was over on 3 June, we tried some 2 m MS and EME. Our 2 m EME QSOs allowed us to achieve the world's first ever 5 band moonbounce dxpedition. We worked the following initials on 70 cm: on 29 May VK3UM (549/559), UA3PTW (O/O), OH2DG (O/O), DL9KR (559/559), G3LTF (559/449), DK3WG (O/O), OK1KIR (O/M), FR5DN (O/O), I1NDP (O/O), PA3CSG (559/449), HB9Q (569/559), SP6JLW (O/O), OZ4MM (559/549), F2TU (O/O), DF3RU (O/O), K1RQG (559/559) and SM2CEW (559/549), and on 2 June DL7APV (579/449), LX1DB (O/O) and G4YTL (O/O). Initials on 23 cm were: on 24 May HB9BBD (579/569), PA3CSG (569/559), K5JL (569/559), SP6JLW (559/559), K1RQG (579/569 and 55/54), W7BBM (559/559), VE6TA (559/559), W5LUA (559/559), K0YW (569/559), OZ4MM (569/569), DF3RU (559/559), K2DH (559/549), DJ9YW (559/559), HB9Q (579/559), SM2CEW (549/559), ES5PC (559/559), OE9ERC (579/569), WW2R (559/539), OE9ERC (56/55) on SSB and G3LTF (559/559), on 25 May VK3UM (559/559), JA4BLC (559/449), SP7DCS (549/549), IK3COJ (559/549), OE5JFL (549/559), LX1DB (56/56) on SSB, ES6RQ (559/559), SM3AKW (559/559), UT5JCW (O/O), SV3AAF (559/559), IZ1BPN (559/559), PA3FXB (539/O), K2UYH (559/569), N2UO (O/O), OZ6OL (559/549), LA9NEA (539/549), F2TU (569/569), K5PJR (O/O), DL4MEA (559/559), WA6PY (569/559), WA5WCP (O/O) and AL7RT (449/RO), on 28 May OH2DG (559/559), PA0BAT (O/O), RW3BP (549/559), OK3RM (M/O), G4DDK (O/O), LZ1DX (O/O), PY2BS (O/O), VE7BBG (O/O), on 30 May OK1CA (559/559), ON4BCB (559/539), OK1KIR (549/559), JA6AHB (549/549), SM6FHZ (559/559), PI9CAM (579/579), HB9MOON (569/559), HB9SV (579/569), LZ2US (559/559), G3LQR (549/549), ON7UN (569/569), ON5RR (O/M), RK3WWF (O/O), GW3XYW (449/339), OK1DFC (579/559), RA3AQ (539/539) and K5SO (579/559), on 31 May IQ4DF (O/519), DL1HYZ (O/O), IW2FZR (O/O), and on 2 June RD3DA (O/O) and PA3DZL (O/O). Initials on 13 cm were: on 26 May LX1DB (559/559), OK1CA (559/559), OZ4MM (559/449), F2TU (559/559), G3LTF (559/559), G4CCH (559/559), OK1KIR (559/559), SV3AAF (539/549), SM3AKW (559/559), ES5PC (569/559), G4DDK (O/O), PA0BAT (O/O), OE9ERC (569/569), DF9QX (549/O), OH2DG (559/559), OE9ERC (55/55), HB9Q (569/559), W5LUA (559/559), W7BBM (559/559), DL4MEA (5459/559), WA6PY (559/559), WW2R (O/O), N2NQI (O/O) and SM2CEW (549/549) - through the shrubs, and on 1 June PA3CSG (M/M) and OK1DFC (559/569). Initials on 9 cm were: on 27 May LX1DB (O/549), G3LTF (O/O), OK1KIR (O/O), OE9ERC (O/549), W5LUA (O/O), F2TU (O/O) and WW2R (O/M). Six initials were also made on 2 m EME. A total of 174 moonbounce QSOs on 5 bands was reached, 132 initials were worked from 35 DXCCs, 67 of these on 23 cm alone. During the DUBUS 23 cm EME Contest a respectable 46 QSOs were completed. Look for our next moonbounce trip on the first 2 weekends of Oct and the week in between. It will be a hit-and-run operation from another rare DXCC in Europe.



MI/DL1YMK – Michael changing feeds

NA4N: Greg na4n@hughes.net discusses his experiences during the DUBUS Contest -- I had tree problems on moonrise with the lower declination. Signals were totally blocked at moonrise on the second day. Once I was clear of the trees, I was fine. I used my SDR-IQ for the first time on the moon and was surprised to see some stations at as high in frequency as .080. OE9ERC was at .071 and I think a German station was on digital at about .090. The strongest

stations on the band at this location were K5JL and K5SO, both (599). K2UYH was a lot stronger this time around too. I found it interesting that VK3UM was calling CQ for a long time without any response. I missed quite a few stations. I guess I need a bigger dish. So, I'm looking around for a 14 or 15 footer. Hopefully I'll find one soon. Thanks to all the stations I did work.

OK1CA: Franta strijavka@upcmail.cz sends hello to the 9 cm group -- I was QRV only 4 hours during the June AW. I worked G4RFR for an initial (#), G4NNS, OE9ERC (#), VE6TA, W5LUA, PA0BAT, OK1KIR, LX/F2TU (#), DL4MEA, K5GW (#) and WW2R. I also heard VE4MA but missed G3LTF.

OK1DFC: Zdenek ok1dfc@seznam.cz participated in the DUBUS CW EME contest on 1296 -- Conditions were good with very low librations. I worked 4 initials and thanks to DL1YMK also DXCC #61. I was very surprised with the high activity. I am sorry to say that my result was affected by very bad WX in OK. WX was so bad that I was not too able to be QRV the whole time. Here is list of worked stations: DL3EBJ for CW initial #252, ON7UN, PI9CAM, UT5JCV, RK3WWF, DF3RU, RW6AG, SM6FHZ #253, LZ2US #254, F2TU, OH2DG, SD3F, MI/DL1YMK #255 and DXCC 61, NA4N, SV3AAF, SP6JLW, SP7DCS, HB9SV, HB9MOON, IK3COJ, K5JL, LZ1DX, SM3JQU, K2UYH, OZ4MM, N2UO, G4DDK, ON58R, PA3FXB, G3LTF, VE6TA, OK1KIR, K1RQG, ES5PC, ON4BCB, K0YW, VA7MM, VK3UM, RA3AQ, JA6AHB, JA8IAD, JA8ERE, JA4LJB, OK3RM, JA6CZD, OE5JFL, F5JWF, LZ1DX, DL4MEA, IQ4DF, MI/DL1YMK, IK2MMB, G3LQR, IW2FZR, LZ2US, PA3DZL, LX1DB (59) on SSB, GW3XYW, K2DH, OK2KJT, W9IIX, LA9NEA and W7UPF. I also worked in ARI Digital EME Contest on JT65c PY2BS (6DB) - very strong, S50C JT initial {#65}, PA3FXB, RD3DA, UT3LL, W7UPF, RA6DA {#66}, RA0ACM {#67}, EA3XU, JH1IGC {#68}, OK3RM {#69}, PI9CAM {#70} and RW6AG. Thanks to all for the nice QSOs. I am now looking forward to working as many of you as possible during my expedition to E7 in July.

