## 432 AND ABOVE EME NEWS JANUARY 2008 VOL 36 #1

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CONDITION: I feel I use superlatives to often, but the 2008 ARRL EME Contest will be remembered for exceptional activity and conditions – read the reports. This was a good one! 1296 QSO counts made all time record highs and 432 did not do shabbily, but was still not at the levels of 10 years ago. The P43L dxpedition helped and was a great success with many QSOs on 1296 and even some on 432. These excellent results should keep interest high in 2008. There will be plenty happening Peru will be on 23 cm starting on 3 Jan — see

some on 432. These excellent results should keep interest high in 2008. There will be plenty happening. Peru will be on 23 cm starting on 3 Jan – see OA4/DL3OCH's report below. There will be 70 cm CW Activity Time Periods (ATPs) on 22 Dec from 1400 to 1600 and 2300 to 0100, and on 19 Jan 2200 to 0000 and 20 Jan 1500 to 1700. In Feb will be the 1296 SSB Contest and the DUB-REF Digital EME Contest, and in March the DUB-REF 70 & 6 cm up EME Contest.

HIGH SCORES: On 70 cm, OH2PO appears to have gained the top spot with a CW score of 70x33 (2310) narrowly ahead of DL9KR, 72x32 (2304), with a greater number of QSOs but less multipliers. OH2PO also has 36 JT QSOs. HB9Q has an impressive 56 QSOs on JT, but far fewer (35) on CW. On 1296 G4CCH is on top for the first time with a extraordinary 97x44 on CW plus an additional 20 JT QSOs. OK1DFC is next with 88x38 and followed by G3LTF with 81x42. OZ4MM reports 83 CW QSOs on 1296 and DL4MEA also reports > 80 contacts!!!

AD6WI: Goran <a href="mailto:goran@ad6iw.com">goran@ad6iw.com</a> writes about the future of the Jamesburg dish -- We had lots of fun and made many nice contacts off the moon. The ARRL EME Contest in Oct maybe our last operation because it seems that dish will change owner. We will know more, soon. We are already looking for another dish for future activity.

OA4/DL3OCH: Bodo dl3och@gmx.de sends news on his dxpedition to Peru—I am going on 26 Dec and will stay until 12 Jan. Besides HF Dxpedition activity, I plan to do some EME on 2 m and 23 cm. Between 3 – 6 Jan I will be on air as OC1I from EI93 in northern Peru, and between 8 – 11 Jan I will be active as OA4/DL3OCH from FH17 somewhere near Lima. My equipment for 23 cm will be an IC706 with transverter and about 90 W into a 59 el yagi on 1296.090. This set up is proven and has been used from many contacts from new DXCC locations before. I will mainly operate on JT65C, but will be very happy to operate on CW as well. If you hear me in the speaker, please call on CW. I will also be operating on 2 m EME. I want to give special thanks to Dan/HB9CRQ, Heinrich/DJ9YW and Frank/DL8YHR for their help with equipment. Please check our Dxpedition website from time to time for more information such as operating frequencies and news during the Dxpedition. <a href="www.qslnet.de/oc1i">www.qslnet.de/oc1i</a>. Contact Bodo directly by e-mail for skeds.

**<u>DL4MEA:</u>** Guenter <u>guenter.koellner@nsn.com</u> had a lot of fun operating the EME contest on 23 cm - I worked > 80 stations, which is exceptional for my station. My new preamp did a fantastic job. A landmark was my copy of SM5LE. Before this preamp I had to guess at Sven's call in the noise, afterwards I heard him clearly multiple times. I now for the first time have really satisfying RX performance. I added initials with IQ4DF, P43L, NA4N, K5JL, SP7DCS, PA3FXB and VE3KRP before switching to a G4DDK 0.3 dB NF preamp. I then added SM5LE, HB9BBD, HB9SV, KL6M, LA2Z, G3LQR, G4RGK, JA4LJB, ON5RR, JA6CZD, SP6JLW, K2DH, UA3DJG, W6BY, LA5ZK, I5MPK, SM2CEW, F5FEN, F5JWF and F6CGJ. A station, possibly IK5WJD called, but he did not send his callsign often enough. The signal was good, but I had difficulty reading the CW in the noise. My station is now a 4.5 m f/D=0.32 deep dish, round Septum polarizer feed with a 3 section Chapperal ring, 0.3 dB NF G4DDK LNA, TH347 with about 500 W at the feed and FT847 with Winrad waterfall +/- 6 kHz. As soon as Weather permits, I will change to 13 cm in order to listen for the moon probe and also to test my 2424 mixer. I am also preparing 9 cm EME and expect to be QRV in the spring.

**<u>DL7APV</u>**: Bernd <u>dl7apv@t-online.de</u> was QRV during the EME contest on 432 – I worked 52 in Oct and Nov weekends. I was not very active but spend a bit of

time on the band for fun, and was very glad to work some initials. Initials were in Oct SV3AAF and DL5FN, and in Nov IK6EIW, OE3SJA, K7XQ, IZ5MAO, JO1LVZ, OF2BNH, VK2DAG and DL9MDC to bring me to #318. I found condition very good much of the time I was on. Perigee seemed to help improve more QSO rate. Heard were YO2IS and WA6PY - never so loud as during the Nov weekend. In Nov I had only reduced power because my TH347 Plisch PA had problems with arcing at the tuning cap. Any help with ideas for a solution to the arcing will be appreciated. I will not send my log to ARRL. Maybe they will do a better job and come to a wiser decision with respect to the rules for next's year contest, if not we have the DUBUS contest.



P43L: Al (K2UYH) and Lisandro (P43L) in front of 12' dish

DL9KR: Jan Bruinier@t-online.de reports on his activity during the Nov contest weekend — Conditions again provided good signals with a stable (horizontal) Faraday and my WX was calm with intermittent drizzle. I QSO'd on 24 Nov RW1AW, SP7DCS, UA6LGH, WE2Y, OH2DG, OK3RM, SM3JQU, WA6PY dupe, WW2R, JJ1NNJ, DL2HWA for initial #868, F3VS, DK3WG, F6HLC #869, partial M0EME — no contact, YO2IS dupe, FR5DN, JS3SIM, S53RM and G4ALH, and on 25 Nov I5YDI dupe, SM2CEW - the iceman and DL5FN dupe. My final score was 72x32 with an unexpected bonus of 7 initials! Right after the end of the contest I QSO'd P43L for DXCC 97. The WX very compliant and didn't it hit me with heavy rain plus snow during the sked. In fact wind cleared my open feeder just before the start and RX capability returned to normal. I was very happy! Who's going to be #98?

F5SE: Franck kozton@free.fr bring use up to date on his "dish project" -- The rotating tower is now working quite well. Tracking is very smooth and very accurate. I have implemented in my software some well-known bright stars positions, for "eye" tracking calibration purpose. The next step is the dish assembly. We intend to start the job in early Dec. If everything goes right, the dish could be in the air sometime during Jan.

G3LQR: Simon G3LQR@aol.com sends his ARRL Contest report – I worked back in Sept on 13 cm F2TU, G3LTF, RW1AW, OK1CA, SM3AKW, OK1KIR, F5JWF, OE9ERC and ES5PC. Unfortunately I went to bed too early and missed the NA window. The rig was my 4.2 m dish, 200 W and ATF 36077 LNA. On 23 cm I worked in Oct and Nov G3LTF, G4CCH, SK0UX, SM3LBN, RA3AQ, IZ1BPN, OK1KIR, K9SLQ, ON4BCB, OZ6OL, OK1DFC, DF3RU, JR4AEP, LA9NEA, K5SO, HB9BD, RD3DA, EA3UM, K1JT, IQ4DF, LA2Z, VE6TA, K5JL, WA6PY, SP6JLW, HB9Q, DL4MEA, OE5JFL, ES5PC, OZ4MM, W2DRZ, SM3AKW, KL6M, IK3COJ, HB9SV, JA6AHB and F6CGJ.

These were my best results to date. I tried to be there late at night, but it is hard for a 73 year old. The station was my 4.2 m dish, 200 w and AFT 36077 G4DDK preamp. On 70 cm I worked only a few in Oct. My 8 x 27 el yagi array is still not working as it should. I QSO'd KL6M, IINDP, DL9KR, SV1BTR, OZ4MM, G3LTF, VK3UM, UA3PTW, OH2PO, JA5NNS and JA6AHB. The WX was good and I was able to track moon with my TV camera. I was amazed by the activity on 23 cm and at times could not find somewhere to call CQ. I missed at least 20 stations on this band. I was very pleased to work KL6M with the steel tropo tower 5' in front of feed on my east window.

G3LTF: Peter's g3ltf@btinternet.com Nov contest report -- This was a very good productive EME weekend. On 24 Nov I started on 1296 and worked G4RGK, NA4N, IO4DF for initial #266 and HB9BBD, I changed to 432 and worked WA6PY for initial #407, KE2N, UA6LGH - haven't heard him for a long time, RW3PX dup OSO, K3MF, RW1AW, K7XQ #408, then back to 1296 for OK1DFC, PA3FXB #267, VE3KRP and AL7RT dup. At moonrise on the next pass I started on 432 and worked VK4AFL and VK3UM, JJ1NNJ and SV3AAF. I them put the 1296 feed in again and worked JH1KRC, HB9SV, ON5RR and ON7UN, continuing on 25 Nov with UA3DJG #268, SV1OE, YL3AG #269, W2DRZ, KL6M and P43L #270 and DXCC 45. I then spent some time with the dish on 144 but returned at 0641 to 1296 and worked SM2CEW. On the final moon pass of the contest I again started on 432 despite bad QRM from the TV transmitter at 17 km and worked OZ4MM and SM2CEW. I then changed back to 23 cm and there were still stations to work I5MPK, SM5LE dup, F6CGJ, F5HRY and finally GM3SBC #271. On 1296 CWNR were K5SO, JA4HZN and IW5LJB. Lost in QRM was W7UPF. Heard but had no opportunity to call wereW7BBM, I4LJD, F6KHM and IK2RTI, and on 432 heard were F6HLC and DK3WG. I believe there were well over 100 calls available on 1296 in the two weekends of the contest, which is excellent and there seems to be a near continuous advent of new stations. Seven initials on 432/1296 in one weekend; it's a long time since I did that! In retrospect I didn't spend as much time on 432 as I should have done. My final numbers, subject to one more check are on 1296 81x42 and on 432 43x27. On 1 Dec I worked WW2R on 432 with a nice 559 signal # 409. The only cloud on the horizon is the announcement that having failed to get a commercial team to build the Galileo system, the European Commission has decided to go ahead anyway using taxpayers money - see <a href="http://news.bbc.co.uk/1/hi/sci/tech/7120041.stm">http://news.bbc.co.uk/1/hi/sci/tech/7120041.stm</a>. The system is supposed to be in operation by 2013. The implications for 1296 operation are as yet unclear.

