432 AND ABOVE EME NEWS
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THE NL WEB VERSION IS PRODUCED BY W6/PA0ZN AND AVAILABLE AT <http://www.nitehawk.com/rasmit/em70cm.html>

CONDITIONS: The addition of a separate weekend for microwave EME to the ARRL Contest gave 13 cm and above EME activity a tremendous boost. I am sure the microwave EME weekend is here to stay! There was a bit of a negative affect on 70 and 23 cm activity. It did not appear that everyone got the message that the activity weekend (AW) was a week after the microwave weekend. This spread out activity. 70 cm appeared to be more affected than 23 cm. Even though there are still more stations QRV on 70 cm than 23, as shown by the contest scores, regular activity appears greater on 23 cm. This may have to do with the novelty of 23 cm operations. More of the operators are new to the band than on 70 cm... but there are still plenty of old timers regularly on. The EWW Contest has broken the bands up a little differently – see below. There is no completely separate microwave weekend. It shall be interesting to see how this arrangement works out.

K2TXB (L) and K2UYH (R) installing 13 cm system at dish

HIGH MICROWAVE EME CONTEST WEEKEND SCORES: Although contest reports are from complete, it appears very likely that F2TU ended with the highest overall score of 31x29 and also the highest score on 13 cm with 19X15. On 13 cm he is followed very closely by OZ4MM with 19x15. On 3 cm WA7CJO has the top reported score with 15x?. F6KSX appears next with 13x11. Several stations reported contact on 6 cm. F2TU has the top reported with 3x3.

EUROPEAN WORLDWIDE EME CONTEST: The dates for the EWW EME Contest sponsored by REF and DUBUS will be in 2005: 16/17 April for 6 m, 23 cm and 3 cm up; 14/15 May for 2 m, 13 cm and 9 cm; and 11/12 June for 70 cm and 6 cm. Besides the three weekends and later dates, there will also be different sections for CW, Digital and Mixed mode operation for the first time and some other changes regarding an "Assisted" regulation. Full details will be released in the Dec DUBUS Magazine or see www.dubus.org.

2005 EME CALENDAR: G3SEK's 2005 EME Calendar is near the end of the NL. DL7APV and I collaborated on selecting the activity weekend for 2005. To get a good turnout, the consensus seems to be that having an "operator friendly" time of day is more important that the path loss to the moon. The other important factor is moon declination. If the moon is too far south, operating window may be very short or non-existent, and will prevent stations from being QRV. Since most operators are in the northern hemisphere and specifically Eur, the times and declination should favor this area of the world. We have thus tried to consider only weekend with a moon declination higher than 10 degs. Next we tried to avoid moon windows that are in the middle of the night. Please review the calendar and let us know if you see better AW choices. There is still time to make changes.

47 GHz NEWS: The first 47 GHz is getting nearer. RW3BP reports that he was able to detect AD6FP's 47 GHz signal [see keying] using post processing.

9H1ES: Fortunato fbonnici@hotmail.com is operational on 3 cm with a 2 m dish, 20 W TX and 0.6 dB NF LNA. His polarity is linear. He normally runs vertical to Eur and horz to NA. During the microwave part of the ARRL EME Contest he tried to work W5LUA without success, but did copy DL0EF on Sunday. Fortunato was on 23 cm during the regular activity weekend and QSO'd on 6 Nov at 1100 G3LTF.

CT1DMK: Luis cupido@mail.ua.pt is having a problem with his foot and may have to have some surgery. He won't know until early Dec. As a result he cannot change feeds. He does have the 70 cm feed in place and has done some listening from time to time, but 99% of the time there are no signals.

DJ5MN: Bernhard dj5mn@web.de was active on 3 cm during the ARRL Microwave EME Contest weekend. He was using only a 1.5 m dish (f/D 0.407, gain 42.4 dBi), but with > 100 W at feed (vertical polarization) and < 0.6 dB NF LNA. Tracking was manual and required a visible moon.

DL0GER: Daniel dl3iae@gmx.de is making plans for future 70 cm EME operation – We must set our activity dates for 2005 now as we operate portable and rent a hut every time we operate EME. We want to be QRV on 3 weekends next year and are trying to select the most efficient ones. One will probably be during the DUBUS Contest and another during the ARRL EME Contest. We would appreciate suggestions from the 70 cm EME community. Complete details of DL0GER's 432 EME activity can now be found online at http://dl0ger-eme.dd8il.de/. The page includes our history, rig/antennas, etc with pictures, the log, QSLs, sound files and more. A webcam and chat link for our next activity is also included too. Thanks to Andi, DD8IL for designing, updating and financing the website and everybody at K23 Radio Club for the support.

DL9KR: Jan Bruinier@t-online.de writes – I was quite disgusted by some people's comments on moon-net concerning the (non)-observation of the ARRL's contest rules. If people wish to disregard operator assisted rules, why don't they extend the contest time periods at their own will or even employ horseback messengers in addition to their logger, e-mail and telephonic activities? To my knowledge, rules for the next DUBUS contest will provide for different classes, such as an additional "operator assisted" one. This may be a way out (hopefully). Recent initials here were SV1BTR (new QTH), DL9JY, ZS6JON, UA4AQL, DL7FF, SK0UX (80W), UA3DJG (contest), LA9DL (contest) and SM3JQU #811. I found activity very low in the Italian contest and no takers 06/07 Nov upon many CQs around 1000. [Jan is trying to organize a fund to support 70 cm EME dxpeditions – see Jan's editorial at end of this NL.]

