432 AND ABOVE EME NEWS MAY 2008 VOL 36 #6

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CONDITIONS: What a month, what a time! Congratulations to Willi, LX1DB, on the first WAC on 13 cm and to DL1YMK for making it possible! Congratulations to all the newly successful 24 GHz EME station. And TNX to all the dxpedition operators/organizers that keep life interesting. The DUBUS/EWW EME Contest in April produced high activity on 13 cm and new activity levels on 9 cm. ES5PC appears to be leading the pack with 30 QSOs on 13 cm and is followed by F2TU with 28 QSOs. The 70 cm CW Activity Time Period (ATP) was not too spectacular in April with the completing DUBUS Contest, but was excellent in May. The next ATP will be on 7 June from 1700 to 1900 and 8 June from 1100 to 1300 – try not to miss it.

DXPEDITION NEW: May is the month of dxpeditions! Besides the completed T7/HB9EHJ 23 Dxpedition to San Marino reported on in this newsletter (NL), the DL1YMK/CX dxpedition to Uruguay is in progress and doing spectacularly well (see early reports below) and will be active on 23 cm during the DUBUS Contest; EV5M will be QRV from Byelorussia – see below, and HB0/DF1SR will be QRV from Liechtenstein on 23 cm during the DUBUS Contest and for the first time ever on 13 cm between 6 and 9 May – see their report. Also OK1DFC's plans to activate Z3 - Macedonia and E7 - Bosnia and Herzegovina on both 70 and 23 cm sometime in the beginning of June are progressing well. See Zdenek's report.

9 CM ACTIVITY WEEKEND 7/8 JUNE: In June 2007 there was a very successful Activity Weekend (AW) on 3.4 GHz organized by G3LTF. Peter is doing the same again this year. The dates are 7/8 June. The concept of an AW is to concentrate the activity of the relatively few stations currently equipped onto a single weekend, to encourage newcomers, both transmitting and listening, to test out new feeds, preamps etc, compare measurements and above all to have fun. There should be a couple of strong signals (W5LUA and LX1DB) on the band to help newcomers. Most activity last year and since has been on and around 3400.100, but there is likely to be some at 3456.100 as well. DF6NA has kindly established a web page with a list of stations active and building at http://www.moonbounce.info/3400.htm, that will be updated, so keep him informed. Thanks to VE4MA and Rainer there is now a paper entitled "3.4 GHz Moon Bounce Made Easy" written by VE4MA at the above link - just click at the bottom of the page. This should be helpful to those thinking of starting on this band. Among the stations currently active on 9 cm are G4NNS, G3LQR, OK1CA, OK1KIR, W5LUA, VE4MA, VK3NX, LX1DB, WW2R, N9JIM, DL4MEA and VE6TA.

DL1YMK/CX: Michael and Monica DL1YMK@aol.com are providing another super dxpedition -- On 30 April we managed to put the meshes on the dish, as the high winds from the Pampa in Argentina had calmed down. Because we needed daylight, we began just after sunrise. When we had completed, 3 hours later, the moon window to Eur was closed, so we couldn't test but we heard our own echoes. We spent some time optimizing the position of the 23 cm feed and were very happy to hear W5LUA for our first contact from DL1YMK/CX. Than strong signals from K5JL/W5ORH and K5SO showed that the station was working fine. Later after a struggle with blockage by a Eucalyptus tree and CX5BW's HF towers, we worked VK3UM. They should have imported German beer to CX rather than VK-eucalyptus! We suspect as a result this blockage, we heard nil from the JAs. The spent the rest of the day was spent trying to get warmer as result of 11 deg C temperatures in our sleeping room. In Uruguay, it never becomes really cold (this definitely is a fairy tale), so the houses are not heated except by an open fire place. We arose on 1 May at 0230 local time. This was really hard! The moon was just over the horizon as we listened for our "beacon" HB9BBD. We heard Dominique immediately and worked (579/569) followed by a huge pile up. QSO'd were HB9BBD, OK1DFC, F2TU, LX1DB, HB9Q, G4CCH, OZ4MM, DL4MEA, OK1CA, LA9NEA, SM4DHN, SM2CEW, G3LTF, PA3CSG, DF3RU, IK3COJ, DJ9YW, SV1BTR, SM3AKW, ES6RQ, OK1KIR, LX1DB (SSB), ES5PC, W7BBM, K9SLQ, WW2R, WA6PY and N2UO. LX1DB second contact (57/55) on SSB was a special surprise. In total 32 initials in 15 countries were completed. The next day on 432 did not go as well. Due to numerous birdies produced by nearby TV repeater, we had to



DL3YMK/CX dish with 23 cm feed and operating site

move 2 kHz down to 432.043. We also had polarization problems (could hear the US only vertical), we still made 14 QSOs, mostly random. Hopefully we produced a smile on the face of DL9KR, OK1DFC, HB9O, DF3RU, OZ4MM, SM2CEW, UA3PTW, PA3CSG, IINDP, DL7APV, G3LTF, K1RQG, K1FO and K2UYH. On 3 May for the second time we achieved a 3-band EME dxpedition. Our 13 cm activity now makes it possible, to get the WAC on 13 cm EME. This is the first time that South America has appeared on the moon on 13 cm. This was possible only because of the tremendous efforts of CX2AQ and his good relationship to the URSEC. LX1DB provided us with a beacon to calibrate our moon tracking. We provide Willie with the first 13 cm WAC. After Willie we QSO'd F2TU, OZ4MM, HB9SV, G3LTF, OK1KIR, DL4MEA, OK1CA, PA3CSG, ES5PC, IW2FZR and HB9Q, WW2R, W5LUA, G3LTF (dup), LA8LF and VE6TA. We only had a partial with WA6PY, as we had to close down because of high winds before completion. Later we managed to work VK3UM on the setting moon on 70 cm, but unfortunately nil again from Japan. On 9 May we will be back on 13 cm. Please note that on all sked we will TX second. You should TX in the first sequence. The reason for this change is to allow us to optimize the dish pointed (adjust a wobbling bunch of Alum) on the moon in 1st sequence. The Uruguayan hams have been extremely friendly and helpful. We received a warm welcome from Pedro, CX5BW. We are living in his holiday home where he has his huge antenna farm and his shack and Richard, CX2AQ (without his very special help we would have never gotten our high power license).

