

432 AND ABOVE EME NEWS JUNE 2009 VOL 37 #6

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THE NL WEB VERSION IS PRODUCED BY REIN, W6SZ AND AVAILABLE AT <http://www.nitehawk.com/rasmit/em70cm.html>

CONDITIONS: Activity reports this month are dominated by all the 13 cm activity and also some 9 cm operation that was generated by the DUBUS Contest on 2/3 May. Conditions seemed excellent, (if not the weather in North America) and a good time was had by all. The encore HB0/DF1RS dxpedition also generated activity on 13 and 23 cm during the week prior the contest and the May activity weekend (AW) – see their report later in this newsletter (NL). The continuing 5N0EME dxpedition also provided some excitement on 23 cm. 70 cm appears to have suffered as a result of all the attention on the microwaves. Reports on the May 70 cm CW Activity Time Period (ATP) were at a new low. Hopefully 70 cm activity will pick up in June with the MI/DL1YMK dxpedition active on 70, 23, 13 and 9 cm starting on 25 May. The June 70 cm ATP is not until 27 June from 1100 to 1300 and 1930 to 2130. There will also be a special 9 cm AW on 20/21 June. The main focus will without a doubt be the 1296 leg of the DUBUS EME Contest on 30/31 May. If last year is any indicator, activity will be spectacular! The ARI has their Digital EME Contest scheduled the same weekend, but I have seen no discuss of this even. This weekend seems a very poor choice with all the CW activity taking place at the same time. Unfortunately plans to put 4O/PA2CHR on 70 cm EME have been cancelled, but all is go for OK1DFC's E7 dxpedition starting on 12 July. There is also a report the RW3PF/9 will be QRV from the Republic of Bashkiriya, LO74gf, on 432 and 1296 from 30 June to 7 July.

3.4 GHZ ACTIVITY WEEKEND REMINDER – G3LTF: In the DUBUS contest there were 9 stations active on 9 cm, about double last year's activity. This turnout is encouraging for the 9 cm AW on 20/21 June. If you have a 9 cm allocation in your country, but are not yet active then look at the links below for SOME more information:

<http://www.moonbounce.info/3.4%20GHz%20Moonbounce%20Made%20Easy.pdf>, http://www.ntms.org/files/Florence%203_4.pdf and <http://vk3nx.com/9cm.html>.

There is also more info on QSOs, etc. in the 432 and Above EME NLs for July/Aug 2007 and 2008, see:

http://www.nitehawk.com/rasmit/em70cm_arc.html.

Most activity now is on 3400.100 +/- . If you have only 3456 MHz capability then all the NA stations and several other stations around the world can operate on 3456 or work crossband, so don't be put off giving 9 cm EME a try. The idea of an AW is simply to have some EME fun, test equipment, make QSOs, make measurements and boost activity. K1RQG has offered to run a sked list for the weekend, send your requests to him at k1rqg@aol.com. There should be at least 3 or 4 fairly loud stations on the band from Europe and the US. With 5 weeks to go there's still time to put something together. There's lots of information around but if you have queries then post them on the reflectors and the active stations will answer them or direct you to who/where answers can be found. The links above are a good place to start. There is a list of stations on DF6NA's website who are active/building, <http://www.moonbounce.info/3400.htm>, but this does need updating and I'm sure Rainer will do this for us. Send info to df6na@df6na.de. Before this AW we also have the MI/ DL1YMK expedition on 9 cm on 27 May.

5N0EME: Bodo (DL3OCH) dl3och@gmx.de was active this month on 432 and 1296. I do not have the full details. On 70 cm he is running a 6 m yagi with 100 W PA and no preamp into IC706. He has been having problems with reception, but has worked HB9Q (21DB/26DB), DL7APV (20DB/27DB) and PA3CSG (24DB/27DB) on JT65B. He has tried several times with DL9KR, but has not QSO'd Jan thus far, nor has he worked OZ4MM on 70 cm as was reported in error in the last NL. On 23 cm Bodo is using a 2.4 m dish with patch feed (CP) and about 90 W out from his DJ9YW transverter. He does not have a preamp but only short cable. Also please keep in mind that he has to move his dish by hand, which may lead some QSB. His operating site has its own generator but the installation is very bad and often creates problems. If you work him and he just disappears, please keep calling until the QSO is finished. He may have just lost the power for a while. Bodo says that he is often asked about a sked in the night. It is really a problem because his lights attract thousands of bugs. If he

opens the door to go out and adjust the antenna, his situation becomes really terrible. He therefore is trying to limit EME operation to only daytime hours. He will always call first in JT65 on 1296.090 but will answer CW calls if he copies them. He is always listening around his own echo frequency. Bodo was QRV on 23 cm 30 April and adding a number of QSOs including K2UYH.



5N0EME 70 cm yagi pointed to Moon

DK3WG: Jurgen dk3wg@online.de was active on 70 cm during April/May. He added initials on 432 CW with DJ7GK, K7XQ and DG1KJG. On 432 JT65B he added M0EME, OH3KLJ, RW9USA (field #51), YU7AA, PY1KK and YL2HA.

DL1YMK: Michael DL1YMK@aol.com reports on his recent 23, 13 and 9 cm activity and MI/DL1YMK progress -- Before the 13 cm/9 cm DUBUS Contest I still had the 23 cm horn in the dish and worked on 1 May SM6FHZ, HB0/DF1SR (TNX great dxpedition effort!), K5AZU and OK3RM for initials. I started the 13 cm contest leg on Saturday afternoon and worked F2TU, G4CCH, G3LTF, DL4MEA, IW2FZR #, SD3F, ES5PC, OK1KIR, HB0/DF1SR #, SV3AAF #, G3LQR #, OK1DFC #, OK1CA, OE9ERC #, OH2DG, SM2CEW, K2UYH # and WA6PY. The new portable SSPA with 400 W worked flawlessly. My echoes seemed to be weaker than with the 300 W PA I used in November. I discovered when changing to the 9 cm feed that the horn was 10 cm off the focus, which really made a difference, hi!. On Sunday I changed the system for the first time ever to 9 cm. The feed is a round 5 step septum super VE4MA type. The LNA is one of WD5AGO goodies. The transverter is basically my 15 year old tropo rig, but with a new SSPA giving 150 W out. With the HPA in the shack, a short run of 7/8" hardline coax reduces the power to 100 W at the horn. After a bit of trouble shooting with the PSU for the HPA and some dish pointing problems I managed to work G3LTF for initial #1, DL4MEA #2, G4NNS#3, OK1CA #3, OZ6OL #4, OK1KIR #5 and W5LUA #6. This activity was a 'hot test' for the oncoming MI/DL1YMK activity. Thus the chance of successfully bring Northern Ireland on the moon on 9 cm, as well as on 70 cm, 23 cm, 13 cm (and maybe also on 2 m just for fun) is looking much better!