G4CCH: Howard howard@g4cch.com writes on his Nov operation -- I was active during the week before the contest and managed to bag a few initials on CW and JT, unfortunately I couldn't repeat all of them during the contest. Recent initials before the contest were M0DTS on JT65c, OM1TF on JT65c and IK5WJD on CW. Contest initials were IQ4DF on CW, P43L on CW and JT, F5FEN Con W, W6BY on CW and VE4SA on CW. This year I will be entering the contest in the 23 cm Mixed Mode Assisted class. Conditions were strange as previously reported in the Oct session, but very good in Nov with plenty of activity over both weekends. The ARRL contest always seems to generate a lot of interest and knowing that there will be plenty of activity provides a good opportunity for those making their first attempts at EME. The expedition to P43L on the contest weekend almost certainly helped too. At times the bottom 35 KHz of 23 cm was crammed with stations, and some of them were VERY loud... HB9SV, HB9BBD, K5SO, HB9Q, OZ4MM and OK1DFC among them. Finding a quiet spot to call was often difficult and at times stations were getting quite close to P43L's sked frequency on 045. Here's the list of stations worked in the contest - by date in alphabetical order: on 27 Oct, on CW or SSB AL7RT, DF3RU, DL1YMK, DL4DTU, DL4MEA, ES5PC, F5JWF, G3LQR, G3LTF, HB9Q, IK2MMB, IK3COJ, IW2FZR, IZ1BPN,JA4BLC, JA4LJB, JA6AHB, JA8IAD, JF3HUC, JH5LUZ, JR4AEP, K0ALL, K1JT, K4QI, K7XQ, K9SLQ, LA2Z, LA9NEA, N2UO, N9JIM on SSB, OE5JFL, OH2DG, OK1DFC, OK1KIR, ON4BCB, OZ6OL, PA3DZL, RA3AQ, RD3DA, RW1AW, SK0UX, SM3AKW, SM3LBN, SM4DHN, SM5LE, SP6JLW, SP7DCS, SV1OE, VA7MM, VE3KRP, VK4AFL, WA6PY, WD5AGO and WW2R, on JT65 N9JIM, SM5LE, VA7MM and VK7MO, on 28 Oct on CW or SSB EA3UM, F5FF wrong call copied - was F5FEN worked again later, G4DZU, I5MPK, IK2RTI, JA8ERE, LX1DB, N9JIM SSB dup, OK1DFC dup, OZ4MM, SM5LE dup, VE1ALQ and VK3UM, on JT65 ES5PC, G4DZU, VK7MO dup and WW2R, on 24 Nov, on CW or SSB DK7LJ SSB, F5FEN (not F5FF), F5HRY, G4RGK, GW3XYW, HB9BBD, HB9SV, IQ4DF, JA6CZD, K2DH, K5SO, K7XQ dup, N0OY, NA4N, OK1CA, ON5RR, ON7UN, P43L, PA3FXB, SV1OE dup, UA3DJG, VE3KRP dup, VE6TA, VE7BBG and W7BBM, on JT65 G4RGK, K1JT, K7XQ, OH3MCK, OK1KIR, P43L, PA3FXB, VE7BBG and VK7MO dup, and on 25 Nov, on CW or SSB EA3UM dup, F6CGJ, F6KHM SSB, GM3SBC, I5MPK dup, K5JL, KL6M, OE9ERC, SM2CEW, VE4SA, W2DRZ, W6BY, WB2BYP and YL3AG, and on JT65 GM3SBC, M0DTS, RD3DA and UT3LL for a final score of 97 on CW/SSB and 20 on JT

with 44 multipliers for 514,800 points. The station was a 5.4 m dish, W2IMU feed, 650 W CW/SSB or 450 JT with a 0.31 dB NF LNA.

**G4RGK:** Dave g4rgk@btinternet.com was active during the Nov contest weekend, but did not take part. Dave worked between 40 and 50 stations on 70 cm and around 30 on 23 cm over the 2 contest weekends. He reports that conditions were average during the Nov part and activity seemed low on 70 cm.

HB90: Dan dan@hb9q.ch writes on his ARRL contest results -- We had a great time and we are very happy with the result! Our main target was to work as many new stations (QRP especially) as possible. We worked on 432 18 initials, on 1296 21 and on 2304 21 (this was easy since it was our first activity!). Our final results were as follows 432: 91 stations (35 CW, 56 JT65B) and 39 multipliers, 1296 79 stations (79 CW) and 38 multipliers, 2304 21 stations (21 CW) and 18 multipliers – plus 144. The smallest station we worked on 432 was VE2DSB with 1 x 22 el yagi and 22 W. You can find our complete logs at <a href="https://www.hb9q.ch">www.hb9q.ch</a>. There you also find more information about our equipment and capabilities. We are trying to finish-up the WAS on 432. After working several new ones this year, we now only need 9 states. States missing are AR, KY, MS, ND, NE, NH, NM, SC and VT. With our 15 m dish and QRO power we can easily work stations using 1 yagi and 100 W (CW) and for a JT QSO less then 50 W. Any and all skeds are welcome.

**I5CTE:** Piero <u>pgb932@gmail.com</u> was active on 70 cm during the contest for both legs, but was only able to be active at moonrise and the following 2 or 3 hours – I had about 16 random QSOs altogether, but no new stations.

IK3COJ: Aldo ik3coj@fastwebnet.it reports on the Nov leg of ARRL EME Contest − I added 13 QSOs to my Oct results. Initial stations were in Oct RA3AQ for #134, ON4BCB #135, F5FEN #136, WW2R #137 and JR4AEP #138, and in Nov RD3DA #139, IQ4DF #140, I5MPK #141 and JF3HUC #142. Heard but with no QSO were F5HRY, NA4N, NOOY, JA6CZD, JA8ERE and EA3UM. My final contest score is 51x28.

**IK6EIW:** Stefano asmag@libero.it had a lot of fun during the ARRL EME contest — I had QSOs on 70 cm with DL9KR, OZ4MM, I1NDP, OH2PO, HB9Q, VK3UM, KL6M, DF3RU, OE5JFL, DL7APV and UA3PTW. Heard were G3LTF, JJ1NNJ and SV1BTR. I am ready for skeds via email (pse give me 2 or 3 day advance notice and I can be on). My 12' dish project is also making good progress. I hope to be on 10 GHz soon.

IQ4DF: The CRBR group iq4df@crbr.it had their first experience in 23 cm during the contest in Nov — We did not expect to be hearing so many stations. The band was truly full. Our station was a 7 m dish (the same we use on 10 GHz), VE4MA feed with hybrid for circular pol, 0.3 dB NF LNA, TRV LT23S and YD1381 SSPA with 130 W. We were active on Saturday morning and the night between Saturday and Sunday. In total we made 36 QSOs and heard many other stations as EA3UM and W6BY. We worked AL7RT, DF3RU, DL4MEA, ES5PC, F5JWF, F6KHM, G3LQR, G3LTF, G4CCH, HB9BBD, HB9Q, HB9SV, IK3COJ, IZ1BPN, K1JT, K2DH, K5JL, K5SO, K9SLQ, LA2Z, LA9NEA, NOOY, N2UO, OE5JFL, OH2DH, OK1DFC, OK1KIR, ON7UN, OZ6OL, RD3DA, SM3AKW, SM3LBN, SP6JLW, VE6TA, W2DRZ and W51 LIA

JAOTJU: Sho, JA5NNS sirakata@enl.ehime-u.ac.jp has sent information on a new 70 cm station from JA. JAOTJU is located in grid PM97hi. He made 28 EME QSOs during this ARRL contest. Unfortunately his antenna can be directed only to the west (Europe window). He plans to improve his mounting so that the antenna can be used for NA in the near future.



JA0TJU's side tower mounted 12 yagis 70 cm EME array

JH1KRC: Mike jh1krc@syd.odn.ne.jp writes — I have not operated from my shack for over one year because of other commitments as 8N1EME. Many things have to be fixed including trees and deep grass, but I plan to be QRV for the Nov contest weekend. I have offset my 5.76 GHz feed so that the 1296 feed can illuminate my main reflector. My station inspection by the telecom officials for high power on 5.76 GHz and 10.45 GHz EME will hopefully be done before or early next year. [Mike was active on 1296 in Nov, but I have not yet received his report].

