

## 432 AND ABOVE EME NEWS DECEMBER 2005 VOL 33 #13

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

**CONDITION:** Everyone seems to have enjoyed the last weekend of the 2005 ARRL EME Contest. The shorter hours due to the low moon declination may have helped as there was less dead time when all active stations were worked. Most stations reported good conditions on both 70 and 23 cm. I'm in a minority in this regard. I found 432 signal quality poor, but felt great when I figured out who was calling! There is no doubt that 70 cm activity was down, see K0RZ's report, but 1296 activity was up. There was actually more 432 & up contest activity than in the past, if you combine the numbers for 70 and 23 cm. Part of 70 cm's problem is that there has been a migration up in frequency from 432 to 1296. Unfortunately new comers moving up from 144 have not made up for those moving from 432 to 1296. In fact some of the new stations showing up on 1296 move there directly, jumping over 432. Stations that operate both 70 and 23 cm, find themselves spending more time 1296 because of the increased activity there. I do not have any easy solutions. Having separate contest weekends for 432 and 1296 as done in the European EME Contest would help.

**HIGH SCORES:** 1296's greater activity can be seen in the high claimed scores. On 23 cm the leader is HB9BBD 97x45, followed by DL0SHF 84x40, OK1DFC 83x40 and Ka0Y 72x38. On 70 cm the top score is from HB9Q 86x39 (63 CW), followed by OH2PO 83x36 (73 CW) and DL9KR 56x30. The difference between bands is much greater if eliminate the top two scores, which were in the assisted class.

**EME SSB CONTEST:** The 2006 EME SSB contest will start on 4 Feb at 0800 and end at 0800 5 Feb. The rules will be basically the same as last years. The exchange will be 2 letter sectors (JN, IO, FN, etc.) and the number of different sectors worked will be the multiplier. I will have full details in the next NL.

**3Y0X:** Gordon (W0RUN) [gordon@alpharadioproducts.com](mailto:gordon@alpharadioproducts.com) is the EME Coordinator for the Peter 1 Island dxpedition (3Y0X) scheduled for Feb in EC41qd. They will be running 6, 2 and 70 cm EME from the island – see last month's NL and their web page at [www.peterone.com](http://www.peterone.com), which has a whole section on moonbounce. Gordon notes that they are still in the fundraising mode and that any support will be greatly appreciated! The 432 system will consist of 4 yagis donated by K3MF, ICOM 910, and 100 W SSPA (RF110) and Landwehr preamp located about 6' from the common point of the splitter. On the island, the SSPA and preamp will be located in a common box (with the 2 m PA). Gordon has been working on the antennas and phasing lines and conducting EME tests to evaluate performance and gain experience on 70 cm EME. He has worked at least 3 stations (HB9Q, N9AB and K2UYH). All QSOs were on JT65B, but his signals seem plenty strong enough for CW contacts with the bigger stations. The array is now dismantled and being prepared for shipment. Alfa Radio and W4VOL have together provided an az/el rotator for the 70 cm antenna. This should make operations easier for me on the ice, as at least one of the 3 antennas can track automatically. Currently we can be QRV on 6 m plus either 2 m or 70 cm. This is partly due to radio availability, but I will also only have 2 computers. Lance, W7GJ is the "EME pilot" and will be the point guy for coordinating operations and disseminating information once the dxpedition is under way.

**7M2PDT:** Shu [pdt\\_umesan@ybb.ne.jp](mailto:pdt_umesan@ybb.ne.jp) reports on his 70 cm activity in Nov – I was not able to be QRV for the Nov leg of the contest, but was active the following weekend when I worked W7AMI on JT65B for initial #160\*, SM2ILF on CW #161\*, G4RGK on JT65B #162\*. I also tried with FR5FN on CW and heard him clearly, but he could not copy my full callsign. I hope to try again with Phillippe next month.

**DL0GER:** Daniel [dl3iae@gmx.de](mailto:dl3iae@gmx.de) reports on his groups 432 operation in ARRL EME Contest -- This year's ARRL contest participation was not very successful. We could only be QRV for one day, Saturday of the second leg. The conditions were extremely good with iso-polarized signals between the Europeans for at



3Y0X 4 yagi array under test at W0RUN

least half of the pass. Our moonrise SSB echoes were fantastic, the best I have ever heard. We started building the portable station in misty weather at 10 O'clock in the morning and were almost ready about 1 hour before moonrise. Then I realized that the 432/28 converter for my LINRAD receiver did not work. Without the proper measurement gear, it was just impossible to cure the problem. We had to use the old FT736, which is not what you want when you are used to monitoring a 90 kHz wide spectrum, click on the wanted signal and set all possible filters for convenient reception. After a few hours of operation there was a flashover inside the cavity of the GS35b amplifier and it took another hour or so to change the Teflon sheet that should have prevented the bangs! Whilst operating I tried to set up LINRAD for audio bandwidth operation directly from the FT736 speaker output, but I had difficulty accessing the right soundcard in the computer. However, I did manage to get things working after a few hours of trying. I guess we spent too much time on repairing things as we only worked at 1450 VK3UM, 1654 DL7APV, 2053 OH2PO, 2118 HB9Q, 2125 G4RGK, 2212 DK3WG, 2305 N9AB, 2323 G3LTF, 0120 SV1BTR, 0130 EA3DXU (2 yagis) and 0237 KL6M. Heard in QSO or sent us QRZ were SP6JLW, RW1AW, DJ6MB, DL9KR, JL1ZCG, DF3RU, K4EME, SM3JQS, YU1EV, OZ6OL, DL9JY, K0RZ, F3VS and FR5DN. Only 4 US stations were heard. I think this is very sad and maybe a consequence of heavy commercial pressure on this band. If we do not use it, we will loose it. [We do need more activity here in NA, but an additional factor was conditions that produced cross pol with Eur during much of the contest]. Looking at the reports, it seems that many people have moved to 1296 MHz. If you have to set up a portable station every time you like to work some EME, the lack of activity is certainly not a motivating argument. This is a club station and a high power PA for 1296 is definitely out of the budget. The station was 4 x 8.5 w/ horz yagis, open "tube" feed, GS35b amp - all homemade. More details to come on our website at <http://www.dl0ger-eme.dd8il.de/index.html>.

**DL0SHF:** Carsten (DL6LAU) [carsten.esch@appello.de](mailto:carsten.esch@appello.de) operated DL0SHF on 23 cm during the contest and writes – I again had a great time at Per's station and was feeling much better about our RX capabilities at the start of the second leg. I did not operate the first small moon window as I only had about 1.5 hours of moon in the middle of the night. At moonrise on Saturday afternoon I started and worked JA6AHB, JA4BLC, VK4AFL (nice signal), SM3LBN, JA8ERE, SP6JLW, DL4DTU, JH1EVA, JA4LJB, JH1KRC, HB9JAW (QRP? - was really weak when he called but much better later). There was very nice activity from Japan this time! Later I added PA3DZL, IOUGB (SSB - dupe), OH2AXH,

SM2CEW, G3LQR, ES6RQ, DL1YMK (dupe - nice signal), RW3BP (easy QSO), DJ9YW, PY5ZBU (QSO of the night - thanks!), IK2RTI, CT1DMK, WB5AFY, F1ANH, K4QI, HB9FX, W7UPF (dupe), WA4OFS, K7XQ, W2DRZ, WA5WCP (dupe) and VE7BBG. One hour before moonset I closed the station. I had (at least) two callers I could not identify - one was around 0045 Sunday. I heard in QSO K5SO and W7BBM, but unfortunately never heard them again. I did not operate the small piece of contest moon window on Sunday as well because I had to drive back home. The station worked well without any problems throughout the contest. It seems that my total was 84x40. In my opinion 2 weekends for 23 cm is too much in the ARRL contest - too many CQs, but it was fun! It was nice to work WAC in the contest too.

**DL1YMK:** Michael [DL1YMK@aol.com](mailto:DL1YMK@aol.com) is recovering from major blizzard - I had some damage to the 23 cm dish and the 70 cm array may need some repair work on phasing lines, but it looks like the AZ/EL systems have survived all ok. I did some major reconstruction on the portable dish and made major progress there as a lot was learned from EI experience. I will be portable again on 23 cm EME from 1 June to 16 June - the QTH to be announced later.

**DL9KR:** Jan's [Bruinier@t-online.de](mailto:Bruinier@t-online.de) ARRL contest results on 432 - Family commitments related to my 70th birthday prevented my participation in the first part of the contest. However, I was rewarded with excellent conditions, meeting old friends and 4 initials in the second part. I QSO'd on 12 Nov VK3UM, SV1BTR, RW3PX, S52CW, SM4IVE, UT3LL, RW1AW, I1NDP, SM3BYA, FR5DN (loud!), UT2EG, DJ7GK, G4RGK, SM3AKW, DK3WG, J1NNJ, I5CTE, YO2IS, S53RM, SP6JLW, DL7APV, N9AB, K4EME, YU1EV, W8TXT for initial #827, HB9JBL #828, F3VS, SM3JQU, G4ALH, DL7UDA, G3LTF, VE6TA, DK8VS, DL9JY, DJ6MB, OH2PO, K0RZ, SM2ILF, and on 13 Nov S54T, K2MF, WA6PY, JA6AHB, EA3DXU, OH2DG, JA6XED, DF3RU, JA9BOH, OZ6OL, OK1TEH #829, YO9FRJ, IZ4BEH #830, OE5EYM, S51ZO, K2UYH, PE1ITR and SV1AWE. My contest total was 56x30 in 8 hours 20 min of total operating time. On 20 Nov I worked F2TU and GM4ISM #831 in equally good conditions as in the second part of the contest.

**EA3DXU:** Josep [ea3dxu@jazzfree.com](mailto:ea3dxu@jazzfree.com) was QRV on both 144 and 432 in Nov - Conditions were very good on 432, but unfortunately the weather did not cooperate and rain blocked my activity for some time. On Sunday, 13 Nov I finished up on 432 CW with 22 QSOs and 1 new DXCC. My final score for 144 and 432 was 109x54 for 588,600 points. This is my best score in my 21 years of ARRL contest operation. QSOs on 70 cm were K1FO, VE6TA, OH2PO, K2UYH, OZ4MM, DL0GER (the only 4 yagi station worked), N9AB, DL9KR, S52CW, FR5DN for initial #175 and DXCC 45, HB9Q, SP6JLW, DJ6MB, G4RGK, DL7APV, (strongest ever heard), DF3RU, SV1BTR, OE5EYM, VK3UM, KL6M, SM2CEW and G3LTF. My apologies to stations that answered my CQ, but I could not pull out of the noise. Equipment as usual was 2 x 38 el M2 yagis and a GS23B PA.