DL1YMK's home station dish on 13 cm for DUBUS Contest

DL4MEA: Guenter guenter.koellner@nsn.com had lots of fun in the DUBUS Contest on 13 cm -- I worked F2TU, HB9SV, OK1CA, OK1DFC, DL1YMK, G3LTF, SV3AAF, OE9ERC, OK1KIR, ES5PC, HB0/DF1SR, OH2DG, G4DDK for an initial (#), F5JWF and IW2FZR. Heard were VK3NX, NA4N, K2UYH, SP6GWN, SD3F and W6BBM. Some stations were calling CQ and even QSOing on the VK TX band 2301.975 and even worse were nearby VK3NX's frequency. This hindered me from working Charlie. What should I do when I hear somebody calling CQ on 2301.970? I have to hope that they are listening on 2320.075. Transmitting on a DX station's frequency like on shortwave is not good! Our primary TX bands should be 2304 and 2320 with the exception of 2424 for JAs and 2301.9 for VKs. This would prevent a lot of possible confusion. I did not work any crossband and HB0/DF1SR didn't do so, too. It seemed that with so much traffic on 2304/2304 that none of the stations I heard checked for callers on 2320. I can understand this because the band was so busy. My 13 cm station remains a 4.5 m dish, round septum horn with chaparral chokes, 0.3 dB NF preamp (G4DDK) and 150 W PA. I measure about 13 dB of Sun noise. On 9 cm I worked VK3NX, OK1CA, OZ6OL, DL1YMK, G3LTF and OK1KIR. One station was calling me at around 1455, but had so much drift and was weak that I was unable to follow with my filter. My equipment on 9 cm consists of my 4.5 m dish, round septum horn with Chapperal chokes, 1.0 dB NF preamp (DJ9BV) and 50 W PA. I measure 10.5 dB of Sun noise.

ES5PC: Vilijo viljo@comnet.se reports good activity during the week before the DUBUS Contest on 13 cm EME – I worked G3LTF (CW), SV3AAF (CW), G4DDK (both CW and JT), LZ1DX (JT), HB0/DF1SR (CW) for an initial (#), F2TU (CW) and LA9NEA (CW) (#). My best regards to HB0/DF1SR team for their excellent operation from HB0 on 13 cm. They had a very good signal peaking (559) with my 4.5 m dish. Also G4DDK had a very good signal almost (559) from his 2.3 m dish. During the DUBUS Contest I added on Saturday (1st Moon pass) G3LTF and VE6TA with Moon at < 2 degs, on Saturday (2nd Moon pass) OK1DFC, OK1CA, SP6GWN, VK3NX, JA6CZD, JA4BLC, LZ1DX, G4DDK, F2TU, HB0/DF1SR, SD3F, OK1KIR, OE9ERC, DL1YMK, SV3AAF, G3LQR, DF9QX, DL4MEA, NA4N, F5JWF, K2UYH, OH2DG, W7BBM, SM2CEW, W5LUA, OZ4MM and WA6PY, and on Sunday (3rd Moon pass) HB9Q, JA8ERE, HB9SV, IW2FZR, GW3XYW, G4CCH and WD5AGO. Heard were LA9NEA, K8EB and LX1DB. It looks like well over 40 stations were QRV during the contest. I operated my station remote via Internet. There were no major technical problems this time. Only my computer in ES5, which controls the dish tracking system, crashed between the 2nd and 3rd Moon passes. Fortunately only a "remote assisted" restart was needed to get it back online. I'm now back on 23 cm, thanks to another "remote assisted" feed and PA change at my dish performed by Guido, ES5MG. Unfortunately I could not be QRV on 9 cm as this band is not allowed in ES.

F2TU: Philippe f2tu.philippe@orange.fr reports on his end of April/May activity – There was good activity at the end of April. I worked on 10 GHz on 29 April ON5TA (O/O) for initial #51 and on 2.3 GHz on 30 April F5KUG (539/O) for a new F station. He is still getting his system finalized and should be ready for regular activity in 3 months or sooner. There was an excellent turnout for the DUBUS Contest on 2.3 GHz with 38 QSOs and many new calls. I QSO'd on 2 May DL4MEA, OK1DFC, JA4BLC, JA8IAD, JA6CZD, G4CCH, DL1YMK, F5JWF, LZ1DX for initial #82 and DXCC 27, SP6GWN, IW2FZR, OK1CA, G3LTF, HB0/DF1SR, OK1KIR, ES5PC, SD3F, GW3XYW, DF9QX, SV3AAF, G3LQR, G4DDK, NA4N, K2UYH, OH2DG, OE9ERC (589/589),

LA9NEA #83 and DXCC 28, W7BBM #84, W5LUA, SM2CEW, VE6TA, WD5AGO, WA6PY and OZ4MM, and on 3 May JA8ERE, HB9SV (589/579), LX1DB (56/56) on SSB and DL2LAC #85. I also copied VE4MA, VK3NX (QRM on VK band combined with a short window prevented a QSO).

F5JWF: Philippe f5jwf@wanadoo.fr write about his 13 cm DUBUS Contest results – This was the first time that I could operate in the 2304 band. I am now QRV on the Eur (2320), NA (2304) and VK (2301.9) for TX/RX. For the JA (2424) band I have RX only and my ~1.2 dB NF needs to be improved. I am using new low noise synthesizer to generate the LO and program it in real time, when I want to change bands. One issue is that I still have to tune the PA driver to have same power on each band. I had a TX/RX switching problem and had to dismount everything during the night. It was a PIN diode in the IF that had blown. I QSO'd 14 Stations, F2TU, OK1CA, G3LTF, ES5PC, OK1KIR, OE9ERC, IW2FZR, DL4MEA, G4CCH, OK1DFC, WA6PY, SD3F, OH2DG and LX1DB. Heard were VK3NX and HB0/DF1SR. I was disappointed by the lack of US stations. I waited for them very late without success. The station is a 3.7 m dish with a 170 W PA and a ~0.7 dB NF LNA.