JJ1NNJ: Kouichi's jj1nnj@extra.ocn.ne.jp 70 cm ARRL contest report – In the 1st part, I could be QRV for only 2 hours on the second night during the NA window. I QSO'd on 28 Oct K1FO, W8TXT, K1RQG for initial #90, JA9BOH, K0RZ and JA6AHB. My Nov results were much more satisfying. I worked on 24 Nov KL6M, VK3UM, JS3SIM, JA0TJU #91, K4EME #92, UA3PTW, SM3AKW, SM3BYA, SP6JLW, DL1YMK, OZ4MM, SV3AAF #93, SV1BTR, UT2EG #94, OE5JFL, JA5NNS, DL9KR, OH2PO, G3LTF, DF3RU, DK3WG, FR5DN and RW3PX #95, and on 25 Nov KL7HFQ #96, JH4JLV, I1NDP #97, F3VS #98, S53RM #99, SM2CEW, DL5FN #100, G4RGK #101, DK8VS #102 and DL7APV. I had a total of 39 QSOs (my best ever) and am now over initial #100. (My #1 was VE3ONT in 1993). Partial QSOs were DL2HWA (no exchange of reports) and I5CTE (house blockage); CWNR were VK4AFL and RW1AW. My equipment consists of 16 x 13 el LR yagi array, GS23B HPA with 950 W in the shack and a FHX35LG LNA.

KORZ: Bill kOrz@comcast.net in DM79jx reports he QSO'd on 432 CW in Oct: DL9KR, FR5DN, G3LTF, HB9Q, I1NDP, JA0TJU for initial #332, JA6AHB, JA9BOH, JJ1NNJ, K1JT, K1FO, K1RQG, K3MF, K4EME, K16M, KL7HFQ, OH2PO, SV1BTR, SV3AAF #331, UT2EG, VE6TA, W7MEM and W8TXT. In Nov he added: JA0TJU dup, KE2N, OZ4MM, RW1AW, SV3AAF dup, UA3PTW, UT2EG dup, VK3UM, W7CI, WA6PY #333, WE2Y and WW2R. Bill believes his fixed horizontal polarity limited the number of QSOs as there seemed to be little Faraday rotation either weekend. During the last solar minimum, Bill rotated his array to vertical polarity for the second weekend and faired better. His final ARRL contest score was 32x21.

K1JT: Herb (K2LNS) wa2fgk@ezlinx.net writes -- Conditions on 1296 were excellent with 34 QSO's added, but 432 was really "stinko". Rick (K1RS) and I worked only 3 QSOs on 432. We could not even get guys on JT. On the first pass we missed the VK/JA window due to a failure of the dish's azimuth drive motor. It turned out to be a corroded connection to the phase capacitor, so we were back in business for the second day. I was able to work 4 JAs and VK3UM on our limited moonset Sunday morning. We QSO'd on 24 Nov on 1296 at 0027 P43L (559/559), 0035 K5SO (579/589), 0045 HB9BBD (579/589), 0051 NA4N (559/579), 0056 W7BBM (579/579), 0111 IQ4DF (559/559), 0135 G3LQR (559/569), 0208 VE6TA (579/579) and 0213 DF3RU (559/559), , on 432 at 0324 SM2BYA (O/O), 0334 WE2Y (O/O) and 0414 OH2PO (7DB/4DB) on JT, back on 1296 at 0456 PA3FXB (579/559), 0554 P43L (15DB/O) on JT, 0611 VE7BBG (O/O) on JT, 0618 G4CCH (3DB/6DB) on JT, 0617 K2DH (559/559), 2253 HB9SV (579/569), 2306 F5FEN (559/549), 2333 OH3MCK (19DB/13DB) on JT and 2346 PA3FXB (12DB/10DB) on JT, and 25 Nov on 1296 0046 ON7UN (579/569), 0100 LA5ZK (549/559), 0114 W2DRZ (559/559) DUP, 0122 F6FKM (579/449), 0315 KL6M (559/559), 0339 IK2RTI (579/579), 0408 RD3DA 6DB/O) on JT, 0423 VA7MM (9DB/O) on JT, 0446 OK1KIR (10DB/O) on JT, 0457 I5MPK (579/579), 0522 WW2R (O/O) on JT, 0622 SM2CEW (579/579), 0938 JR44ZZH (579/579), 0948 JR4AEP (579/579), 1018 JH5LUZ (579/579), 1040 JH1KRC (559/559) and 1123 VK3UM (579/569) for a total on 432 on CW of 28x22 plus 1 JT and on 1296 of 74x35 plus 10 JT.

K1RQG: Joe k1rqg@aol.com was not home for the Nov contest week due to Thanksgiving holiday travel, but he was active the weekend after the contest – On 1 Dec I worked LA9NEA again with a very nice signal on 23 cm. I called CQ at about 0515 for 30 minutes with nil results. I was not on the following night because of very high winds.

K7XQ: Jeff k7xq@secure.elite.net had a great time operating all 3 contest weekends -- 1296 was stable as a rock with unusually strong signals. I did much better on 2304 after the contest after I found a blown/shorted regulator in the preamp causing a over voltage condition creating excessive gain and a very high NF. I will be submitting as single operator, CW only, random unassisted, mixed band entry (all callsigns included below). Any assisted contacts will not be included in the ARRL submitted log, but are located on my webpage logbook. The first contest weekend I worked on 2304 OK1MS for an initial (#) and KL6M (#). The second Contest weekend I worked on 1296 SM4DHN (#), K9SLQ, N9JIM, K4QI (#), OK1DFC, G3LTF, LA9NEA, HB9Q, OZ6OL, RW1AW, K1JT, G4CCH, N9JIM, WA6PY, JA4BLC (#), JA6CZD (#), JR4AEP (#), OK1CA, OE5JFL (#), RW1AW (#), IW2FZR (#), OZ4MM, DL4MEA (#), OH2DG (#), AL7RT (#) and N0OY (#), and the third contest

weekend on 432 G3LTF (#), and on 1296 DF3RU (#), K2DH (#), K5SO, K5JL, VK3UM (#), VE6TA (#), VK4AFL (#), W2DRZ (#), JR4ZZS (#) and VA7MM (#). The 432 array is only partially built as 2 x 9 wl XPOL yagi with 20 dBd total gain. I was pleased that my GS35b amp stayed stable with very little power drift on this band at a full 1500 W. The next contest I will alternate the bands more often and try not to stay on any one band too long.

OH2PO: Jukka oh6dd@sral.fi reports on his groups experiences on 70 cm during the ARRL contest -- Conditions in the Oct leg were excellent on both nights, but in the 2nd leg the were far from ideal. We added 16 more stations on CW and 20 on JT. Our score is 106x33 (70 on CW and 36 on JT), all unassisted. We were happy to get many new JT stations in our log. No doubt that with logger, we could have added many more. Operators were same as in the 1st weekend: Jyrki (OH2HYT), Jukka (OH6DD) and Matti (OH2PO). For me and Matti this was the 21st consecutive ARRL EME contest on 70 cm (starting in 1987). I thought that this would be the 20<sup>th</sup>, but checking the logs shows this not to be the case. We worked on 27 Oct DL5FN, UA3PTW, RW3PX, DL1YMK, YO2IS, I1NDP, FR5DN, UT2EG, UT5JCW, SM3JQU, KE2N, K4EME, VE6TA, SM3BYA, G4RGK, K1FO, DL9KR, HB9O, K1JT, SP6JLW, K0RZ, W7AMI (JT), W8TXT, SV3AAF, EB5EEO (JT), ZS6WAB (JT), KL7HFQ, WW2R, KL6M, G3LTF, K1RQG, OE5JFL, OZ4MM, SM3AKW, JA0TJU, PE1ITR (JT), DF3RU, JA9BOH, RK3WWF (JT), OK1TEH (JT), VK4AFL, DL7APV (JT), SV1BTR, SM2A (JT), DL7UDA, I5YDI, UT3LL, JH4JLV, IK6EIW, IK2RTI, AO3XU (JT), OH4LA (JT) and ZS6OB (JT), on 28 Oct WE2Y, KE2N (JT), KIOLE (JT), W7MEM (JT), K3MF (JT), WA6PY, VK3UM, UT3LL (JT), JA5NNS, G3LQR, JA6AHB, I5CTE, DK3SE, G3HUL, DK8VS, OK1TEH and ON5OF. The first leg ended up with 70x31. We missed M0EME on CW; we could not pull out the call. We worked on 24 Nov SP7DCS, UA6LGH, OK3RM, K3MF, OH2DG, RW1AW, OK3RM (JT), W2CNS (JT), K4EME (JT), K1JT (JT), DL2HWA, HB9Q (JT), DK3WG, DL5BCX (JT), DJ8MS (JT), {also DL0SWG, DK7OM and DG6SYL; all = DJ8MS}, S53RM (JT), JJ1NNJ, DL5FN dupe, F6HLC, YO2IS dupe, JA2TY (JT), F6APE (JT), PE1DRP NC - lost in noise (JT), RZ3AED (JT), JO1LVZ (JT), OE3SJA (JT), SM2A, S53RM, G4ALH and KE2N (JT) dup, and on 25 Nov UA4AQL (JT), IZ5MAO (JT), K7XQ (JT), W7CI, S54T (JT), DL5AG (JT) = DJ8MS dup, I5YDI (dup), OF2BNH (JT) = OH4LA dup, DL9MDC (JT), JS3SIM, OE5MPL (JT) and F3VS.