OK1KIR: Jan ok1vao@post.cz reports on his club's EME activity during May/June -- We were active on 13 cm and worked on 26 May at 0915 MI/DL1YMK (559/559) for initial #84 and DXCC 33, 1044 OE9ERC (579/569) and 1033 G4DDK #85. On 9 cm we QSO'd on 27 May at 1045 OZ6OL (549/549), 1222 LX1DB (569/569), 1443 MI/DL1YMK partial, 1515 DF9QX (559/559), 1529 OE9ERC (579/569) for initial #19, DXCC 13 and the 1st OE - OK 9 cm QSO, 1540 G3LQR (549/559) and 1628 MI/DL1YMK (O/O) #20, DXCC 14 and the 1st GI - OK 9 cm QSO. Heard were DL4MEA, OK1CA, PA0BAT and W5LUA. During the 9 cm AW we worked on 20 June at 0639 G3LTF (559/569), 0954 LX1DB (569/569), 1016 G4RFR (449/559) #21, 1040 G3LQR (549/559), 1050 DL4MEA (559/559), 1115 G4NNS (549/539), 1122 K5GW (579/569) #22, 1155 LX/F2TU (559/559), 0115 VE6TA (O/O), 1231 OK1CA (559/559), 1254 W5LUA (569/569), 1359 WW2R (O/O) #23 and 1431 OE9ERC (569/569). On 21 June we QSO'd at 0829 PA0BAT (549/559) and 1425 VE4MA (439/549). During the 1296 leg of the EU EME Contest we made 52 CW QSOs and had initials with RK3WWF, MI/DL1YMK for DXCC 54, LZ1DX, LZ2US, OK3RM, DL3EBJ and G4DDK to bring us to initial #277. In ARI Digital Contest we made 8 QSOs and had JT initials with JA1WQF, JH1IGC, PA3DZL, YL3AG, G4DDK and RW6AG to bring us to JT initial {#41}.

OK1TEH: Matej ok1tehlist@seznam.cz is looking for South America on 70 cm EME -- On 29 May I worked my 5th continent for WAC on 70 cm. I QSO'd FR5DN on JT65b. Phil peaked at -23 dB. During the sked, Phil sent via Moon that UA4AQL was causing QRM. I sent via Internet to UA4AQL to QRX until we finished the sked, and we made it. My TNX to Phil and his patience! Now I'm looking for anybody from South America to complete my dream of 70 cm WAC with single yagi. I am of course interested in other 70 cm CW and JT skeds as well.

ON4BCB: Walter walter.crauwels@skynet.be reports on his 1296 DUBUS activity -- I was quite stressed trying to get everything operational for the contest, and ended up starting two hours late. I had problems with my cavity PA -- TNX ON7UN for the help. When checking sun noise two days before the contest, I then noticed a problem with the elevation motor. I had to repair it as a result of a failure in the elevation stow limit switch, which caused the motor's brushes to be burned -- TNX ON5OT his assistance. Then it was time to for the contest and some really nice activity. I worked on Saturday VK3UM (559/569), MI/DL1YMK (539/559), HB9SV (579/579), OK1CA (559/589), SV3AAV (545/569), SP6JLW (559/579), JA6CZD (559/569), G3LTF (569/579), OZ4MM (579/579), F2TU (569/579), OH2DG (559/569), DF3RU (559/559), F5JWF (539/579), ES5PC (549/559), HB9MOON (569/579), OK3RM (559/559), GW3XYW (539/559), K1RQG (559/579), K5JL (579/599), OK1KIR (559/589), IQ4DF (559/539), UT5JCV (539/559), DL3EBJ (539/569), LZ2US (559/469), NA4N (539/569), PA3FXB (519/559), SD3F (539/559), NY2Z (529/569), K0YW (559/589),

WA6PY (559/559), K2UYH (559/579), VE6TA (549/569), LA9NEA (529/559), OK1DFC (559/589), and on Sunday IK3COJ (559/559), RA3AQ (559/559), OE5JFL (539/569), SP7DCS (559/569), JA6AHB (559/599), DL4MEA (569/569) and LZ1DX (539/559), then some time for a long BBQ, and finally IW2FZR 559/559, DL1HYZ (539/569), IK2MMB (559/569), G3LQR (539/579), N2UO (529/559), VE4MA (539/559), LA8LF (529/559), K5PJR (529/559), K2DH (549/569) and F6CGJ (579/579) for a total of 51 QSOs and four Italians. I missed G4CCH, JA6BLC -- due to my delayed start, PI9CAM, PA3CSG, ON7UN, SM6FHZ and a few others. I used my 4.8 m dish and a round septum feed.

OZ4MM: Sig vestergaard@os.dk sends news on his recent activity -- The absolute highlight was the M&M expedition to MI. Back in April I added on 23 cm 5N0EME on CW TNX to Bodo. Also RW6AG was worked with a great signal on CW. On 24 May I worked MI/DL1YMK on 1296 random for DXCC #63 and PY2BS on SSB. Mikael was also worked on 26 May on 13 cm for initial #85 and DXCC 31 and on the 29 on 70 cm for initial #316 and DXCC 58 just between some very bad thunderstorms. During the DUBUS 1296 EME CW contest I put 67 stations in the log. Initials were LZ2US - great signal, DL3EBJ, IZ2DJP, S50C, JA4HZN, VA3TO and WA8RJF to bring me to initial #331 on CW. Because of low declination I had some tree blockage on Sunday. This was the reason I gave up and didn't operate full time during the weekend. Stations heard were PA3FXB, W9IIX - partial, N2UO, WW2R, F6CGJ and OK2KJT. On 20 June worked on 1296 UT3LL and heard UT5JCV. I also heard 5N0EME working JT65, but signals dropped by the time my PA was warmed up! On 21 June QSO'd on 1296 K2DH and VE3KRG for initial #332. I also ran a sked on 432 with KA7V for an initial and worked G4YTL on random. Signals were good, but activity poor. I will miss the 70 cm ATP, as I will be in France then. This travel will also prevent me from joining the EOA celebration. I am planning some changes to the shape of the dish after the holiday. My new elevation system is now working OK, but I still have some problems with RFI noise from the frequency inverters for the 3 phase motors for AZ and EL.