DL4MEA: Guenter guenter.koellner@nsn.com is QRV on 23, 13 and 9 cm and was active in the April leg of the DUBUS Contest on both 13 and 23 cm - On 13 cm on Friday before the contest I tested a G4DDK 2stage preamp on the NF meter. It showed a 0.5 dB NF. This is an improvement of 0.1 dB against the one that I had used before and so I installed it. I did not have time to optimize it, which will be done later. On lower frequencies, it showed a 0.4dB NF. Sam has made a really nice set of preamps with reproducible noise figures. Curiously my sun noise did not change, but my impression was that it gave a recognizable benefit on RX. None of the stations I worked was a problem to read. The crossband behavior was really good as demonstrate by my initial with NA4N. Unfortunately operation on 2424 MHz was not possible because my 2424-2324 MHz mixer did not work as expected. This mixer originates from a GSM transmitter local loop. First, the 100 MHz LO did not start, and it then somehow did not convert - my apology to the JAs. I worked on Saturday G3LTF, ES5PC, VK4AFL, OZ4MM, F5WJF, F2TU, OK1KIR, IW2FZR, OK1CA, HB9SV, G3LQR, HB9Q, SD3F, PA0BAT, VE6TA, NA4N and K2UYH. CWNR were VK3NX due to frequency confusion. I was not aware that both are listening

around 100. I called on 050 for a long time. I used a DB6NT Rev 2 transverter with G8ACE oven, MRF21120 driver, 2 x MRF21120 final with about 150 W at the feed, round septum polarizer feed with Chapperal ring in 4.5 m, 0.32 f/d dish, and G4DDK 2 stage preamp with 0.5 dB NF (not optimized). On Sunday, I switched to 9 cm and received echoes quite early. I heard VK3NX on CQ, answered, and then the door bell rang. Unfortunately due to this, I missed the sked time too, but I was able to catch him later when PA0BAT did not show up (he did not find the moon), and so I made the first VK-DL contact on 9 cm. Originally I had planned to move back to 13 cm after this contact, but I stayed on 9 cm and worked OK1CA, G3LTF, OK1KIR and W5LUA between family activities. I closed the station at 2100 and may have missed some other stations. I can be QRV on 9 cm in about 10 min, since the whole transverter is set up on a single rail. My 9 cm station is "low budget"! I think I did not spend more than €250 for it. It uses G4DDK multiplier, DB6NT Rev. 1 transverter with G8ACE oven, Toshiba 50 W PA, round septum polarizer feed with Chaperal ring (taken from a C-Band LNB) and my 4.5 m dish. I use a DJ9BV preamp with FHX35 (unknown NF) and not optimized, but get 7.7 dB CS/Sun - should be > 10dB.

<u>DL.7YC:</u> Mnfred <u>plortz@shf.biz</u> is returning to EME after many on 24 GHz – I just finished my 1127 TWTA setup and have some excellent results. With help from DK3UC, DF1OI and a script from G4NNS, I was able to tune my tube to 28.4 W measured at the waveguide output. Additionally I have the automatic dish tracking running, but will improve the software for better alignment (0.01 to 0.02 deg). My transfer switch electronic is ready too and now all I have to do is put everything in boxes for mounting outside. I hope to be ready for the next moon weekend.

ESSPC: Viljo viljo@comnet.se reports on his 13 cm DUBUS Contest results -In the contest on 13 cm I worked 30 stations. This was more than in any 13 cm contest before. I heard but missed JA8IAD. The strongest station was HB9Q and weakest DF3RU. SP6GWN was weak and did not copy my call until Sunday evening when he became noticeably stronger and finally answered my CQ. It was good to see that even the smallest stations were spending time calling CQ. I QSO'd on 12 April VE6TA (2304), NA4N (2304), W5LUA (2304), KL6M (2304), VK4AFL (2301) for an initial (#), OK1CA (2301), OK1KIR (2301), VK3NX (2301), DL4MEA (2320), F2TU (2320), G3LTF (2320), JA4BLC (2304/2424), JA6CZD (2304/2424), F5JWF (2320), PA0BAT (2320), OZ4MM (2320), IW2FZR (2304), HB9SV (2304), HB9Q (2304), G3LQR (2320), SD3F (2304), IK2RTI (2304), K2UYH (2304), WA6PY (2304), WW2R (2304) and K7XQ (2304) (#), and on 13 April JA8ERE (2304/2424), ON5RR (2320) (#) and 1st ES-ON on 13 cm, DF3RU (2304), SP6GWN (2320) (#) and 1st ES-SP on 13 cm. I had once again great help from the SDR-IQ receiver to monitor for the activity on the band. It makes operating much easier, especially when operating remote over Internet. This time all my equipment and my Internet connection worked without any trouble. I hope to be QRV also in the 23 cm contest operating from home in Estonia.

EV5M: Oleg (UA3ATS) kazz@inbox.ru announces plans for a 23 cm EME dxpedition to Byelorussia (KO54nj) during the DUBUS Contest -- The call will be EV5M. We plan to operate from 9 May at ~0700 to 11 May at ~2100. No skeds, but before the DUBUS EME contest we will stay on 1296.055. Dxpedition team members are UA3DJG, UA3ATS, RA3WND, EW1EW, EU1AB and EW1DU. The equipment will include a 3.6 m portable stressed dish with RA3AQ optimized septum feed and W2DRZ trekker, HB LNA with 0.4 dB NF, HB LD-MOSFET PA with Pout of 350 W and a PC-controlled TS-790.



EV5M team operating portable during ARRL EME Contest

F5JWF: Phil f5jwf@wanadoo.fr reports on the contest -- I spend the whole weekend operating on 13 cm. I stayed on 2320 only as I am still not equipped with crossband xverter. I QSO'd F2TU, DL4MEA, G3LTF, OK1CA, ES5PC, OZ4MM, OK1KIR, IK2RTI, VE6TA, IW2FZR, G3LQR and SD3F. Conditions seem good even if there were big fluctuations in my echo levels. I also found too many stations with frequency drift. I suspect the problem is in my own station. Only 2 or 3 stations were missed. I would like to modify my xverter to work cross band, but what are the usual procedures for TX and RX on each band? What is the practice with Japan on 2424? Does each station transmit on their own authorized freq and receive on the cross band? [Basically, but you respond on the same relative freq; RX .090 then TX .090 – see G3LTF's Paper in the Prague 10th EME Conference Proceedings]. My station consisted of a 3.7 m dish, 170 W at the feed and a 0.7 dB NF LNA.