ES5PC: Viljo (SM0WCM) was QRV on 2304 during the ARRL Microwave EME Contest weekend -- It was both a busy and interesting weekend using my new 4.5 m dish setup for the first time in the ARRL contest. I built and installed a new preamp and mounted the SSPA at the feed prior to the contest. (250-300 W SSPA at VE4MA feed and 0.4 ~ 0.5 dB LNA). I have 15 dB of sun noise and > 4.2 dB of CS/G noise. I spent a lot of time making it all controllable from my shack about 40 m away. Everything worked fine. During the contest all stations were worked on random! The result was 16 QSOs with 15 different stations. I worked OE9ERC on both SSB and CW with VFB signals. Stations worked were SK0UX, OH6NVQ, G3LTF, G3LQR, F2TU, OH2DG, OE9ERC, OZ4MM,

WA9FWD, W5LUA, SM3AKW, OH2AXH, K2UYH, WA6PY and JA4BLC (2304/2424 crossband). Heard were IK2RTI and OK1CA. On Saturday morning just before moonset I heard somebody, possibly VE6TA answering my CQ, but then suddenly I lost the RX because of a relay problem at the feed. It was not possible to fix it before the moonset. The weakest station worked was WA9FWD. All the nice QSOs were appreciated! I'm back in Stockholm now, but this does not mean that I'm QRT. I just tested the remote-control functionality of my dish setup over the Internet. To my surprise everything worked 100%! I was able to hear my echoes both on 2304 and 2320 MHz from my dish setup in Estonia over the Skype Internet phone connected to the rig in my shack at home. It would be exiting to try a real QSO soon using this setup before it breaks! Skeds are welcome!

F2TU: Philippe f2tu.om@guideo.fr reports ofnt e ARRL Microwave EME Contest - Bad WX in Europe and Japan reduced participation and many stations worked only Saturday. On 2.3 GHz I used a new SSPA at the feed with 65 W. I was QRV on 30 Oct for 3.5 hours and on 31 Oct for 30 min. QSO'd were ES5PC, VE6TA, SK0UX for initial #37, OH6NVQ #38, G3LTF, OE9ERC, OH2DG #39, SM3AKW, WA6PY, W5LUA, WA9FWD #40, OZ4MM, OK1CA, JA6CZD #41, OH2AXH, K2UYH #42, K9KFR, LX1DB on SSB and JA4BLC. Heard were IK2RTI (He QRT'd on 3 Oct at 2200 because of bad WX). Results were on 2.3 GHz 19x16 with 6 initials. On 5.7 GHz I was QRV 2 hours for 3 QSOs with W5LUA, OH2AXH and LX1DB on SSB. Results were 3x3. On 10 GHz I was QRV on 31 Oct for 3.5 hours only. Unfortunately many stations that were QRV on 30 Oct were not on. QSO'd were IQ4DF, F6KSX, OK1UWA, WA7CJO, OK1CA, G4NNS, WA6PY, W5LUA, DL0EF, PA0EHG and LX1DB (CW/SSB). Heard was OH2AXH. Results were 11x10. My overall total was 31x29. W5LUA and LX1DB were contacted on all 3 bands. It is still difficult for stations to be QRV on several microwave bands on the same day, but the new rules are much better than the old ones! The station is an 8 m mesh dish with 65 W on 13 cm, 40 W on 6 cm and 15 W on 3 cm.

F5SE: Franck kozton@easynet.fr reports that his dish project is now well under way -- The concrete basement was poured and now half of the track supporting "wall" is also poured. Second half will be completed in a few days and the track itself some time later. The F1JG dish is now completely dismantled, packed and ready for shipping. I plan to get hold of it in mid Nov. In the meantime, I hope to have part of the supporting tower mounted, so that we can design the rotatin g carriage. There is still plenty of work to do! I was QRV during the EME contest as a "helper" CW operator at F6KSX (F1EHN EME team), near Paris. This was the first time I heard 10 GHz EME signals from other stations. (I Had heard 10 GHz echoes at F2TU). Some were quite impressive. IQ4DF, DL0EF and WA7CJO were the best ones by far. The faintest signals came from WA6PY and G4NNS, who were just at the understandability threshold. The "buzz" like tone on the signals is very similar to "aurora buzz" on 144 MHz. As far as CW is concerned, it is not a problem for me to copy, but when I heard WA7CJO and IQ4DF on SSB, it was impossible to understand as the "buzz" was too strong. Signals were stable with no significant QSB. Strong sigs remained strong, and weak ones kept being weak. IQ4DF also sent us some "Hell Schreiber" (Hell Writer, or HW in English) signals. Although I had known about this "ancestral" transmission mode for many years, it was the first time I experienced it "live", but the "hard way" off the Moon on 10 GHz. The weekend also provided a good opportunity to check my Doppler algorithm, which was quite accurate.

F6KSX operating site

F6KSX: J-J (F1EHN) jjm_f1ehn@wanadoo.fr writes on his group's ARRL Microwave EME Contest 10 GHz participation -- The activity was lower than expected. On 10 GHz we made 13 QSOs with 11 multi for a total of 14300 points. All QSO was done on random. Stations worked were DL0EF, OK1UWA, IQ4DF, WA7CJO, OK1CA, W5LUA, IK2RTI, PA0EHG, G4NNS, LX1DB, F2TU, OH2AXH and WA6PY for initial #41. We hope this microwave EME contest weekend will be renewed the next years!

Inside F6KSX Shack (F5SE at front)

G3LQR: Simon G3LQR@aol.com was on 13 cm in the microwave EME contest -- Sorry I could not be on longer, but had to go to bed as I was falling asleep. I worked 4 stations, but heard another 9 so there was is a possibility of better result next time. QSO'd were SK0UX, ES5PC, G3LTF and OH2AXH. Heard were OH2DG, OH6NVQ, IK2RTI, W5LUA, OE9ERC, F2TU, OK1CA, SM3AKW and K2UYH. Nobody seemed to hear my CQ calls, so I will change to tail ending next time. Crossband is still difficult. My limited window also does not help either. The JA window is blocked till the end of their window, so I heard no JAs even though I was getting good echoes from 2300 to 2400 (Z). OE9ERC was there on 2304, but I guess not looking on 2320. Everybody else seemed to have gone to bed. I should have done the same. My RX was giving 14 dB of sun noise with a flux around 135, which seems a bit down. I am still using 100 W to the 4.2 m dish with a VE4MA feed. I am working on adding a 9 cm system, but it's going to be more marginal. I plan to be active in Dec on 23 and maybe 432 if WX is kind.