OZ6OL: Hans oz6ol@mail.dk writes about Murphy -- The day before my 3400 sked with MI/DL1YMK bad weather with heavy rain and thunder killed my 9 cm transceiver. I had no TX output, although the RX was OK. I took the transceiver down from the dish in the night and went to bed at 3 am. In the morning I found a burned trace from the PA output transistor (drain) to ground. I cleaned the PC board and re-soldered the drain lead to the stripline. The transistor was still alive! One hour before the sked I was QRV again. I called at sked time, but nil from YMK. Later I worked OK1KIR, G3LTF and OE9ERC (new). I had to park the dish twice because the wind was so strong. It was not easy to keep the dish on the moon as my azimuth drive is not stable enough in strong winds. I also heard OK1CA and DF9QX - TNX for the fun.

PA3DZL: Jac pa3dzl@planet.nl writes on 13 cm and the 23 cm part of the DUBUS Contest and ARI Digi Contest -- Before the contest on 25 May, I worked G4CCH on 13 cm using JT65c for my initial #4 best (26DB/O) with my 2.5 m dish, about 150 W at the feed and a 0.75 dB NF Preamp. I need to make some improvements to my 13 cm rig. On 28 May I changed the feed and became QRV on 23 cm again, and worked on 29 May PI9CAM (14 dB/O) on JT65c for an initial (#) and then on CW (O/559) and VE7BBG (24DB/O) on JT65c (#). In the DUBUS Contest on CW, I QSO'd on 30 May OK1DFC, HB9SV, F2TU, OK1CA, ON4BCB, IQ4DF, K0YW, K1RQG, OZ4MM, VE6TA, K2UYH, G3LTF and WA6PY, and on 31 May OZ4MM (449), OK1DFC (559), F2TU (559), HB9SV (559), K5SO, VK3UM, SP6JLW, K5JL, LZ2US, K2DH and OK1KIR. I was not QRV on JT on 30 May, but worked in the ARI Contest using JT65c on 31 May PA3CSG (16DB/O), RA3DA (21DB/O), HB9Q (12DB/O), OE9ERC (14DB/O), ES6RQ (17DB/O) (#), OK1KIR (19DB/O), PI9CAM (16DB/O) and PY2BS (O/O) (#) and new DXCC. On 1296 I used a 2.5 m dish, about 125 W at the feed, and a 0.4 dB NF preamp.



RA0ACM's single yagi used on 23 cm EME aimed a Moon

RA0ACM: Sergey ra0acm@yandex.ru in NO76 is QRV on 23 cm using a single 49 el yagi, 75 W from 2 x RA18H1213G SSPA, G4DDK LNA, DB6NT transverter/TS-2000 and rubidium standard 10 MHz frequency standard. During the ARI Digital EME Contest he worked OK1DFC (22DB/26DB) on JT65c. Sergey working on improving his station and will be soon on with a bigger signal.

RD3DA: Yuri rd3da@list.ru was active during EOA celebration on SSB and JT -- I was able to work with my modest equipment on 27 June PI9CAM (59/55) on SSB and WD1V (O/O) on JT65C. Heard loudly on SSB were PY2BS, W5J, G3LTF and HB9MOON. I added on 28 June OE9ERC (59/55) on SSB and W1M (55/44) on SSB. Many other stations were copied JT. I get only 120 W output in the SSB mode but on JT and CW, I see 250 W. I do not understand the reason. [Is this on peak or average?]

SK6OSO: The West Coast Microwave Group of Sweden will make use of the 25.6 m dish at the Onsala Space Observatory just south of Gothenburg (JO57xj) for 23 cm EME on July 18/19. The call will be SK6OSO and activity is planned for two complete moon passes. The antenna is polar mounted and can track down to the horizon. Further information can be found at www.sk6vh.org. They will be looking for well equipped terrestrial 23 cm stations as well as EME regulars. As at horizon time for a particular location is time limited, they strongly urge small first time EME stations to set up for elevation in order to track the moon. SK6OSO will use circular polarization and recommends marginal stations use circular polarization in order to optimize the link budget. They will use both CW and SSB, but no digital modes. Group leaders are SM6CKU and SM6FHZ.

SM2CEW: Peter sm2cew@telia.com comments on his May/June activity -- TNX for the excellent created by Michael and Monica as MI/DL1YMK. They sure attracted plenty of activity. I had the pleasure to work them on 3 bands, 432, 1296 and 2320. During the DUBUS/REF EU Contest on 1296, I worked G3LTF, K5JL, OK3RM, OK1CA, OZ4MM, SP6JLW, DF3RU, K1RQG, SP7DCS, MI/DL1YMK, LZ2US, F2TU and N2UO. I could not be QRV much as I would have liked as there were very strong winds that weekend that sometimes prevented us of my dish. I also came on for the EME Fun Event aka EOA and worked on 23 cm on 26 June W6TE/K6MYC at the Stanford dish, K5PJR and W5J, on 27 June PI9CAM, W1M, G3LTF, SP6JLW, LX1DB, OE9ERC, K0C, W5J and F2TU - all on SSB. I have never had so many SSB EME QSOs before, mainly because my TX-chain had been set up for class C operation. I have now altered it so that I can come on SSB when needed. Even though we are not allowed to TX on 9 cm in SM, I have been following the reports of recent activities on this band closely - well done! It is all very inspiring. Hopefully we'll be granted access to 3400 in the future.