E2TU: Pierre **f2tu.philippe@orange.fr** reports good activity and good WX during the April AW and DUBUS Contest – On 13 cm I was disappointed at being unable contacted KL6M and VK3NX (because QRM on 2301) on Saturday. I made 29 QSOs on 13 cm with OZ4MM (559/559), ES5PC (569/579), G3LTF (579/579), VK4AFL (559/579), F5JWF (559/569), JA8IAD (559/569), JA4BLC (569/569), HB9SV (579/579), DL4MEA (569/569), JA6CZD (559/569), OK1KIR (569/569), PA0BAT (559/559), SD3F (559/559), OK1CA (579/579), G3LQR (559/569), IK2RTI (569/579), HB9Q (579/579), VE6TA (559/579), NA4N (559/559), W5LUA (579/579), WW2R (559/0), K2UYH (559/569), WA6PY (569/579), K7XQ (549/559), JA8ERE (569/559), SP6GWN (569/559), ON5RR (559/559), DF3RU (539/559) and IW2FZR (569/579). On 9 cm I heard DL4MEA (559), G3LTF (549), OK1CA (559) and OK1KIR (559). I use my 7.8 m dish all bands with 250 W on 13 cm.

G3LTF: Peter g3ltf@btinternet.com reports on his April activity -- I started the month on 9 April with a 13 cm cross band contact with VK4AFL for initial #54. We could just copy SSB even though the trees were beginning to obstruct Trevor's dish. I then worked G3LQR for a system check out and later in the day on 3.4 GHz DL4MEA for initial #11 on 9 cm. On 10 April was on 432 MHz and managed to work OK1TEH (M/O) on CW for #412. It was great to work Matej after many previous tries. I spent 12 April on 13 cm and worked DL4MEA, VK4AFL, VK3NX, F2TU, ES5PC, JA8IAD, JA4BLC, PA0BAT, HB9SV. F5JWF, IW2FZR, OZ4MM, OK1KIR, SD3F, OK1CA, HB9Q, G3LQR, IK2RTI, WW2R, K2UYH, W5LUA, VE6TA, K7XQ and NA4N #55. Ten of these QSOs were crossband. There was good activity and it was really great to work the VKs. Until about 1800 the wind was strong and the dish was not always on the moon affecting signal levels - I could see the moon noise fluctuating down to 50% of normal. I missed WA6PY and two other JAs. On Sunday 13 April I changed the system over to 9 cm, but something was wrong as my moon noise was low and I seemed to be getting more noise from the trees than was normal for the elevation I was at. I did work VK3NX and then DL4MEA and OK1CA, but signals were definitely down and I decided to check the feed alignment. I found that I had forgotten to fit the strap that steadies the feed to the feed support leg. I put crosswire across the front of the feed and with a small hole at the back of the feed I was able to re - sight it on the dish centre and fit the strap. This was the solution and the signals and moon noise returned to normal. I then worked OK1KIR, W5LUA and VE6TA for initial #12. My Sun noise was 14 dB with a SF of 68. I am now working on new feeds for 13 and 9 cm in the hope of picking up 0.5 dB or so of antenna gain. [Peter is organizing a 9 cm AW in June – see announcement at the start of this NL].

G4RGK: Dave g4rgk@btinternet.com was active during the April 70 cm ATP and worked I1NDP, K1RQG and DF3RU. I heard DG1KJG and CWNR W8TXT for around 15 mins. I guess we had the same pol problems that I used to have with K0RZ. Bill put up a vertical array and we could work easily. The next day (Sunday), I was again on 70 cm and contacted I1NDP, DL7APV and JA6AHB. I am building another 8 yagis to increase my array to 16 yagis.

HB0/DF1SR: Kasimir (DL2SBY) df1sr@arcor.de and DF1SR (ex DD0SB) report that they will de operating on 23 and 13 cm from Liechtenstein. The trip will be from 5 to 12 May. This is the first time that Liechtenstein has been on 13 cm and operation on this band from 6 to 9 May. They will then switch to 1296 to operate the DUBUS Contest on 10/11 May. On 13 cm they will operate 2320.080 and listen on this frequency and around 2304.080 (TNX to a converter from WD5AGO). On 23 cm they will operate on 1296.080. Their QTH is in grid JN47. The station on 1296 will use a 3 m dish with OK1DFC Septum feed, 500 W PA and 0.4 dB NF LNA, and 2320 the same 3 m dish with OK1DFC Septum feed, 200 W PA and 0.6 dB NF LNA. Skeds can be found at the end of this NL.

HB9Q: Dan (HB9CRQ) dan@hb9q.ch reports that his group worked 20 different stations on 13 cm in the DUBUS Contest. They added 5 initials to bring them to #26. This was their second appearance on 13 cm and great fun. They will be back. Dan notes that all QSO were on radon CW with no announcement on Moon-net, no chat/loggers or no skeds.

<u>IK2RTI:</u> Gianfranco <u>ik2rti@gmail.com</u> has been QRV since the end of last Oct on 70 cm with 8 x 21 el F9FT yagis, an 800 W PA with a TH338 and a ATF35076 0.3 dB NF preamp. He is interested in 70 cm skeds. Gianfranco remains active on 23, 13, 6 and 3 cm as well.

IW2FZR: Dario dario296@virgilio.it was QRV on 13 cm during Saturday of the DUBUS contest -- I had problems with my transverter that I was only ably to solve after 1830 on Sunday. This is the "fun" of our hobby! Despite my problems, I managed to QSO G3LTF, HB9SV, ES5PC, DL4MEA, OK1CA, OK1KIR, F5JWF, HB9Q, SD3F, F2TU, NA4N and PA0BAT. CWNR was K2UYH. Many TNX to all for the fun!