OK1DFC: Zdenek ok1dfc@seznam.cz sends info on his participation in the contest -- This year I chose to participate on 1296 CW only, single operator, unassisted. I reported last month on my problems in Oct, but did not send in my log. In the Oct leg I QSO'd K2DH, K9SLQ, SM4DHN, G4CCH, LA9NEA, G3LTF, ON4BCB for an initial (#), RA3AQ, RW1AW, OH2DG, K5JL, SM3AKW, OK1KIR, ES5PC, K4QI, N9JIM (#), N0OY (#), OZ6OL, WA6PY, OE5JFL, K7XQ, IZ1BPN (#), SP6JLW, LA2Z, DF3RU, SK0UX, HB9Q, WW2R, DL4MEA, DL1YMK, AL7RT, OK1CA, RD3DA, SM3LBN, RW1AW, DL4DTU, F5JWF (#), SM5LE, IW2FZR, JR4AEP, IK2MMB, IK3COJ, JA8ERE, JA4LJB, JA6AHB, JH5LUZ, PA3DZL, F5FEN, JA8IAD, JA4BLC, N2UO, K1JT, VE3KRP, K9BCT, K9SLQ, VE6TA, W5LUA, OZ4MM, VA7MM, N9JIM (59/59) on SSB, SP7DCS (#), VK3UM, JF3HUC (#), VK4AFL, LX1DB, SV1OE, EA3UM, I5MPK and G3LQR. In the Nov leg I used a new rig. My FT1000MP was changed to an "advanced Christmas present", an IC756PROIII. I found it has a lot of advantages for EME. Its DSP works especially great. Also its digi interface (with special sound card in micro HAM II) provides significant advantageous. I was able to work very small stations (for a sample UA3MBJ) that were not detectable in the past. I now can decode signals not visible on the screen; signals at a  $-31~\mathrm{dB}$  level are possible to decode. Besides UA3MBJ at -31 dB (single 39 el yagi), I QSO'd OM1TF (2.4 m dish and 30 W) easily at -28 dB. Between contest legs, besides JT test I contacted on CW I5MPK, G4CCH, IK5WJD (#), G4RGK (#), HB9Q and SV1OE. WX during the Nov weekend was a major concern. Storms and high winds were forecast. I started the contest ok and QSO'd P43L (#) and DXCC 47, NA4N, PA3FUN (#), W7BBM, IQ4DF (#), WA6PY, WB2BYP (#), K5SO, VE3KRP, OZ4MM, LA9NEA, G3LTF, HB9BBD CW and SSB (59/59), SM5LE, VK7MO (JT - 13 dB) called to move Rex to CW for a QSO, DF3RU, ON5RR, JA6CZD, JH1KRC, KL6M, ON7UN, HB9SV (59), JR4AEP, UA3DJG (#), G4RGK, SV1OE, I5MPK, F5HRY (#), SM3AKW, W2DRZ, LA5ZK (#), IK2RTI, K9SLQ, VE6TA and F6KHM. After the QSO with Xavier, I recognized that the digits on my dish position readout were moving fast. I open a window and found the wind was bending trees to a 45° angle. I parked dish with problems. Only thanks to the new AZ and EL drivers was I able to move dish back to the park position and fix it with screws to the mast. I lost the last 40° of moon in west and moonrise on Sunday. This was a pity as the system was working very well. My score is 88x38 for 334,400 points. I heard but did not work YL3GA and W6BY [WA6PY?]. If anybody called me with no reply, please let me know and send me info about your setup as I would like to know the limits of my station. I ended at initial #198 and DXCC 47 on 1296.

OK1KIR: Jan (OK1VOA) ok1vao@o2active.cz reports on his group's activity on 23 cm in ARRL contest - During both weekends our primarily concern was to add initials, but we made a lot of contacts, both on CW and JT65C. We QSO'd on 27 Oct on CW: RA3AQ, OK1DFC, G3LTF, LA9NEA, OH2DG, ON4BCB, SK0UX, SM3AKW, OZ6OL, G4CCH, IZ1BPN, SM4DHN, N9JIM, ES5PC, OE5JFL, K1JT, DL4MEA, DL1YMK, K9SLQ, RW1AW, N2UO for initial #244 from his new location, AL7RT, RD3DA #245, SP6JLW, IK3COJ, SM3LBN, JH5LUZ, IK2MMB, JA8IAD, JF3HUC, IW2FZR, JA6AHB, LA2Z, F5JWF #246, JR4AEP #247, SP7DCS #248, G3LQR and IK2RTI, on 28 Oct NOOY, VE6TA, DF3RU, WA6PY, OK1CA, WW2R, OZ4MM, VA7MM, on 24 Nov P43L #249 (DXCC 48), K2DH, HB9BBD, HB9Q, KL6M, F5FEN #250, SM5LE, G4RGK, HB9SV, ON7UN, ON5RR #251 (new loc), F6CGJ and IO4DF #252. On 25 Nov VE3KRP #253. NA4N. SM3LBN dup. YL3AG. W2DRZ and I5MPK for a total of 10 initials and 64 stations worked. Heard were UA3DJG, SM2CEW, EA3UM, WD5AGO, W5LUA, K1RQG, K7QX, K4QI, PA3CSG, DJ9YW, LA5ZK, SV1OE, OE9ERC, VK3UM, F6HKM and K5JL. We also worked on JT on 24 Nov VK7MO, G4CCH, G4RGK, OH3MCK, G4DZU, GW3XYW and PE1HNG, and on 25 Nov VE7BBG initial {#19} via JT and K1JT. On 24 Nov Cygnus A was 0.5 dB, Omega M17 1.0 dB, Cassiopeia A 0.45 dB and the Sun 14.5 dB at SF70, Moon 0.2 dB and G/CS 6.2 dB. We also conducted an exciting test with an SDR-14 (Software Defined Radio) receiver coupled to our RX line via a splitter and DB6NT 1296/28 RX converter. We were able to see simultaneously all the stations over a bandwidth over 100 kHz on our computer screen (actually delayed by about a second). The big surprise was that very weak CW signals, which our ears and brains were not able to decode on the TS790A with a DSP 59+ audio filter, played clear CW from our notebook's loudspeaker (without any JT like processing)! Factually this should be no surprise as the real bandwidth of processing in SDR14 receiver could be set to 14 Hz! [I am surprised as I still have not been able in real time to decode weak EME CW signals using DSP any better than I can do with my ears

**ON4BCB:** Walter <a href="mailto:walter.crauwels@skynet.be">walter.crauwels@skynet.be</a> with ON4CO and ON4CCM were QRV on 23 cm in the contest in Nov -- We worked F6KHM (54/53) on SSB for initial #62, HB9Q (559/559) #63,F5FEN (559/559) #64, VK3UM (559/559), KL6M (559/559), HB9BBD (579/579), EA3UM (559/559), HB9SV (559/559), I5MPK (559/569) #65, F6CGJ (559/559) #66, SM5LE (519/559) #67, F5HRY (519/519) #68 and G4RGK (559/559) #69. The strongest signals where HB9SV and HB9BBD. We had a nice QSO with F5HRY and SM5LE but they were more difficult copy. We ended 58 QSOs and 32 initials.

OZ4MM: Stig vestergaard@os.dk was active in the contest and writes -- I was active during part of the Nov contest weekend on 23 cm, 70 cm and 2 m CW. On 1296 I worked VE3KRP for initial #290, W7BBM, N2UO #291 (new QRA), G4RGK, P43L #292 DXCC 55 EME, K5JL, W9IIX, EA3UM, SV1OE, N9JIM #293 (home QTH), IK5WJD, NA4N, WB2BYP, N2IQ, OK1DFC (dupe), W7UPF, VK4AFL, F5FEN #294, JA6XED #295, KL6M, SM5LE, F5JWF, I5MPK, ON5RR, OZ6OL, JH1KRC, IK2RTI, JA6CZD, JA6AHB, G3LQR, LA5ZK #296, UA3DJG, HB9BBD, HB9SV and K2DH. Heard were IQ4DF (I had PA problem, so not complete), PA3CSG, OE9ERC and SM3AKW. The highlight on 1296 was of course K2UYH at P43L giving a new DXCC. Also N9JIM who put up a 1.2 m dish in his backyard and W9IIX who only had 15 W in shack to a 3.7 m dish. There were good conditions during both days on 23 cm. On 432 I added JJ1NNJ, DL5FN, SP7DCS, JA5NNS, K0RZ, KE2N, WW2R, W7CI, DK3WG, K3MF, RW1AW, F6HLC for initial #293, DL2HWA #294, S53RM, F3VS, G3LTF, I5YDI (dupe), SM2CEW, OK3RM #295 and I5CTE. My 144 feed caused some blocking on 432, so I lost some of the weaker signals when the 144 MHz feed was in position. I spent only little time on 144. My final QSO score was on 1296 83, on 432 56 and on 144 16. After the contest I ran a 432 sked with P43L. Al was only partial copy during the sked, so did not complete. In his DL9KR and HB9Q skeds, he was OK copy, so maybe next time. My setup is a 10 m dish with on 23 cm an W2IMU feed with 500 W and on 432 a dual dipole feed with 1 kW.