F5SE: Franck kozton@free.fr writes that he is now close to the tunnel exit -- The big dish is now operational. The balancing problem is more or less solved by using springs. I still have problems at slow speed with the elevation drive when the motor torque is low. The springs provide much more tension than requested, and can cause mechanical overload on the elevation axis. I will probably have to change some parts in the future. I installed the old F5AQC built W2IMU horn with a DB6NT preamp at "RX port". I have not heard any signal off the Moon so far, mainly because the Moon has been below horizon during my RX tests. The only thing I could check was sun noise, but I my measure was not calibrated. At this writing the only thing I can say is that sun noise is strong. Unfortunately, I cannot be QRV for the end of May 23 cm contest weekend, due to the REF annual meeting. I have to attend it, as President of "Section # 51". I will try to listen during the DL1YMK expedition to Northern Ireland.



F5SE's new dish with feed in place and springs added

G3LTF: Peter g3lft@btinternet.com sends his EME report for April/May – Most of my activity was on 13 and 9 cm. The HB0 dpxpedition generated activity throughout the week preceding the DUBUS Contest. On 2320 on 25 April I worked SV3AAF and LA9NEA for initial #69 and on 28 April ES5PC, JA4BLC, SV3AAF, G4DDK #70 and W5LUA, and I heard JA6CZD and JA8ERE. I worked on 29 April HB0/DF1SR and F2TU, and heard F5KUG working Philippe with a readable signal but couldn't get his attention. I also heard DL2LAC calling "test" and CWNR. I worked on 1 May G4CCH and on 2 May in the DUBUS Contest on 13 cm just before moonset and WD5AGO* and W5LUA*. At moonrise I spent an hour trying to work VK3NX crossband but the QRM on his frequency was so bad that it was hard to make out what he was sending much of the time. I then worked JA4BLC*, OK1CA, DL1YMK, SP6GWN, F5JWF, LZ1DX #71, F2TU, OK1KIR, HB0/DF1SR, OK1DFC, IW2FZR, SD3F, G3LQR, GW3XYW, DL4MEA, SV3AAF, SM2CEW, G4DDK, K2UYH*, G4CCH, LA9NEA, WA6PY*, and VE6TA. CWNR were W7BBM*, VK3NX*, JA6CZD*, NA4N*, OZ4MM* and OH2DG*. Heard only was OE9ERC. Well done to the HB0 crew for a successful dpxpedition. They were an excellent signal on both 13 and 23 cm. On 9 cm at this low moon declination, I have a very short window to VK due to trees. I worked OZ6OL through a gap in them and then did manage to work VK3NX with considerable ground noise. I then worked OK1KIR, OK1CA, DL1YMK for initial #19, G4NNS, DL4MEA and W5LUA. K5GW came on after I had closed down. It is

really good news that the activity on both these bands continues to increase every year. On 13 cm the availability of SSPAs is making a big difference especially in Eur. On 9 cm we have the Activity Weekend coming on 21/22 June and hopefully this will further increase interest. I am making good progress with mounting my 2.4 m offset dish and have completed and tested a new 10 GHz transverter; all made from odds and ends, including an ex-radar mixer and a 1.2 dB LNA made from a satellite LNB. My simple Softrock SDR is now steerable by using one of the Si 570 synthesizer chips, so I can use it on all the bands I work on. I find it invaluable on the microwaves for detecting the first signs of signals at moonrise through the trees when I can't use moon noise to trim the dish pointing.

G4DDK: Sam jewell@btinternet.com writes on his 13 cm contest activity -- Following RAL Microwave Round table, we had a small EME get together. WB0DBS and WW2R stayed over at my place for a few days. I took advantage of Dave's visit to demonstrate my re-built 13 cm EME receive system. I was able to show him how well my 'pie tin' scalar choke increases cold sky/sun noise on my small 2.3 m dish. Dave persuaded me to connect up my transmitter, now a 225 W 3G SSPA with ~ 150 W at the feed. I'd have preferred to complete a few more TX checks first! Anyway, we were immediately rewarded with moderate echoes on my SDR-IQ and Spectran (on the TS2K), which were audible some of the time and much better than the 23 cm traces using Spectran. G3LTF was on the HB9Q logger, so a sked was arranged and Peter's signal immediately copied. Peter was then worked (559/549) by Dave on my hand key - he's still suffering arm ache. W5LUA then called on the logger to ask us to listen on 2304.1MHz, so with the parallel FT847 tuned to 128.1 MHz, AI was immediately heard on 2304.1 MHz and again worked by Dave with no problem. I don't have the report in front of me, but AI was slightly weaker than Peter. SV3AAF was copied (529) (559/549). The huge signal from LX1DB attracted Dave's attention and although the exchange was easy we think Willi may have miscopied my callsign as G4CCH. I'm pleased to be back on 13 cm. My X-3G PA is holding up well. It barely gets warm with two proportionally speed controlled fans (W1GHZ design). Compared with the Ericsson and the Spectran, these amplifiers are quite light. The amplifier runs on 28 V and takes 23 A peak current. It is a real improvement over the other two! My grateful thanks to WW2R for encouraging me to connect the transmitter. Dave also worked ES5PC, DF9QX and G4CCH before leaving. He went away with two of the small but powerful 3G SSPA amplifiers, so expect a bigger signal from him on 13 cm as he attempts to work me for the first time on 13 cm EME. G4HUP and G3LQR were both in the shack to witness the contacts and I think both were impressed by the strength of signals from these guys on 13 cm and the reports this small station was able to receive back. Many years ago G3WGD gave a talk on back yard moonbounce and said he thought 13 cm was the best (most optimum) band for small dish operation. Well, it's taken a while but my thoughts at the time that I'd like to do this have been realised, although this is my second time on the band. The first time, 3 years ago, I could not even detect echoes, but did work OE9ERC and F2TU. My echoes are certainly much better than on 23 cm at least and for the moment. I hope you detect that I am extremely pleased with the results with my small dish on 13 cm!