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp send news of 13 cm DUBUS Contest results in JAPAN – We enjoyed the contest, but were sometimes frustrated by our allocation on 2424. The results were: JA6CZD worked W5LUA, OZ4MM, ES5PC and F2TU. JA8ERE worked W5LUA, VK3NX, ES5PC and F2TU. JA8IAD worked W5LUA, OK1CA, G3LTF, F2TU and HB9SV. I worked K2UYH, W5LUA, WA6PY, VK3NX, ES5PC, HB9SV, G3LTF, F2TU and OZ4MM. I heard VE6TA, JA8IAD, OK1CA, DL4MEA, IW2FZR, F5JWF, PA0BAT and SD3F. I wish more EU/NA stations would listen not only on 2424.100, but over a wider range (2424.070 - 2424.110 plus drift and Doppler) as we should keep 10 kHz separation to live together (avoid QRM). JA4BLC is on 2424.070, JA6CZD is on 2424.080, JA8IAD is on 2424.090 and JA8ERE is on 2424.110.

K7XO: Jeff k7xq@secure.elite.net reports on his activity in the 13 cm part of the EWW Contest -- On Friday night after work, 12 April at 0300, I changed feeds to 13 cm and did some echo checks. I called CQ with no replies on .010 to .060 until moonset and then discovered that the activity is centered around .100, so never made any contacts. On 13 April I worked (moonrise to moonset) HB9Q for an initial (#), F2TU, HB9SV (#), OZ4MM (#), OK1KIR (#), G3LTF, ES5PC (#) and K2UYH (#). I called CQ frequently and had good consistent 20 dB over the noise echoes the entire time. After the EU moon window, the activity was gone. I looked for NA stations, but none were heard. On 14 April no stations were worked. I CWNR SD3F. The only other station heard was F2TU. I tried to add in another down converter for 2420 to add the JA subband, but it degraded the NF of the entire receive chain so had to take it back out. I am working on a better solution. I am now up to initial #13 on 13 cm. My Spectrian SSPA performed flawlessly throughout the entire time and gave about 160 W out continuously. The built in directional coupler and detector provide an excellent power meter, so there is no need to wire in a Bird with a 2.3 GHz slug! I had a great time on the band!

KL6M: Mike melum@alaska.net has to be away on business and will miss the 1296 DUBUS Contest weekend and the associated dxpeditions. Mike also had troubles with his PA during the April DUBUS Contest and made only made 1 13 cm QSO as a result. I managed to work ESSPC (559/549) before my Spectrian SSPA failed. I have no news on what happened. I will not get a chance to look into it until next month. I did hear NA4N, W5LUA, VE6TA and VK4AFL (nice sig). I also listened on 2424, but could not pull anything through the noise. I have 5.6 dB CS-term with the normal noise floor < 1 dB on 2304, but on 2424 my noise floor is > 6dB! I have no idea what is causing the noise. I plan on attending the Dayton Weak Signal Banquet and hope to see a bunch of the EMEers there.

NA4N: Greg na4n@hughes.net was on 13 cm in April for the DUBUS Contest - I worked the following stations on 2304, ES5PC, W5LUA, HB9Q, F2TU, HB9SV, OZ4MM, K2UYH, IW2FZR and WA6PY. I also finally worked G3LTF and DL4MEA on 2320/2304 crossband using my new AOR AR5000A. I know I missed a few stations and probably spent too much time listening on 2320. TNX to all the stations I worked.

NA6MF: Jim's (N9JIM) n9jim-6@pacbell.net group (the Jamesburg EME team) was QRV on 1296 EME from a portable station at Moffet Field in Mountain View, CA (CM87) on 12/13 April \during the European window. They used a 12' dish and 600 W 12 foot dish on CW/SSB/JT65C. The main purpose was to provide a public demonstration of EME during the Yuri's Night Celebration. Three QSOs were made on 1296.

OK1CA: Franta strihavka@upcmail.cz reports on his April DUBUS Microwave Contest activity -- I was QRV on 12 April on 2.3 GHz only during the VK/JA window. I worked VK4AFL for initial #54, VK3NX and ES5PC on 2301, JA8IAD on 2424/2320, OZ4MM, F5JWF #55, DL4MEA, F2TU, G3LTF and IW2FZR on 2320. I spend Sunday 13 April on 3400 and I worked VK3NX. I heard Charlie for two hours and with a top signal of (569). I also worked DL4MEA for initial #9, G3LTF, OK1KIR, WW2R #10, and W5LUA. CWNR was VE6TA. I also had unsuccessful skeds with S57NML and WD5AGO. I

think the 7/8 June AW for 3.4 GHz will be good chance for new stations. I plan to be QRV on this weekend.

OK1DFC: Zdenek ok1dfc@seznam.cz sends his April report -- I was traveling much of this month with little time for the hobby, but I did have a few nice QSOs. On 1296 I worked UT5JCW (539/559) on CW and (22DB/O) on JT for my JT initial {#43}, YO2IS (O/O) on CW for initial #207 and DXCC 51, PA3DZL (12DB/O) on JT {#44}, SV1OE (13DB/O) on JT {#45}, RD3DA (10DB/O) on JT, SM5LE (539/559), W9IIX (539/559), RD3DA (559/559), SV1OE (539/559), VE3KRP (539/579), K5JL (559/589), IK3COJ (559/569), G4CCH (589/589), G4RGK (539/559) and NA6MF (539/579) #208. I am working hard on preparing for the Z3 EME dxpedition. I have confirmed my license and the place where we will install the dish in Kosovo. I am not sure of the call. Probably the E7 prefix will be changed to YU8 as Kosovo is a new EU country. I am still waiting for license confirmation from Pristine. [After this e-mail Zdenek added initials and DXCC QSOs on 23 cm with T7/HB9EHJ and DL1YMK/CX on CW and on 70 cm with DL1YMK/CX on CW].

OK1DST: Lexa kobranov@amoscz.cz is QRV on 23 cm a 2.4 m dish with a rectangular septum polarizer feed, 2 x 2C39 PA (160 W CW and 120 W on JT) and 0.8 dB NF LNA. He is another EMEer using a commercially available dog house to protect his equipment at the base of his dish – see WW2R's picture in the May 2007 NL. He made his first QSO with G4CCH on 17 Feb using JT65C, and has worked several stations since including OE3SJA. He is available on both CW and JT.