P43L: Lisando <p43l@arubanet.com> met me [K2UYH] shortly after arrival in Aruba on Tuesday 20 Nov and I visited his QTH. The dish needed some work to be put in operation, but all looked encouraging. A hole was ready for the mounting pole and everything we needed seemed to be on hand. The next day the cement was poured and the pole fixed in place. On Thursday the dish was mounted, but the mounting was delayed due to a problem with the back plate of the dish. The plate was corroded to a point where it was unusable. It had to be replaced and the mount modified. A new plate was fabricated thanks to Lisando's resourcefulness. We also put the feed in place and ran cables to operating position, a table next to the dish. There was a beautiful moon in the sky and it was tempting to continue setting up the equipment, but we were committed to a Thanksgiving dinner with my family. The next day, Friday 23 Nov, I had to work during the morning, but headed over to P43L's QTH as soon as I could to complete connecting up the equipment. Everything was in ready by

about 2300 despite some light rain showers; the first since I arrived on the island. There was only one problem, no moon or sun to calibrate the tracking system to. I had a pretty good idea where to point the dish and tried to find the moon by listening for a signal, but none was found - the contest had not yet started. At 0000 the contest and our first sked started. We almost immediately found HB9BBD's loud signal - TNX Dominique. It took us a few periods to get the tracking worked out and QSO'd quickly. Also the moon peeked through clouds and gave us a visual fix. The moon played hide and seek all night, but I do not think we ever totally lost tracking. We also were harassed by occasional rain showers, but always managed to cover the equipment in time. We QSO'd on 25 Nov at 0000 HB9BBD (559/549), 0020 K1JT (559/559) - [there were not prearranged skeds or look for time with K1JT or K2UYH], 0030 OK1DFC (549/559), 0045 K5JL (559/559), 0051 K9SLQ (569/559), 0058 PA3CSG (O/O), 0112 OE9ERC (559/569), 0120 DF3RU (559/559), 0126 G4CCH (559/549), 0133 OZ4MM (559/559), 0140 OK1KIR (559/559), 0150 DJ9YW (559/549), 0204 OK1CA (559/549), 0211 HB9Q (559/539), 0217 RW1AW (559/O), 0231 K2UYH (559/559), 0300 DL1YMK (559/O), 0315 W5LUA (559/549), 0320 DL4MEA (549/549), 0405 LA9NEA (O/O), 0436 VE6TA (559/459), 0540 G4CCH (O/O) JT65C, 0551 K1JT (O/O) JT65C, 0630 K2DH (559/449) and 0840 K5SO (569/569). We were on for all our JA and VK skeds, but heard nil. Our window appeared clear to about 10 degrees, which was the start of our window with VK $3\overline{\text{U}}\text{M}$ . We did copy JA8EER around 0820 near .015 and CWNR. For safety reasons, we had to take the station apart and put the equipment inside. I caught some sleep and retuned early in the afternoon to connect up the station again. I was hoping for better WX and at the start of our window at about 2330 looked encouraging with a visible moon, but later turned bad. We started calling CQ on CW, but when there was no response switched to JT after receiving no reply. We worked on 25 Nov at 0006 K2UYH (10DB/16DB) JT65C, 0028 ES5PC (O/O) JT65C, 0030 SM5LE (21DB/O) JT565C, 0100 OH2DG (559/539), 0115 SM3LBN (459/559), 0130 SM3AKW (559/549), 0138 SP6JLW (459/539), 0147 OZ6OL (559/549), 0230 G3LTF (559/439) - during heavy rain, 0250 F6KHN (559/O) and 0630 partial N2UO (O/O). We had problems with rain, but managed to keep everything dry enough to operate with the rain. We were on for all our skeds until about 0635 when there was a cloudburst. 4" of rain fell in a matter of minutes. I was in QSO with N2UO at the time. Marc was sending OR, but I could barely hear him from the noise of the rain falling on the tarp on my head. We then lost the control system, probably from the several inches of water on the ground. I was also afraid the PA might be wet. It kicked off too. With all the water, there was no choice but to shut down. It is too bad as we could have easily completed with Marc and worked some JAs and possibly others. The next day my time was limited as I was leaving the following morning and could only operate for an hour or two on 26 Nov. I packed up the 23 cm equipment and put a 70 cm feed in the dish. The system for 432 was very simple. A quad feed was fed with about 20' of 1/2" Heliax cable. This cable connected to Lisandro's 100 W Mirage SSPA, which was feed through an ARR 432 preamp with relay switching by the TS2000X. I emailed skeds DL9KR, HB9Q and OZ4MM. At the last minute I moved the sked frequency from .045 to .042 because of interference near .045. The weather was good with a clear sky. The sked with DL9KR started at 0000, but the moon block by a hill to our east and did not clear it until about 0020. We immediately hear Jan signal and completed (O/O) by 0030. We then called and worked HB9Q and started calling OZ4MM. We exchanged (O/O) but did not complete a QSO as Stig never received our Rs.



P43M with 12' dish and 1296 feed

Lisandro should be ready to run additional skeds on 432 very soon. I left everything he needs to be operational on 70 cm (feed, feedline, relays, preamp, etc). The 100 W SSPA used was Lisandro's. In all we completed QSOs on 1296 with 31 different stations [K1JT = K2UYH] (29 on CW and 4 on JT). On 432 we QSO'd 2 stations. QSLs should be sent to Lisandro M. Arends, P43L, Sero Biento 19 B, Santa Cruz, Aruba. He is having special cards printed. P43E is handling the QSLs and hopes to have them in the mail in about a month. TNX to OK1DFC for providing the 1296 feed and a dxpedition web page at <a href="http://www.vhf.cz/informace-oznameni/2007/p43/aruba p43]">http://www.vhf.cz/informace-oznameni/2007/p43/aruba p43]</a> eme dx edition. <a href="http://www.vhf.cz/informace-oznameni/2007/p43/aruba p43]</a> eme dx edition. <a href="http://www.vhf.cz/informace-oznameni/2007/p43/aruba p43]</a> and his XYL for the wonderful hospitality and participation. I do not think Lisandro realized what he was getting himself into. I expect there will be regular EME activity from Aruba in the future.

PA3FXB: Jan jvmmap@bart.nl reports on his 23 cm contest results -- In Sept I put my dish up again after being off over the summer. I made the dish a little bit stronger and did some other small things to improve or ease EME operation shorter TX line, partly 7/8 hardline and the feed mounting is much improved. I could hear my own echoes during the Oct leg of the contest, but missed and real operating due to other obligations. In Nov I made 16 QSOs. 9 were on CW, the rest on JT, and heard 28 different stations. That's more than I expected. I am very happy with my results, although I was disappointed not to make it with P43L. The trouble is I don't know why. I heard their sked with SM5LE. P43L had good signals -21 dB! After their QSO, I called but there was no reply. Normally I get the same reports as Sven or 1 to 2 dB better. I was on for my P43L sked at 0200 with Adrenaline running through my veins. P43L's signal was again -21 dB. I CWNR again. Later I saw WW2R CWNR as well. I was on for all three passes and I learned a lot about weak CW. It is still very difficult for me; I have no talent whatsoever for CW, but I am learning. The Nov weekend was the most sleepless and nerve wrecking weekend of my life - hi.

RD3DA: The RD3DA team rd3da@list.ru comprising RD3DA (JT65 op) and RU3ACE (CW op) were active on 23 cm and worked a total of 61 stations during the contest. They QSO'd 55 on CW and 6 on JT65C.

RW1AW: Alex rw1aw@appello.de reports the weather in the northwest of Russia was poor and made operating and tracking the moon very difficult. I much regret that could not operate on 70 cm in Oct because the band Dual dipole feed on my 9 m dish was covered by ice of about 1" in thickness. A K index of 6 also made operation very difficult due to Aurora. I lost a lot of time because of these problems, but was able to operate normally on 23 cm. On 70 cm I made only 12 QSOs. On 23 cm I made 80 QSOs, on 13 cm 29 QSO, on 6 cm 6 QSOs, and on 3 cm 19 QSOs. I made a total of 162 CW QSOs on 6 bands (including 2 m). I found the activity particularly good on the 23, 13 and 3 cm bands. I made a lot of initials including P43L for a new DXCC.

SM2CEW: Peter's sm2cew@telia.com operating time in Nov was very limited -- My dish elevation drive totally iced up, and while trying to get it going I managed to damage the elevation gearbox mount. The mount is now about 15 degs out of alignment, and I can't easily fix it. I was able to QRV during the contest with limited elevation control < 29 deg el operation only. At 0630 GMT on Sunday I heard P43L working N2UO on 1296 with a really good signal. Unfortunately P43L had to stop operation right then and we never QSO'd. I worked 18 stations in an hour and a half on 23 cm and added an initial with AL7RT. On 432 I managed to get on for an hour as the moon came above the trees on moonrise and worked 8 stations. Conditions on 432 sounded really good despite heavy aurora, but I had to stop when the moon reach 29 degs. I ended with 37 QSOs only in this years contest. Snow and ice this weekend, and strong winds during the first leg, kept me off for most of the time. I was able to repair the elevation in time for operation the following weekend and worked G4RGK, DF3RU and WW2R on sked despite a huge birdie on the sked freq. Dave's signal was good. The repaired dish elevation system worked flawlessly, making me a happy camper.

SM3AKW: Carl sm3akw@spray.se writes on his contest activity — Another great event is over! This was the 20th ARRL EME contest for me. There are a number of us who have taken part in all of them! It was the best activity on 23 cm I have seen. I made an almost full time effort. That is when I had a window. Saturday night I had to park my 2 m and 70 cm antennas due to heavy wind gusts. 23 cm operation was still possible though. My total score is on 13 cm 22x16, on 23 cm 72x34, on 70 cm 22x15 and on 2 m 4x4, which is still not an all time high. In 1998 I made 140 QSOs. 70 cm was the top band back then. I had hoped for more 2 and 70 cm QSOs but there was too much wind. Worked on 3 bands were DL1YMK, G3LTF, VE6TA, KL6M and OZ4MM! Stations worked in chronological order per band were on 70 cm: OZ4MM, VE6TA, UA3PTW, I1NDP, KL6M, G3LTF, K1RQG, OH2PO, DL7APV, SM3BYA, SM3JQU, DL8KR, VK3UM, DF3RU, SV1BTR, G4RGK, DL1YMK, WW2R,

JJ1NNJ, OE5JFL, JA5NNS and JA6AHB, on 23 cm RA3AQ, K4QI, LA9NEA, SM4DHN, OK1DFC, SP6JLW, G4CCH, ES5PC, RW1AW, K5JL, OK1KIR, ON4BCB, SK0UX, K2DH, OZ6OL, N0OY, G3LTF, IZ1BPN, WA6PY, OH2DG, N9JIM, K9SLQ, OE5JFL, DF3RU, DL1YMK, DL4MEA, LA2Z, IK3COJ, K1JT, IK2MMB, DL4DTU, OK1CA, JA6AHB, IW2FZR, RD3DA, F5JWF, SM3LBN, N2UO, JA8ERE, JR4AEP, JA8IAD, JA4BLC, LX1DB, F5FEN, EA3UM, G3LQR, AL7RT, VE6TA, IQ4DF, HB9Q, JH1KRC, ON5RR, F6CGJ, F5HRY, ON7UN, HB9SV, G4RGK, SM5LE, I5MPK, F6KHM, UA3DJG, P43L, W2DRZ, NA4N, WB2BYP, WW2R, KL6M, SM2CEW, VK3UM, VK4AFL and HB9BD, and on 13 cm: F2TU, G3LTF, OK1KIR, OH2DG, HB9SV, ES5PC, W5LUA, K1JT,OK1CA, VE6TA, RW1AW, WD5AGO, G3LQR, HB9Q, OE9ERC, IW2FZR, DL4MEA, F5JWF, KL6M, WA6PY, OZ4MM and DL0SHF. I used on 432 4 X 10 m 9BV yagis and > 1 kW, on 1296 a 5 m dish and > 1 kW and on 2300 a 5 m dish and 0.3 kW.