G4CCH: Howard howard@g4cch.com writes -- I put the 13 cm feed back in the dish on Sunday 26 April, but didn't get everything going again until Wednesday. My system on 13 cm is a 5.4 m dish, round septum feed, 250 W SSPA (150W at the feed), and G4DDK 0.36 dB NF LNA. I can RX on 2301 and 2304 as well as 2320. My 2302/2304 solution at the moment is the synth, mixer and front end of a commercial transceiver. It converts the IF out from my DB6NT transverter to 28 MHz. Switching is a bit clumsy and slow, so I have some work to do here... There has to be a better way, hi! Unfortunately I still can't RX on 2424, and would be interested to hear what other people are doing before I start work on this. I had great fun over the last few days, and added a few more initials and a first in my log - thanks to LZ1DX, G4DDK, LA9NEA and OK1DFC, and everyone else who turned up. Prior to the contest I worked on 29 April G4DDK (539/549), DF9QX (559/559), SV3AAF (569/559), ES5PC (10DB/12DB) on JT65c, LZ1DX (O/O) JT65c, G4DDK (O/O) JT65c and 2000 LZ1DX (O/O) - I believe my QSO with LZ1DX is the first G to LZ on 13 cm. Ned has a 2.4 m dish, septum feed, G4DDK LNA and apparently 400 W, but at the time of our QSO had some problems with connectors, on 30 April 1243 HB0/DF1SR (559/549), G4DDK (17DB/17DB) JT65c, and LA9NEA (559/539), on 1 May G3LTF (579/579), G4DDK (549/549), LZ1DX (449/449), LZ1DX (19DB/O) JT65c, WD5AGO (559/559) XB and OK1DFC (559/559), on 2/3 May in the DUBUS Contest W5LUA XB, F2TU, DL1YMK, SD3F, HB0/DF1SR, SV3AAF, SM2CEW, G3LTF, F5JWF, G4DDK, OK1KIR, K2UYH XB, WA6PY XB, ES5PC, OK1DFC, OE9ERC, SP6GWN, IW2FZR and WD5AGO XB. Also heard VE6TA, NA4N, W7BBM, VK3NX, DL4MEA, F6BKB on JT65c, DF9QX, GW3XYW and OK1CA.

G4RGK: Dave g4rgk@btinternet.com reports that he has made some improvements to his 70 cm array, but that his 23 cm dish was destroyed by winter snows. Dave will build a new dish and expects to be QRV for the MI/DL1YMK dxpedition.



HB0/DF1SR with dish and dual feeds in place

HB0/DF1SR: Kasimir (DL2SBY) and Georg (DF1SR) df1sr@arcor.de report that they had a great time during their dxpedition. They worked during the DUBUS Contest on 13 cm 15 QSOs and a crossband with JA4BLC, but no cross-band contacts with US/VE. They heard many stations on 2304 and tried to call, unfortunately without success. The same with CQ X. There were no problems with the stations on 2320. They QSO'd during the contest JA4BLC, OK1CA, F2TU, OK1DFC, G3LTF, ES5PC (biggest signal!), OK1KIR, DL1YMK, G3LQR, DL4MEA, G4CCH, SP6GWN, IW2FZR, OH2DG and SM2CEW. Before the contest on 13 cm they QSO'd ES5PC, G4CCH, JA4BLC, JA6CZD, JA8ERE, G3LTF, DF9QX, F2TU, DL4MEA and W5LUA. On 23 cm they worked JA4BLC, DL0SHF, DL6LAU, SV3AAF, HB9HAL, ON7UN, OE5JFL, OZ50L, HB9IZ, DF3RU, G3LTF, SP7DCS, SM6FHZ, OK3RM, DL1YMK, VK3UM and K1RQG.

JA4BLC: Yoshiro ja4bhc@web-sanin.co.jp writes about his activities -- On 13 cm in the DUBUS contest I worked W5LUA (559), VE6TA (549), F2TU (559), OK1CA (569), HB0/DF1SR (449), G3LTF (569), SD3F (449), ES5PC (569), OZ4MM (559), OH2DG (559) and OK1DFC (449) for initial #43. Heard were G4CCH (559), IW2FZR (559), DL1YMK (449), SM2CEW(449) and HB9SV (569). SV3AAF was heard (559) on Friday. I also visited JA6CZD on 19-21 April and received excellent hospitality from his XYL, Kimiko. We checked 2304 - 10 GHz equipment of JA6CZD and repaired a faulty 5760 feed. Schichiro's 10.45 GHz SSPA produces 43 W. He should be QRV on this band very soon. Final permission for operation by the JA Authority was given on 25 March. This will be the first ever (legal) operation on 10 GHz from Japan.



JA4BLC and JA6CZD during Yoshiro's visit

JA6AHB: Toshio ja6ahb@plala.to reports what may be a new 23 cm EME long distance record -- On 1 May at 1545 I succeeded in a long path (18853 km) EME QSO with PY2BS. The QSO was made using JT65c with signals (13DB/15DB).

K1RQG: Joe was active on 1296 during the May AW -- I worked on 3 May around 1900 K2DH with a BIG signal and then SM6FHZ both on SSB. SM6FHZ called me on SSB after I worked K2DH. The band had a surprise visit from K5AZU. I also worked RW6AG and VA3TO for initials. Conditions seemed very strange starting about 2030 here. The best I can describe it as AU like with a light to moderate buzz on most signals. It was very heavy on K3JNZ/K2DH in QSO, but only on K3JNZ. I later QSO'd both. The final station worked was NA6MF. I also heard someone at 0140 on 1296.013, did he did not send his call enough times for an ID, and also at 0413 on 1296.015.

K2DH: Dave k2dh@frontiernet.net was on 23 cm EME during the May AW -- After finding water in transmit line and making repairs, I worked a few to include SM6FHZ, K1RQG (CW & SSB), K5AZU (quite a surprise), RW6AG and K3JNZ. I was called by VA3TO and heard but did not work NA6MF.

KA7V: Barry barrywright@sbcglobal.net discovered a bad length 7/8" Heliac in his 432 array feedline, but still had a couple of 70 cm EME contacts during the May AW. QSO'd were I1NDP and DK3WG. He is now working on 2304 equipment and getting ready for EME on this band, but still has a lot to do. He is seeing about 400 W from his final, but currently has only 4 loop yagis for an antenna.

N4GJV: Ron qstdemb@yahoo.com send some May 70 cm news -- The activity level during the May 70 cm CW ATP appeared to be very low; however, I was 20 minutes late and may have missed some of the activity. The ATP corresponded to a very late hour in Europe, which probably did not help activity. In addition, the relatively low moon declination resulted in tree blockage problems at my QTH, which would have diminished my results. On 2 May, I logged QSOs with DL7APV and DG1KJG (initial), but heard no other stations. My echoes were very weak at the beginning of the period. They completely vanished following these 2 QSOs, so the Faraday rotation was apparently close to 90 deg. Unfortunately, I probably will miss the June ATP due to a conflict with family activities.

N4HN: Tom n4hn@carolina.rr.com reports he has made his 1st EME contact with HB9Q on 432 using JT65B. He is located in Charlotte, NC (EM95oe) and is using 150 W and a 25 el K1FO yagi with no el on 70cm. Tom also has 2 x 45 el yagis and 70 W on 1296. E-mail him for skeds.