G3LTF: Peter g3ltf@btinternet.com asks? -- If you were a microwave EME op this month, as well as keeping the 70/23 cm gear operating, you had another problem: Finding an answer to the XYL's question... "Why are there two moonbounce weekends one after another?! On 29 Oct on 13 cm I worked SK0UX, ES5PC, OK1CA, OE9ERC, OH6NVQ, SM3AKW, G3LQR, F2TU (cross band) and OZ4MM, and on 30 Oct K2UYH (cross band) for initial #30, W5LUA (cross band) and JA4BLC (cross band). I heard and called LX1DB, OH2AXH (cross band), IK2RTI (cross band), WA6PY (cross band), VE6TA (cross band), WA9FWD (cross band) and OH2DG (cross band). I also copied JA6CZD calling JA4BLC. Total worked was 12. ZS6AXT's absence was felt. I was disappointed in the overall activity level. I hope some of the new guys who were trying to make it onto 13 cm for the contest won't give up. Its is not an easy band to get going reliably, especially with the cross-band aspect... But it's a good challenge. I need more power on 13 cm. Currently I have 150 W in the shack and 50 W at the feed. On the weekend of 6/7 Nov I was active on three bands. I worked on the 6th, on 1296 DK0ZAB, OZ4MM, SM2CEW, 9H1ES - who has a good signal now and WB5AFY for initial #208. On the 7th on 13 cm I worked OH2DG for initial #31 crossband. Eino now has his 2320 RX system working. G3LQR and I ran a test with VE6TA, who was heard (549) but Grant didn't hear me. Later that day at 1100, I worked on 432 MHz DL9JY #385. Reudiger is a new station with a good signal. Faraday was about 90 degs again and no other signals were heard in the next couple of hours.

G3SEK: Ian G3SEK@ifwtech.co.uk is moving to a new QTH and QRT until after the move -- The EME system is long gone and Nadine and I are making the house ready to go on the in the market in the spring. We are already looking for a new home in southwest Scotland. My personal checklist obviously includes the potential for EME. I haven't forgotten that GM is "very" rare on 432 EME. Regarding my EME Calendar for 2005, it is going to be a difficult year. All year, the weekend closest to perigee is also a very negative declination. Two weeks later, the high-moon weekend for the northern hemisphere will always be close to apogee, so we lose 2 dB, and also sky noise levels are poor. This leaves two other weekends per month with declinations close to 0 deg. Sky noise on those weekends isn't bad, but most people will have low elevations so more ground noise and/or RFI instead. Later in the year, new moon (sun noise) may take out one of those weekends too.

HB9JAW: Michel loewen@winiger-neudorf.ch had planned to be on 13 cm for the microwave part of the contest- My debut on 13 cm will be postponed for a while. Lack of time and lots of work made it impossible to have everything ready. I hope to be QRV in too long a time.

HB75A: Dominique (HB9BBD) dfaessler@bluewin.ch reports that HB75A is a special events station commemorating the 75th anniversary of USKA - the Swiss equivalent of the ARRL. HB75A was active on 31 Oct on 23 cm EME as part of the celebration. HB9BHU was the operator - [see Fred's report in the Nov NL]. HB75A is a portable station with a 2 m dish and several hundred watts. The same equipment was used during the first leg of the contest under the club station callsign HB9FX. HB9FX and HB75A are equivalent and should not count as separate initials.

JA4BLC: Yoshioro ja4blc@web-sanin.co.jp was active in the microwave EME contest. During his NA moon window he was on 2424.1 and worked on 31 Oct at 1307-1312 W5LUA crossband. He needs EL more than 25 degs. JA6CZD needs AZ more than 80 degs.

JA6XED: Hisao makoto-t@kumin.ne.jp is returning to 432 EME after a long period of inactivity – I was QRV on 432MHz in the ARRL contest with a new antenna after being QRT many years. I am now running an 8 m with 0.44 f/d. I plan also to operate 1296 with a W2IMU horn.

JA6XED's new 8 m dish with feeds for 70 and 23 cm

JJ1NNJ: Kouichi BYD01531@nifty.ne.jp in QM06gh sends a report for the ARRL EME Contest on 70 cm -- I operated 432 in the contest on 9 Oct and QSO'd VK3UM (449/459), VK4AFL(O/O), HB9Q (569/539), OZ4MM (559/559), DL9KR (579/569), OH2PO (559/559), DL7APV (339/339), OH2DG (339/449), F6KHM (559/559), G3LTF (O/O), JL1ZCG (559/559), K1FO (449/439), N9AB (559/559), K0RZ (449/449), N2IQ (579/559), K2UYH (O/O), JA6AHB (559/559) and KL6M (449/539), and on 10 Oct DL0GER (449/449) for initial #80, SM3AKW (449/549), DF3RU (559/549), SM2CEW (449/449), JA9BOH (O/M) and VE6TA (O/O) #81. The WX for the contest was very bad. We had a strong typhoon and rain here in Japan. Condx via the moon were almost all H-pol. I am currently running 16 x 13 el FO yagis LR with 700 W GS23B PA.

K0DD: Bob rbonner@qro.com in South Dakota is currently putting together a 70 cm EME station with 2 x 38 el M2 yagis and 8938 PA. He currently has no elevation and needs to get his preamps on the tower. He is about 2 weeks away from testing on EME on the horizon. He also has plans for 23 cm.

K7LNP: Pat ka9lnp@prodigy.net in UT is setting up for 432 EME. He has 4 yagis and everything needed except for the PA. He hopes to be QRV within the next month. He also has plans for 1296 EME with a 12' dish, but wants to get 70 cm working first.