SM3JQU: Per perolof.silander@telia.com had a nice time operating the ARRL EME contest -- Even though CW activity on 432 seemed a bit low, I still worked twice as many QSOs as I did last year. I tried to make some CQs, but did not manage to identify any callers. There are a lot of stations that I can't identify, but only see on my waterfall display. This year I also spend some time listening on 1296 and managed to identify a few calls, but made no QSOs. On 23 cm I have only a small 2.45 m dish with a linear feed and a preamp after about 3 dB of feeder loss, and 150 W TX power at the feed. I plan on improving this system. My QSOs on 432 CW were HB9Q, OH2PO, K1FO, G4RGK, UA3PTW, IINDP for an initial (#), OZ4MM, OE5JFL, SM3AKW, KL6M, SV1BTR, DL7APV, FR5DN, DF3RU, DL9KR, SM3BYA, VK3UM and JA5NNS. VK4AFL was heard, but very strong and the window closing prevented a QSO. On 70 cm I used 4 x 32 el DJ9BV yagis, ~ 1 kW and a 0.4 dB NF preamp.



SM2CEW's dish all iced up

SM5LE: Sven SM5LE@telia.com did well in the contest – I finished up with 34 CW QSOs and 3 JT QSOs on 23 cm for both legs. Initials were SK0UX and ON4BCB. Heard and called were F6CGJ, F5FEN, JA8ERE and JA6CZD. My feed-focus adjustment relay paid off and allowed 1 dB more signal to be obtained from G4CCH in "JT dB" and for signals in general. When the sun is available in March/0April I will confirm this echo optimization by measuring sun noise. I made many CQs but only had 3 answers.

SP7DCS: Chris sp7dcs@o2.pl writes -- During the Oct contest weekend I was QRV only on 2 m and 23 cm. During Nov I added also the 70 cm band. I was QRV on CW random only, without assistance, Internet, etc. I managed to work 98 QSO (6 dups) on 3 bands. The only exception from random was a sked with P43L on 23 cm. Unfortunately I did not have luck. I heard them ok the first day, but not during my sked on the second day. Conditions seemed good on all bands even for single polarized stations. On 70 cm I was QRP (4 x 25 el yagis with

250 W in shack and FHX35 LNA), but I was very happy to put 7 big gun stations into my log. I worked DL9KR, OH2PO, UA3PTW #7, OZ4MM, VK3UM #8, OE5JFL #9 and DF3RU #10. 23 cm was a nice surprise once again; even with a small station I was able to hear a lot. The band sometimes sounded like HF. Unfortunately many stations were not able to hear my small signal (3 m dish with 150 W at the feed and ATF54143 LNA), so maybe I need to increase my power before next time. This was my first contest on 3 bands and I very liked it. Multiband work is totally different thing and is very interesting. During the Oct weekend I spent about half of my time on 2 m and the rest on 23 cm. During Nov I was spent only a short time on 2 m and I decided to concentrate on 23 cm and 70 cm. This of course decreased my total QSO count as I do not as big a signal on these bands as I have on 2 m, but I had great time and a lot of fun! On 23 cm I worked on 27 Oct OE5JFL, G3LTF, N9JIM for initial #17, K1JT (K2UYH's station), SP6JLW, K9SLQ #18, HB9Q #19, G4CCH, OK1CA, RW1AW #20, SK0UX #21, OK1KIR #22, OZ4MM #23, N9JIM (dupe), W5LUA #24, WA6PY #25 and OK1DFC, on 28 Oct DF3RU #26, RA3AQ #27 and OZ6OL, on 24 Nov LA9NEA, VE6TA #28, K5JL #29, DL1YMK #30, DL4MEA #31, OE5JFL (dupe) and ON7UN #32, and 25 Nov K2DH #33, HB9BBD #34, ES5PC and IZ1BPN #35.



SP6JLW site showing showing ygis and dish

**SV1BTR:** Jimmy's jimmyv@hol.gr contest report -- All my QSOs were in CW mode and made on Random (no passive/active internet use, no skeds, no external help). My

total was 152 stations (157 QSOs) on 2 and 70 cm. On 432 I worked 52 stations. QSO'd on 70 cm during Oct were FR5DN, UA3PTW, SV3AAF, RW3PX, UT2EG, VK4AFL, KL6M, DL9KR, DF3RU, DL5FN, OH2PO, DL1YMK, G3LQR, I1NDP, OZ4MM, DL7APV, SM3JQU, JH4JLV, HB9Q, SM2A, PE1ITR, K1FO, K1RQG, DL7UDA, W8TXT, G3LTF, K0RZ, KL7HFQ, SP6JLW, I5CTE, JA9BOH, JA5NNS, G4RGK, JA6AHB, JA0TJU and SM3AKW, and in Nov VK3UM, JJ1NNJ, SM3BYA, OE5JFL, UT5JCW, DK8VS, YO2IS, JS3SIM, S53RM, DL5FN (dup), K4EME, F3VS, WE2Y, UA6LGH, KE2N, RW1AW and K3MF. Activity on 70 cm was good. I am glad because this band has long time lasting, dedicated, excellent CW ops. The WX was perfect, I was very lucky in this respect. In the Nov leg, on 70 cm there were periods with good signals without problems from Faraday, and extended periods with steady signals in both polarities but down by ~ 2 dB. Echoes indicated the same findings as above. Murphy visits during Nov. I had problems with my new azimuth indicator for 70 cm. Fortunately there was a full moon, so I was able track by going out of the shack every now and then and checking the error. I also had lesser problems with my elevation readout - up to 2.5 degs of error, which varied according to the readout's wishes. The 70 cm PA continuously flashovers and forced me to decrease my power by 1.5 dB to be able to remain QRV.

SV3AAF: Petros sv3aaf@yahoo.com was active during the contest on both 2 m and 70 cm -- On 432 I completed QSOs working unassisted on CW during the Oct leg with DL9KR, HB9Q, K1FO, OH2PO, UA3PTW, I1NDP, K1RQG, OE5JFL, KL6M, SV1BTR, DF3RU, DL7APV, G4RGK, RW3PX, K0RZ, VK3UM, OZ4MM, JA6AHB, JA9BOH and SP6JLW, and in the Nov leg with JJ1NNJ, G3LTF, SP6JLW, DK3WG, FR5DN, K0RZ and YO2IS. Thankfully the WX cooperated during the two weekends while some days before or after it could have been a disaster with high winds and rain. The equipment/antenna system worked seamlessly throughout the long hours of operation. EME propagation was from good to excellent with some Faraday during Nov. Long

libration periods made operation on 70 cm more enjoyable both weekends. Within the first half of '08 I plan to be ready on 23 cm EME as well.

<u>VE4SA:</u> Shawn <u>ve4sa@rac.ca</u> is now QRV on 23 cm. He has a 12' dish and 150 W in the shack, and has heard his own echoes. He still needs to do some tweaking on the feed horn. So far he has made QSOs with G4CCH and HB9Q.

VE6TA: Grant ve6ta@clearwave.ca ARRL contest results follow - In the 13 cm Microwave segment I worked OK1CA, WD5AGO, K1JT, HB9SV, SM3AKW, DL4MEA, OK1KIR, ES5PC, IW2FZR, RW1AW, F2TU, WA6PY, F5JWF, G3LTF, W5LUA, OZ4MM, DL0SHF, OE9ERC, NA4N and HB9Q. During the Oct weekend I added on 432 DL9KR, OH2PO, HB9Q, UA3PTW, RW3PX, K4EME, I1NDP, G4RGK, K1JT, DL1YMK, SP6JLW, DF3RU, K0RZ, W8TXT, K1FO, K1RQG, OZ4MM, KL6M, OE5JFL and SM3AKW, and on 1296 K4QI, K9SLQ, RW1AW, ON4BCB, SM3LBN, SK0UX, LA9NEA, N2UO, RA3AQ, IZ1BPN, SP6JLW, OH2DG, OK1CA, RD3DA, OK1DFC, VE3KRP, DL4MEA, N9JIM, DL1YMK, SM4DHN, OE5JFL, OK1KIR, W5LUA, IK2MMB, OZ4MM, DF3RU, G3LTF, AL7RT, VA7MM, HB9O, WA6PY, WW2R, JA8IAD, JA4BLC, JA8ERE, NOOY, VK3UM, K5JL, K2DH, VK4AFL and JF3HUC. During the Nov weekend I QSO'd on 1296 HB9BBD, G4CCH, LA2Z, OZ6OL, NA4N, G4RGK, IQ4DF, K1JT, G3LQR, K5JL dupe, SP7DCS, K5SO, ES5PC, P43L, SM3AKW, JH5LUZ, JA6AHB, JA6CZD, K7XQ, HB9SV, F6KHM on SSB, W2DRZ, ON7UN, OK1DFC dupe, EA3UM, N2IQ, KL6M and SM2CEW. I also made a QSO on 144 in Oct. All QSOs were on CW/SSB mode. I had good conditions throughout the contest, but bad weather with high winds on the last day of the contest prevented any significant operation. It has been averaging around -20 degs C here for the last two weeks so have been working on inside projects. I have just about completed a 2304 combiner and a new aluminum round septum feed for 2304.