NA6MF: Steve (KB8VAO) was very busy helping put NA6MF on 1296 EME from Moffit Field during the May AW (on 3 May) -- I and AD6IW, AF6KD and others tried to manually track the moon and did manage to work K1RQG. Our high power SSPA failed before getting on the Moon. We did eventually get on with our 120 W driver (50 W at the feed). Later in the week (on 8 May) we set up again and worked K2DH and K1RQG. [Also see KB8VOA's report in the Netnotes].

OK1CA: Franta striaavka@upcmail.cz sends news on his 2.3/3.4 GHz DUBUS Contest operation -- I worked on 13 cm 38 stations and made initials with LZ1DX, DF9QX, G4DDK, DL1YMK, LA9NEA, W7BBM, SV3AAF, K8EB and JA8ERE to bring my initials total to #72. The activity on 2.3 GHz was very good with over 40 stations QRV. On 9 cm I worked VK3NX (559/549), DL4MEA (549/549), OK1KIR (549/549), G3LTF (569/569), OZ6OL (549/549) for initial #15, DL1YMK (559/559) #16 and W5LUA (579/559). I missed K5GW. It was a very fine microwaves EME weekend with good weather, sun and clear sky.

OK1DFC: Zdenek ok1dfc@seznam.cz is now QRV on 13 cm -- I made my first contest on 13 cm with 10 m dish. Mainly I was testing my set up for the EME dxpedition to E7. We will be there on 12 July and start immediately to build the station -- see <http://www.ok1dfc.com/Petitions/E7/e7.htm> for last minute details. Due to personal complications I was not able build and test the 9 cm gear, but I will work on it during May to be sure that all is working for the dxpedition. On 13 cm, my dish is too sharp (wind problem) and even with 150 W in the shack, with 40 m cable the power is low. I have some work to do to be in same category as on 1296. Anyway, I enjoyed contest very much and worked many stations. The strongest were OE9ERC (599), HB9SV, ES5PC, LX1DB and OK1CA. During the contest we had in OK a tropo contest and some stations called me on tropo. It was faster to make a QSO with them, then to explain that I was on EME. This resulted in 10 tropo QSOs. Via the Moon I have worked before the contest G4CCH (559/559) for initial #19, and then in the contest ES5PC (559/449), OK1CA (579/569), F2TU (579/559) #20 and DXCC 18,

OK1KIR (559/559), VK3NX (559/559) #21 and DXCC 19, G3LTF (579/559), DL4MEA (559/559) #22, HB0/DF1SR (559/549) #23 and DXCC 20, SD3F (559/559), IW2FZR (559/559) #24 and DXCC 21, DL1YMK (559/559) #25, OH2DG (559/449), OE9ERC (579/569), SV3AAF (559/549) #26 and DXCC 22, SM2CEW (579/559) #27, K2UYH (559/559) #28, F5JWF (559/M) #29, W7BBM (559/559) #30, W5LUA (579/559), OZ4MM (559/549), WA6PY (559/569) #31, JA4BLC (559/449) #32 and DXCC 23, DF9QX (559/439) #33, HB9SV (589/569), LX1DB (589/569), G4DDK (559/529) #34, SP6GWN (559/O), GW3XYW (O/O) #35 and DXCC 24 and G4CCH (579/559). I also heard F6BKB, LZ1DX, WD5AGO, HB9Q, G3LQR and NA4N. I am looking forward to the next 13 cm contest. My setup consisted of my 10 m dish, septum feed, VLNA G4DDK 0.5 dB N/F LNA, TRV RX/TX 2302, 2304, 2320 and 2424 with HB SSPA with 150 W out to 40 m 5/8" coaxial cable giving about 70 W on the feed. My sunnoise is 18.6 dB for 71 SFU.

OK1KIR: Tonda, Vlada and Jan ok1vao@o2active.cz reports on their Moon team's recent activity -- We managed to find some Moon time on Thursday 30 April and QSO'd on 1296 at 1717 5N0EME (O/O) for JT initial {#35}. Then we participated in EU EME contest on 13 and 9 cm during the following weekend. We were QRV on 13 cm on Saturday and on 9 cm on Sunday. Our results were on 2 May on 2300 MHz at 1308 OK1DFC (559/559), 1538 G3LTF (569/569), 1543 SP6GWN (549/529), 1550 F2TU (569/569), 1555 OK1CA (569/559), 1643 HB0/DF1SR (559/549), 1652 ES5PC (569/569), 1709 SD3F (549/559), 1742 DL1YMK (549/559) for initial #81, 1753 GW3XYW (439/339), 1807 DL4MEA (559/569), 1820 G3LQR (549/559), 1845 SV3AAF (549/559), 1944 F5JWF (449/559), 2013 OH2DG (549/559), 2133 SM2CEW (559/569) #82, 2143 G4CCH (559/569), 2219 K2UYH (559/559), 2227 WA6PY (559/569), 2237 IW2FZR (559/559), 2303 W7BBM (559/559) as #83, 2340 OZ4MM (559/559), and on 3 May at 0019 WD5AGO (449/549) and 0044 W5LUA (559/569). We heard DF9QX, G4DDK, JA4BLC, LA9NEA, NA4N, OE9ERC and VK3NX. Weak stations and Moon noise were hidden in terrible interference on 2424 MHz. This QRM is the reason we were not able to work any JA station. On 3 May we continue on 9 cm and worked at 1343 VK3NX (O/M), 1400 OK1CA (549/549), 1532 G3LTF (O/O) and 1608 OZ6OL (O/O). We had some issue with our PA, but were able to repair it. We added at 1744 DL1YMK (549/559) for initial #18, 1752 G4NNS (549/559), 1801 OZ6OL (559/549), 1925 DL4MEA (549/559) and 2128 W5LUA (569/569).

OZ6OL: Hans oz6ol@mail.dk writes on his May contest activity -- I was QRV on 9 cm on 2 May and worked G4NNS, but found no one else QRV, and on 3 May on my moon rise I tried to work VK4NX, but trees and house blocked the signal patch. I heard Charlie, but the moon declination was to low this time. Then later I worked 7 more stations; G4NNS for an initial (#), DL4MEA, G3LTF, OK1CA (#), DL1YMK (#), OK1KIR, W5LUA and K5GW (#). Many thanks to everyone for the QSOs. It is nice to hear signals from the moon on 3.4 GHz. I have now the 9 cm permanently installed in the dish together with my 23 cm feed. The 9 cm feed is 3 deg offset from the center and looking through a cut in the 23 cm choke of my VE4MA feed.