K7XQ: Jeff k7xq@elite.net is getting settled in his new QTH -- I completed the move to my new QTH, just 3 miles away from where my old one about a month ago. I am still located in CM97qi. I now have more room (1 acre). My 2 m EME Array is up. It will be joined by an array for 432 of 4 x 9 WL yagis to be used with an 800 W PA. I plan to have this running before XMAS. The tower is up. I just need to mount antennas and fix my preamp. Thanks to W6WE, I just acquired a solid AL 14' dish for 1296 EME. This will be an upgrade from the 10' dish I was using before. I may need some help with mounting this reflector, since I do not have any hardware for attaching it to my tower. I hope to have this running by XMAS as well. I will be using my single GS15B at 400 W on 1296. If I am real lucky, I may get the 14' dish working in time for the last leg of the EME contest.

KL6M: Mike l6m@qsl.net tried to get everything ready for 2304 operation during the microwave contest, but did not make it on. He will be on in the future. Mike will be using his big dish with a Septum feed. For RX he has an W5LUA preamp and AR-5000 on RX with receive capability on 2304, 2308, 2320 and 2324. He will feed the 10.7 MHz output of the AR-5000 to the FT-767 for good CW RX capability. On TX he is using a KK7B multiplier board, which is will feed with 460.802 X 5 for 2304.010. His PA is a Spectrian 200 W brick. He has 3 x 24 V power supplies in series to feed 72 volts at 15 amps to the Spectrian. Mike's biggest concern is accurately aiming the dish. He has an error problem in which the incremental positioning acquires additional pulses due to drift of the antenna. This is not a problem on the lower bands. [Mike had even more problems with Murphy in Nov. I won't list everything... But when he took his feed in for repair and hung up his coat, the coat rack fell over right on top of the feed, bending it!]

N2UO: Marc's lu6dw@yahoo.com report – During the microwave section of the ARRL contest I spent some time at K2UYH helping to put together the 13 cm station. The following weekend, I worked from my home on 23 cm and on 6 Nov QSO'd K9SLQ, SM2CEW, OE9ERC and G4CCH, and on 7 Nov SM2CEW, OZ4MM, GW3XYW, K9SLQ, IK2MMB, W2UHI and OZ6OL. Signals were all very good. I have sent QSL cards by mail to every station I worked on 23 cm EME, including a SASE or a dollar to help with the cost of mailing the cards back. Some stations have received two QSL cards from me already. The response has been around 70%.

N8CQ: Gary gabercr@nc.rr.com expects to be QRV on 432 for the last part of the ARRL EME Contest. He is located near Raleigh, NC and has 16 x 15 el FO yagis on AZ/EL mount with polarization rotation. He has a GS35B PA. Gary has to take the system down after he operate because of QTH restrictions, but now has it down to a science. He is also working on 1296 EME and has 2 x 7289 PA and 10' dish.

OH6NVQ: Tomas in KP13iq 13 cm ARRL contest writes — I worked the following stations during the microwave contest weekend: on 30 Oct SK0UX, ES5PC, OE9ERC, G3LTF, F2TU, OH2AXH and OK1CA, and on 31 Oct K2UYH, OH2DG, SM3AKW, WA6PY and OZ4MM. I contacted 12 stations and added 6 initials overall! I also heard LX1DB very good in the last hours of contest, but he disappeared after the JA window. The contest was great, but I cannot count how many liters of coffee were consumed to stay awake – hi. The equipment here consists of 3 m dish and a 150 W PA producing about 6 dB CS/G sky noise and 12 dB of sun noise. I would like a bigger dish!

ON4DPX: Kenny heernaert.kenny@skynet.be who has been operating JT44 on 70 cm EME with 2 yagis and 50 W is expanding his array – I was listening on 30 Oct around 0530 and could easily copy N9AB. Unfortunately there was no QSO. He did not respond to my calls, probably due to not enough power on my side. The good news is that in a few weeks, 3 or 4 depends on my free time - HI, I will have 8 x 21 el yagis with an approx gain of 23 dBd. This will be 4 dB more gain then the current system.

OZ4MM: Stig vestergaard@os.dk had a great time during the microwave contest -- Who did said 13 cm is a dead band? Wow, great activity was found this weekend during the microwave leg of the EME contest! I have newer heard so many signals on 13 cm EME before. In addition new stations showed up among the regulars. There were still many of the usual signals missing. I worked 19 stations. QSO'd were WA6PY (559/559), OH2DG (559/559), ES5PC (559/559), W5LUA (559/559), F2TU (559/559), VE6TA (439/559), DL0SHF (55/55), SM3AKW (559/559), WA9FWD (439/449) for initial #46, IK2RTI (449/559), SK0UX (569/569), OE9ERC (569/569), OH2AXH (559/549), JA6CZD (429/559) #47, OK1CA (439/559), G3LTF (429/559), OH6NVQ (559/O), K2UYH (449/559) #48 and JA4BLC (549/559). CWNR was LX1DB. The best activity and signals was found on Saturday morning. On both days, my receiving degraded after about 2 hours of operating. I need to check this problem further. Also the high cable loss due the long run from my shack to the dish, reduced my effective power to 50 W. So I have plenty of room for improvements here!

PA0EHG: Hans pa0ehg@amsat.org was activity on 3 cm during the microwave EME weekend of the ARRL contest – On Saturday we made 5 QSOs. Stations worked were WA7CJO, OK1UWA, F6KSX, IQ4DF and DL0EF. The QSOs with IQ4DF and DL0EF where on SSB. We also heard LX1DB and I5PPE. Equipment here is a 3 m dish, 0.7 dB NF LNA and 200 W output TWTA. More details can be found on my webpage at www.pa0ehg.com.

PA5DD: Uffe uffe.noucha@hccnet.nl has made a number of CW and JT44 QSOs on 70 cm EME using a single 28 el yagi and 800 W on the horizon. He

has recently ordered an elevation system and is hoping for many more contacts with the longer EME windows.