**ES5PC:** Viljo [vallik@telia.com](mailto:vallik@telia.com) writes on his 1296 contest efforts - This was the first EME contest that I have operated by remote control. My dish set up is located in Estonia, but I was in Sweden. All the equipment was operated remotely over the Internet. During my last stay in Estonia in Sept I succeeded in improving both my PA and preamp. This time everything worked fine during the contest. My result for the 1st leg was 37x23 with #18 initials! QSO'd were HB9BBD, DF3RU, SK0UX, DL0SHF for an initial (#), OE9ERC (#), OK1DFC, HB9Q (#), G4CCH, G3LTF (#), ZS6AXT, IK2MMB, SM3AKW (#), OH2DG (#), VE6TA (#), LA9NEA, OZ6OL, WA6PY, IW2FZR, W6IFE (#), W5LUA, K2UYH, K5GW (#), OK1CA (#), N2IQ (#), OZ4MM, OK1KIR (#), ON7UN, DL1YMK (#), JA6AHB (#) and 1st ES-JA on 1296, F6KHM (#), RW1AW, K0YW (#), DK0ZAB, F6CGJ (#), HB9SV, SM4DHN (#) and ES6RQ. CWNr were JA6CZD and VE9DW. Heard were K5JL, N2UO, OE5EYM and HA5SHF. During the last contest weekend I added 14 more stations to the total. Worked were JH5LUZ (#), IK3COJ (#), OH2AXH (#), SM3LBN (#), HB9JAW (#), SM2CEW, G3LQR (#), OE5EYM (#), K9SLQ, K4QI (#), K5JL (#), UR5LX, LX1DB and N2UO (#). The total result for both weekends was 51x29 and 27 initials. This brings me to initial #56 and 22 DXCC on 1296 EME.

**F2TU:** Philippe [f2tu.om@guido.fr](mailto:f2tu.om@guido.fr) brings us up to date on his EME activity - I QSO'd on 3 cm on 29 Sept IK2RTI (O-529/O) for initial #35, on 25 Oct at 0845 RW1AW (O-519/O-539) #36, DXCC #15 and the first French - Russia 3 cm QSO, on 29 Oct G4NNS (O/O), F5JWF (O-529/M) and RW1AW (M/M) - all QSO'd random and copied F6KSX (539) and PA3CSG - very unstable, and on 20 Nov SP7JSG (O/O) #37 and DXCC 16 - very good signal peaking (529). On the 20<sup>th</sup> I had a problem with starting my TWT (at the feed). It was -5°C, 91% humidity with a freezing fog! You can hear my echoes at [http://f2tu.perso.wanadoo.fr/Echos\\_10GHz\\_F2TU.htm](http://f2tu.perso.wanadoo.fr/Echos_10GHz_F2TU.htm). During the ARRL contest some were surprised by my absence in part 423/1296, but I was away traveling on both weekend - mal chance! I was able to work the microwave contest and scored on

2304 21x18 including initial #45 with NA4N, on 5760 5x5, and 10 GHz 9x7 and initial #34 with DL1GGT #34. I also had 20 Nov on 432 a random QSO at 2348 GM4ISM (O/O) for initial #245. Regarding EME contests, I already sent to W5ZN at ARRL a request to separate CW/SSB and JT. I also asked that the stations working on multiple bands in the European Contest be able to be also classified as mono band as well. I will be QRV on the EME bands on 10/11 Dec, if there is no snowstorm - HI!

**F5HRY:** Herve [F5HRY@wanadoo.fr](mailto:F5HRY@wanadoo.fr) was only active briefly in Oct -- I spent only a half hour on 23 Oct on 23 cm EME due to other commitments. Surprisingly I worked 2 initials W6IFE (569/559) for #52 and DL0SHF (569/539) #53. DL0SHF was really loud on my tiny 2.4 m dish. I have 450 W at feed.

**F9FT:** Franck [kozton@free.fr](mailto:kozton@free.fr) has a new e-mail address - just shown and reports that he is still working on his BIG dish, but progress has been slower than expected. Franck has not been able to find proper mechanism to drive the dish. On 1296 MHz, I now have a 250 W RF output SSPA by DB6NT. I am presently putting it in a weatherproof case, in order to put it at the antenna feed point of my 4x35 el array. I also have a low noise DB6NT preamp. When everything is ready, I will let you know, but I will be only QRV for EME on the horizon.

**FR5DN:** Phil [philippe.mondon5@wanadoo.fr](mailto:philippe.mondon5@wanadoo.fr) writes on his results on 432 for the last part of the contest - I ended the contest with a total of 33x20 and an overall score of 66,000 points (assuming N9AB, K1FO, K2UYH and K0RZ are all in different states - [true]). I found conditions to be quite good on 12 Nov, but found much more fast QSB on 13 Nov. Both nights I had a polarization mismatch with Europe after 1900 and also with the NA moonrise. There were some strong signals, but they were not hearing me. This resulted in a very low QSO rate after 1900. I have been able to find a used length of flexible Heliax (FSJ4-50A). I had to clean the connectors as they were very badly corroded. It's about 1.8 m long and it will replace the length of RG213 that was ahead of my preamp. I heard echoes almost all the time during this last weekend, and sometimes surprisingly strong. Anyway after many years being off from the moon, my ears were extremely pleased to decode signals again. I am using 8x21 F9FT and a GS23B PA. Special thanks to LZ2US and SV1BTR for their help and kindness in getting back in operation!



FR5DN's 8 x 21 el Tonna yagi array

**G3LTF:** Peter [g3lft@btinternet.com](mailto:g3lft@btinternet.com) writes on the final leg of the ARRL contest -- Conditions were good on both 70 and 23 cm. 70 cm was very much better than the previous weekend. There was also a nice crop of new stations appearing adding to the interest. But, I found only 6 US stations on 432 over the whole contest. This is half the number of 5 to 6 years ago. Why is this? Have they migrated to 2 m? Sadly because of the low declination and tree blockage I had no VK window and very little JA window. I much prefer the high declination weekends, 70 cm absorption/spread polarization can occur at any time. We have to take this risk when choosing contest weekends, so going for "low degradation, perigee weekends" is not a guarantee of good conditions. In Oct I worked the following initials on 432: FR5DN #390, I1NDP #391 and UT2EG #392, and on 1296: VK4AFL #218, SP6JLW #219, OK1DFC #220, ES5PC #221, W6IFE #222 and WA5WCP #223. I worked on 12 Nov on 432: VE6TA, K0RZ, K3MF, W8TXT for initial #393, UT2EG, YU1EV, SP6JLW, DL9KR, DL0GER, F3VS, DL9JY and DL7UDA, and on the 13th Nov SM2ILF, G4ALH, DF3RU, SM3BYA and S53RM, and on 1296: on 12 Nov SM3LBN #224, ES6RQ #225, SM2CEW, HB9JAW, OH2AXH, DL4DTU #226, CT1CMK and K9SLQ, and on 13 Nov PY5ZBU, W2DRZ, HB9SV, WB5AFY and WA4OFS. After the contest on 19 Nov on 1296 I worked K7XQ #227, and on 20 Nov on 432 in really good conditions (loud echoes despite apogee) S54T #394, GM4ISM #395, SM2CEW, N9AB and G4RGK. I had a lot of CWNr for the whole contest they were on 432: DJ7GK, JA6DZI, HB9JBL and JL1ZCG,

and on 1296 JH1EFA, JA4LJB, K5PJR, HB9FX, JA6DZI, F6KHM, JH1KRC, PA3DZL, LX1DB, IK2RTI and W6YX. Fourteen initials in two months can't be bad, but the rate is slowing on 432. I do sincerely hope that as digital modes take hold on 432, as I guess they will do eventually, that those of us whose preference is for CW operation do not find ourselves denied initials because they have taken the easier route of loggers and JT65. It's always good to work old friends on 432 EME, but it's the spur of working a new, often low ERP station that enables one to get up at 3 am and fix up the dish in the cold and pouring rain! Final scores were on 1296 69x37, on 432 48x29, on 2320 16x13 and on 144 3x3 and a total score of 1,115,200. This is the first time I got over 1M points! Since the contest I made a couple of tries with GM00NN on 1296, but although we both copied calls and reports we did not complete. I think we need perigee conditions to make it with him. On 20 Nov I also had a nice SSB QSO with LX1DB and a CW contact with SM3LBN. On 22/23 Nov I looked for K8CQ on 432, but nil heard. KL6M and F2TU were also around and heard nil.

**G4NNS:** Brian [brian-coleman@tiscali.co.uk](mailto:brian-coleman@tiscali.co.uk) sends a report on his recent activity on 10 GHz -- Thanks to Philippe, F2TU for a nice random QSO on 29 Oct. I also heard and called F5JWF, F6KXS, RW1AW and PA3CSG, who, I think has a frequency stability problem.

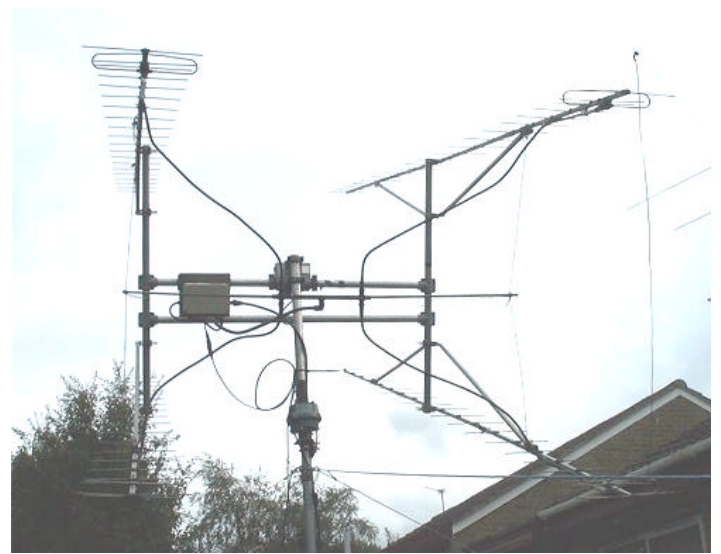
**G4RGK:** Dave [g4rgk@btinternet.com](mailto:g4rgk@btinternet.com) was active again on 70 cm during the contest in Nov -- I finally finished re-building the array a couple of days before the November contest weekend and for once the whole setup worked faultlessly throughout the weekend. Conditions were also excellent throughout the weekend. I could detect echoes with just 80 W. The last time I can remember when conditions were this good was in 1993. The NA yagi stations were very difficult to work with a fixed horizontal array due to polarity shifts. I finished up the weekend with 32 stations in the log for a total of 51 worked during the contest. New ones were FR5DN, I1NDP, DL7UDA, S54T, YU1EV, DL0GER, SM3JQU, F3VS, SP6JLW, SM2ILF, UT2EG, SM3BYA, RW1AW, UT3LL, S53RM and PE1ITR. Gotaways were LU7DZ, DL9JY, K5GW, DL1YMK, OK1CA and S51ZO. It was nice to see SM4IVE back with a big signal. During the post contest official Nov AW on 19 Nov I found 7M2PDT calling CQ and completed with him. The following day on 20 Nov, I tried with W7AMI and signals were copied both ways but we did not complete a QSO. Then I worked EA3DXU (O/O). SV1AWE was heard on sked every period, but he did not hear me. This was followed by QSOs with G3LTF (449/549) and SM2CEW (449/549). On 22 Nov I listened for W0RUN on JT65b and copied him OK calling CQ, but there was no sign that he copied anything from me.