OK1DST's 2.4 m dish with SSPA in the dog house



NA6MF crew at EME demonstration at Moffet Field

OK1KIR: Tonda jelinek.antonin@email.cz reports on his group's European EME Contest activity in April -- On 2300 we worked random on 12 April 12 at 0945 ES5PC (549/559), 0954 VK3NX (539/449), 1343 G3LTF (569/569), 1351 DL4MEA (559/559), 1354 F2TU (569/569), 1425 OZ4MM (569/559), 1510 F5JWF, 1523 SD3F (559/559), 1536 HB9SV (579/569), 1544 HB9Q (559/559), 1621 G3LQR (549/559), 1645 IK2RTI (549/569), 1851 VE6TA (559/559), 1933 W5LUA (569/569), 1948 K2UYH (559/559), 2053 WW2R (549/539), 2130 WA6PY (559/559) and 2203 K7XQ (549/449) for initial #72, and on 13 April at 1410 IW2FZR (559/559), 1530 SP6GWN (549/519) #73 and DXCC 27 and 1549 ON5RR (O/O) #74 and DXCC 28. We heard OK1CA, PA0BAT and NA4N. Local QRM from WiFi prevented any activity on 2424. It was S7 on the TS790 at all times. On 2304 and 2320 with antenna beamed to the East (Prague) is not possible to listening without good filter behind LNA. On 3400 we worked on random on 13 April at 1849 DL4MEA (O/549) for initial #8 and DXCC 6, 1943 G3LTF (549/559), 2054 OK1CA (549/559) and 2122 W5LUA (559/549) and on sked 2351 VE6TA (M/M) #9 and DXCC 7.

OKITEH: Matej okltehlist@seznam.cz was active on 70 cm in April -- I'm happy to announce that I completed on Friday 10 April a CW contact with G3LTF. Peter with his 6 m dish is now my smallest 432 station ever. The contact wasn't easy, but finally we made it. Many TNX to Peter his patience! I note that I used just single 5.7 m long 23 el DK7ZB yagi and 700 W from a GS31b PA. I also worked during the following few days on JT65 GW3XYW (24dB) and JA6AHB (22dB) for 2 initials. After the QSO with GW3XYW, I asked him to switch to CW (as is usual), but he wasn't ready – (why not to use CW from WSJT?). I tried CW with JA6AHB and we heard each other, but the QSO wasn't complete. 9H1TX with his 4 x yagis has reported copying my signals. I am very interested in skeds – CW and JT. Pse e-mail me.

ON5RR: Marc marc kleyn@mastercard.com with the aid of second op Michel (ON7EH) after several years of inactivity is QRV again on 13 cm – We successfully re-activated our 13 cm station and worked on Sunday afternoon on 2304 or 2320 between 1300 and 1700 HB9SV for an initial (#), HB9Q (#), F2TU, OK1KIR (#) and ES5PC (#). The Doppler shift was between 3.5 and 2 kHz! CWNR on several occasions IW2FZR, F5JWF and SD3F. We were glad to experience the same thrill as when we first started our EME operation at Marc's first EME QTH. The station consists of 60-80 W in the shack, a 0.7 dB NF LNA at a the VE4MA feed for a 4 m dish that is manually controlled.

OZ4MM: Stig writes on 13 cm it was quite confusing to not have a clear view who was on and where. It is time consuming to listen on 2301 + 2304 + 2320 and 2424 at the same time... And then you need to guess where to call (2304 or 2320). I feel we need a better time plan for the different bands. I had very degraded RX on 13 cm during the contest, possibly because of oscillator leakage and need to fix this problem. Even so, I worked the following 21 stations: F2TU, OK1CA, DL4MEA, JA4BLC, JA6CZD, G3LTF, F5JWF for initial #68, SD3F, ES5PC, OK1KIR, HB9SV, HB9Q, IK2RTI, WW2R, K2UYH, WA6PY, NA4N, K7XQ #69, VE6TA, W5LUA and VK4AFL. CWNR were VK3NX, JA8ERE and JA8IAD. Heard were PA0BAT and IW2FZR. The station on 13 cm is 10 m dish with W2IMU horn and around 75 W at the feed. The LNA is MGF4919 in the first stage.

PA0EHG: Hans pa0ehg@amsat.org reports that on 12 April he succeeded in working LX1DB for his first 24 GHz EME QSO — Willi's signal was very strong signal. In total I made 4 QSOs with LX1DB, DF1OI, DK7LJ and VE4MA. OK1KIR copied my signal as well, but he was not able to transmit. I hope to test with W5LUA and OK1KIR soon depending on the weather. My station is a 3 m Andrew dish, 1.25 dB NF preamp by DB6NT and 10 W from a Hughes TWT directly into my feedhorn.

SM5LE: Sven sm5le@telia.com sends his April AW report -- Even with the DUBUS Contest going on for other bands, 1296 still showed "half good" activity. I worked 8 stations on CW and 7 [?] on JT. I was especially pleased to work JA4BLC on random CW and UT5JCW as a new JT initial on JT. QSO'd were JA4BLC, RD3DA, SP6JLW, LA9NEA, OK1DFC, K9SLQ, K5JL and G4CCH on CW, and SV1OE, RD3DA, G4CCH and UT5JCW on JT.

SV1BTR: Jimmy jimmyv@hol.gr has done it again and reports that his new 70 cm 24 xpol yagi is up and running -- On the weekend of 22/23 March I took down my previous 70 cm array of 8 xpol yagis and put up the new H frame for the new yagis, which have almost half the electrical length. Inspired by the challenge and dream of my 15th EME array since 1992, I started the work at 7 am local and continued for 34 hrs without any sleep and through heavy rain to finish the array mounting. They look fantastic!!! On the weekend of 3/4 May I will complete the project and hopefully be operational. The dipoles, phasing lines, dividers, remain to be put in place. [See array picture at end].