VK3UM: Doug tikaluna@bigpond.com sends the following contest activity report -- I worked on 23 cm on 29 Oct N9JIM, N2UO, JA8IAD, JA4BLC, VE6TA, N0OY, JA8ERE, K4QI, JF3HUC, K2DH, K5JL, RA3AQ, OZ6OL, SM4DHN, SP6JLW, OK1DFC, IK3COJ, ES5PC, ON4BCB, G4CCH, DF3RU, G3LTF, SM3LBN, F5JWF, DL4MEA, OZ4MM and SM5LE, on 24 Nov K7XQ, JA6AHB, K9SLQ, JA6CZD, WW2R, VE3KRP, JA4LJB, WA6PY, VK4AFL, HB9BBD, RW1AW, OH2DG, RD3DA, OE5JFL, SM3LBN, LA9NEA and PA3FXB, and on 25 Nov W2DRZ, K1JT [same K2UYH], F5FEN, I5MPK, SM3AKW, ON4BCB, EA3UM, HB9SV, KL6M and IW2FZR for a total of 55 QSOs with 24 multipliers. I worked on 70 cm on 29 Oct JA6AHB, W8TXT, KL6M, UA3PTW, SM3AKW, SP6JLW, DF3U, OZ4MM, OH2PO, SV3AAF, DL9KR, RW3PX, UT2EG, DL5FN, IK6EIW, I1NDP, G4RGK, G3LQR, JA9BOH, JA5NNS and I5CTE, on 24 Nov WW2R, JJ1NNJ, WA6PY, JA0TJU, K0RZ, SM3BYA, DL1YMK, DL5FN, S53RM, SV1BTR, FR5DN, OE5JFL, SM3JQU, SP7DCS, G3LTF, DK8VS, DL7UDA, DK3WG and F5JWF, and on 25 Nov JH4JLV, VK4AFL, K4EME, OK3RM, DL7APV, SM2CEW, I5YDI and DL2HWA for a total of 48 QSOs with 26 multipliers. I was a little disappointed with the low NA activity. However, but given the first weekend's inclement weather and not being able to operate, the number of OSOs realistically reflect about what I could work in the available time. They correspond to better than 1 QSO per 3 minutes of operating. No time to tune around, and those that do the same, do not, and will not appear in my log! It was the lowest number of multipliers I have worked in 20+ years on 70 cm.

VK4AFL: Trevor tbenton@bigpond.net.au observes -- This year's ARRL contest must go down as one of the most successful ever in recent times on 1296 and 432 due to widely reported tremendous conditions during the Oct leg and high participation. Perigee also helped. Although I spent very little time on 432, I found almost similar good conditions in Nov with strong signals and very defined polarity. I was able to peak signals to within just 10 degs. 1296 was about average I thought during the second leg with high libration making even stronger stations sometimes difficult to copy. In any event I ended up with 55 mostly on 1296 and a few on 432 plus "social" SSB contacts with K9SLQ, N9JIM and VK3UM. Initials were ON4BCB, I1NDP, DL5FN, VA7MM and K7XQ. Following the contest I worked WW2R and initial (#) on 432 with a very good 4 yagi signal though we have yet to make it on 1296. I worked/heard very few from NA stations despite the more convenient times of day there. Most of the windows in this part of the world took place either late at night or in the early hours of the morning and near the end of the final session, at 4:30 AM local, my brain was starting to close down and with CW sending starting to get rough called it quits slightly early. I don't think it made much difference to the final score. In Dec I expect to be fully operational on 2301 and have done receive performance tests which conform with software calculations. I can say that Tommy WD5AGO makes an excellent 13 cm preamp, which performs as well as it looks and at a very reasonable price too. At first receive coverage will be confined to 2301 - 2305, but if things are working as they should, I will quickly expand to 2320. Special thanks to the Jamesburg dish gang who as usual

put on a great show with a lot of operating time and also to the JA big dish project earlier this year. I have 39 more QSOs to make 1000.

WA6PY: Paul pchominski@maxlinear.com reports on his Nov EME contest activity – I QSO'd on 432 G3LTF, DL7APV, DL9KR, VK3UM and KORZ. All stations had great signals. I also heard DF3RU with a big signal, but after Karl vanished. All Eur stations came in with pure vertical polarization, while K0RZ was on horizontal. I heard my echoes on the same polarization as TX, but most of the time vertical polarization gave better echoes although the LNA used for vertical polarization has 0.1 dB higher NF. On 1296 I QSO'd K5SO, OK1DFC, G3LQR, W7BBM, EA3UM, DF3RU, NA4N, VE3KRP, JH1KRC, K5JL, VK3UM, W2DRZ, KL6M, UA3DJG, I5MPK, SM3AKW and SM2CEW. Got aways were IK2RTI and IQ4DF. I heard very weak signals from P43L, but I could not complete QSO. I heard many stations, which I had already QSO'd in Oct. I could not find LDEs copied in Oct this weekend. I tested and EL readout using the MEMSIC sensor taken from a Craftsman spirit level (\$19.99 at Sears). This is similar to what is used in Europe. It works quite well with my dish. I will have more information for a future NL.

WW2R: Dave ww2r eme@g4fre.com was QRV on 70 and 23 cm in Nov -- On 1296 in the Nov leg of the contest I worked on CW HB9BBD, K5SO, K5JL, OZ6OL, NA4N, K2DH, VA7MM, JA6CZD for initial #84\*, VK3UM, SM3LBN #85\*, SM3AKW, SM2CEW, KL6M and W2DRZ #86\*. CWNR was VK4AFL. On JT65 I worked VE7BBG #87\* and K1JT. Nil was heard from P43L on sked, but having heard VK3UM, N0OY and WA6PY all call P43L with no response I was not surprised. I did CWNR P43L on JT65c (-21 dB sig) On 432 in the Nov part of the contest I was much more successful than in Oct. I worked DL9KR, DK3WG, DL1YMK for initial #25, KL6M, SM3AKW #26, W8TXT #27, VK3UM #28 and grid 100!, K0RZ and OZ4MM. It is nice to see so many I worked back in 1999 still on the band! CWNR RW1AW, K1JT, G3LTF, SV1BTR, JA6AHB and JA5NNS. On 432 on 1 Dec, I worked G3LTF for #29 (I now have worked him on EME on 4 bands!) and VK4AFL #30 on CW. On 2 Dec, I worked SM2CEW #31 on CW and K4EME on JT65A for my 1st digital QSO on the 70 cm band. My next EME activity will be after 6 Jan.

WY6G: Herb wy6g11@gmail.com writes that he is making progress toward getting permanently on EME — Since I have your stuff in Hawaii, I'll do 70 cm there and am planning to put 23 cm on from my home in CA. Initially 1296 seems more doable. I have my 736 receiving fairly well, but haven't heard any ham signals. I hope to do so during the Nov contest weekend. The transmitter is being worked upon.

**K2UYH:** I <u>a.katz@ieee.org</u> do not have much to report this month. I am still unpacking from the P43L trip. As a result of the trip I added on 1296 QSOs on 24 Nov at 0231 P43L (559/559) for CW initial #275, mixed initial #309\* and DXCC 60\*, and 25 Nov at 0006 P43L (16DB/10DB) on JT65C.

**NET NOTES BY G4RGK: NOOY** is interested in K2DH's PA progress as Pete was heavily involved in early construction of YU-129 cavities that can also use TH-328. WA9HIR in Chicago is putting up an array for EME on 432. WA9KRT is listening on 432 EME with his new array. MODTS is QRV on 1296 with JT65c. He has 35 W with a 2 m dish and Septum feed and has worked 3 stations including a completely random QSO during the contest. **OM1TF** is active on 1296 on JT65c with 100 W and 2.7 m dish. WB70BS has yagis up and checked out. K6JEY is QRV on 70 cm with 4 x 25 el FO yagis, 1.2 kW and 0.4 dB NF LNA. HS2JSW in Thailand tried on 2 m EME without success due to local QRM. Joe still has not been issued a license for 70 or 23 cm operation, but is hopeful that he can be operational soon - TNX JH1EFA for this news. RW3PX made CW initials on 70 cm with SM3BYA, JJ5NNS, JJ1NNJ, UA6LGH, WE2Y and F3VS. UA4AQL worked on 432 using JT65B initials with SM2A and S53RM. <u>UA3MBJ</u> worked OK1DFC on 23 cm using JT65C (22dB). DK3WG QSO'd on 432 CW with W8TXT, K3MF, DL5FN and SV3AAF to reach initial #431. **SM4IVE** is building a big Aluminum dish. G4ALH is back on 432 EME and worked 4 stations during the Nov contest weekend. K5PJR should be QRV on 23 cm EME with his new system on or before the first of the New Year. K4EME added 14 QSOs during the Nov contest weekend. **K2DH** is working on an 8 tube PA and has also switching to incremental encoders. Dave has also replaced his AZ drive motor and reports AZ is now working much better.