OZ4MM: Stig vestergaard@os.dk reports on his 13 cm contest weekend -- I am sorry to say that this weekend was a real disaster concerning 13 cm activity for me! There was no operation on Saturday because of other planned commitments, so after midnight (Z), I could first join the contest for 2 hours. I had planned to be quite active on Sunday, but other commitments showed up (I had to go hospital with a family member), so only 3 hours of 13 cm fun in the weekend from here. On Sunday morning I worked IW2FZR, ES5PC, OK1CA, OK1DFC, K2UYH, F2TU, W7BBM for initial #83, OK1KIR and WA6PY. On Sunday afternoon I added JA4BLC, OH2DG, SP6GWN and HB9SV. Heard were F5JWF, SD3F, LZ1DX, WD5AGO, SM2CEW, DL1YMK, JA8ERE and JA8IAD. Signals were better Sunday morning than in the afternoon. I still have huge problem with bad RX on 2320, so I missed some stations there. I need to redo my SSB transverter modules, hi.

RA3AQ: Dmitry ra3aq@vhfdx.ru rwrites that he is finishing up a 3 cm EME station in K085je -- My stations consists of a 2.4 m offset dish with my own cone dual mode feed, DB6NT LNA/converter and 11 W at the feed. I measure Sun noise of 15.4 dB with an SFI 72. CS/G noise is 6.0 dB. I have not yet measured Moon noise due its present low declination. I am interested in skeds and will be QRV during 23/24 May weekend. Please contact me by e-mail.

SM2CEW: Peter sm2cew@telia.com was on 13 cm for the DUBUS Contest -- I was a little delayed by strong winds on Saturday before I could come on 13 cm for the contest. Sunday was the same with strong winds during the day and only calming down late in the evening. Since last season I have done some modifications to the setup and part of that is adding a preamp to my DB6NT transverter at the feed. This resulted in a lot of listening to try to evaluate my setup and I was very pleased indeed with the performance. At the moment the

13 cm preamp is one from DB6NT, but I plan to also build a G4DDK preamp that I bought a while back and cross reference them. I don't expect much of a difference, but it is always interesting to experiment with different front ends. I found on VK3NX's excellent website a very interesting description of his noise meter, http://vk3nx.com/files/Noise_Meter.pdf, which is something I need to be able to check for moon noise. It may help me to evaluate my receive performance. To implement it I need to perform the WW2R mod to my transverter to add an extra 144 MHz RX port. Since adding a preamp I lowered the 144 MHz gain output from the DB6NT transverter and this made me somewhat deaf on 2304 as I then listen on 128 MHz with my FT897. I need to do something about this. Stations worked during the contest were on 2 May at 2034 G3LTF (579/569), 2037 SD3F (569/559), 2043 OK1CA (579/579), 2047 OK1DFC (569/579), 2055 G4CCH (579/569), 2131 OK1KIR (569/559), 2136 ES5PC (579/559), 2143 HB0/DF1SR (559/559), 2151 F2TU (579/569), 2203 WA6PY (569/579), 2220 DL1YMK (569/549) and 2244 K2UYH (569/559), and on 3 May at 1724 OH2DG (579/569) and 1735 SV3AAF (549/449) - EME band #4. Heard were VE6TA, W7BBM, F5JWF, OZ4MM, G4DDK and HB9SV. I was looking hard for K7XQ and stayed on late in the NA window on Saturday but unfortunately did not hear Jeff.

SV3AAF: Petros sv3aaf@yahoo.com reports on his 13 cm DUBUS Contest efforts – I enjoyed working 13/9 cm EME contest. Activity was quite good. A connector problem limited my TX power and air time on Saturday. My eastern window was blocked on Sunday due to the low declination. No JA stations were heard through the severe local interference, but I will keep searching for a solution. Stations worked were VK3NX for an initial (#), ES5PC, DL4MEA, DL1YMK (#), F2TU (#), OK1KIR, OE9ERC (#), G3LTF, G4CCH, OK1DFC (#), K2UYH (#), SD3F (#), W5LUA, IW2FZR (#), OK1CA (#), OH2DG (#), SM2CEW (#), LX1DB (#) and HB9SV (#). Heard were WA6PY, F5JWF and OZ4MM. It is worth noting that stations with huge signals, operating continuously through the contest managed NOT to disturb other contesters by adequately spacing their signals from adjacent stations even when calling in the very center of activity. A few of these gentlemen were G3LTF, OE9ERC and ES5PC. Yet, there was a minority of European stations systematically not having the patience of identifying a CQ caller and starting calling CQ zero beat on the previous caller and then hijacking the frequency. This HF style of operating is the last thing needed on EME where we all battle with the noise and the contest is limited to some 35 participants all in all.

W3HMS: John W3HMS@aol.com reports that he is temporarily off 23 cm EME as results of water damage to his QTH -- I suspect the QTH will not be finished until end of May. I will get a new basement shack out if it!! With roving in June Contest tropo (6 m - 24 GHz) contest and our filed day, I suspect my return to EME with a much better organized and easier to use station will be in July. I do miss it!

W5LUA: Al w5lua@sbcglobal.net was active in the DUBUS 13/9 cm EME Contest – I had problems with a lot of storms that kept me jumping. I worked on 23 cm 9 stations on the first Moon pass, an additional 9 stations on the second pass, and 3 JA stations and VK3NX during the third. I really wish that those that work cross band, work it in a different portion of the band. There was a lot of activity on 13 cm. A switched to 9 cm during the third pass.

W7BBM: John (no e-mail?) reports that he can be QRV on 13 cm EME -- I started on Friday morning with no equipment mounted for 13 cm. During the contest I made my first contact ever on 13 cm and it was on EME. Nothing was optimized but it was a lot of fun. I ended up working 13 stations, 3 in NA and the rest in Eur. I missed OE9ERC.

W8TXT: Mike (no e-mail) was active on 70 cm EME during May 70 cm CW ATP, but worked only DL7APV and heard but could not work N4GJV. He reports that there was not much activity on the band.

WA6PY: Paul pchomins@san.rr.com writes on his end of April/May operation -- During the first Moon pass of 13 cm contest I QSO'd F5JWF, G3LTF, SM2CEW, G4CCH, W5LUA, OK1KIR, F2TU, VE6TA, OK1CA, OK1DFC, IW2FZR, DL1YMK, ES5PC, OZ4MM, W7BBM, OE9ERC, WD5AGO and NA4N. I heard well SD3F, but could not catch Carl's attention. For about 30 minutes I had very strong QRM on 2320, I did not analyze what it was, but S-meter went up from the normal noise floor level at S5 to S9+30 dB! This is not the first time I have heard this QRM here in San Diego. I suspect a satellite was in the beam of the antenna. The noise floor was raised by 40 dB. 2304 was still OK, but with some degradation. During this period of time I lost the ability to track the Moon using wideband noise power measurement because the noise went up by 12 dB. QRM from satellites was very common about 20 - 25 years ago at the beginning of 2304 MHz band. During the second Moon pass I did not

find any new stations. Unfortunately HB0/DF1SR went QRT before my window started.