T7/HB9EHJ: Bodo (DL3OCH) dl3och@gmx.de received permission to operate from San Marino on 23 cm and decide to take advantage of the permit on 1/2 May -- Not everything worked out as planned. I arrived at 0800 in San Marino with beautiful weather, and started to set up equipment at 0915. I was QRV at 0945 and worked OK1TEH tropo on CW. The signal was strong, but with very heave QSB. It became cloudy and I moved the antenna to the moon as soon as the QSO was done. I called CQ and saw DJ9YW, HB9Q, OK1DFC and ES6RQ calling. I called DJ9YW but he disappeared after two periods. Big black rain clouds moved over and I didn't see signals any more. I then saw HB9Q calling and called, but he then disappeared. During the next hour, signal were up and down and varied between copying at -24 dB or no trace at all! I was finally able to work OK1DFC (23dB), HB9Q (24dB) and DJ9YW (25dB). The clouds became bigger and it started to rain, so I decided to take everything down to protect the equipment. The following day was really good for EME. The weather was perfect with blue sky, a temperature of 20°C and no wind. The moon was visibly, which made pointing much easier. I added the following stations OK1KIR (26DB), PA3CSG (22dB), DJ9YW (23DB) - best signal ever from Heinrich, K2UYH (20DB) - speaker copy and W5LUA (24DB). Heinrich told me that there was also RD3DA and SV1OE calling.



Bodo at T7/HB9EHJ San Marino operating location

<u>UT5JCW</u>: Serge <u>ut5jcw@usa.com</u> is now QRV on 1296 EME besides 432 -- I am using for 23 cm a 3.7 m TVRO dish with an RA3AQ septum feed, LDF-4-50 line to a AD6IW SSPA giving about 250 W at the feed and W7CNK 0.3 dB NF LNA. I use an AlfaSpid BigRas rotator controlled by GM4JJJ's Moonsked software, He has worked several stations including OK1DFC and K2UYH and is interested in skeds.



UT5JCW's OTH – see his 3.7 m dish at the top

<u>VE1ALQ:</u> Darrell writes -- Snow and ice has left the area and I finally have my AZ Drive sprocket repaired - hi. The biggest problem was cutting the 1/2 moon key off. The slot in the motor shaft is 3/16" and the sprocket key way was 1/4". Now the key is 2 X 10-24 hardened Allen screws one above the other. There is no slack now, and I'm relatively sure it will not cut the Allen Screws off. The squirrel's home is now gone, but the feed will have to come out to completely clean WG. More serious is my RX isolation relay does not come back to RX every time and most be replaced. But I am making progress and hope to be QRV again soon.

<u>VE6TA:</u> Grant <u>ve6ta@clearwave.ca</u> was active for the first time in the DUBUS Contest on both 13 and 9 cm -- It turned out to be a very busy weekend changing feeds and trying to optimize the new band. In the end I spent more time working on the system than operating, but it was all worth it. I worked the following stations on 13 cm: ESSPC, W5LUA, VK4AFL for initial #43, VK3NX, HB9Q, F2TU, HB9SV, OK1KIR, SD3F, WW2R, DL4MEA, K2UYH, WA6PY, F5JWF, G3LTF and OZ4MM. CWNR were JA4BLC, JA8IAD, JA8ERE, JA6CZD and NA4N. I then took the opportunity to switch over to 3400 for the first time. This was exciting and I had hoped for slightly better results, but what's life without a challenge - HI. Worked on 9 cm were G3LTF for initial #1 and OK1KIR #2 on sked - very exciting, TNX guys. I had close calls with OK1CA and W5LUA due to an error here, and CWNR VK3NX. I found that my echoes were non-existent and that signals were much weaker than expected. Yet my sun noise was reasonable, but not quite as good as on 13 cm. I guess I still have room for optimization. The 9 cm station consists of a DB6NT transverter, WD5AGO 2 stage preamp with a 0.49 NF, Aluminum septum waveguide feed with Chapparal rings, Toshiba SSPA and my dish. All in all it was a fun event. I plan to be back on 23 cm next month for the DUBUS Contest.

VK4AFL: Trevor tbenton@bigpond.net.au is now set up for 13 cm and was active on this band during the April part of the DUBUS contest -- I found 13 cm to be definitely a good band and certainly suits a smaller dish such as my 3.7 m dish. It was helped a lot by WD5AGO's excellent preamp. With about 90 W, CW echoes are quite loud and SSB returns Q5. Earlier in the year I had a handful of contacts limited to 2301 and 2304 receive, but I purchased a 2320 receive convertor from Kuhne Electronic, which I switch in and out as required. A few days prior to the contest I had a check contact with G3LTF to confirm that 2320 was working. In the contest I worked W5LUA, WA6PY, WW2R, VE6TA, VK3NX, ES5PC, OKICA, G3LTF, DL4MEA, F2TU, SD3F and OZ4MM. For the next contest I expect to have 2424 receive going for the JAs. Carl, SD3F was my EME contact number 1000. One problem is the continual tuning required to cover the various European frequencies within the 13 cm band, which I found very inefficient and frustrating. I am thinking that a better system might be to announce prior that I will listen 2304 only for a certain time frame and then listen only 2320 for another. Another alternative could be to listen on 2304 for one moon pass then 2320 for the following, although some stations are only on for one of the days. I still have the 13 cm setup in place and will change to the 23 cm feed just prior to the 1296 contest in May.

W5LUA: Al w5lua@sbcglobal.net reports on 13 and 9 cm -- I had a fun time on 13 and 9 cm during the DUBUS Contest. On 13 cm, I worked ES5PC, NA4N, VE6TA, WW2R, WA6PY, JA4BLC, JA8ERE, JA8IAD, VK4AFL, VK3NX, JA6CZD, OK1KIR, F2TU, HB9Q, HB9SV, PA0BAT, G3LTF, K2UYH, SD3F and OZ4MM for a total of 20 stations. My initial count on 13 cm is now up to #84. On 9 cm I operated solely on 3400 and not 3456. I worked VK3NX, DL4MEA for initial #13, G3LTF, WW2R #14, OK1KIR, OK1CA and VE6TA #15 - after the contest. I also worked WW2R on JT-65C on 3400. I have heard about a potential 9 cm activity weekend in June. Unless I get out of town, I would support the weekend of 7/8 June. I am now running a 5 m dish with 200 W at the feed on 13 cm and 100 W at the feed on 9 cm.

W9IIX: Doug w9iix1@yahoo.com as the Phoenix has returned to 23 cm EME out of the ashes! -- The GS15 driver and GS23 final (1,000 W) are completely rebuilt and QRV after the 2006 fire and am making contact as of April with my 3.7 m dish. During the AW I contacted K9SLQ, K5JL, G4CCH, OK1DFC and LA9NEA, and heard SV1OE.