SM2CEW: Peter sm2cew@telia.com operated only on 432 during the first leg of the ARRL EME Contest -- I had lots of fun. Everything worked fine and I worked 47 stations on CW. Contacts were OH1PO, F6KHM, I5CTE, SK0UX for initial #405, PA3CSG, G4ERG, N1IQ, UT3LL, DK8VS, SM3AKW, SP6JLW, YO2IS, DL7APV, K4EME, SK0CC, KE2N, EA3DXU, S52CW, K0RZ, VE6TA, OH2DG, DL0GER, SM2ILF, DF3RU, OZ4MM, DL7UDA, KL6M, G3LTF, SV1BTR, KL7HFQ, N9AB, HB9Q, K2UYH, JA6AHB, JA9BOH, JJ1NNJ, DJ6MB, DL1YMK, PE1ITR #406, S53J, I2RV, YO4FRJ #407, K1FO, OE5JFL, KJ7F, G4ALH and WA6PY. Conditions were not optimum but nevertheless plenty of stations went in the log. On 6 Nov I was on 1296 looking for LA9NEA, who I never heard, but I did work N2UO, GW3XYW, G3LTF, K9SLQ and OZ4MM. CWNR was PA3DZL. The next day (7 Nov) I found 1296 activity again good and worked G4CCH, N2UO, IK3COJ, W2UHI and K9SLQ. All had excellent signals. Heard were IK2MMB, OZ4MM and GW3XYW. During my QSO with K9SLQ, I watched his WEBcam and could follow his keying visually as well. No sign of LA9NEA during the time I was on. I will be looking for Viggo when he has fixed his PA so he can be QRV again. I'm looking forward to spending more time on 1296 during the 2nd leg of the contest, if the weather is cooperative. I spent a day working on the dish recently. Part of the mesh at the top of the dish had come loose because most of the tie-wraps had snapped. Heavy snow and strong wind pushing on the mesh from behind the ribs is the reason. I put in some 300 tie-wraps this time, but I could have added even a couple hundred more. I will try to keep better track of this problem in the future.

VE4MA: Barry ve4ma@shaw.ca was only active late (> 0700) on Saturday for the microwave contest on 10 GHz. He had preamp problems and only worked WA7CJO and DL0EF. There was also a third station calling, but could not identify them - possibly F2TU? He tried SDR-1000 and signals seemed a bit better with the spectral display providing a visual of weak signals.

VE6TA: Grant ve6ta@telusplanet.net was QRV during the microwave part of the EME contest on 2304, but did not get his receiver working on 2320. He made 5 contacts the first night. The second night Grant only worked 1 more, K2UYH, for a total of 6 QSOs. He did hear WA9FWD well, but got John's attention.

W2UHI: Frank fblumn@pathwaynet.com was active during the Nov AW (6/7 Nov) and worked a bunch of guys on 1296. I worked DK7LJ on SSB, OZ4MM, GW3XYW, SM2CEW, K9SLQ, IK2MMB, OE9ERC, IK3COJ, N2UO and G4CCH – also heard Howard working 9H1ES. I am now up to initial #170.

W5LUA: Al al_ward@agilent.com was QRV in the microwave leg of the contest – One weekend for microwave part of ARRL contest is not good enough! He made contacts on 13 cm, 3 GHz, 5 GHz and 10 GHz, but worked only a few new ones. I finally worked K2UYH on 2304 and WD5AGO on 5760. I missed JA6CZD during contest. CWNR on 13 cm, but did catch JA4BLC on 2424. I plan to be on 23 cm for the last ARRL contest weekend.

WA7CJO: Jim wa7cjo@futureone.com was active on X-band during the microwave part of the EME contest. On Saturday he made 11 contacts. Two were on SSB. 11 stations are the most Jim has ever worked in one night. On Sunday he added 4 more to bring his contest total to 15 QSOs. OK1CA and IK2RTI were new ones. Jim notes when someone answers a CQ from him, after the QSO is completed, he will leave the freq to the station that worked him. Jim usually gives a number U or D to QSY to work him. Sometimes there are more than one calling. By QSYing, he believes that stations whom have not worked him, will have a better chance.

WA9FWD: John ejstefl@execpc.com reports that things did not work out as planned the first night of the microwave contest -- I did work 5 stations on 13 cm and heard many more. I found that since last spring, there is more man made noise. I QSO'd on 30 Oct SK0UX, FT2TU, OE9ERC, ES5PC and OZ4MM then thunder storms came through and I had to call it quits. I heard OH2DG, WA6PY and many more. The second night I started on 3456 and worked W5LUA. I then switched back to 13 cm and added OH2DG and W5LUA to bring my total to 7 stations. Only one was in NA. I also heard SM3AKW. One station responded to my CQ, but I could not pull him out. I never received a 2320 xtal from DEM, so could not receive anyone on 2320. After the contest I worked K9KFR, WA6PY and VE6TA to bring me up to initial #11 on 2304. My man made noise is from wireless networks. I have the same SSPA as VE6TA with 150 W out. It draws 51 A under load. Fortunately I located a switching power supply that has a 120 A capacity. I will be QRT on 70 cm until spring as I want to refurbish the 70 cm array. It has been up for 16 years.

WA6PY: Paul (DM13la) was active on 13 and 3 cm during the microwave contest weekend -- I worked 13 stations on 13 cm and 5 on 3 cm. On 13 cm he QSO'd SK0UX, SM3AKW, OZ4MM, OE9ERC, IK2RTI, VE6TA, W5LUA, K2UYH, ES5PC, OH6NVQ, OH2DG, JA6CZD and JA4BLC. Heard were OH2AXH and WA9FWD. On 10 GHz he QSO'd DL0EF, F2TU, WA7CJO, F6KSX, OK1UWA and again DL0EF. After Nov, I will take 13 cm feed down for few months.

WD5AGO: Tommy wd5ago@hotmail.com is ramping up again -- It has been a while since my last report. Like everyone else, I have been busy with work and family. I made one more attempt at 6 cm EME and was successful. Using 25 W and a mesh 2.4 m dish, we worked W5LUA (O/O). I also copied signals F2TU, and OE9ERC, who had dish troubles. ALL equipment was located at the base of the dish mount. We need to see moon to operate. Unfortunately the past month has been rain soaked. During the microwave contest weekend, we had only a break of 3 hours when we could operate before the rain came again. I am looking forward to doing some 13 cm EME in Dec or Jan, and will camp out on 13 cm for a while. We are still building 2 m through 23 cm LNAs, which also keeps us busy. Some of these LNA use cavities, but the higher bands are L-matched. The NFs are all in the 0.3 dB range.