WD5AGO: Tommy wd5ago@hotmail.com reports on his 13 cm band activity during the May contest weekend -- I am sorry that I could not be on for more than 3.5 hours as we are in the middle of house remodelling. I did get on for 30 min in the VK/JA window, but was too early as I missed the activity and did not want to send RF into the house below 30 degs during sleeping hours! I heard 20 stations, but only worked the ones that were calling CQ. It was crowded! I worked G3LTF, W7BBM for initial #45, NA4N, F2TU, OK1CA, OK1KIR, WA6PY, G4CCH, ES5PC and OE9ERC. CWNR were HB0/DF1SR, LZ1DZ and DF9QX. I heard SM2CEW, VE6TA, DL4MEA, DL1YMK, W5LUA, IW2FZR and others. There was just too much rain the past week and weekend to switch over to 9 cm with open equipment at dish. I will be doing some dish mod's the next few weeks. My 13 cm Equipment was 2.4 m grid/mesh dish expanded to 2.7 m (0.33 f/d), HB Scalar (60% eff) round Septum feed, HB 3 stage 0.32 dB NF 36 dB gain LNA (mod AGO), Spectran PA with 180 W at feed + batteries. My Sun noise is 11.0 dB at SFU of 69 and 0.3 dB Moon noise. For the DUBUS 23 cm Contest, I plan to set up a portable station at the college where I am employed, different from my home station, so it should be a new initial.

WW2R: Dave's eme_ww2r@g4fre.com April/May EME report – In April I worked K5JL on 432 for a new initial; my first one for a long time! I was in the UK for the Rutherford Appleton lab microwave round table on 26 April. The previous day I visited G4NNS's QTH to see his dish with a group of EMEers/Microwavers and measured dish feeds followed by an excellent dinner at the local pub. We then visited G4DDK and operated his station on 2.3 GHz (as G4DDK so as not to cause any "initials confusion"). I worked G3LTF, W5LUA, DK9WG, ES5PC and G4CCH. It's been a long time since I used a straight key on EME! I also heard SV3AAF. There were good echoes with Sam's 2.4 m dish. His system seems to be working well. I was still in England during the DUBUS 2.3/3.4 GHz EME Contest and thus could not participate, but I was active in the Eur tropo contest. I will be QRV off the Moon for the June 9 cm A/W. I now have combined two Toshiba amps and am getting 100 W, which should help my signal.



G4NNS's dish with WW2R, G4NNS, G3LTF G4DDK and DF6NA with a variety of dish feeds that were being tested.

K2UYH: I a.katz@ieee.org had problems with operating on 13 cm. My 13 cm equipment mounts at the feed and is not well water proofed. Unfortunately the WX was bad almost all of the contest weekend. I could not install it on Friday because of the rain. This did not much matter as with the leaves now on the trees, my JA window is very limited. At the lower moon declination of the contest weekend, there was very little clear moon time. The rain let up on Saturday afternoon. I took a chance and installed the 13 cm gear. This allowed me to make 17 QSOs and 4 initials. 3 were cross band. I wish I had spent more time listening on 2320 as I missed HB0/DF1SR and several others, but during my limited operating time 2304 was busy just about all the time. At the end of my Eur window, the rain started to return. I tied a large tarp over the feed and put the dish in the bird bath position. The rain did not let up until the following Wednesday! QSO'd during the contest on 13 cm were On 2 May at 1937 F2TU (559/559), 1951 ES5PC (559/559), 2001 OK1CA (559/569), 2017 SD3F (559/559), 2045 G3LTF (579/579) XB, 2102 OK1DFC (559/559), 2110 SV3AAF (559/549) for initial #36, 2119 W7BBM (569/559) #37, 2140 RK3WWF (449/?) - QRZ & lost, 2150 W5LUA (559/559), 2207 G4CCH

(559/559) #38, 2210 WA6PY (559/559), 2216 OK1KIR (559/559), 2337 DL1YMK (449/549) XB, 2245 SM2CEW (559/559) XB #39, 2305 OZ4MM (569/559), 2310 IW2FZR (559/559) and 2322 VE6TA (559/559). Before the contest weekend I was on 23 cm and worked on 30 April at 1942 5N0EME (16DB/18DB) on JT65C mixed initial #343* - TNX Bodo for DXCC #69* and (O/O) on CW for #290. I was also QRV on 1296 on 1 May but worked only at 2327 W7UPF (12DB/O) on JT65 after many calls.

NETNEWS BY G4RGK: JA6CZD worked on 13 cm in the DUBUS Contest W5LUA, OK1CA, F2TU and ES5PC. **JA8ERE** worked on 13 cm in the DUBUS Contest W5LUA, ES5PC, F2TU, OK1CA and HB9SV. **JA8IAD** worked on 13 cm in the DUBUS Contest F2TU and OK1CA. **KB8VAO** (kb8vao@ix.netcom.com) is moving, but Steve reports his e-mail will remain the same. **SV1AWE** is presently not QRV on 432 EME. He gave up because of QRM problems and plans to return when he leaves Athens. **SM4IVE** is making good progress on his new big dish and hopes to be back on EME soon. **VE4SA** had a setback (much like W3HMS) with water damage in the shack, but making progress on getting back on the air. **UA3PTW** added PY1KK on 70 cm JT65B in April/May. **UA4AQL** added VK4CDI on 70 cm JT65B in April. **RW6AG** added initials on 23 cm CW in March/April with OK1DFC (569), UT5JCV (559) and OZ4MM (559), on SSB HB9HAL (55) and on JT65C K2UYH, G4CCH, 5N0EME and VA3TO. **VE4MA** had problems on 13 cm during the DUBUS contest and could not find the Moon. Barry will be on for the June 9 cm AW. **WA8RJF** was on 13 cm during the DUBUS Contest and heard a few but no one heard him. **WB7QBS** reports the successful "marriage" of his RD-1800 AZ motor to his Green Heron controller. Glen still have a great deal to do before he is QRV on 70 cm EME again. **K0RZ** could not get on for May DUBUS 70 cm CW ATP due to blowing snow. **NA4N** will be on 23 cm for the DUBUS Contest.