FOR SALE: AD6IW 300 W 23cm SSPA used at the Jamesburg dish project. Contact <a href="mailto:goran@ad6iw.com">goran@ad6iw.com</a> PA0PLY announces that surplus microwave parts are available from the Radio Telescope Foundation, CAMRAS. Check out the parts shown at <a href="http://home.tiscali.nl/pa0ply/front-end">http://home.tiscali.nl/pa0ply/front-end</a> parts.htm. If you have questions contact Jan at <a href="mailto:pa0ply1@tiscali.nl">pa0ply1@tiscali.nl</a>. VE6TA is looking for a 3.4 GHz a directional coupler or Bird element as well as a LNA for this band. Grant asks will a 2.5 GHz Bird element work at 3.4 GHz? <a href="mailto:VE4SA">VE4SA</a> is looking for a good TR relay for 1296. Contact Shawn at <a href="mailto:ve4sa@rac.ca">ve4sa@rac.ca</a>. W40P reports that 4000' of

7/8" Cellwave hard line is available in Vermont. For more information contact Dale at <a href="mailto:parinc@verizon.net">parinc@verizon.net</a>. **K5CBL** has AC motors available, 1/8 hp up to 1/2 hp. **K2DH** needs some 97 380 finger stock [0.190"]. **W7MEM** is selling a 4 x M² 9 WL yagi array for 432 including power dividers, phasing lines, etc. He is asking \$US850. **IK6EIW** is looking for a schematic of a VTU6191 - VZU6991 TWTA for 10 GHz EME. Can anyone help? See Stefano's report.

**TECHNICAL:** PA3FXB points out a problem with the TS2000x that I was unaware of and maybe of interest to others -- The TS2000X has a frequency drift problem, which I observed on P43L. It is very stable, but when it gets warm the fan starts running. This cools it down and the frequency drifts so much and so rapidly that JT will most of the time not decode. I solved this problem using a tip from SM5LE, who also owns a TS2000X, by putting a small fan on the TS2000X that is on all the time. [I have not seen this problem with the TS2000X that I use in my shack. I suspect this is because the temperature in my shack is normally cool. But operating outside in a hot climate the situation can be quite different. I will have to look into a solution for future dxpeditions].

**FINAL:** This month's reports are filled with holiday greetings and wishes for the New Year that I have not printed, but want to transmit here for all.

Plans for this summer's International EME Conference, Florence 2008 are moving along. If you are planning on attending or even thinking about going please check out the conference web page <a href="http://www.ari-crt.it/eme2008/questionnaire.html">http://www.ari-crt.it/eme2008/questionnaire.html</a> and please fill out the questionnaire. Sally and I are planning to attend and hope to see all of you there.

Piero, I5CTE pgb932@gmail.com is working on the Florence 2008 Conference speaker program and asks for talk ideas. He will be sending out a call for papers sometime in Jan. A main auditorium that seats about 300 and one or two additional rooms will be available for presentations and meetings.

There was a question on the ARRL Contest rules -- Contact on CW and JT add, but multiplies are the same.

In Feb the DUB-REF Contests will begin. The contest weekends for different bands and modes are listed in the 2008 Lunar Calendar shown at the end of this Newsletter (NL). Proposed Activity/skeds weekends (AWs) are indicated with \* and highlighted in green/yellow. The expected times for the 70 cm CW ATPs, ARRL Contest Weekends (not yet confirmed by the ARRL) and even related tropo contests are shown. Our thanks to DL7APV for doing an excellent job in preparing the 2008 calendar.

Also in Feb is the 23 cm SSB Contest on 16-17 Feb. I will have the full rules in the next NL.

The ARRL's Jan VHF/UHF contest is on 19/20 Jan, which is also a very good moon weekend. These contests accept EME as a valid contest contacts. Keep on a look out for contest stations looking for EME contacts. The exchange is 4 character grids (for example FM20). I expect a higher than normal level of moon activity.

Congratulations to Marc, N2UO, and patty on the birth of Eric!

I had hoped to get this NL out a little earlier, but with QRO and all the reports it took longer than I expected. It is still in a reasonable time. Please keep the reports and technical news coming. I plan to be active over the end of Dec/beginning of Jan and will be looking for you off the moon on 70 and 23 cm.

Very best Holiday Greetings and a very Happy New Year to all EMEers,  ${\rm Al}-{\rm K2UYH}$ 



Rocket man, Alex (RW1AW) installing feed on his dish

## 2008 LUNAR CALANDAR BY DL7APV

-					·
2400 Sat/	Decl.	Signals	Sun	Sky temp	Comments & contest dates
0000 Sun	(deg)	(dB)	offset/°	(K.432)	
Jan 05/06	-27.7	-1.8A	+29 DP	55	Moon in south. Apogee
Jan 12/13	-03.9	-0.52	-56 DA	22	Daytime
Jan 19/20*	+28.0	-0.23	+170 N	45	ATP Sat 22-0 Sun 15-17. ARRL T-contst
Jan 26/27	+16.8	-1.53	-130 N	25	Near apogee. night
Feb 02/03	-28.2	-1.76A	+49 DP	118	Moon in south. Apogee
Feb 09/10	+00.9	<del>-0.43</del>	-36 DA	<mark>23</mark>	DUBREF test 6m-23cm digital only
Feb 16/17*	+27.6	-0.33	+164 N	40	ATP Sat 22-0 Sun 14-16. 23cm SSB-Test
Feb 23/24	-00.7	-1.45A	+161 N	19	Near apogee. Night
Mar 01/02	-27.7	-1.7	+69 DP	175	EU V/UHF T-contest. Moon in south. apogee
Mar 08/09	+05.3	-0.35	+20 DP	24	Near Perigee. Daytime
				30	
Mar 15/16	+25.7	-0.33P	+157 N		DUBREF contest 432&5760up CW
Mar 22/23	+20.0	-0.73	-160 N	16	Cold background. night
Mar 29/30	-26.8	-1.65A	+82 DP	136	Near apogee. moon in south
Apr 05/06	+08.1	-0.26	-1	SUN	Near Perigee. sun noise
Apr 12/13*	+23.4	-0.43	+171 N	25	DUBREF 2m CW ATP Sat 21-23 Sun 13-15
Apr 19/20	-13.9	-1.73A	-173 N	26	Apogee
Apr 26/27	-25.1	-1.58	+105 DP	68	Moon in south
May 03/04*	+12.8	-0.2	-21 DA	25	EU V/UHF T-contest. ATP Sun 5-7&12-14
May 10/11	+20.1	-0.53	-175 N	17	DUBREF contest 23cm CW/SSB
					<u> </u>
May 17/18	-17.5	-1.8A	+173 N	27	Moon in south. Apogee
May 24/25	-22.6	-1.43	-135 N	35	Moon in south
May 31/01	+16.3	-0.14P	-41 DA	<mark>25</mark>	ARI Digital contest
Jun 07/08*	+16.7	-0.56	+59 DP	<mark>15</mark>	<b>ATP</b> Sat 17-19 Sun 11-13
Jun 14/15	-20.7	-1.82A	+168 N	30	ARRL T contest. apogee. moon in south
Jun 21/22	-19.5	-1.33	-160 N	30	Moon in south
Jun 28/29	+21.3	-0.13	-7	35/SUN	Sun close. Near Perigee
Jul 05/06	+13.3	-0.66	+39 DP	15	EU V/UHF T-contest
Jul 12/13	-23.3	-1.85A	+160 N	33	Moon in south. Apogee
Jul 19/20	-16.0	-1.83A -1.33	-178 N	30	Moon in south
Jul 26/27*	+22.9	-0.05P	-76 DA	29	<b>ATP</b> Sun 0-2 Sun 8-10
Aug 02/03	+09.1	-0.79	+20 DP	16	ARRL T contest
Aug 09/10	-25.3	-1.88A	-111 DA	36	Moon in south. Apogee
Aug 16/17	-12.3	-1.23	+178 N	30	EME Meeting in Florence !!!!!
Aug 23/24*	+25.4	-0.02P	-90 DA	28	<b>ATP</b> Sat 23-1+ Sun 6-8
- 00/01		0.00	_		
Aug 30/31 Sep 06/07	+06.2	-0.89	+2	SUN	Sun noise
	-26.6	-1.9A	-89 DA	41	EU 2 m T-contest
Sep 13/14	-08.6	-1.13	+170 N	25	ARRL T contest
Sep20/21*	<b>+26.9</b>	-0.01P	-109 DA	<mark>35</mark>	ARI CW/SSB (ARRL MW EME Contest?)
Sep 27/28	+01.1	-0.98	-12 DA	18	SUN close
Oct 04/05	-27.2	-1.91A	-69 DA	49	Eu 432&up T-Contest
Oct 11/12	+17.3	-1.03	+156 N	25	Nighttime
Oct18/19*	27.3	-0.00P	-122 N	40	(ARRL EME Contest?)
Oct 25/26	-02.5	-1.08	-36 DA	20	Daytime. cold background
Nov 01/02	-27.1	-1.91A	-39 DA	116	Eu 2 m CW T-Contest
Nov 08/09	-01.1	-1.03	+136 N	25	Nighttime
Nov15/16*	+26.7	-0.00P	-174 N	<mark>43</mark>	(ARRL EME Contest?)
Nov 22/23	-08.5	-1.19	+50 DP	27	Daytime
Nov 29/30	-26.5	-1.9A	-23 DA	175	Moon in south. Apogee
Dec 06/07	+02.8	-0.93	+118 DP	25	Daytime
Dec 13/14*	+25.5	-0.02P	-170 N	35	ATP Sat 19-21 Sun 4-6
Dec 20/21	-12.3	-1.27	+70 DP	27	Daytime
Dec 27/28	-25.3	-1.27 -1.89A	+70 DF	129/SUN	Moon in south. Apogee & sun noise
					PD-Activity Time Deviced for 422 CW

A= Apogee (loss=1.9 dB). P=Perigee (loss=0 dB). ATP=ActivityTimePeriod for 432 CW. T=Tropo Contest. Send reports to K2UYH & DUBUS