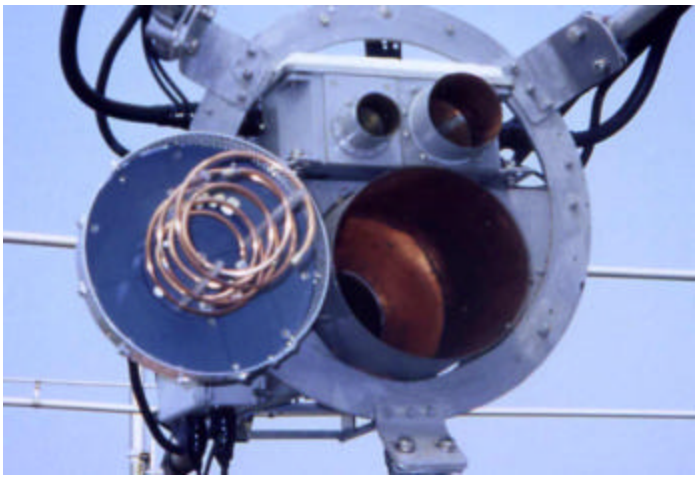
YO4FRJ: Adrian yo4frj@yo9.ro writes on his 70 cm activity during the first leg of the ARRL EME Contest – With a new preamp by LNA Technology replacing the older MGF1302, my Sun noise has increased at least 3 dB. I was again QRV on both 2 m and 70 cm with my nested 4 x 10 WL yagi antenna system and 1.0 KW at splitter. The local city noise combined with Murphy allowed me to find a kind of quiet QRG near 432.005 for my CQs and also to look for the big guns. On 9 Oct, I found good propagation with average echoes until the sunrise. I managed to work at 0011 OH2PO, 0110 HB9Q, 0224 DL9KR, 0826 N2IQ for an initial (#), 0945 K5GW (#), 1010 K1FO, 1105 N9AB (#) and 1124 F6KHM. It was almost the same story with Faraday changing after sunrise on 10 Oct. Like a charm, from 0230 to 0330 I got +20 dB echoes over the noise and manage to easily work at 0300 DL7APV (#) and 0325 OZ4MM. "Only" five hours later I found at 0810 SM2CEW (#) booming in, but with libration fading making copy very hard. My answer to Peter's CQ was a "bang" from my HV-PS. It took me only 30 min to fix and fortunately Peter was still there. I completed with Peter at 0856, but my HV-PS failed again - increase of AC line voltage of 10%. Well, thanks again to Mr. Murphy ... That was the perfect moment to have a nice breakfast with the family. After 2 hours with a new fuse, I was back in the operation. I added a final station at 1100 VE6TA (#). The libration fading was terrible at this time. I also heard but not work SV1BTR and KL6M. At least 2 stations answered my CQ on Sunday who I couldn't identify. I am particularly interested in working VKs and JAs, but may have difficulty with my noise/QRN problems. For the 2nd leg I will CQ close to 432.005 at least 15 minutes every hour and hope for better results. Please be patient and remember the meaning of "Y Y Y" when conditions are poor.

ZS6AXT: Ivo zs6axt@global.co.za is frustrated -- I am still not operational, as everything seems to be going wrong! On top of faulty cables, my 13V PSU went for the loop and with no over voltage protection it damaged the transverters. I not sure which ones, but so far I found 13 cm was faulty and repaired a few items in it. Between the faulty cables, transverters and maybe preamps, plus backache and bad weather, it is not likely I will be on for the microwave part of the contest. [Ivo was not on – a real disappointment.]

K2UYH: Russ, K2TXB and Marc, N2UO joined me to operate the microwave portion of ARRL EME Contest. We had planned to operate 13 cm on Saturday and 3 cm on Sunday, but had problems the first night with the 13 cm system. We lost the front end in the transverter twice. Just turning the PA on with no drive would blow the first stage. We gave up in frustration, but decided to try again the next day on 13 cm rather than switch to 3 cm. Russ brought a sequencer from his home and I isolated the transverter with an external LNA. This arrangement solved the problem. We had about 80 watts into the feed and were hearing reasonable echoes (S4). Russ thought they should have been louder, but we did not have time for optimizing as we were installing the stuff between raindrops. We started hearing signals when the moon was still down in the trees - around 20 degs. The following stations were worked on 31 Oct at 0211 OH2AXH (559/549), 0225 SK0UX (559/559), 0234 SM3AKW (549/559), 0308 OH6NVQ (O/O), 0317 ES5PC (549/559), 0330 OE9ERC (569/559), 0332 W5LUA (O/O), 0345 WA6PY (O/O), 0422 OH2DG (O/O), 0430 G3LTF (O/O) crossband to 2320, 0535 OZ4MM (559/549), 0543 VE6TA (O/O), 0641 DL0SHF (54/53) on SSB crossband to 2320, 0751 F2TU (549/559) and 0806 K9KFR (559/559) for a total of 15x12 and initial #16. We used a WIN Radio to tune 160 MHz for 2320 reception and could monitor both 2304 and 2320 simultaneously. We looked for JA4BLC on 2424 using a separate converter, but the moon was only 19 degrs at the start of his window (1300) and well into the trees. We heard nothing. Russ did much of the operating, while I kept the dish on the moon and Marc concentrated on copying the weak ones. After the

contest, I discovered a break in my 7/8" Heliax. A splice I had added about 15 years ago opened! The feed line has been in use for more than 30 years. It is now repaired and appears to be working fine. I do not know how long this problem was brewing. The VSWR looked ok last time I operated, but I suspect my signal will sound louder on both 432 and 1296 - the PA was at the feed on 13 cm and thus not affected. Because of the repairs I missed operating on 6 Nov during the AW, but did get on the moon on the late side (~1200) on 70 cm on the 7th. I called several CQs, but did not find anyone around. I then switched to 23 cm and worked K9SLQ on SSB.