FOR SALE: KA7V has for sale an 80 W Khune SSPA for 13 cm. Barry is looking for a 10' or 12' TVRO dish and mount in the Oregon area. Contact him at barrywright@sbcglobal.net. **OH2DG** is looking to buy a 5760 PA with 40 W or more output power. Contact Eino at eino.metsamaki@sulo.fi. **N4PZ** has ICOM IC 821 transceiver for sale (50 w on 432 all mode). It works perfectly and has separated the input and output on 144 and 432. All manuals including the service manual are included. You can contact Steve at n4pz@juno.com.

EMECALC VER 6.01 IS NOW AVAILABLE: Doug, VK3UM reports that a new and significantly improved version of his EME Calculator is now available. He and G3LTF have been investigating the discrepancy between the theoretical feed efficiency measurements and those that are obtained in 'real world' situations. Their focus was on the actual realized values of dish efficiency, spillover and feed through. Given the reference data from W1GHZ, they have been able to ascertain through practical measurements, what the realized values of efficiency are for the dish feed types provided in the program. They have also refined the calculations of the effective ground temperature and C/S - Ground. Results now reflect actual measurements (to a very high degree) efficiency, spill over, feed through, sky, and the ground noise interaction giving a significant, although seemingly minor at first glance, improvement in accuracy. Those that use yagi arrays, sorry, you will still need to derive their own 'spillover', (side lobes), and 'feed thru', (front to back) values commensurate with their own installation. The variables are just too large to provide a meaningful result if derived from a data base. You will still need to obtain your data from actual on site polar plots. This revision also includes another VE4MA 'standard option feed' and now caters for both flush and 0.15L (normal) ring configurations. The EIA Dual Dipole feed has also been included, which fills the gap for those with 70 cm feeds. RA3AQ feed types will be added later when time permits. Finally Doug has included a Planet 'reality check' calculation option for those that believe EVE is feasible from your back yard! A demonstration station file Venus-EVE.cal, based on known (and assumed) values of the Bochum Dish, has been included for your interest. The integral Help file has been updated and includes a detailed explanation with respect to the changes and additions. The software in a zip format may be obtained from <http://sm2cew.com/download.htm>, <http://www.ve1alq.com/vk3um/>, and <http://www.vk3bez.org/vk3um/software.htm>. For those that would like their own Station data included in the distributed files please send VK3UM your *.cal file. Doug is particularly interested in data for 3.4 GHz and above.

FINAL: There was quite a bit of discussion this month on the possibility of moving the JA 13 cm EME operating band down to from 2404 to 2400. Measurements made in different countries indicate that interference is lower in this frequency range and seems to favor the move. DJ3JJ dj3jj@gmx.net has updated his RX Performance data with some new information. Andreas' list now includes 13 cm and 9 cm will be added soon. See <http://www.do9bc.de/index.php?page=806688781&f=1&i=1179997641&s=806688781>.

○ K1RQG reports that W2UHI is doing OK. His phone is 740-397-5456 and address is Frank Lumney, Apt. C14, HillenVale, 1615 Yauger Rd, Mount Vernon, OH 43050.
 ○ The web site for MI/DL1YMK dxpedition is up and running at <http://www.ok1dfc.com/Peditions/peditions.htm> and for E7 EME dxpedition at <http://www.ok1dfc.com/Peditions/E7/e7.htm> - TNX OK1DFC.
 ○ I had the opportunity to attend Dayton this year and found the trip well worth the effort. I met many of the EME gang there, but also missed many too.
 ○ The end of May/June should an exciting time for EME on 70 cm and above. Unfortunately I will miss the 1296 leg of the DUBUS Contest because of a business trip. It is possible that my station will be QRV for a few hours, if I can find someone will to operate it. Please keep the info coming. I will be looking for all of you off the Moon, even if not during the contest. 73, A1 - K2UYH

MI/DL1YMK DXPEDITION SKEDS - Lastest skeds list from Joe at k1rqg@aol.com. Details of Michael's dxpedition were published in the March NL. (MI/DL1 = MI/DL1YMK below)

25 MAY 1296.030	26 MAY 2320.100 *RX 2320.1/2304.1/2424.1
0530z MI/DL1-VK3UM	0630z MI/DL1-JA4BLC
0600z MI/DL1-JA4BLC	0800z MI/DL1-OK1KIR
0700z MI/DL1-SV1BTR	0830z MI/DL1-OZ4MM
0730z MI/DL1-OZ4MM	0900z MI/DL1-G3LTF
0800z MI/DL1-G3LTF	0930z MI/DL1-DL4MEA
0830z MI/DL1-DJ9YW	1000z MI/DL1-SM3AKW
0900z MI/DL1-DL4MEA	1130z MI/DL1-SM2CEW
0930z MI/DL1-SP7DCS	1100z MI/DL1-G4DDK
1000z MI/DL1-PA3CSG	1230z MI/DL1-K2DH
1100z MI/DL1-IZ1BPN	1530z MI/DL1-OK1CA
1130z MI/DL1-K2DH	1600z MI/DL1-W5LUA
1400z MI/DL1-K2UYH	1630z MI/DL1-WD5AGO
1430z MI/DL1-W5LUA	1700z MI/DL1-PA3CSG
1500z MI/DL1-WW2R	1730 z MI/DL1-WA6PY
1530z MI/DL1-K0YW	1800z MI/DL1-WW2R
1600z MI/DL1-K5PJR	
1630z MI/DL1-PA3CSG	
1700 MI/DL1-WA6PY	

27 MAY 3456.100	29 MAY 432.030
0930z MI/DL1-OZ6OL	1100z MI/DL1-VK3UM
1000z MI/DL1-G3LTF	1230z MI/DL1-DL4MEA
1030z MI/DL1-DL4MEA	1300z MI/DL1-G3LTF
1100z MI/DL1-OK1KIR	1330z MI/DL1-DK3WG
1130z MI/DL1-SM2CEW	1400z MI/DL1-OK1KIR
1400z MI/DL1-OK1CA	1430z MI/DL1-FR5DN
1700z MI/DL1-W5LUA	1500z MI/DL1-I1NDP
1730z MI/DL1-WD5AGO	1530z MI/DL1-SM3AKW
	1600z MI/DL1-G4RGK
28 MAY 1296.030	1730z MI/DL1-OK1CA
1230z MI/DL1-G4DZU	1800z MI/DL1-N4GJV
1300z MI/DL1-G4DDK	1900z MI/DL1-WA6PY

30/31 May QRV for 23 cm for DUBUS/REF Contest.

1 June 3456.100
2300z MI/DL1-WW2R
6 June 432.030
2300z MI/DL1-G4YTL



W2ETI EME Beacon is off the air as a result of a winter storm - It is hoped to have it back in operation before the end of the summer.