SP7DCS showing his son SP7MC the new 500 W dish mounted 23 cm SSPA

SP7DCS: Chris sp7dcs@o2.pl reports on his DUBUS Contest operation -- This year I participated on 3 bands: 2 m, 70 cm and 23 cm with my son SP7MC. We made a multi operator effort. I was going also to participate on 13 cm for the first time, but unfortunately I had not enough time to complete my setup for this band. As always I had a lot of maintenance work to do on the station after winter. I also completed a new SSPA for 23 cm based on 10 x BLV958s just 2 days before contest. I did not manage to complete driver PA. I wanted to initially test it safely, so I was running it at reduced power, only 300 -- 350 W. The PA was mounted behind the dish and worked FB. I plan to run full power next time. Because of the low declination my Moon window was often 30% blocked by buildings. This really affected my performance. On 23 cm, I logged

on 30 May VK3UM, OH2DG, OZ4MM, OK1KIR, F2TU, SV3AAF, SP6JLW, ES5PC, DL4MEA, G3LTF, HB9MOON, OK1CA, PI9CAM, LZ2US for an initial (#), IW2FZR, MI/DL1YMK (#), HB9SV, DF3RU, IQ4DF, OK1DFC, K5JL, K5SO, K2UYH, SM2CEW, K1RQG, K0YW (#), VE6TA and WA6PY, and on 31 May JA8ERE (#), JA6AHB (#), RA3AQ, SD3F, RK3WWF (#), ON4BCB, SM6FHZ, IK2MMB, GW3XYW, DL3EBJ (#), G3LQR (#), IK3COJ (#), K2DH (#) and LA9NEA. I heard more stations that I could work, but they were not calling CQ and not answering my CQs. All in all it was a great contest. I am really satisfied with our result. Overall I worked on 2 m -- 35 QSOs with 16 x 8 el yagis and GS35b, on 70 cm -- 15 QSOs with 4 x 25 el yagis and 400 W, and on 23 cm -- 42 QSOs with a 3 m dish and 300 W. These results show that a 3 m dish is more QSO productive on 23 cm than a 16 yagi array on 2 m.

SV1BTR: Jimmy jimmyv@hol.gr writes -- It is with great pleasure that I returned to CW EME after 13 months of absence. This mode is magical indeed! On 70 cm I have taken down my 24xpol yagi array put up a new antenna system. The new array is coax fed with 12 x 15 el yagis in H pol and 12 x 15 el yagis in V pol. The yagis are 10% under stacked in both E+H planes for lower side lobes and work very well. The pattern is excellent, but I am short by 1.5 dB in Sun noise from my calculations/expectations for H pol and 3.5 dB in V pol. I believe this difference is because of wide band telemetry/QRN type of noise which does not allow me to have as a quiet reference point. The noise is wideband peaking at S9 on 432.022. A noise blanker help reduce it, but it is still a big problem for EME work. I have located the house where the QRM is coming from after taking 40 directional measurements. It is 1 km away. I am looking for the owner who is using it presumably in farming and hope that he will be understanding. I am confident that when this QRM clears, my RX will be considerably better. I am also having problems with my PA. I tested 3 different tubes and recovered the 2.3 dB out of the missing 3.5 dB. I was QRV for the June 70 cm CW ATP and worked 6 stations: I1NDP (559/559), VK3UM (569/569), DL5FN (539/569), DG1KJG (539/539), UA3PTW (559/569) and DF3RU (O/O). For 23/13 cm, I replaced my 12' dish with a new 16' dish and hope to be QRV on 19 July on 23 cm and on 26 July on 13 cm. I have 3 dB and 4+ dB of TX line loss respectively, as my dish is located far away.



SV1BTR's new 16' dish for 23 and 13 cm

SV3AAF: Petros sv3aaf@yahoo.com was QRV during the 23 cm leg of the DUBUS Contest -- Thanks to the contest, good traffic showed up on 23 cm during the end of May AW. Due to low declination on the first day's eastern window, I had to operate with half the dish obstructed by the house; nevertheless, I worked the most stations this way. On the second day there was no eastern window for me and I only worked to the west. I was glad to QSO the MI/DL1YMK expedition. They certainly livened up the contest once more. I also QSO'd a few times on CW and SSB my good friend LZ2US. He was participating for the first time. Overall I worked a total of 40 stations. Initials were with RK3WWF, K0YW, DL3EBW, NY2Z [same as W2DRZ], LZ1DX, F5JWF and G3LQR.

VA3TO: Hugh hughd@cogeco.ca had limited operating time but enjoyed the 2009 23 cm DUBUS/REF Contest -- I was QRV for 2 hours on 30 May and the final 4 hours on the 31 May, but missed the Saturday window due to a wedding. I worked 4 stations on CW, 3 of which were initials: K1RQG #4, K5JL #5, OE9ERC #6 and OZ4MM #7. I had near misses with K0YW and F2TU. Both sent QRZ/YYY replies. I guess my 2.3 m dish and 75 W wasn't quite cutting it. At times the band sounded like 20 m with lots of audible CW signals peaking

out of the noise... it was fabulous! When I wasn't calling CQ, I was trying to pick out callsigns of other stations who were calling. I had a good time and it was an excellent opportunity to add more entries to the log. Also added to my JT65c log on 24 May a QSO with PY2BS for digital initial {#9} and new continent and on 31 May OE9ERC {#10}. Unfortunately I am now QRT for the summer. My dish has been dismantled so the family can have the use of our small backyard. My first kick at 23 cm EME has been fun and educational. I had my share of newbie setbacks including LNA oscillations, blown LNA/sequencing problems and off-frequency issues, all of which I eventually managed to overcome. Aiming the dish also proved to be problematic, which was for the most part is done manually/visually (many cycles of running back and forth between the basement and backyard). Despite the technical problems, the challenges of operating QRP and my limited view of the sky in a subdivision backyard, this has been a great experience. In total I logged 7 CW and 10 JT65C initials. You can view my log at www.va3to.com. I expect to be back in better form in Oct with 6 more dB on TX (300 W SSPA under construction, a better aiming system and plenty of enthusiasm. See you in the fall!

VA7MM: Mark lunarlink@hotmail.com sends his account of recent activity at VA7MM -- We operated on 1296 in the both the ARI "New Modes" and the European EME (DUBUS) CW/SSB Contests. In the ARI using JT65c we contacted HB9EFP, PY2BS, N9JIM, W7UPF for mixed initial #105*. In the Eur contest we QSO'd VK3UM, JA4BLC, OZ4MM, OK1CA, K5JL, K1RQG, OK1DFC, OK1KIR, WA6PY, VE6TA, JA6AHB, G3LTF and F2TU. To manage simultaneous operation in both contests, we deployed a second receiver to monitor the common digital frequency at 1296.065 MHz for activity while conducting our primary operation on CW in the lower part of the band. We found signals generally to be good, but our QSO count in both events was down from past years. Operators were Mark, VA7MM/VE7CMK and Toby, VE7CNF. Guests visiting included Dino, VE7XDT and May, VA7MAY.