TECHNICAL - CONCENTRIC HELIX FEED FOR 23 CM: by IK2RTI ik2rti@tin.it. People are always looking for easy was to make a circular feed for EME. I experimented with concentric helixes some years ago, but was not satisfied with the isolation. Gianfranco appears to have come up with a configuration that works well as demonstrated by his recent success on 23 and 13 cm in this years ARRL EME Contest using a 4.8 m dish (f/D 0.52, 1.5 mm thick AL laminated surface with 3 mm wide holes on a 10 mm step). He writes -- My concentric helix 23 cm feed has the same performance as an W2IMU feed previously used. The matching is simple, obviously for those who have a bit of experience with helixes. The construction consists of a 20 cm dia ground plane with two 3.5 turn RHP and LHP helixes (for a f/D 0.52 dish) made from 4 mm copper tube concentrically positioned. The TX winding is 9.5 cm in dia, and the RX winding 7.5 cm dia. The axial length of one turn is 5 cm for both TX and RX helixes. The feed's measured VSWR on TX is 1.05 and on RX is 1.03. The isolation is > 20 dB! The circularity is < 2 dB on TX and 1.5 dB on RX. My TX power at the anticlockwise helix is about 300 W. I inserted a little relay on the clockwise helix to protect my preamplifier (ATF 350 with an NF 0.5 dB). My sun noise measured with SFU 92 is 14.5 dB. I plan to also try a concentric helix feed on 2.3 GHz.



IK2ITR's 1296 Daul polarization circular feed

IK2ITR's 4.8 m Dish

EDITORIAL ON THE STATE OF EME BY DL9KR: There are several reasons for the declining activity. They include the increase of "birdies", lack of excitement due to very few newcomers and dxpeditions, general "saturation", etc. We don't need additional media to announce planned station activities to remedy these problems. We already have a) long term: DUBUS, RSGB bulletin and QST, b) monthly: 432 & above NL, c) weekly: K1RQG's net & net notes, and d) daily or shorter: OH2AQ cluster, EME logger(s), and moon- net to name just a few. Activity, in addition to the "conventional" (hi dec) AWs, should be extended to weekends involvin g perigee, low dec and low Tsky. This could help marginal stations on one's own continent or over N/S pathes, too. "Sociable" hours (where?) probably play a minor role. – BTW, I don't deem HB9BBD's suggestion as helpful. With regard to standings, conventional modes (CW/SSB) don't require any involvement of digital technology, while digital modes (e.g. JT) are not viable without computers and sophisticated software. Thus, on purpose, RADIO technology is reduced to a secondary requirement, while such contacts are often assisted if not enabled by parallel exchanges on various dedicated loggers. Therefore, separate standing lists really should be kept. Thus, over the years, the respective shares of modes in general and/or at individual stations can be evaluated and conclusions be drawn. A third, "total" list may show the addition of digital and non-digital initials as both modes have the EME path in common. (A reminder: Standing lists are published by HB9Q, DUBUS (more in detail) and DF6NA). A "show of hands" in a 30 person quorum is less than marginal to decide over the structure of future standing lists. Concerning the Hall of Fame, my first thought is this honor should be reserved for SK's. OE9PMJ is certainly an excellent choice, but many others come to my mind such as W1FZJ, KH6UK, W2IMU, W4HHK, OZ9CR, etc. I think, we are well aware of the meritorious living. I am also interested in creating a monetary fund to support Dxpeditions and/or help stations in "rare" countries to become operational on EME. The fun d would be based on donations. ON4IQ has already enabled 2 m EME at HI3TEJ by buying and transporting miscellaneous equipment to HI-land at his own expense. He still has 8 yagis for 70 cm ready to go, but understandably is not willing to cover UPS shipping (about 250 USD). Likewise an SSPA as the Ericsson Compact 9000 (300 W with built in AC PS) in a sturdy upholstered crate plus 4 yagis in a second crate could be the basis for multiple dxpeditions exclusively on 70 cm or in conjunction with 2 m EME dxpeditions. Overweight expenses could also be absorbed by a fund. There are still a number of issues to be settled as the criteria for support, who would be the fund committee members, who would be the treasurer, etc?

NET NEWS BY G4RGK (BASED ON K1RQG's NETNOTES: **PA3CSG** was active on 23 cm and 70 cm during the contest. Geert will not be on For the microwave weekend, but will be QRV on 23 cm and 70 cm during the Dec weekend. **AD5RY** has acquired a 28' dish and mount from K1FO and a 20' tower from N2IQ. **W4CGR** is working on EME. **KJ7F** is looking for 70 cm skeds with anyone. Send e-mail to kj7f@cableone.net. **G4NNS** heard on 10 GHz PA0EHG, W7SZ and IK2RTI during the microwave EME contest weekend. **DL9JY** a new 432 station's email is R.Knorr@t-online.de. **PA0PLY** has recently changed his website to http://home.tiscali.nl/pa0ply. Jan's e-mail address has not changed. **DL3OCH** reports he has had to put on hold his planed dxpedition to 3A, Monaco, due to a combination of car problems and also a new job. Bodo will let us know when he is ready to go again.