**GM4ISM:** Mark [gm4ism@bigfoot.com](mailto:gm4ism@bigfoot.com) became QRV on 432 the weekend after the contest (19/20 Nov) -- I started putting notes on Moon-net as soon as I was fairly sure I could operate. The mechanics of the system worked as I hoped, and the PA ran flawlessly, I had a great time. My 70 cm EME station is now dismantled, so my wife can use the washing line again. My array is not compatible with the domestic infrastructure. The new mechanical arrangements are far superior and the whole lot was packed away out of sight in less than 1 hour. It should not take much longer than that to rebuild when next required. I worked on CW SM3JQU (O/O - peaked 519), K1FO (O/O - peaked 529), G3LTF (O/O - peaked 529), DL9KR (559/559) - huge signal, F2TU (O/O - peaked 529), KL6M (O/O - peaked 539) - all were initials for a grand total 9. Gotaways were G4RGK (419), RW1AW - unreadable due to severe fading, SM3AKW - trace on Spectran but no positive ID, JH6AHB tried, not a trace in either direction, OZ6OL heard for 30 sec before I had to pull the plug. The equipment worked well with the exception of elevation readout, which was erratic, but fortunately I had a visual fix on the moon at all times. The station is 4 x 21 el Tonna yagis, HB preamp with 0.35 dB NF and 600 W PA. Seems like there are a lot of people out there want to work GM, and I hope to be able to operate regularly enough to get everyone. The signals from SM3JQU pretty much prove that the system is fairly close to optimum, so with patience I should be able to work most reasonable sized stations. I may be able to increase power to about 1 kW next year, and am looking at improvements to the antenna system, but these are not high on the list because the improvement will be marginal. There may be a few who have worked GM before, GM3JFG operated these antennas and PA some years ago from northern Scotland, so there is some continuity here. Iain would be please to see that parts of his system are back in use. I plan to be active on the next AW, 17/18 Dec, if the weather is ok. The array can only be raised or lowered in fair conditions. Once up it should be OK, but it cannot be left up permanently.

**HB9BBD:** Dom's [dfaessler@bluewin.ch](mailto:dfaessler@bluewin.ch) 23 cm contest report -- The contest is over and my body and soul are recovering slowly - HI. I ended the contest with 97x45. I made WAC, logged 28 DXCC + 17 US and Canadian multipliers. My initial count is now up to #234 with 13 initials as follows on the 22 Oct at 0135 SP6JLW (529/569) #222, 0440 W6YX (539/O) #223, 0458 WA5WCP (559/579) #224, 0535 K5PJR (529/559) #225, 0649 W6IFE (589/599) #226 and 2103 VK4AFL (579/579) #227, on 23 Oct at 0112 JA4HZN (539/549) #228,

2151 JA4LJB (559/O) #229, on 12 Nov at 1500 SM3LBN (539/559) #230, 2310 K5SO (589/599) #231, and on 13 Nov at 1705 JA1BGU (549/579), 1719 JA4H (579/559) #233 and 2230 PI4Z (559/O) #234. Collecting initials during a contest does was exciting, however working WAC in a single 23 cm contest was thrilling too. All but 2 QSOs were on random. I made a bad mistake in operating during almost the whole contest with the noise-blanker of my TS780S on. This cut away bits and pieces of the smallest signals. After I recognized the disaster, the contest was almost over. Next time this will not happen for sure. Stations missed were K9SLQ and F2TU and certainly some others. Surprisingly towards the end of the contest, multipliers did not stop flying in: 9H1, LX, CT, PY5 all showed up in the last couple of hours. I do not have Internet access at my EME site and strongly believe that there should be only random QSO allowed during the contest. It is clear to everybody that recognition of a KNOWN callsign is easier than of an unknown... which can happen a number of different ways. If contests start to become predominantly an exchange of KNOWN information from skeds or loggers, I will stop my contest activity.

**HB9FX:** Fred (HB9BHU) [hb9bhu@bluewin.ch](mailto:hb9bhu@bluewin.ch) reports on his portable EME effort during the contest -- During our annual flea market/surplus party, I met Dominique, HB9BBD and he pushed me to become active during the second leg of the ARRL Contest. I explained that I was only QRV on 3 cm EME and my 23 cm feed and RX/TX was stored in the basement and the preamp out of order anyway. Dominique offered to lend me two of his jewels -- BBD LNAs. So I ran out of arguments and decided to install the 23 cm rig in our radio club's contest truck. Assisted by few members of the HB9FX Radio Club I drove to a spot on top of a hill where we could see the moon very early on rise. But Murphy was there as well and we could only copy terrestrial signals from the Swiss gang, but no echoes off the moon. It took us quite some hours to solve the problem, which was due to a voltage drop in the preamp feed line. After we got this fixed, a number of very good EME signals were copied with Dominique's 0.23 dB NF preamp and our six' dish! We worked exclusively on random DL0SHF, K9SLQ, HB9SV, G4CCH, K5JL, HB9JAW, HB9BBD, OK1DFC, ON7UN, LX1DB, OE9ERC, K2UYH and just before the end of the contest a partial with K5GW, who we could unfortunately not complete with despite his tremendous signal. Our rig was 300 W at the feed, 0.23 dB NF HB9BBD preamp, VE4MA feed with internal polarizer and a 6' solid dish with 0.31 f/d. We were very excited by how easy we could work stations. I'm sure we could have worked a lot more, but unfortunately we didn't have much time to do QRV. We have been asked me to drive to HB0 once in a while in order to activate this country and I promise we will do this, probably next year during the DUBUS contest. [How about T70?]



**GM4ISM's 432 yagi array (formally used by GM3JFG)**

**HB9JAW:** Michel [hb9jaw@bluewin.ch](mailto:hb9jaw@bluewin.ch) writes -- I was active during the ARRL contest with rather bad results. Prior to the contest HB9BBD's super LNA failed due to some heavy static. I had to install an older type cavity preamp, but measured about 2 dB less sun noise, which heavily handicapped our contest effort. Never the less, PA3BZO and myself worked during the second weekend 50x28 for a total of 140,000 points on 1296. We heard many more stations, but sometimes could not dig the calls out off the noise. Initial QSOs were DL0SHF, JH1KRC, OK1DFC, OK1KIR, IW2FZR, ES5PC, LA9NEA, IK2RTI, VE9DW, KOYW, HB9FX, WA1JOF, WA5WCP, CT1DMK, W2DRZ, W6IFE, HA5SHF, SM3LBN, WB5AFY, W9IIX and F1ANH. I will be active with my 11 m dish for maybe another 3 to 5 months -- [see report in the Nov NL]. I have

convinced the local authorities that during winter I cannot dismantle the dish, HI. I will try to be on as much as possible on 1296 and 2304. Both bands now have new preamps and I should hear well. For the future, I am looking for about a 6 m solid dish. Can someone help me find one?

**HB9Q:** Dan [dan@hb9q.ch](mailto:dan@hb9q.ch) reports on his contest result -- We enjoyed again very much operating on 3 bands (2, 70 and 23 cm). It was a great pleasure to have Andrea, HB9DUR (ex HB9SUL) as guest-operator helping us on Saturday. Andrea did an absolutely great job. 432 was a huge disappointment in quantity. Quality, however, was good with two new DXCC (FR5DN and LZ2HM) and several initials (W8TXT #349, OE5MPL #350, LZ2HM #351 and first LZ-HB9 for DXCC 61, LZ4SA #352\*, NQ7R #353\*, EA5AAJ #354\*, UA4HAK #355\* and KN4SM #356\*). Conditions were ok, but activity was again very low. Our final result was 86x39 (63 CW and 23 JT65B). 1296 was a disappointment too! We only spent a total of about 2 hours on 1296. Unfortunately there were very few new stations during our QRV times, so we missed a lot of possible QSOs. We have worked a total 57x33 (56 CW and 1 SSB). Never the less we are quite happy with our overall total result of 270x126 for 3,402,000 points in the multi-op multi-band assisted category. Detailed logs can be found on our homepage at [www.hb9q.ch](http://www.hb9q.ch). After the contest we worked on 70 cm ZL2DX for DXCC 62. He has a loud signal, but a lot of drift. We initially tried on JT65B without a full QSO before switching to JT65C to complete the QSO. I did some analysis of our 144 and 432 EME logs over the past 2 years and found that we worked on 144 over 300 different stations (59 DXCC) on JT65 and on 432 MHz over 100 different stations (37 DXCC) on JT65. Interestingly over the same time period on 70 cm using CW I worked 171 different stations, but only 111 on 144. Please look for us during the Dec AW.

**IK3COJ:** Aldo [ik3coj@inwind.it](mailto:ik3coj@inwind.it) has a new dish and reports on his contest activity -- After many months of hard work I have my new 3.8 m dish (0.5 f/d) in operation. I have also replaced my old VE4MA feed with a new W2IMU horn and I am now running with 300 W at the feed. I am very happy for the result of this change. On 1296 I added 12 new stations and broke the #100 initial barrier, since the new dish became operational in Sept. The ARRL Contest ended with a score of 47x28. This is my best ever result. Initials were OK1DFC #97, ON7UN #98, IW2FZR #99, LA9NEA #100, VE6TA #101, UR5LX #102, SM3LBN #103, JA6CZD #104, ES5PC #105, HA5SHF #106, W6IFE #107 and JH5LUZ #108. I CWNR VK4AFL and heard JH1KRC, VE9DW, F1ANH and PY5ZBU.



IK3COJ's new 3.8 m dish on top of his apartment building

**JA4BLC:** Yoshiro's [ja4blc@web-sanin.co.jp](mailto:ja4blc@web-sanin.co.jp) contest report -- In Sept I was on 13 cm and worked on 24 Sept OE9ERC, F2TU, SM4DHN for initial #33, G3LTF (on 2320), VE6TA, W5LUA, WA6PY and JA6CZD (on 2424), and on 25 Sept ES5PC, SM3AKW, OK1CA, G3LTF (2320 dup) and OK1KIR (2320). In Nov I was QRV on 1296 and worked on 12 Nov W6IFE for initial #101, K5SO #102, K5GW, K5JL, K0YW, WA6PY, JH1KRC, ZS6AXT, DL0SHF, JA6CZD, DF3RU, OK1DFC, G4CCH, HB9BBD, JA6AHB, IK3COJ, DL1YMK and RW1AW, and on 13 Nov W2DRZ #103, W5LUA, VA7MM #104 and JH5LUZ. Heard but not worked were VK4AFL, JA8IAD, N7AM, JA1BGU and SP6JLW. My total

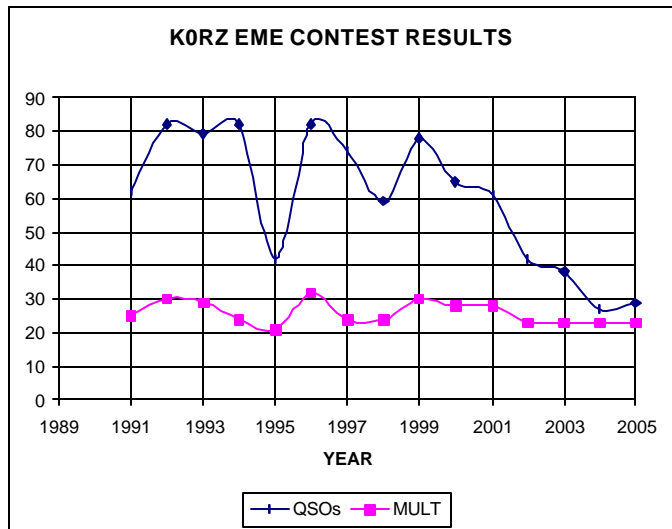
contest score was 34x23 for 78,200 points. I also worked on 15 Oct on 2304/2424 OH2DG for initial #34.

**JA4HZN:** Hata [ja4hzn@lucksnet.or.jp](mailto:ja4hzn@lucksnet.or.jp) reports making his first EME contacts during the 1<sup>st</sup> leg of the EME contest on 23 cm. His first QSO on 23 Oct with HB9BBD. It was followed by a 2nd QSO with W6IFE. In Nov on the 13<sup>th</sup> he worked HB9BBD again on. Hata is equipped with a 5 m dish and 16 x M57762.