VA7MM and VE7CNF on 23 cm during DUBUS Contest

VE2XX: Stuart (X-VE2FUT) stuart.truba@inukshuk.ca writes from FN25 -- After several year of absence, this year might be the year that I get back on 432 EME. I just purchased a complete EME array, 8 x 22 el FO yagis, complete with phasing lines and elevation. It may be a while before I'm QRV, but a first step has been made. I'm also working on a 7213 cavity with the help of VE2DEW. The cavity amp is being completely rebuilt and silver plated. As soon as I get the antennas up I should be able to use my RIW amp in the interim while the cavity is completed.

VE3KRP: Eddie eddie@tbaytel.net was active on 1296 during May/June. He worked on 23/24 May LZ2US for initial #51, HB9IZ/HB9MOON and N0OY #52. During the contest on 30/31 May he QSO'd K1RQG, K2DH and K5JL, and

on 21 June OZ4MM. During the first part of EOA, he worked KJ9U and VK3UM on SSB.

VE4MA: Barry ve4ma@shaw.ca was on 3400 during the 9 cm AW. Unfortunately the skeds were out of the mechanical limits of his dish mount, but he did work K5GW (579/559) and copied WW2R, VE6TA, OK1CA, F2TU, PA0BAT and others. On 25 June he added more 9 cm QSOs with OZ6OL, G3LQR, G4NNS and G3LTF. Barry planned to be QRV on 23 cm for EOA.

VE6TA: Grant ve6ta@clearwave.ca reports that conditions during the 9 cm AW appeared to be very good -- I heard and worked a number of new stations with very good signals off the Moon. I managed to work the following stations: OK1CA, OK1KIR, OE9ERC for an initial (#), G4NNS (#), K5GW (#), DL4MEA (#), PA0BAT (#) and G3LTF. The following stations were heard, but unfortunately not worked: G4RFR, WW2R, VE4MA, LX1DB and W5LUA. There may have been others that I forgot to jot down, but it was certainly the best activity period I have heard on the band to date. Later in June, I added OZ6OL, G3LQR, G4NNS and G3LTF. On the lower bands, I worked on 1296 during the 23/24 AW MI/DL1YMK. The previous week, I worked on 13 cm W7BBM for a new one. During the DUBUS contest I worked a bunch. I was out of country for 3 weeks in VK land, and had a great trip.

VK3UM: Doug tikaluna@bigpond.com played a key part in organizing the EOA SSB activity on 1296, here is his assessment of the "SSB Fun event" -- There was considerable excitement in the early stages of the planning of the 40th anniversary of the landing on the Moon with the possible activation of Honey Suckle Creek, Parks and other notable installations. The weekend of 26/28 June was originally chosen (it is a month earlier than the Apollo 11 landing) to allow the Honey Suckle dish to acquire the Moon. It is mechanically limited to elevations above 25 degrees and thus a weekend of low declination (high Moon in the Southern sky) was chosen. 0As the time approached it appeared that a lot of the plans were not going to happen so, as a supplementary activity, I proposed to the EME fraternity that we stage a *SSB Fun Net* to concentrate as much activity as we could muster and to support the event. It was hoped that children and other interested parties would be attracted to several of the larger stations to foster interest science and technology. 23 cm was chosen because the most EME SSB communications takes place on this band. The idea quickly became a reality and support was received from all quarters of the EME fraternity. It was agreed that we use 1296.025 as our net frequency and windows to suit North America (NA) to Oceania (OC), Oceania to Europe (EU) and Europe to North America were chosen to maximize the available Moon for each of the respective windows. It was also agreed that I (VK3UM) would act as net control for the NA > OC and OC > EU windows and Joe (K1RQG) would handle the EU > NA window. The main mode was to be SSB but smaller stations were encouraged to call on CW. Activity was for 26, 27 and 28 June and during the 3 daily windows on each day. The times worked out quite favorably and nobody needed to get up in the middle of the night as they fell in the late morning and early evenings. A slight negative was that the Moons' declination was lower than what the Northern Hemisphere operators prefer and varied from +13 degrees on the Friday to -1 on the Sunday. We in the Southern Hemisphere had a 'rare' chance to work EME with the Moon a lot higher in the sky than usual, but many of Northern guys found trees and other obstacles hindering their path. It was a resounding success! I had over 60 SSB QSO's alone via the Moon during the activity periods, something even 10 years ago would have been just a dream. The smallest station I worked (all totally random and only 2 were 'CW support' calls) was a 2½ meter dish and 50 W. I am running a 8.6 m dish and 500 W at the feed. (ACMA 750 watt high power permit for 23cms). I have deliberately under illuminated my dish providing a 15 dB edge taper to gain a lower noise temperature. Simply put, I hear darn well! The individual stations worked (most with relative ease at Q5 up to S8) are as follows: W5HN, W5LUA, N6NB, AA6EG, K2DH, W1O, (K6MYC was first heard operating the Stanford dish before handing to over to other members of the team), F2TU, OZ4MM, OZ6OL, JA4BLC, VK2JDS, G3LTF, VK5MC, SV3AAF, SP6JLW, HB9MOON, OH4DG, SM6FHZ, HB9US, HB9RJG, F2TU, LX1DB, G3LTF (again through his trees), G4CCH, SV3AAF, W1O, N0O, JA8ERE, W7BBM, VE3KRP, W5J, SP6JLW, OH2DG, SM6FHZ, HB9US, HB9RJG, LX1DB, G4CCH, W1M, VE6TA, KD5FDX, K0C, RK3WWF, ESSPC and DF9QX. Many of the calls may seem unfamiliar this is because there were many special events calls us by EME regulars. Many of the above stations were also worked each day and multi-way QSOs were had, which in itself was challenge to net and track with the Doppler shift. During all this I kept a sharp ear out for SV1BTR, who was checking out his new array on 70cm. He appeared at about 1144 and we had a brief CW (well strong enough for SSB but we did not have time) at (569). Earlier I worked UT2EG (569) on 70 cm. On 1296 I had a ¾ hour chat with HB9MOON. At HB9MOON end there were many school children and hams present including the youngest YL in HB... No we don't have any crocodiles at VK3UM, only Koalas, kangaroos, wombats (free to a good home) echidna and snakes (though I did not tell them that!). It