WA6PY: Paul pchominski@maxlinear.com was active during the DUBUS Contest on 12/13 April – I QSO'd on 13 cm W5LUA, JA4BLC, VK4AFL, VK3NX, ES5PC, HB9SV, F2TU, HB9Q, SD3F, OZ4MM, OK1KIR, VE6TA, WW2R, IK2RTI, K2UYH and NA4N. Unfortunately on 2424 a new type of interference came on the top of bursts of 802.11 b/g. Now I have also constant carriers about every 1 kHz across entire band. Some of them are well above S9. I did not check with a spectrum analyzer, but this might be an OFDM signal. I found the cleanest spot around 2424.077 and started to call CQ JA. With some difficulty, I could identify and QSO'd JA4BLC. Heard but lost was JA6CZD. During this contest weekend, I was testing a new septum feed. I was hoping to get more gain versus my old W2IMU with my 0.37 f/d dish, but my sun noise

and echoes were about the same. Lab measurements indicate a more elliptical polarization with an average 1.7 dB in comparison to my old feed, which has below 1 dB. I first made the septum according to RA3AQ dimensions - this gave me 4 dB, second according to OK1DFC - 2 dB, but very poor Return loss and isolation. This was in some degree due to the different length of the main waveguide. The final septum is based on RA3AQ with first step higher by about 9 mm. The last step has mostly to do with return loss and isolation, but very little influence on circularity of polarization. In order to get the best circularity, I shifted the septum up by about 8 mm. Unfortunately I made the cross section of the feed 82 x 82 mm instead of original RA3AQ 80x80. This shorten the guide WL by about 5%. This will certainly require some changes of the septum steps. There is some parasitic resonance at 2496 MHz spoiling the performance at 2424 MHz. Probably this is caused by the next mode. However the cut off frequency of the TH11 mode is 4 GHz, but extra obstacles can create a resonance at lower frequency. In order to maximize the sun noise versus cold sky, the new feed must be shifted away from the focal point of the dish by 2.3 cm. I was expecting that phase center will be about 1/10 of WL inside the feed. I have to make more calculations and experiments with this feed before I will make any final conclusions. Prior to the contest I had very little time. This weekend I spent more time working on my EME equipment since moving to

WW2R: Dave ww2r eme@g4fre.com also reports on 13/9 cm activity in the DUBUS Contest – I worked on 12 April VK4AFL for initial #18 and DXCC15, W5LUA, VE6TA, F2TU, HB9SV #19 and DXCC 16, G3LTF (X-band), G3LQR (X-band) #20, HB9Q #21, OZ4MM, OK1KIR, SD3F, ES5PC, K2UYH and WA6PY #22. CWNR were VK3NX and F5FWD. No other signals were heard on 2320, despite having an SDRIQ on each band - (TNX G4DZU!). I deployed my spare Spectrian PA about half way through the weekend as a check in preparation for the upcoming expeditions. Both amplifiers survived, producing around 180 W. At the end of the Eur window, (in the dark), I removed my 13 cm feed and put in the 9 cm feed. Results were much better than last July. On 3400 VK3NX was detectable, but not workable. On 13 April I worked W5LUA for initial #3 and DXCC 3 - the loudest signal of the weekend and OK1CA #4 and DXCC 4. Good signals were received from OK1KIR, but they could not hear me. I also heard G3LTF, and worked W5LUA on JT65C. I look forward to another AW on this band soon. My equipment on 13 cm was a DB6NT Transverter, G4DDK preamp (0.35 dB NF), Spectrian PA and HB VE4MA superfeed, and on 9 cm a HB GPS locked transverter, DEMI preamp (0.6 dB NF) and Toshiba 40 W PA with HB VE4MA superfeed.

YO2IS: Szigy yo2is@wa7v.ampr.org writes – I am set up for 23 cm operation again and ran tests in April that offered a good chance for me to extensively test my new 23 cm system. I heard good signals from HB9BBD (429-539) calling CQ on .020, and called him for 25 min, but no reply. Also nothing was copied from HB9Q. Then I received PA3CSG (M-O) copy, but unfortunately at the end our sked my AZ rotator stopped working and I had to QRT. My GI7B PA was running stable at 1.8 kV and 0.3 A with only 3 m of Cellflex line to the feed of my 2 m dish. I was receiving about 4 dB of Sun noise. I plan to make improvement and will be on for the DUBUS 23 cm contest.

ZS6AXT: Ivo zs6axt@telkomsa.net sends his regrets at not being able to be QRV on 13 cm for the DUBUS Contest. To add to his misery, he had cloudburst and his neighbor had blocked the overflow from his garden. As result Ivo's ham shack was flooded by several cm of water. He has been trying to dry the wooden floor and carpets, which as slowed his other repairs. He is not sure when he will be QRV again.



W9IIX's new EME shack

K2UYH: I had an exciting time during the past month. On 6 May I ran a follow up test using a linear feed with DJ8MS on 1296. This time I easily worked Tor with JT65C. His signal peaked to (23dB) for mixed initial #313*. The next weekend I operated the DUBUS Contest on 13 cm and finally despite my tree problems worked JA! QSO'd on 12 April were at 0330 JA4BLC (O/O) for initial #34 and a new DXCC - TNX Yoshiro, also heard was JA8AID but I could not get his attention before the moon was too low, 1940 ES5PC (559/559), 1948 OK1KIR (559/559), 1955 F2TU (569/559), 2013 HB9SV (579/569), 2015 G3LTF (569/569) XB, 2025 SD3F (559/569), 2033 DL4MEA (559/559), 2042 VE6TA (559/569), 2055 IK2RTI (559/569), 2105 OZ4MM (559/559), 2113 HB9Q (579/569), 2118 W5LUA (569/569), 2244 WW2R (559/539), 2250 WA6PY (559/559), 2305 NA4N (559/559) and 2327 K7XQ (O/O) #35 for a total of 17 QSOs. I also CWNR F5JFW XB, apparently he is not set up for 2304 reception. I had hoped to also operate on Sunday, but company show up unexpectedly and I never made it on. On 2 May I worked using linear pol at 1040 T7/HB9EHJ (21DB/O) on JT65C #314* and DXCC 63*. A little later after the moon cleared my tree blockage, Bodo was up to (19DB) and audible in my headphones! I tried getting his attention on CW, but unfortunately he was listening at the Eur Doppler offset. Later I worked on 432 at 1435 DL1YMK/CX (O/O) on CW for initial {#702} and mixed #745 and DXCC 87*. I added on 3 May on 23 cm at 1200 UT5JCW (559/559) {#278} #315* with the lin pol still in place, after at 1214 a weak station called but did not follow up on my QRZ. The next day on 4 May I was back on 432 for the CW ATP and QSO'd at 1208 SM2CEW (559/569), 1214 I1NDP (569/559), 1236 FR5DN (569/559), 1253 OZ4MM (559/569), 1258 SP6JLW (559/559), 1303 K0RZ (559/559) CW, 1311 W8TXT (559/569), 1320 UA3PTW (569/559) and 1329 G3LTF (559/569) conditions seemed good. Near the end, I CWNR SM3BYA and SV3AAF.