**JH1KRC:** Mike [jh1krc@syd.odn.ne.jp](mailto:jh1krc@syd.odn.ne.jp) writes about his 23 cm contest activity -- My 5/10 GHz projects have been delayed, so I removed the big 5 GHz feed Horn located in front of 1296 feed to allow me to operate on 1296 and had great fun! I worked on 12 Nov K0YW (549/559), K5SO (559/559), WA6PY (559/559), JA6CZD (559/559), JA4BLC (539/559), JH5LUZ (549/569) and (33/34) on SSB for an initial (#), G4CCH (559/559), DL0SHF 579/559 #, HB9BBD (589/579), DL1YMK (539/559) and HB9JAW (O/O) # - heard PA3CSG at 5 deg, and on 13 Nov K9SLQ (559/559), K2UYH (559/559), W6IFE (589/589) and (58/58) on SSB #, W2DRZ (559/559), K5JL (589/579), K5GW (589/589), JA8IAD (559/559), W5LUA (569/569), JA6AHB (539/559) and VK4AFL (539/559) -- heard VA7MM?. SSB QSO with W6IFE (K6JEY op) was in Japanese!

**JJ1NNJ:** Kouichi [jj1nnj@extra.ocn.ne.jp](mailto:jj1nnj@extra.ocn.ne.jp) sends news on his 432 activity during the EME contest -- I worked on 70 cm on 12 Nov at 0745 N9AB (559/559), 0758 VK3UM (559/539), 1510 JH4JLV (449/449), 1528 FR5DN (O-449/O) for an initial (#), 1610 DL7APV (449/449) and 1654 DL9KR (559/559), and on 13 Nov at 1532 DF3RU (449/539), 1650 S52CW (O/O) #, 1659 OH2PO (579/559), 1710 SV1BTR (O-449/O) #84 and 1752 SM2CEW (449/539). I was very busy at work during recent months and thus I could not QRV in Oct. I am still using 16 x 13 el yagis (LR) and 600 W PA. Please note that my e-mail address has recently changed.

**K0RZ:** Bill [k0rz@comcast.net](mailto:k0rz@comcast.net) writes on 432 during the contest -- I QSO'd on 70 cm CW on 22 Oct 7M2PDT, HB9Q, JA6AHB, K1FO, K5GW, N9AB, OH2PO, OZ4MM, OZ6OL and VK3UM, on 23 Oct DL7APV, K2UYH, K3MF, K4EME, KL6M, SM2CEW and UT2EG, on 12 Nov DL9KR, FR5DN, G3LTF, G4RGK, RW3PX, SP6JLW and VE6TA, and on 13 Nov DF3RU, OE5EYM, SV1BTR and W7AMI. Initials were K3MF for #325 and FR5DN #326 with an overall contest score of 29x23. Bill found Oct conditions poor and overall 70 cm CW activity down. Operating with 8 x 21FO yagis and 1500 W since 1991 and almost constant operating periods, Bill compares his 70 cm CW score over the last 15 years. 1991 62x25, 1992 82x30, 1993 79x29, 1994 82x26, 1995 42x21 (bad local WX), 1996 82x32, 1997 74x24, 1998 59x24, 1999 78x30, 2000 65x28, 2001 61x28, 2002 42x23, 2003 38x23, 2004 37x23, 2005 29x23. [See chart below]. Bill asks What happening to all the 70 cm CW stations over the last few years and asks if perhaps 70 cm CW EME is being abandoned for new frontiers?



**K2DH:** Dave [k2dh@frontiernet.net](mailto:k2dh@frontiernet.net) is QRV on 1296 EME with 4 loop yagis -- In Nov I heard K5JL, K0YW and K5SO off the moon. They were calling CQ, but very with short calls, and I could not put call signs together. I can't say I'm ecstatic over my results. When the Moon came up on 12 Nov at about 2030, I immediately began copying DL0SHF and HB9BBD. They were both CQing without answers, so I figured there was my chance to work them without a ton of QRM. ... No joy as neither one so much as QRZ'd me! I called each one at various times over the next two hours! Finally at 2230, HB9BBD QRZ'd the "K" station, but that's as far as it ever got. A bit later, DL0SHF QRZ'd me, but to no

avail. I had a sked with K5JL at 2330, and we completed! Jay said he saw no reason why the others couldn't copy me, and that I was considerably better than the day before. Through the course of the evening I called BBD and SHF numerous more times. I also CWNH HB9SV and W6IFE. I heard the OVRO boys working HB9JAW and copied both stations. After IFE finished with JAW, I called IFE. They didn't answer and I never found them again. At 0349 I called K5GW, who was CQing. The best I got out of Gerald was a QRZ, then he gave up and went back to another CQ. I didn't find him again by the time I turned the gear off. So, my results for the contest are 1x1. To be sure, I made some significant improvements in the station between Friday night and Saturday. I tweaked the loop yagis to be sure they were all spaced uniformly and in the same planes and I made sure all the loops were as circular and parallel to each other as possible. This resulted in a gain of about 0.75 dB in Sun noise. I also carefully tweaked the power amp and got another .5dB out of it and more stable power over the course of a 2.5 min TX period. I'm making a solid 170 W, drifting down over time (an hour or so) to maybe 150 W. I also changed IF radios. I was using an old ICOM IC-271A and I changed over to my Yaesu FT-100D. It has the narrow CW filter in it, as well as much finer tuning and, best of all, DSP! Between the CW filter and the DSP audio, I was really able to much more comfortably copy everyone I heard. My neighbor, a non-ham, was even able to hear the CW from a few of the folks - HB9BBD and DL0SHF, at least. I think the bottom line for me is to try a small dish (say 2-2.5 m) with circular polarization. I think it would do a better job than the 4x45 element loop yagis. The penalties for the phasing harness losses and the 3 dB linear to circular loss are too great. Also, a properly fed dish would be quieter- the side lobes were quite evident on the loopers. It was a learning experience for sure and fun. It felt good to hear signals off the Moon on 23 cm again!

**K3MF:** Wayne [k3mf@aol.com](mailto:k3mf@aol.com) 432 EME activity -- Things are going pretty well here. I am now running 8 x 25 el yagis and 800 W. I have made 49 QSOs and am up initial #23\* since last March. I also have 11 countries. In the contest I worked 17 QSOs with 7 initials. Contest QSOs were N9AB, HB9Q, W7AMI, K0RZ, OH2PO, SM2CEW, DL7APV G3LTF, K2UYH, KL6M, DL7UAE, DL9KR, K5GMX, K5GW and SV1BTR. Also worked were OZ4MM, VE6TA and KE7NR on skeds in Oct and Nov.

**K4EME:** Cowles' [candrus@rica.net](mailto:candrus@rica.net) reports on his 70 cm contest activity -- I only worked 10 stations on 70 cm the first leg of the contest. QSO'd were OH2PO, OZ4MM, N9AB, K5GW, HB9Q, KL6M, G3LTF, K1FO, N4PZ and K0RZ. N4PZ was initial #93. This is way down from my norm! I had some bad weather and had to shut down twice due to lightning the first night. Heavy rain reduced my receive sensitivity for many hours during the first night. My keyboard interface went down right before the contest, so all of my contacts were made with a paddle that I had not used for years! I missed several stations due to my slow reply. I also found that my interface, TNC was a source of several birdies at 432.030, 432.050 and some others up the band. I replaced the TNC with a simpler interface and now have a lot cleaner 70 cm spectrum. I had a better time in Nov and added K2UYH, VK3UM and JL1CZG. I heard quite a few others including N4PZ, N9AB and a mystery station that I could not identify the call. It had in 3 in it [K3MF?].

**K4QI:** Russ' [K4QI@aol.com](mailto:K4QI@aol.com) EME report -- I finally got on 1296 EME during the second weekend of the contest, but did not spend a lot of time. Friday night, my polar axis tracking system had an intermittent problem, which limited operating time and Saturday night there was football game I wanted to watch. The following were worked: G4CCH, K5JL, K0YW, W5LUA, W2DRZ, VA7MM, WA6PY, W9IIX, OK1DFC, K5GW, W6IFE, WB5AFY, K5AZU, KA0Y, K2UYH, K5SO, SM2CEW, DL0SHF, DF3RU, IK2MMB, IK3COJ, HB9BBD, ON7UN, VE9DW, W7BBM, RW1AW, F1ANH, UR5LX, DL1YMK, N2OU, ES5PC, DL4DTU and WA1JOF. Heard but not worked were W7UPF, WA5WCP, SM3AKW, HB9JAW and OE9ERC.

**K5GMX:** Bill [connerwa@comcast.net](mailto:connerwa@comcast.net) is QRV on 432 EME with 4 x 25 el FO yagis and 800 W and could go to more power, but is presently drive limited. He also has his LNA inside the shack and expects that he could pick up about another 1.5 dB if it was at the feedpoint. [Probably more like 2.5 or 3 dB, if 1.5 dB is the feedline loss]. He has operated EME on 144 for a few years, and is relatively new to 432 EME. He has made 6 contacts on 432 EME so far, primarily on JT65, and is interested in skeds. Bill prefers JT65, but will give CW skeds a try, if requested.

**K5JL:** Jay [k5jl@direcway.com](mailto:k5jl@direcway.com) was on the moon on 1296 in Nov -- I found the contest to be the best in many years. During the Nov weekend I found good conditions and added about 25 stations. N7AM was back on and many more. WA6PY was very loud. During the pre contest weekend echoes were good too and I QSO'd WB5AFY, W7BBM and K5SO.

**K5SO:** Joe [k5so@direcway.com](mailto:k5so@direcway.com) had his first EME contest experience in Nov and was very pleased. Although he only very limited operating time (< 5 hours),

Joe worked 23 stations including 7 JAs and 8 initials. The initials QSOs were K4QI, VK4AFL, K7XQ, JA6CZD, JA8IAD, JA4BLC, JH5LUZ and JA6AHB. During the pre contest weekend he worked WB5AFY, WA1JOF and K5JL and heard W7BBM and W2UHI. During the AW on (19/20) Joe added W2UHI, W7BBM on SSB, K9SLQ, and UR5LX for initial #61.

**K7XQ:** Jeff's report for the contest: I worked on unassisted CW only on 23 cm in Oct only K5GW, and in Nov K0YW, K2UYH, W6IFE for an initial (#), K5JL, K5GW dup, K5SO #, WA6PY #, DL0SHF #, HB9Q, OK1DFC #, G4CCH, K9SLQ #, W2DRZ #, N2IQ and W5LUA. CWNH/heard were OE9ERC, JH1KRC (close!), JA6AHB, JA4BLC, JA6CZD, VA7MM, KU4?, K2DH, JA7MF?, K4QI and HB9JAW. I also worked, but did not count in my contest score on 432 with JT65b HB9Q # with only 30 W. 1296 activity was as good or better than in previous years with many new stations found. I really got a kick working W6IFE on CW (599) and SSB (S9). In regards to the "CW vs. JT65b discussions, I am just glad to have the bands available for HAM use and that there is ANY activity at all. These bands could instead be taken away for commercial use only. Show me the activity and I will be there; CW, SSB or JT65b. I am in the process of building a 10 GHz EME station. I have a 3 m dish and a pair of 25 W Varian TWTAs. I will be using a pair of scalar feeds with separate RX/TX lines and linear polarized with the capability of polarity rotation.