was a fascinating chat and you could tell how very excited the children were and how obsessed they are with our 'snappy handbags'. They also had TV coverage and all manner of dignitaries on site we learnt later. VK7MO did a similar thing using the University of Tasmania's 26 m dish. I greeted all the children present by their names (he told me via the phone as I'm not that good!) Rex tells me they were 'over the Moon' in hearing their names called off the Moon over a path of 750,000 km. Later we did similar demonstration with a TV crew at the site. I did not get the chance to chat with the Apollo 8 astronaut (Bill Anders) as the Stanford dish only came on once (on Friday) and did not appear in our other common windows. Well after all this activity, I was quite talked out. This SSB stuff is hard work. Long may CW reign! But it really was a fun weekend and provided the promotional opportunity for our unique facet of our wonderful hobby. It also served as a reminder to the brave pioneers that set foot on the Moon that is so far away that of 98% of the power leaving your antennae that actually hits the Moon only 6.5% of that power is reflected and then 98% of that is lost getting back. It's a moving target 0.5 degrees wide where the dish gain achievable at high microwave frequencies makes tracking a challenge in itself, but that's all another story!

VK4CDI: Phil moat@usq.edu.au has his 1296 EME system working well – I finally got a few contacts in the log on 23 cm. I worked N9JIM, HB9Q, VK2JDS and RD3DA over the ARI contest weekend. I also heard several CW stations - OK1DFC, VK3UM and others. I still have low power on TX but should resolve this problem before the EOA weekend. Recently I had a very nice visit from Grant, VE6TA and XYL.

VK5MC: Chris cskeer@seol.net.au participated in EOA activities -- It was a fun weekend. It was also my first AW with my new dish up and running and my new GS-15 PA in operation. I was very surprised at some of the reports that I received on 1296. I worked on 26 June OZ6OL (55/55) on SSB, VK3UM (55/55) on SSB, G3LTF (54/54) on SSB and JA4BLC (549/559). Heard OZ4MM, SV3AAF and ES5PC (at moon set). I worked on 27 June K2DH (569/449), W1O (O/O), W5JGE (549/559), W5J (57/56) on SSB, VE7BBG (O/O), IK3COJ (559/559), SP6JLW (569/559), OH2DG (569/559), JA8ERE (569/449), HB9MOON (55/55) on SSB - spent some time talking to some children at the Zurich end of the QSO, G4CCH (55/56) on SSB, SM6FHZ (559/449) and HB9SV (569/559), and on 28 June VE6TA (579/549), W1M (58/57) on SSB, K0C (57/56) on SSB, VK3UM (55/55) on SSB, W5J (579/559) and RK3WWF (559/449). I was not able to continue to moonset as the wind was gusting quite high and had to park the dish for safe keeping. I send QRZ quite a few times, not because the signals were weak but mainly because I and the rest of the visitors present were a little rusty on the CW. It can only improve. It's great to be back on EME once again.

W5HN: Al (W5LUA) reports that in support of EOA, W5HN was activated on 1296 EME -- Leroy, W5HN/W5AJG now a silent key was once a very active VHFer. Leroy provided my first 1296 terrestrial contact over 30 years ago. Leroy started on spark back in the twenties. I still have his spark transmitter. Leroy had also been active on 2.5 m and 5 m and wrote many articles on converting WWII radio equipment to VHF and microwave. After his passing, the North Texas Microwave Society acquired the call and it is in use daily broadcasting propagation beacons in the Dallas/Ft. Worth area on all frequencies from 6 m though 24 GHz. This evening, I activated W5HN from the QTH of W5LUA. The first station I worked on SSB was VK3UM. I went on to work the crew at SRI on SSB including K6MYC, N6NB, W6TE, and N6JMK. I then worked K2DH as W5LUA and then W5HN worked K2DH on SSB, followed by W5HN working W1O. W5HN then worked JA4BLC on CW and VE6TA on both CW and SSB. It was a fun evening. The station at W5HN/W5LUA is a 5 m dish and 1 kW output from a TH-327 in the shack. [This is just Al's report for the first day].

W5LUA: Al w5lua@sbcglobal.net had a nice time during the 9 cm AW -- I worked the following stations: G4RFR, LX1DB, G4NNS, OK1CA, OK1KIR, LX/F2TU, DL4MEA, K5GW, G3LQR, G3LTF, OE9ERC, VE6TA, PA0BAT, WW2R, and VE4MA for a total of 15. I am using a 5 m dish and a 200 W TWT in the shack. I used WR-229 out to the back of the dish and then half inch Helix to the feed. I also added on 1296 MI/DL1YMK and on 10 GHz RA3AQ for initial #69.

WA6PY: Paul pchominski@maxlinear.com activity report for May/June follows -- In May I QSO'd MI/DL1YMK on 23 and 13 cm with great signals. On 432, I heard Michael but very weak, almost equal on both polarization. My echoes were also kind of unstable and scattered. In the middle of the sked I decided to switch TX polarization to horizontal and this was mistake. I gave M report, but did not get any report from MI/DL1. Later after the sked Michael told me that he received my signal until the middle of the sked, and then I disappeared. Michael could not be QRV during second sked on 2 June. I had worked DL1YMK from his home QTH. Michael called me after my CQ, it was

an easy QSO. During the 23 cm European DUBUS Contest, I QSO'd RA3AQ, ON4BCB, F2TU, OK1KIR, K5JL, SP6JLW, DF3RU, K0YW, SP7DCS, OK1CA, G3LTF, OZ4MM, K2UYH, OK3RM, VE6TA, G4CCH, LA9NEA, K2DH, K1RQG, NY2Z, VA7MM, N9JIM, NA4N, OE5JFL, F6CGJ, VE4MA, ES5PC, LZ2US, K5PJR and MI/DL1YMK. LZ2US has big gun quality signal. Low Declination limits my window to Europe. On the first day, it was only 2 hours and 45 min and the second day 1 hour and 30 min. I could not get on VK/JA window due to the family commitments.