NETNEWS BY G4RGK: LX1DB made the first 2320 contact with DL1YMK/CX for first WAC on 13cm. K5JL was active during the April AW on 1296 and added an initial with NA6MF. Jay also worked DL3YMK/CX on 23 cm. K2DH suffered another dish disaster in April. Extremely high winds broke the azimuth drive of his dish. Dave hope to have repairs completed in time for the DUBUS contest. **VE3KRP** was QRV on 23 cm for the April AW and worked some of the regulars. WA8RJF reports working OK1KIR in April [on 1296?]. SV3AAF will be QRV on 23 cm with a 3.6 m dish for the DUBUS Contest. WODRL in Topeka, KA is getting back on 432 EME. Al has 18 x 15 el yagis and is looking for skeds. PA3CSG is working on 13 cm system and also on 23 cm SSPA. K1ROG reports he was active on 432 on 21 April and worked WODRL along with W8TXT and WW2R. W2UHI is working on the dish and anxious to get back on the moon on 23 cm. WA5WCP has picked up a 20' dish from K5PJR. 9H1TX looking for skeds on 70 cm EME. SM2CEW tried with SK7MW in April, but had only a partial. Peter is now QRV on 13 cm. K0RZ is back on a 3 month reprieve and feeling pretty good all things considered. Bill plans to be on 70 cm EME for the up coming AWs and ATPs. WB2BYP is QRV on 23 cm and will be looking for DL1YMK/CX during the contest. K5SO plans to be QRV on 23 cm during the contest weekend. He has observed his preamps in what appears to be a "regenerative" mode and asks if anyone seen and/or dealt with regenerative preamps. [The old TIXMO5s were operated in this type on mode - but this is from before the time of GaAs FETs]. **VE4SA** will try to be on the moon on 23 cm for the contest.

<u>FINAL:</u> People complain about the negative comments on the reflectors and all the bad feels, but I have never seen so much activity in my > 35 years of EME operation. What a fun time on EME!

- O If you have not done so already get your reservations in for the 13th EME Conference, Florence-EME2008, see www.ari-crt.it/eme2008. You do not want to miss this conference!
- O G4RGK's recently updated initials list. It can be found at http://www.zen70432.zen.co.uk/Initials/index.html.
- O Reminder the VHF Weak Signal Group will be hosting at Dayton the 15th Annual VHF Weak Signal Group banquet on Friday evening May 16th. For information contact Tony at WA8RJF@ARRL.net before it is sold out.

O The All Japan EME Meeting will be held at the Tokyo Grand Hotel, near Tokyo Tower on 14-15 June. All amateurs and non-amateurs are welcome – see http://www.dproducts.be/drake_museum/. The meetings, exhibition and lectures start at 3 pm on 14 June. The banquet is at 7 pm. Late night meetings start at 9 pm. On 15 June the morning lectures start at 9 am, after the breakfast, and end at 12 noon. Hotel room (2-person) including are 18k-yen each. The Lectures and meetings for two days are 5k-yen, and for one day 3k-yen. If you have a chance to come to Tokyo don't miss this conference! Reservations are required before 31 May. For more information, contact Mike, JH1KRC at jh1krc@syd.odn.ne.jp.. O Please keep the info coming! I plan to be active on 23 cm for most of the May part of the EWW/DUBUS EME Contest. I should be on except for Sunday when I must leave on a business trip. I will be looking for all of you in the contest. GL & 73, Al – K2UYH



SV1BTR's new 24 cross pol yagi array – wow!

Skeds	for MAY 7	
Time	2320.080	
1530z	HB0/DF-WD5AGO	
1600z	HB0/DF-OK1KIR	
1630z	HB0/DF-W5LUA	
1700z	HB0/DF-G3LTF	
1730z	HB0/DF-OZ4MM	
1800z	HB0/DF-OK1CA	
1830z	HB0/DF-DL4MEA	
1900z	HB0/DF-SM2CEW	
1930z	HB0/DF-K2UYH	
2000z	HB0/DF-WA6PY	
	for MAY 9	
Time	2320.080	2320.100
1600z		LA8LF -DL1YMK
1630z		SM2CEW-DL1YMK
1700z		G4DZU -DL1YMK
1730z		SD3F -DL1YMK
1800z		LA8LF -DL1YMK
1830z		VE6TA -DL1YMK
1900z		WA6PY -DL1YMK
1930z		WD5AGO-DL1YMK
2100z	HB0/DF-VE6TA	
2130z	HB0/DF-WD5AGO	
2200z	HB0/DF-WW2R	
Skeds	for MAY 11	
Time	1296.080	
1600z	HB0/DF-SP7DCS	
1630z	HB0/DF-G3LTF	
1700z	HB0/DF-OZ4MM	
1730z	HB0/DF-SM5LE	
1800z	HB0/DF-SM2CEW	
1830z	HB0/DF-SV1BTR	
1900z	HB0/DF-OK1KIR	
2030z	HB0/DF-WW2R	
2100z	HB0/DF-N2UO	
2130z	HB0/DF-K2UYH	
2200z	HB0/DF-K5PJR	
2230z	HB0/DF-WA6PY	