**K9BCT/4:** Randy [k9bct@aol.com](mailto:k9bct@aol.com) that he made it through Hurricane Wilma pretty much intact. It was a lot worse than we expected, but the XYL and I had no major injuries or structural damage to the house. I lost some guttering on the back and about 75% of the shingles on the roof. Radio wise, my feed horn was basically twisted off completely, but dish and other antennas, all on the ground for safety, were pretty much undamaged. A few welds broken and U bolts sheared, but nothing that can't be repaired in a few weeks time. This was probably the worst Hurricane since Andrew.

**KA0Y:** Bruce [Ken@ka0y.com](mailto:Ken@ka0y.com) added a few more during the last leg of the contest in Nov -- I ended 72x38 with 7 initials (W6IFE, UR5LX, SM4DHN, ES6RQ, W7UPF, VK4AFL and SM3LBN) and 7 JA's. I missed JA1BGU, but couldn't get his attention. Caught W2UHI, W7UPF and N7AM near moonset -- an outstanding effort from our over Eighty gang! WA1JOF gave me mult 38. I had 480 W out of the PA, but didn't run it that way a lot as it made little difference off the Moon. I saw some weird spreading on the JA echoes at their Moonrise. The signals almost lost their coherence completely. After the contest, I plan to do some tweaking and put in my round Septum Feed. [Please note Ken's new e-mail address].

**KD4FOV:** Will [wrogers@haystack.mit.edu](mailto:wrogers@haystack.mit.edu) is interested in running EME tests with MIT's 150' Haystack dish -- I work for MIT in Westford, MA on UHF radars. I'm trying to put our 150' dish on EME. We have installed recently some filtration that should let me do EME in the HAM bands, but I have been unable to schedule any contacts. I am RX at this point, but will soon have TX capability. What I can do is record a CW/SSB CQ and send the results via e-mail to the originating station. My station RX capabilities are tremendous and I'm sure the recording will be worth the work. [Will there are regular activity weekends (AW) when stations are most active on 70 cm EME. I suggest you chose at time period(s) when you will be listening and I will announce it in the NL. The next AW is 17/18 Dec. Most activity occurs when both Europe and North America can both see the moon. There is also activity from JA/VK.]

**KL6M:** Mike [kl6m@qsl.net](mailto:kl6m@qsl.net) reports on his contest activity in Nov -- I did not make it to 1296 to work the OVRO and other contest stations. I find it too difficult to remove the polarity rotator in the dark, but will improve this arrangement in the near future. I can change between 144/222/432 now in about 5 minutes. Eventually that will be true for all bands. I worked my first 222 EME with VE3AX during the contest. He was very nice copy. I also had a partial with K1VHS (no elevation). He was also strong, but my signal was under a birdie at his end. On 70 cm I netted 46x27 with 7 new initials. I intend to concentrate on 1296 now get a PA running and optimize my RX.

**LA9NEA:** Viggo [la9nea@online.no](mailto:la9nea@online.no) writes on his Oct 1296 contest activity -- I worked the following 1296 EME stations: K9SLQ (539/549), W5LUA (549/549), ON7UN (559/549), RW1AW (539/559) and K2UYH (559/559) who had a very good signal. I was using my 4.3 m dish and 450 W. [No report for Nov yet].

**MOEME:** Paul [m0eme@qsl.net](mailto:m0eme@qsl.net) was active during the contest in Nov on 70 cm with power increased to 100 W at the feed of his 4 x FO19 yagis from a borrowed PA and a 2nd preamp to boost receive. He will be QRV again during the Dec AW.

**N2UO:** Marc [lu6dw@yahoo.com](mailto:lu6dw@yahoo.com) writes – I was QRV for the second part of the ARRL contest on 1296. I worked K9SLQ, K4QI, HB9JAW, WA1JOF (for initial #69, nice signal), DF3RU (dup), HB9SV, LX1DB, DJ9YW, DL1YMK, W7BBM and ES5PC for initial #70. All contacts were on random CW. I tried to work VK4AFL unsuccessfully. Trevor and I have severe tree/house obstructions. It is hard to make a QSO when > 50% of a small dishes is blocked. I have plans to try later in Dec, if the snow lets me move the dish to the front yard, which is not an easy task. As most of you know my dish has casters and can be moved around. However, I never tried to go as far as the front of the house. On a different topic, there has been quite a lot of controversy lately on Moon-Net, which ended up in censorship, as usual. This has forced a large group of EME stations to create a new, uncensored group in Yahoo. I have joined it since I don't want to miss out anything. The amount of traffic is reasonable and the discussions are mostly technical. There is obviously a downside in having two Internet forums, but if the positions are so hard, then it might be a valid alternative. The fact that Moon-Net is "privately" owned, gives the owner the right to do whatever he wants, and that's fine. However, I see with good eyes that other people can continue expressing their thoughts in a different way. There is always something to learn from both sides of an argument. I don't see right now any danger to the hobby, particularly on 432 and above, where different modes have co-existed in peace for a long time.

**N7AM:** Jack's [jackriggs@comcast.net](mailto:jackriggs@comcast.net) station report – I have been upgrading the station with a new motor driven platform supporting the waveguide for the 30' Dish. This was done to be able to control the focal point of the dish from the shack. The waveguide has a 14" travel and it works real neat. I can readout in the shack the exact position. I have noticed that when the clouds are full of moisture (very wet), the rf attenuation is greater. It is hard to make accurate Sun Noise measurements when wet clouds are in the way. I have noticed this occurs also with foggy condx. 1296 signals are consumed by them, so I have learned to take sun Noise measurements when we have clear skies. The EME contest was great even with the little time I had to participate. I was shut down completely the first weekend due to high winds. The second leg was also windy and I was only able to get on the last 4 hours. I was pleased to work seven stations: K9SLQ, W9IIX, VA7MM, N2IQ, JR4ZZS, JA6AHB, WA6PY. I heard K2UYH with a good (569) signal, but missed working him.

**OH2PO:** Jukka (OH6DD) [oh6dd@sralfi](mailto:oh6dd@sralfi) sends his group's contest report – We ended up the contest with 83x36 on 70 cm. We stayed most of the time on CW because personally I find it much more fun than the JT-modes. 73 QSOs were worked on CW and 10 on JT65B. I worked on 22 Oct FR5DN (559/O), JA6AHB (539/559), OZ6OL (569/569), ISCTE (559/559), OK1CA (559/579), S52CW (559/559), RW3PX (559/459), DJ7GK (559/459), OE5EYM (569/579), G4RGK (559/559), YO2IS (O/O), YO9FRJ (559/579), RW1AW (559/579), DL7APV (569/569), N9AB (569/569), DK8VS (549/559), DL1YMK (559/559), KE2N (559/559), K4EME (559/559), EA3DXU (559/559), K1FO (569/559), DK3WG (559/569), DJ6MB (559/559), SP6JLW (559/559), K0RZ (559/559), OZ4MM (569/579), SM3JQU (559/559), HB9Q (579/559), S53RM (O/O), UT2EG (O/559), K2UYH (559/579), KL6M (559/559), DL9JY (O/O), I1NDP (O/O), K5GW (559/559), G3LTF (559/569), KL7FH (O/O), SV1BTR (569/569), JL1ZCG (559/559), VK3UM (569/559), SM4IVE (559/539), SM3AKW (559/569), JA6DZI (549/O), S51ZO (549/569), SM2CEW (559/569), JA9BOH (559/O), UT3LL (O/O), SM2ILF (559/559), DL7UAE (JT65B) and G3LQR (559/559), on 23 Oct 7M2PDT (559/559), S52CW (559/559) dup, DL7APV (559/569) dup, N4PZ (559/539), K3MF (559/559), WA6PY (539/O) and OH3MCK (JT65B), on 2nd leg on 12 Nov UA3DJG (O/539), JH4JLV (559/559), JR1RCH (559/539), UT2EG (559/579) dup, SM3BYA (O/O), F3VS (559/559), DJ7GK (559/579) dup, YU1EV (559/579), LA9DL (549/559), DL7UDA (559/569), OH2DG (559/569), DL9JY (559/559) dup, S54T (559/579), OK1TEH (O/O), HB9JBL (O/559), ON4KNG (559/559), DG1KJG (O/O), DLOGER (559/559), PE1ITR (JT65B), PA3DZL (JT65B), K5GMX (JT65B), DL7UAE (JT65B) dup, G4ALH (559/569), W8TXT (O/579), VE6TA (569/579) and DL9KR (559/589), and on 13 Nov JJ1NNJ (559/579), UT3LL (559/559) dup, DF3RU (569/569), SV1AWE (JT65B), M0EME (JT65B), OE5MPL (JT65B) and AA7A (JT65B). Operators were OH6DD, OH2HYT and OH2PO.

**OK1DFC:** Zdenek [ok1dfc@seznam.cz](mailto:ok1dfc@seznam.cz) (JN79gw) write about the second leg of the contest on 1296 – The WX was great. There was no problem with the wind and we did not have an inversion situation. I heard my own echoes the whole time very strong and clear. Also the signals were generally very readable. I worked in second leg on 12 Nov W2UHI (569/569), K9SLQ (579/569), K4QI (579/559), JA4BLC (559/569), SM3LBN (539/559) for initial #132, SP6JLW (539/539) #133, JA8ERE (559/569) #134, DL4DTU (539/O) #135, PA3DZL (O/O) #136, HB9JAW (589/589) #137, G3LQR (559/559), OH2AXH (579/589), SM2CEW (579/569), ES6RQ (559/559), CT1DMK (559/529), F1ANH (559/549), K5SO (579/579) #138, and on 13 Nov W2DRZ (559/559) #139, WA5WCP (559/559), K0YW (579/579), K7XQ (539/559) #140,

VK4AFL (559/579), HB9FX (539/539) #141, RW1AW (559/579) and LX1DB (589/559). I also heard F5HRY (539), DF9QX (559), DJ9YW (559), GM0ONN (O), VE7BBG (529), PY5ZBU (559), WA4OFS (O), RW3BP (539), JH1EVA (529), JH1KRC (O) and PI4Z (O). I missed 3 multipliers and 11 QSOs. I think that in next contest, I will do better. I am now preparing install new CommScope coaxial cable CR1071 to the dish and save other dB. My final score was 83x40 for 33,2000 points. I am now up to initial 145# and DXCC 42. More information about EME initials and activity in OK can be found at <http://www.ok1fm.com/eme.htm>. I am working on feeds for 432 and 144 as well and will test the dish on these frequencies soon.

**ON7UN:** Eddy <[ejespers@on7un.net](mailto:ejespers@on7un.net)> sends 23 cm results for ARRL EME Contest -- During the two weekends we worked 67x 33 for a final claimed score of 221,100 points. I also added 17 new initials. Equipment worked as expected. I worked DL0SHF, JA8IAD, HB9Q, HB9BBD, OH2DG, IK2MMB, G3LTF, ZS6AXT, OZ4MM, SM3AKW, OE9ERC, OE5EYM, RW1AW, LA9NEA, OK1DFC, SK0UX, N2UO, K5JL, K5GW, W9IIX, VE6TA, UR5LX, WA1JOF, DF3RU, W5LUA, WA6PY, OZ6OL, W7BBM, G4CCH, ES5PC, HB9SV, DF9QX, JH5LUZ, IK3COJ, OK1CA, JA6CZD, IW2FZR, F6CGJ, JA6AHB, HA5SHF, OK1KIR, IK2RTI, VE9DU, K2UYH, K0YW, DK0ZAB, WA5WCP, F6KHM, W6IFE, PA3CSG, SM4DHN, DL1YMK, OH2AXH, SM2CEW, HB9JAW, DJ9YW, ES6RQ, CT1DMK, WB5AFY, F1ANH, SM3LBN, K4QI, K9SLQ, HB9FX, G3LQR, PY5ZBU and W2DRZ. My CW is still rusty but is improving. I had some help from friends in decoding.