WA8RJF: Tony's TEmanuele@kentdisplays.com May contest report -- I was QRV for the 1296 DUBUS weekend, but got a very late start. At the conclusion of the 2.4 GHz DUBUS weekend, I unknowingly lowered my dish into its parking stand. At that time the damage appeared to be something less than severe, but further inspection on Saturday of the 1296 weekend revealed that the damage to the lower quadrant was much more severe than originally thought. So instead of mounting the feed on Saturday, I decided to completely removed the damaged quadrant and "reform" the damaged ribs, re-enforced the broken welds and flatten the bent-up mesh. My not quite 3 year old grandson was visiting and with his help, it took about 3X longer than planned but it was 10X more fun. Tree blockage prevented me from becoming QRV on Sunday until around 2200, but I did manage to work K1RQG, OZ4MM for an initial and K5JL. It was not until later that I realized that Stig was an initial since I had worked him on 2304 and had thought we had worked before on 1296. I heard several other stations and received the occasional QRZ, but most were QRT by the end of the contest.

WD5AGO: Tommy wd5ago@hotmail.com writes that his EME activity has been disrupted by remodeling of his house. During the next AW, he hopes to operate some 13 cm from home. He had hoped to set up a station on 23 cm for EOA at the local college, but ran out of time.

WW2R: Dave eme_ww2r@g4fre.com was active during the 9 cm AW -- After seeing the sked list a day before, I had to scramble Friday night, 19 June, to get the 3400 feed on the dish and the equipment installed in the kennel, especially the newly completed double Toshiba 100 W PA. My first problem was that the two Lamda switched mode PSUs for the 100 W PAs, wiped out the 2 m IF 20' away. I stole both of the 13.8 V HF rigs' switched PSUs from the shack and installed them in the kennel. They were much quieter. On 20 June I heard nil on my first skeds with OK1KIR and G4NNS. I decided to check the feed position. The focal point was about 6 mm in front of the feed. This is what happens measuring in the dark! I put it in correct place. Went back to the shack and saw many signals on the SDR1Q. I easily worked K5GW for initial #6 (who was by far the loudest signal of the weekend). I then called CQ and had LX/F2TU and OK1CA reply (pileups on 9 cm!). I worked OK1KIR #7, PA0BAT #8 and DXCC 6, G4NNS #9 and OE9ERC #10 and DXCC 7. Heard were DF9QX, DL4MEA and W5LUA, and CWNR G4RFR. Nil was copied on sked with VE4MA. My sked with VE6TA also didn't quite finish in a QSO. I must have had a reasonable signal strength off of the moon as I had reports from TX, VE, G and OK that I had a 120 Hz sideband on my TX signal. With help from W5LUA, it was found to be the smoothing capacitor in the plug top 12 V PSU feeding my 10 MHz distribution amp that had failed. I added on 21 June W5LUA, VE6TA #11 and DXCC 8, VE4MA #12, DL4MEA #13 and DXCC 9 and G3LTF for a total of 12 QSOs over the weekend. Signals were louder on Sunday then Saturday. On 27 June I worked OZ6OL #14 and DXCC 10 at his moonset. I was also QRV on 23 cm during the DUBUS Contest and worked 6.

ZS6AXT: Ivo ZS6AXT@telkomsa.net expresses frustrations that his 10 GHz plans for have been delayed by health problems combined with unseasonal rain and now cold. He hopes to get the project back on track soon and is disappointed by his lack of Moon activity.

K2UYH: I a.katz@ieee.org was limited somewhat in operating time this past month by two weeks of business travel. I did manage to catch a few and creep closer to DXCC on 432. We added on 70 cm JT65b on 22 May at 1040 UK/DL9LBH (23DB/O) for mixed initial #764 and DXCC 91*, on 23 May 1345 nil PA3DOL, 1436 UA4API (12DB/O) and 1537 G4RGK (11DB/O), on 28 May 1800 partial 5N0EME (23DB/O) – confusion with UA3PTW calling at same time, and finally on 20 June 20 at 1332 5N0EME (22DB/O) #765 and DXCC* 92. I litter departed for the airport on the 28th at the end of my sked with Bodo thinking we had a QSO, only to discover the contact was no good after I arrived in Scotland. On 1296, I QSO'd on 25 May at 1334 MI/DL1YMK (559/559) for CW initial #292, mixed initial #344* and DXCC 70* and 1358 K0YW (589/559). Although I was in Europe, I arranged for W2KV and KB2TIS to operate my station during the 23 cm part of the DUBUS Contest. On 30 May they worked at 1905 PI9CAM (559/579), 1907 OZ4MM (579/579), 1922 OK1DFC (579/579), 1933 OK1CA (589/589), 1942 SM6FHZ (559/559) - [This may be an initial, but I have not been able to confirm that Ingolf is operating from a different grid than he did when I first QSO'd him. Does anyone know for sure?], 1947 SP6JLV (559/579), 1953 SD3F 559/549), 1959 G3LTF (549/579),

2002 ON7UN (559/559), 2005 K5JL (559/579), 2007 SP7DCS (559/579), 2015 HB9SV (579/579), 2019 UT6JCW (559/559), 2025 SD3F (559/559) DUP, 2027 OK3RM (559/579), 2032 K0YW (579/589), 2045 LZ2US (579/569) #293 and #345*, 2048 K1RQG (589/589), 2056 MI/DL1YMK (559/559), 2106 HB9MOON (559/559), 2116 K5JL (589/589), 2122 VE6TA (579/579), 2132 PA3FXB (559/559), 2137 OK1KIR (559/669), 2143 ON4BCB (559/559), 2145 DF3RU (559/559), 2148 ES5PC (569/569), 2150 F2TU (589/569), 2157 DL3EBJ (559/569) #294 and #346* and 2201 WA6PY (569/56) for a total 29x25. We arranged a local science outreach demonstration for the EOA celebration on 27 June during the Eur/NA Moon window. Unfortunately, I have too much tree blockage to the west to put on a creditable demonstration during the NA/OE window. I did get on 432 CW on 27 June and worked at 0056 KL6M (559/558) and 0120 8J1AXA (559/559). During our 23 cm EOA operation on 27 June, we used the club callsign W2LTI. I was assisted by W2KV and my XYL and had many visitors including school age children. We concentrated on demonstrating EME more than making QSOs, but did contact at 1944 W1M (58/58), 1956 W6XX (57/55), 2017 AJ5U (56/54), 2028 F2TU (55/55), 2033 LX1WB (57/56), 2053 G3LTF (55/55), 2112 K0C (56/55) and 2114 VE6TA (55/55) all on SSB. At 2125 in response to a telephone call from AA6EG, we tried to relay Astronaut Bill Anders (connected to us by telephone) to W6SRI by the Moon. Although W6SRI was good copy, they obviously were having problems with reception of us and responded to K2UYH rather than W2LTI; so we changed calls. We exchanged greets, but copy at W6SRI was never good enough for back and forth questions. Because of the EOA activity, I missed the 70 cm ATP, but plan to be active again in July.