FOR SALE: **K5CBL** has a 13' fiberglas dish with polar mount for sale. He also has commercial water-cooling system (motor, pump, radiator, etc.) available. E-mail tmartin@midf.com, cell 405-401-8310, or work 405-753-9111. **KG6CB** has > 500 watt PAs for 23 and 70 cm and 2m along with power supplies for sale. Contact kg6fcb@netzero.net. **AD5RY** is looking for a 23 cm PA in the 500 W plus range. **K7LNP** is looking for a 70 cm PA – K1FO or similar. Contact Pat at ka9lnp@prodigy.net. **PA3CSG** has for sale the following items: 1) 1296 copper IMU horn without polarizer. It can be used with a hybrid to generate circular polarization. Like new for Euro 35. 2) 6 cm TWTA (believed new RW80 with 24 V power supply) for Euro 150. 3) 3 cm TWT with 110 V CT 1DMK design PSU for Euro 175. (no guarantee on the tubes). 4) High voltage power supply adjustable from 0–15 kV and from 0-10 mA in 19" box - nice for testing where a PA flashes, etc - for Euro 70. 5) 0.8 dB NF DJ9BV design LNA for 5760 MHz for Euro 35. 6) Low pass filters as described on homepage for 2 m and 70 cm for Euro 70 each. 7) 70 cm PA for the GS35 as on webpage that is not finished but all parts are machined with no fingerstock, tube or blower for Euro 200. 8) Several 31.5 uF 1600 V and 20 uF 2000 V caps - make me an offer, 9) VE4MA feedhorn for 5760 cm with polarizer and scalar ring - make me an offer, old W2IMU 1296 MHz brass feedhorn that needs some work for free, pickup only, 10) Mandrake Linux power packs 8.1 and t 9.0 versions complete all CD's with books for free or for cost of shipping. **California Eastern Laboratories** are looking for a couple NEC V417 transistors (vintage ~1966) for the company's historical collection.

FINAL: I missed some reports due to my SPAM filter. I have corrected this problem and should not lose any e-mails in the future.

Mark 19/20 Feb on your calendars for the 2005 EME SSB Contest on 1296. It is planned for Saturday afternoon/Sunday morning of the Feb AW. I'd want to rename this contest the OE9XXI Memorial EME Contest after last year's contest winner.

I shall be looking for you all off the moon in the final leg of the ARRL EME Contest on 4/5 Dec. Let all hope for good WX! 73, Al – K2UYH

Lunar Weekend Calendar for 2005

by G3SEK

At 2400 Sat/ 0000 Sun		Declination (deg)	Signals (dB)	Sun offset (deg)	Sky temp (K,432MHz)	Comments
Jan-01/02		6.2	-0.3	-110	15	Day(AM).
Jan-08/09		-27.7	0.9	-22	166	Moon in south.
Jan-15/16		2.8	0.2	+74	19	Day(PM).
Jan-22/23	**	28.0	-0.9	+153	29	Night.Apogee.
Jan-29/30		1.6	-0.3	-129	21	Night.
Feb-05/06		-28.1	1.0	-42	149	Moon in south.
Feb-12/13		6.9	0.1	+54	20	Day(PM).
Feb-19/20	**	27.6	-0.9	+133	20	Night.Apogee.
Feb-26/27		-3.1	-0.2	-148	20	Moon in south.
Mar-05/06		-27.6	1.0	-60	41	Moon in south.
Mar-12/13		10.6	0.0	+34	20	Day(PM).
Mar-19/20	**	26.6	-0.9	+114	20	Day(PM).Apogee.
Mar-26/27		-7.6	-0.1	-167	20	Moon in south.
Apr-02/03		-26.1	1.0	-77	41	Moon in south.
Apr-09/10		14.1	-0.1	+14	24	Sun noise.
Apr-16/17	**	25.0	-0.9	+94	14	Day(PM).Apogee.
Apr-23/24		-11.6	0.0	+175	21	Moon in south.
May-00/01		-23.4	1.0	-94	24	Moon in south.
May-07/08		17.5	-0.2	-5	24	Sun noise.
May-14/15	**	22.8	-0.9	+75	14	Day(PM).Apogee.
May-21/22		-15.1	0.1	+156	26	Moon in south.
May-28/29		-19.8	1.0	-110	20	Moon in south.
Jun-04/05		20.8	-0.3	-22	24	Sun noise.
Jun-11/12	**	19.9	-0.9	+57	13	Day(PM).Apogee.
Jun-18/19		-18.3	0.2	+137	26	Moon in south.
Jun-25/26		-15.8	0.9	-126	17	Moon in south.
Jul-02/03	**	23.9	-0.4	-40	24	Day(AM).
Jul-09/10		16.5	-0.9	+39	13	Day(PM).Apogee.
Jul-16/17		-21.4	0.3	+119	35	Moon in south.
Jul-23/24		-11.8	0.9	-144	17	Moon in south.
Jul-30/31	**	26.3	-0.4	-57	29	Day(AM).
Aug-06/07		12.7	-0.8	+21	14	Sun noise.
Aug-13/14		-24.3	0.4	+101	35	Moon in south.
Aug-20/21		-8.0	0.8	-162	19	Moon in south.
Aug-27/28	**	27.8	-0.5	-74	35	Day(AM).Apogee.
Sep-03/04		8.7	-0.8	+4	15	Sun noise.
Sep-10/11		-26.7	0.5	+84	66	Moon in south.
Sep-17/18		-4.1	0.8	+178	19	Moon in south.
Sep-24/25	**	28.5	-0.6	-93	35	Day(AM).Apogee.
Oct-01/02		4.7	-0.8	-16	15	Sun noise.
Oct-08/09		-28.2	0.6	+67	166	Moon in south.
Oct-15/16		0.0	0.7	+160	19	Night.
Oct-22/23	**	28.5	-0.7	-113	29	Day(AM).Apogee.
Oct-29/30		0.7	-0.7	-36	21	Day(AM).Apogee.
Nov-05/06		-28.5	0.7	+50	149	Moon in south.
Nov-12/13		4.6	0.6	+141	19	Night.
Nov-19/20	**	27.7	-0.7	-133	20	Night.Apogee.
Nov-26/27		-3.1	-0.6	-56	20	Moon in south.
Dec-03/04		-27.8	0.7	+32	41	Moon in south.
Dec-10/11		9.6	0.6	+123	20	Night.
Dec-17/18	**	26.4	-0.8	-153	20	Night.Apogee.
Dec-24/25		-7.0	-0.6	-77	20	Moon in south.

Sun Offset *vs* Time of Day for Visible Moon