**PA3DZL:** Jac [PA3DZL@planet.nl](mailto:PA3DZL@planet.nl) reports on his ARRL EME results (432 + 1296) – I was only QRV during the second part on Saturday for some hours. I worked on 432 HB9Q and OH2PO both on JT65b. I also heard and called DL9KR several times on CW but found only one-way propagation. I did a little better on 1296 QSOing HB9BBD (strong signal!), DL0SHF for initial #38 (also strong), OK1DFC #39, G4CCH and W6IFE #40 all on CW. Heard were HB9JAW, ON7UN, OH2AXH, HB9SV, G3LTF, K2UYH, K5JL K9SLQ and K5GW. I CWN'd these stations several times, but it seems that I did not have enough power on my side.

**PE1ITR:** Rob [rob@itr-datanet.com](mailto:rob@itr-datanet.com) writes – I was active on 432 with JT65b mode during the contest and had a lot of fun. Compared to earlier events, it was good to see the increasing level of activity with the JT65 mode on 70 cm. Most stations were called on there CQ's. My station on 432 is 2 x 28 el 8.5 w/ yagis, 400 W PA and PHEMT preamp. On 432MHz I worked HB9Q (-19 dB), OH2PO (-11 dB), N9AB (-19 dB), UT3LL (-27 dB), SV1AWE (-24 dB), G4RGK (-25 dB) on my CQ, SM2ILF (-25 dB) on my CQ, DL9KR (569) on CW. Heard were I1NDP and K3MF. In an attempted QSO with K3MF, Wayde's signals behaved very strangely. Signals were up to -21 dB up, but no sync was detected by the WSJT software. On the spectrum display signals seemed to be blurred.

**RW1AW:** Alex [rw1aw@skylink.spb.ru](mailto:rw1aw@skylink.spb.ru) reports on his activity in the EME contest – A total of 80 QSOs were made with all were random CW. I ended on 13 cm with 12 QSOs and 7 initials (HB9SV, ES5PC, OK1CA, SM4DHN, OH2DG, W5LUA and OE9ERC) on 23 cm with 42 QSOs and 11 initials (DL0SHF, OE5EYM, HB9Q, SK0UX, WA1JOF, W6IFE, OK1CA, OK1KIR, DF3RU, RW3BP and K4QI), on 70 cm with 26 QSOs and 6 initials (OK1CA, SV1BTR, UT2EG, FR5DN, VK3UM and SP6JLW). The rigs were on 13 cm a 3.7 m dish with VE4MA long feed, 300 W at feed (SSPA – 3 x MRF 21120), on 23 cm 6 m dish with W2IMU long feed, 160 W at feed, (SSPA – 16 x M57762) and on 70 cm 6 m dish with dual dipole feed, over 1 kW at feed (SSPA – 16 x BLF861). This was my first test of this SSPA - 1500-1600 W out!

**S52CW:** Uros [s52cw@email.si](mailto:s52cw@email.si) reports on his activity in the ARRL EME Contest on 432 – I found poor conditions with lot's of noise, so the signals were way down from normal even from the big guns. A total of 21 QSOs were made in the first part with OH2PO, DL7APV, K1FO, N9AB, OZ4MM, EA3DXU, HB9Q, DK3WG, KL6M, K5GW, SV1BTR, VK3UM, DJ6MB, OZ6OL, G3LTF, OE5EYM, 7M2PDT, RW1AW, G4RGK, K2UYH and SM2CEW. I was QRV again in the second part, but I only managed to work 5 stations, DL9KR, JJ1NNJ, DF3RU, SM3AKW and SP6JLW. Conditions were very poor here on Saturday, 12 Nov with bad WX - dense fog and light rain. On Sunday conditions improved with some great signals on the band, but activity was low in CW section. I ended up with 25 QSOs on CW only, no skeds, no DX clusters. I used 8 x 7.7 BV yagis (open wire feedline) and HB GS35b PA.

**SM2CEW:** Peter [sm2cew@telia.com](mailto:sm2cew@telia.com) worked 27 stations on 23 cm in the contest on 12/13 Nov including 3 initials (SP6JLW also new DXCC, UR5LX and SM3LBN). He heard K2DH calling HB9BBD and Dominique QRZ and then continued his CQs. Peter called CQ just below, but heard no response from K2DH.

**SM3BYA:** Gudmund [gudmund.wannberg@telia.com](mailto:gudmund.wannberg@telia.com) managed to stop over at his farm (SM3BYA QTH) between two business trips and operate some 432 EME during the contest in Nov – My results were 19 QSOs and several initials (FR5DN, G4RGK, SM3JQU, I1NDP and SP6JLW). QRZs were received from S52CW and K0RZ, and CWNK were N9AB, J1NNJ, J1ZCG and DJ6MB. I almost fell victim to a very stupid mistake. I traveled light and didn't even bring my laptop. I had just 2 sheets of printed moon ephemerides. On Saturday night I took a break at 1800 after having worked FR5DN. Returning to 2 hours later, there were absolutely no signals to be heard – not even my own echoes! I couldn't understand what was wrong, as the rig seemed to work perfectly. When things didn't improve after 2 hours, I just gave up for the night. Sunday night I got on soon after moonrise. I worked SM3AKW with good signals. Then I happened to take a closer look at the header on my printout. Guess what it said, "SM2BYA, Kiruna, Sweden"! I had been working off moon positions for my Kiruna QTH that is 6 degs farther to the north! No wonder I didn't hear anything the night before. Once I realized what was going on it only took a bit of mental arithmetic to find the moon again. I'd guess this goof cost me at least 5 QSOs! Signals were co-polarized to Europe for most of Sunday night. My own echoes were very stable and among the best I've ever heard, but it was just plain impossible to raise any yagi stations in the US. I was particularly pleased to work FR5DN. Phil contacted me almost a year ago, wanting to hear about my experience with stacking and phasing Tonna yagis. I hope I helped out in a small way – in any case Phil seems to have got it right. Outstanding signals on both days!

**SM3JQU:** Per [sm3jqu@ssa.se](mailto:sm3jqu@ssa.se) is a relatively new station on 432 EME running 4 x 32 el yagis, 300 W PA, PHEMT LNA and an IC706MkII -- I managed to work an additional 5 QSOs in the 2nd part of the ARRL contest. Worked were G4RGK, DL9KR, SM2CEW, SM3BYA and OE5EYM. In first part I had 9 QSOs with OH2PO, HB9Q, DL7APV, OZ4MM, KL6M, VK3UM, SV1BTR, SM3AKW and J1ZCG for a total 14 contacts. All were on CW, no Skeds and no DXclusters. This is my first try at EME contesting. It is about a year since my first EME QSO. On Sunday conditions improved and some outstanding signals (DL9KR!) were heard, but activity was low.

**SM3LBN:** Hakan [sm3lbn@telia.com](mailto:sm3lbn@telia.com) is a relatively new station on 1296 EME from JP80io. His station consists of 5m dish with 13 x 13 mm mesh and 0.47 f/d, VE4MA feed, Ericsson surplus PA with about 60 W at the feed, 0.6 dB N/F preamp and IC765 Pro III with Parabolic transverter. He has auto-tracking with an AlfaSpid RAS rotor. In the works are a 400 W PA and 0.3 dB N/F preamp. Hakan notes that his EME window is somewhat limited due to trees to from 70 to 280 degs during high declination. Operation at present is only CW on EME.

**SV1AWE:** Bob [bkou@cpi.gr](mailto:bkou@cpi.gr) is having problems with noise and QRN on 70 cm EME – At my QTH I have tremendous BC, TV, Paging, etc. interference! For the contest, I switched to a new CAVEME preamp, but when I installed it the IMD was horrible. I couldn't copy anything. I then changed to my old DB6NT preamp. It can handle better the IMD problem, but it is not my best solution. I am working with SV1BTR on a better arrangement. In the second leg I QSO'd HB9Q and DL9KR on CW. Both had huge signals, but in my situation I only copied DL9KR (M-O). Jimmy was copying him (579) at the same time. I have decided to put an DCI filter in front of my preamplifier. I also QSO'd using JT65b OH2PO, PE1ITR, HB9Q and DL7UAE.

**SV1BTR:** Jimmy's [jimmyv@hol.gr](mailto:jimmyv@hol.gr) contest results – I spent about 1/4 of the time I spent on 2 m on 70 cm. This was a big mistake due to lack of CW activity on 2 m. For sure 2 weekends are needed for multiband operation, as one is not enough. The Microwave EME Contest should be kept on a separate weekend as well. All my QSOs were made on random CW, unassisted – no loggers or similar aids were used. On 70 cm I worked 49 stations. I have requested that the ARRL implement separate EME contests (or weekends) for CW and digital modes with separate listings of the results.



UR5LX's 3.5 m dish used on 1296 EME

**UR5LX:** Sergej [ur5lx@vhf-dx.net](mailto:ur5lx@vhf-dx.net) in the ARRL contest on 1296 made 30 QSOs with initials to JU5LUZ, SM2CEW, DL1YMK, OE5EYM and K4QI. After the contest on 20 Nov he added K5SO to bring him to initial #50 plus LA9NEA, IK3COJ and IW2FZR and heard WA5WCP. On 432 using a single FO yagi and 30 W with JT65 he QSO'd HB9Q for initial #368 for his first EME contact on 432 since 1999.

**VA7MM:** Mark (VE7CMK) [lunarlink@hotmail.com](mailto:lunarlink@hotmail.com) sends news on his groups Nov 23 cm activity -- We were active in the ARRL EME Contest 12/13 Nov. We ended with 15x9 and logged QSOs with K9SLQ, W2UHI, W5LUA, WB5AFY, KA0Y, K4QI, K2UYH, K5SO, N2IQ, HB9JAW, OZ6OL, DL1YMK, W2DRZ, VE7BBG and JA4BLC. Four initials were added to our list to bring us to #49. The station is comprised of 3 m dish with circularly polarized feed, 200 W transmit power at the antenna and 0.4 dB receive NF. The operators were VE7CMK and VE7CNF. For more information see <http://www.3.telus.net/public/va7mm/eme/>.

**VE1ALO:** Darrell [ve1alq@nbnet.nb.ca](mailto:ve1alq@nbnet.nb.ca) writes -- After extremely high winds, the Mesh on my 7.6 m dish is history. I will not for several reasons be replacing the mesh – primarily for physical health matters and my extremely small operating window after 26 years of the neighbors' tree growth. My 23 cm amp is now sold. The 7.6 m dish is also sold and will be taken down next spring by the buyer. I will be keeping my 200 W TWTA with hopes to be back on 5.7 and 10 GHz next summer with a 10' Andrews dish.