Making echoes at K2UYH during EOA demonstrations

GUEST EDITORIAL BY SV1BTR ON NEW ARRL CONTEST RULES: I do not know if, I am losing eyesight due to age. But since I am only 41 years old this seems unlikely. I thus want to take this opportunity to welcome the new rules. I do have 3 comments and a surprise: 1) I feel mixing digital and CW in a contest is totally unfair. The only way that this could perhaps work would be with different points per QSO depending on difficulty of mode (SSB/CW/digital). 2) Personally, I applaud rule 6.3 (at last!), but only if it is actually implemented - the ARRL indeed checks loggers vs. logs: "During the contest periods, no contest entrant, in any category --single-operator or multi-operator-- may use non-EME means for the purpose of self-spotting, solicitation or coordination of QSOs or attempts to make contact; nor may any entrant use assistance or provide assistance in the form of frequency spotting or use any form of DX spotting, Packet Cluster, Ping Jockey, email, telephone, etc. Exception: liaison to coordinate band-by-band activity is explicitly permitted for the bands 2.3 GHz and higher." 3) It is indeed better to have less winning/entry classes as we fortunately have with the new rules. However, I do not understand why there are no CW single band entries for 2.3 GHz and up. In the light of these developments, if I am not on QRL abroad, I plan to participate again in the 2009 ARRL EME Contest, CW multiband single op... Maybe I will do some SSB QSOs and go All Mode? Be aware - hi!

NETNEWS BY G4RGK: VE6AFO may also have the "bug" and get back on EME. **W7MEM** now has 8 yagis up for 70 cm and has made 3 QSOs so far. **LU8EDR** is working hard on getting a 6 m dish up for 23 cm. Daniel hopes to back on the Moon soon. **KA7V** was QRV on 70 cm in May/June. Barry on 29 May missed a sked with **WW2R** due to AZ rotator problems, but all is now OK. **WB7QBS** has his array back up and is seeing 7 S units of sun noise and has 110 W out. **WA4NJP** was on 70 cm EME on 30/31 May, but not 23 cm as yet. **UA3PTW** worked on 70 cm in May MI/DL1YMK on CW and 5N0EME on JT65b. **RW6AG** QSO'd in May on 23 cm K2DH (559/) for an initial, K1RQG (559/) and SM6FHZ. **DK3WG** worked in May on 432 MI/DL1YMK on CW for

initial #476 and KA7V on JT65b. **VE4SA** converted a digital level for elevation and reports it works pretty good. He is also building feed horn for 13 cm. **VE6BGT** has increased size of dish to 4 m, but is having RX problems. He should be QRV on 23 cm soon from DO30. **N4PZ** is setting up for 23 cm EME. He has finished up the polar mount for his dish and is now looking for a feed. **W8TXX** was on 70 cm on the 27th and tried with 8J1AXA, but was not successful. Mike planned to be QRV for the 70 cm CW ATP. **KOKE** was listening during EOA with 2 loop yagis and TS-2000. **NOO** (NOOY) reports working KJ9U on random and W6TE (SRI) on CW at the start of EOA.

FORSALE: WA2FGK has UPX-6 converted by VE1ALQ for sale. It includes NOS 7289s (higher plate voltage rating), anode water-cooling jackets with the tubes plus spares, spare water-jackets, complete filament supply -- 6 200 Ma meters with adjustable cathode bias, copper water cooling manifold and Ultem plate by-passing. It requires 1400 volts (key-down) at 1+ amp. Price is \$700 plus shipping (will deliver to 100 miles from Bear Creek PA 18702). Contact Andy at arfurlong@verizon.net. **K1RQG** has for sale two Yaesu KR-500 elevation rotators and a G800A rotor, a TS-870S, FT-100D, LUNA-LINK LA-200 PA with LA-70 power supply, EIP-451 925 MHz to 18 GHz counter, Boonton 4200 RF Microwatt meter with head, lots of other stuff. E-mail Joe for more information at k1rqg@aol.com. **NA4N** is looking for a 4.5 m or larger mesh dish located east of the Mississippi. He is also looking for 8-10 foot dish that is good for 10 GHz. Contact Greg at na4n@hughes.net. **VE1ALQ** has for sale a pair of 1296 55 el loop yagis, a pair of 17B2 yagis, a Yaesu G-5600B AZ/EL rotator system complete and Brand new, never used 3CX1500/8877 complete with socket with Silver 1/2" grid contacts, 5V/15Amp Hammond filament transformer and 50 W 75 ohm Soft Start Rheostat for secondary of transformer. All are available at a very reasonable price. Contact Darrell at ve1alq@nbnet.nb.ca for more details. N4PZ is looking for a VE4MA or Septum feed for 23 cm. He is also after a 12 - 14' mesh dish. Contact Steve at n4pz@juno.com. **KA7V** has for sale a Kuhne MKU 231 HXL 20 W 13 cm PA mounted on a heat sink. It is in excellent condition with very little use. I will sell for \$US250 and will ship anywhere in USA/Canada. If interested contact Barry at KA7V@ARRL.NET. **DL1YMK**, DL1YMK@aol.com is looking for a 50 W SSPA for 3 cm.

FINAL: With all the activity and many forms of electronic communications, it seems there is more and more to report and preparation of the NL takes longer and longer. I had hoped to get this NL out a week earlier, but the delay allowed me to include more information on the spectacular EOA weekend. I have tried to present as complete picture as possible of 70 cm up EME activity.

- Regarding EOA, there was an excellent write up on in the New York Times, see http://www.nytimes.com/2009/06/27/technology/27moon.html?_r=1&hp.
- Many TNX to Michael and Monika for another great dxpedition and congratulations on your 5-band success! TNX to K1RQG for skeds coordination and to both Joe and Doug, VK3UM for helping organize the EOA SSB activities. Congratulations too to JA6AHB and PY2BS for their 23 cm long path EME QSO of 18,853 km!
- See G4NNS' 5.7 GHz AW proposal – what do you think?
- I want to remind everyone about the Central State VHF Conference, which is in Chicago this year on 23–25 July. Many EMEers will attend. You really don't want to miss it, if you can – see www.csvhfs.org/conference/index.html.
- Although May/June was an exciting time for EME, there is more to come. Don't miss the fun and keep the reports and technical info coming. I will be looking for all of you off the Moon. 73, AI – K2UYH



DSES Dish