**VE6TA:** Grant [ve6ta@telusplanet.net](mailto:ve6ta@telusplanet.net) reports on his second weekend results on 432 – With the new dish I found myself in need of a new 432 feed to be able to participate on this band. After deciding that a simple quad loop would be the quickest feed to get going with the parts on hand, it was quickly assembled and installed on the dish. It was based on a design presented by XE1XA and used a simple gamma match device to adjust the loop. This turned out to be a problem as I managed to set it on fire when the dielectric I had used broke down. Quite the sight to see flames being emitted from a dish feed! It looks like I need to build an alternate design. In between the fires, I managed to work the following stations on 432: K2UYH, G3LTF, DJ6MB, G4RGK, N9AB, OZ6OL, K0RZ, K5GW, DL9KR, OH2PO, DL7APV, I1NDP for an initial (#), EA3DXU, SV1BTR, KL6M, VK3UM, JA9BOH (#) and JH4JLV (#). It seemed that activity was down from past years, but conditions were reasonable with the two-yagi stations sounding quite good. Lots of QSB did make copy difficult on calls with lots of dits. I plan to work on a better feed for 432 and will probably return to 1296 in Dec. On 432 I used my new 5.5 m dish with a GS-23b final. [Grant also reports a 222 contact with VE3AX for first Canada to Canada 222 EME].

**VK3UM:** Doug [tikaluna@ycs.com.au](mailto:tikaluna@ycs.com.au) writes on his 432 results in Nov – I found activity, on the whole greater than 2004. US activity has dropped away, but Eur has increased. Conditions during the 2nd leg were quite stable except for moonrise here on 12 Nov, when severe Libration was evident for about an hour. It is quite a change to utilize the moon at 45° with the 'low Dec' weekend. We should try one at -28°, hi! Most of the time I was seeing Faraday close to 90 degs as is evidenced in the following report. Many new and small stations were worked, some with a lot of difficulty, but with perseverance we got there in the end. I love it when I send 3 YYY's and I get 3 call signs back at 35 wpm! Finally after sending ten of them the guy got the message and I got the call sign! Head was wringing the next day and when Bev started the washing machine I reached for the key to send YYY's! I can never figure it out. You will notice right in the middle of the Eur window I worked Karl (haven't missed for umpteen years) and he was RX on vert against all others on horiz. I missed a few I think right on my respective moonsets. My final tally was 58x32 all on random CW and without any visual aids (no 'completed on Spectrum' here). QSO'd were on 12 Nov at O702 WA6PY (43N/O) V/H, O727 K4EME (54N/55N) V/V-H, O938 JH4JLV (54N/43N) V/V, 1405 OH2DG (54N/55N) H/V, 1414 UT3LL (43N/54N) H/H, 1448 DL0GER (54N/54N) H/H, 1454 SM3BYA (53N/54N) H/H, 1506 DK3WG (55N/55N) H/H, 1521 DL9KR (56N/57N) H/H, 1527 DL7UDA (54N/55N) H/H, 1538 I1NDP (44N/54N) H/V-H, 1554 SM4IVE (53N/43N) H/H, 1643 DF3RU (53N/54N) V/H and 1656 RW3RW (53N/55N) H/H-V, and 13 Nov at O629 VE6TA (54N/57N) V/H-V, O639 KL7HFQ (53N/54N) V/V, O720 W8TXT (O/O-55N) V/V, O727 K2UYH (55N/55N) (V/V-H), 1538 DK8VS (43N/54N) H/H, 1704 RW1RW (53N/56N) H/H, 1715 G4ALH (43N/44N), H/H and 1720 SM2CEW (55N/55N) H/H. I have now released my latest version of my EME Planner. Many changes/additions have been made. The down load setup file is now < 1MB. Please report any bugs or suggestions to me. Copies can be obtained at <http://www.ve1alq.com/downloads/software/vk3um.htm> and <http://web.telus.com/~u92010241/index.html>... Enjoy!

**VK4AFL:** Trevor [benton@bigpond.net.au](mailto:benton@bigpond.net.au) writes -- The ARRL contest was my 1296 debut after 2 months of putting a station together. I had a handful of "check" contacts a few days prior to the first weekend and worked during the contest: K5GW, VE6TA, W7BBM, W5LUA, WA6PY, K5JL, W6IFE, K5SO,

K0YW, OK1DFC, HB9Q, HB8BBD, DF3RU, DL0SHF, G3LTF, G4CCH, JH1KRC, JA6AHB, JH5LUZ, IK2MMB and ZS6AXT. Whilst not spectacular, it is a start and it did not take me long to get sold on circular polarization. I was very impressed to see scores with 3.7 m and even smaller dishes as high as 60 contacts! A big shock though was the difficulty I had in reading many signals - especially with dashes turning into a series of dots due to the rapid QSB and chopped up transmissions. I could "hear" most of them more or less ok, but could not get the calls and got very good at sending QRZs and Ys. I must have missed at least 6 to 10 as so much more work on my part is required to improve reception skills, if further progress is to be made. The recent moon-net topic on the effect of CW speed in initiated by K2TXB makes a good discussion. I would like to add that perhaps correct spacing especially between complete call signs is a more important factor than speed. Not knowing where the call is supposed to start and finish makes the whole decoding process that much slower or even impossible. It would be good if random code practice software was available that could simulate EME libration conditions! The equipment used here is all on the small side with a 3.7 m 0.4 f/d Chinese made dish and a home brew VE4MA feed. Tnx to VK4WS for several hours spent in tuning it. The preamp has a measured NF of 0.4 dB including the isolation relay. Cold sky to horizon is 5.5 dB and sun noise with a mid 70's SFI was 12 dB, which I think is approx correct. RF is derived from a home brew single MRF288 amp producing legal power and EMR compliance. Azimuth rotation is handled by a prop pitch motor running on either 12 V or 4 V for fast/slow turning with elevation controlled by a large actuator. Auto tracking would be nice, but not totally necessary with a small dish and a wide beamwidth. A US Digital absolute position indicator is used for AZ readout and an Anglestar protractor system inclinometer for elevation with a combined electrical/mechanical accuracy of better than 0.5 deg, which should be suitable for higher frequencies than 23 cm. As far as the contest rules and WSJT go none of this makes the slightest difference to me. I am just pleased to have the opportunity to accumulate QSOs and learn something at the same time. I will go with whatever is presented, but going by complaints there are far too many operators out there that don't know when they are well off. 1296 MHz is an excellent band apart from some copy problems, but then if it was like 20 m without challenge, my interest would have been lost years ago. I am self-employed and can usually be available for skeds just about anytime.

**VK7MO:** Rex [rmoncur@bigpond.net.au](mailto:rmoncur@bigpond.net.au) is QRV on 1296 from QE37pc (Tasmania). He has a modest setup consisting of a 2.3 m dish with Septum feed and 100 W at the feed that he operates from a balcony. He is mainly interested in digital operation, but will take CW skeds. Thus far he has worked 3 stations. All were on JT65c. The smallest had a 3.7 m dish. Rex also has a 432 capability with a single yagi and 220 W from home. He was quite successful operating VK9XMO and VK9CMO on a dxpedition last Sept/Oct using the same yagi and 65 W.

**W2UHI:** Frank [fblumn@pathwaynet.com](mailto:fblumn@pathwaynet.com) is back in operation on 23 cm after rebuilding his PA -- I had a good time during the first night of the contest. Conditions were in very good shape. VA7MM was difficult, but we finally complete. I also worked K0YW, OK1DFC, G4CCH, K5GW, K5JL, WA6PY, K9SLQ and W6IFE. Unfortunately the second night I had very high winds and could not get on the moon.

**W4OP:** Dale [parinc@verizon.net](mailto:parinc@verizon.net) was an SWL during the contest on 1296 with a 14' dish, 0.18 dB NF LNA and VE1ALQ feed. Heard many very nice signals. He is completing a pair of DL2AM 180 W amps utilizing the 57762 modules and should be QRV (on TX) by the first of the year.

**W5LUA:** Al [al\\_ward@agilent.com](mailto:al_ward@agilent.com) had a great time on 23 cm in the contest. He copied his best ever echoes, but problem with remote 433 MHz weather station. Noise floor came way up from this WX station and masked any other signals. [I observed the same problem. It is from the station's RX (super regenerative) and not TX]. During the AW he worked LA9NEA, ON7UN and SM3LBN for a new one.

**W6IFE:** Doug (K6JEY) [doughnelen@moonlink.net](mailto:doughnelen@moonlink.net) reports on the OVRO-SBMS EME project -- QSO'd on 23 cm during the contest were on 21 Oct G3LTF, G4CCH, SK0UX, W9IIX, PA3CSG, DL0SHF, LA9NEA, SM3AKW, WA1JOF, HB9BBD, K5JL, DF3RU, OK1DFC, IK2MMB, VE6TA, W5LUA, RW1AW, OK1KIR, UR5LX, W6YX, ES5PC, SP6JLW, OZ4MM, WA6PY and N2UO, on 22 Oct K5GW, ES5PC, SM1CKU, JA8IAD, WB5AFY, JH5LUZ, K0YW, VE6TA, OH2DG, ON7UN, HA5SHF, F6KHM, DL0SHF and DJ9YLS, on 12 Nov W2UHI, WA5WCP, K5AZU, W2PRZ, K4QI, W7UPF, KA0Y, W7UPF, K7XQ, JA8IAD, JA6CZD, N7AM, JA6LUZ and JA4BCC, and on 13 Nov OE9ERC, ZS6AXT, IK2RTI, IK3COY, OZ6OZ, IW2FZR, WA4OFS, CT1DMK, PA3DZL, HB9JAW, HB9Q, JH1EFA, JA6CZD, JH1KRC and WA5WCP, plus the following also QSO'd HB9SV, VE9DW, OK1CA, F5HRY, K2UYH, F6CGJ, OK1CA, KL1YMK, VA7MM, ES6RQ, K9SLQ, JR4AEP, N2IQ, VK4AFL, W7BBM and JA4HZN. It was a good contest, the 23 cm

system worked flawlessly. We only wish we were able to work more stations. We are scheduled to be back on the moon with the 40 m dish on 27 to 30 Dec. We are hoping to work some 10 GHz stations, map the moon on 3 cm and schedule operation with QRP 23 cm stations. We are also going to have an educational outreach program as well. Briefly, we are going to have a group of teenage girls at the dish, which will be interested in talking to other girls of a similar age via EME. We would like to have participants from all over. Having one or two girls would be enough on the other end. If you are able to be on 23 cm on Tuesday 27 Dec at 1800 with a big enough station to use SSB reliably, and have a participant, please let me know. We will have specific days and times to schedule stations that are QRP. However, as we learned last week, equipment problems, etc. can change the schedule. We are very lucky that the dish is a prime focus one. All the active RF stuff is in a canister about 5' long and 2' in diameter that mounts at prime focus and is movable in all axes. We have several extra canisters. We can put up or take down the RF unit in about 20 minutes. We can also take it home and work on it. For the future this means that as long as the telescope is operational, we can quickly hook up, bring in the IF gear and in very short order be on the air. An obvious problem with a prime focus is the wiring to the control room. We had to trace and measure the loss of all the cables we intended to use. It took a lot of time, but eliminated a source of error that would have put us off the air. One thing Chuck did was to put a sense whip on one end of a coax run from the focus down to the operations room at the bottom of the "tipi". This allows us to put a spectrum analyzer on it and observe the strength and quality of our signal. We can also put an RF source on it for signal injection. We also monitor output and heat sink temperature on other wires. WA6EXV has really done a masterful job.

**W7ALW:** Barrie [barrie@centric.net](mailto:barrie@centric.net) in MT (DN36au) might get coaxed back on 432 EME -- I still have a nice setup on 432 consisting of 4 x 13 WL yagis on a HB square (laser-aligned mounting brackets on a square-tube frame, the beams stay put) and a 2 kW PA. I did quite well with the system until my yardman ate all the cables with his tractor. I've pretty much got it all back together now, and was wondering if there would be much interest in a Montana station getting back on 432? [You bet!] I'd also like to try 1296 again. I have 4 of the M2 yagis for 1296, FT-736R with the 1296 module and the SSB transverter. I have a single 3X100 amplifier that I've never really gotten working well. Can anyone recommend a good higher power amplifier for 1296. [Look at Kuhne Electronics [www.db6mt.de](http://www.db6mt.de). A number of stations have reported excellent results with their SSPAs].

**W8TXT:** Mike's [lectrokit@juno.com](mailto:lectrokit@juno.com) comments forwarded by G3LTF as an example of pleasure and satisfaction of a true random EME QSO -- Dear Peter, Thanks for your persistence and good "ears", resulting in my first ever EME QSO! I copied you quite well. You sent me O's and then upgraded my report to 339. I have seen your call for many years in my EME file - nice to finally QSO! -- He is running 4 x FO22+2 and 250 W at the antenna.

**WA1JOF:** Don [wajof@megalink.net](mailto:wajof@megalink.net) was active on 23 cm EME in Nov -- I am now reading 19 dB of sun noise. During the pre contest weekend with the moon never > 18-19 degs, I worked 6 stations: K9SLQ, K5JL, K5SO, WB5AFY, W7BBM and W2UHI. Signals were between S3 and S6. On the 1<sup>st</sup> night of the contest in Nov, I had trouble with my AZ readout, but ended working 37x22 in 2 nights. I only heard one JA8.

**WA6PY:** Paul [pchominski@jaalaa.com](mailto:pchominski@jaalaa.com) writes -- During 12/13 Nov weekend I QSO'd on 432 N9AB, DL9KR, VK3UM and CWNR JL1ZCG. On 1296 I QSO'd W7UPF, W2UHI, WB5AFY, K4QI, WA5WCP, KA0Y, K5SO, W2DRZ, JH5LUZ, N7AM, JA8IAD, JA6AHB, K7QX, JH1KRC, JA4BLC, HB9JAW, ZS6AXT, DL1YMK, SP6JLW, LA9NEA, JA8ERE and VK4AFL. Heard was CT1DMK. On 21 Nov I QSO'd in sked on 432 RW1AW (O/O). I have now worked RW1AW on 5 bands. On 432 I am using dual dipole feed extended with 8 WL of cross directors. The first section is optimized to match to the feeding dual dipole structure and the last 6 WL section is a copy of DJ9BV. Unfortunately this combination has 0.7 dB gain loss and higher noise temperature compare to the original DJ9BV yagi. This is a temporary solution. I still hope to be able to erect my old 7.6 m dish in the future.

**WD5AGO:** Tommy [THenders@tulsacc.edu](mailto:THenders@tulsacc.edu) tried 23 cm with a thrown together feed/hybrid and his 8' dish -- I CWNR the top stations heard, OE9ERC (539), W6IFE, DL0SHF, K5JL, WA6PY, K2UYH, K4QI, K5SO and others. I only had 25 W! I will be active on 13 cm in Dec, but needs at least 35 degs of el.

**ZL2DX:** Chris [zl2dx@xtra.co.nz](mailto:zl2dx@xtra.co.nz) is QRV on 70 cm EME with a small station so far consisting of a 1 x 18 el yagi and 100 W. He QSO'd HB9Q in Nov and is willing to try sked on JT65 or CW.

**ZL1KA:** Brent [b.addis@xtra.co.nz](mailto:b.addis@xtra.co.nz) is not presently QRV on 23 cm EME because of radio astronomy Very Long Baseline Interferometry tests he is doing

with his dish in conjunction with Auckland University of Technology. He is planning to increase the size of his dish to about 12 m soon and plans to be back on EME when this project is completed.

**ZS6AXT:** Ivo [zs6axt@telkomsa.net](mailto:zs6axt@telkomsa.net) reports -- I have only been on 23 cm CW. On 10 Nov I made it with VK4AFL for initial #207. The sked QSO was completed in 7 min. During the contest I worked on 12 Nov JA4BLC, VK4AFL (random this time), IK3COJ, JA6CZD, OH2AXH, SM3LBN #208, HA5SHF, DL1YMK, DL4DTU #209 (sked QSO), CT1DMK, SM2CEW, OZ6OL, W2DRZ, WA6PY and W6IFE #210. CWNRR JH1KRC and K4QI. Plenty of other stations heard whom I worked the previous weekend. Weather was perfect, but for about 4 hours I could not reach the moon due to the limited range of the elevation with my new EL drive. On Sunday my operation was interrupted by heavy thunderstorm, which was followed by gusty winds. Still, I worked PA3CSG, ES5PC, HB9JAW, DL1YMK, UR5LX, LX1DB, G3LQR, WB5AFY, DJ9YW and K2UYH. Most of the QSOs were with stations replying to my CQ. The W6IFE operation was certainly a disappointment for some ZS due to the time delay and on my side I worked them with my dish 50% screened by my other tower. But the perigee conditions were sure appreciated by the weaker stations. My top priority now is to finish the 10 GHz EME dish with the help of ZS6JON, who is also building a new 7 m dish for himself.

**K2UYH:** We had a great time during the last part of the EME contest. KC2TA and K1DS stopped by during the contest weekend to help operate. We started on 432 and QSO'd on 12 Nov at 0015 VE6TA (559/559), 0022 DF3RU (559/559), 0028 OZ6OL (559/559), 0114 K5GW (559/559), 0129 K3MF (O/O), 0150 KL7HFQ (O/O) and 0202, K4EME (559/559), switched to 1296 at 0256 KA0Y (569/579), 0259 WA5WCP (559/579), 0311 K4QI (579/569), 0348 K5SO (569/589), 0355 VA7MM (549/54N), 0407 W2DRZ (559/569), 0553 K7XQ (O/O), 0654 JA6CZD (O/O), 2231 IW2FZR (559/579) dup, 2238 HB9SV (579/589), 2242 F1ANH (559/559), 2242 WB5AFY (559/559), 2256 DL1YMK (559/559), 2300 SM3AKW (559/569), 2311 ES5PC (559/5459) dup, 2330 CT1DMK (549/559) and 2344, WA4OFS (449/539), on 13 Nov we switch back to 432 at 0015 UT5EG (O/539) dup, 0100 EA3DXU (549/559) and 0112 DL7UDA (449/O), then back to 1296 at 0200 SP6JLW (O/O) for initial #248\*, 0210 W7UPF (549/559), 0231 K9SLQ (569/569), 0237 WA1JOF (559/569), 0246 HB9Q (559/529) – right at Dan's moonset, 0350 N2IQ (569/569), 0515 W2DRZ (55/55) dup on SSB, 0638 JA8IAD (559/569), 0700 JH1KRC (559/559), then back to 432 to catch at 0722 VK3UM (559/559) – TNX, 2224 DL9KR (559/579), 2232 SP6JLW (559/559), 2235 SM3BYA (449/549), 2300 partial SV1AWE (449/-), and back to end on 1296 at 2324 ZS6AXT (559/579), 2335 HB9FX (559/569) #249\* and 2355 OE9ERC (579/579). All contacts were made on CW. I have nothing against JT and did look and call on the 70 cm JT65b CQ frequency on 432.065 a few times, but never heard anyone. Without the use of the Internet or prearranged times, JT seemed too inefficient to spend much time on during a contest. With my limited moon window and the low declination, moon time was dear. We ended the contest with totals on 432 of 37x24 and 58x38 on 1296. I found conditions difficult on 432. I needed to rotate ~90 degs between TX and RX much of the time to be heard, and signals were difficult to copy. I was amazed that even with considerable leaves still on the trees, we could make contacts to JA and VK down to 10 degs. I was also active the following AW and QSO'd on 23 cm CW on 19 Nov at 1322 VK4AFL (549/559) #250, and on 20 Nov at 0636 ON7UN (579/579), 0643 SM3LBN (559/559) #251\*, 0655 K7XQ (549/569) and 0710 LA9NEA (559/559). I also ran some JT skeds and had nil results on 432 with EA6QV and ZL2DX (in wrong sequence), but QSO'd on 23 Nov on 1296 at 1515 VK7MO (21dB/26dB) on JT65c #252\*, and on 24 Nov on 432 at 1400 K5GMX (13dB/19dB) on JT65b for initial #702\*, 1430 W0RUN (24dB/O) JT65b #703\*, 1519 K3MF (16dB/11dB) JT65b on random and on 1296 at 1545 partial VK7MO (O/-) on CW but completed "ragchew" on JT65c. On 1296 I was using a DB6NT Kuhne Electronics SSPA at about 500 W out in the shack. I was very pleased with its performance. The output power is very stable and on CW there was no noticeable heating. This same PA will go into service shortly at the SETI Leagues EME beacon.

**NETNEWS BY G4RGK: RIMVW** dpxpediton to Malyj-Vysotsk on 15-28 Nov is reported to have never got their 70 cm EME going. **SM7WSJ** is working on a small 432 EME system and also a dish for 1296. **OZ6OL** reports working in Nov AW on 23 cm K7XQ and on 70 cm DF3RU and N9AB. Heard were G3LTF, RW1AW and GM4ISM. **WA4NJP** is still working on getting 1296 on EME from Mexico. Ray promises more info in Dec. **WA5WCP** had great time

in contest on 23 cm in Nov and worked 40 stations including an SSB QSO with W6IFE. **W2DRZ** ended with 34x? in the contest on 23 cm. VK4AFL was heard but got away. **GMOONN** had bad WX in Nov during the contest, but his antennas survived ok. He was QRV for the AW on 19/20 Nov and completed with G4CCH, HB9BBD, OE9ERC and partial LX1DB. Iain can be reached for for skeds at [iain.gm0onn@virgin.net](mailto:iain.gm0onn@virgin.net). **WB5AFY** on 1296 worked several new ones in the contest including VA7MM and KA0Y. During the AW he added ES5PC, K5JL and VK4AFL. **WB7QBS** is making progress and expects to be QRV on 432 EME in Dec. **NSITO** (EM23jd) will be on the moon in a week or so on both 2 m and 70 cm with full az/el. **K9SLQ** was active in Nov in the contest. During the AW he worked LA9NEA and K5SO. **W7DSA** is working to get on 23 cm with a 16'dish. He also has equipment for 13 cm. **DF3RU** worked 65x33 on 23 cm in the contest. **W7MEM** is working towards getting back on 432 EME. **WW2R** reports his 10' dish is on the mount and that he expects to be QRV on 23 cm in Dec. **DK3WG** worked DL0GER and I1NDP on 70 cm in Nov to bring him to initial #416. **G4ALH** was QRV on 70 cm during the contest and worked a few stations. **K7LNP** is making progress on his 23 cm EME station. **AL7RT** is the new call for K5WXN in Fairbanks. **W9IIX** made 30 contacts in the contest and says that he could have worked more, but some stations were sending CW a bit too fast... Don't forget YYYY, then repeat your call slowly.

**FOR SALE: VE1ALQ** has for sale his 70 cm 8938 PA. It is a combined K1FO/W6PO design loaded with protection and includes 2 Eimac 8938 tubes in excellent condition, which cost Darrell \$1000 each. The PA will make 1.5 kW easily at 3700 VDC. He is asking \$2500USD and will supply pictures and answer questions from serious buyers – see <http://www.ve1alq.com/>. **WA6VLF** has a line on some 250 W 902 SSPAs that are self-contained with PS in a 19 in rack panel mounted box. The weight is about 50 lbs with 120 VAC in thru a standard computer power cable. The price is \$150 + S&H. Contact Jerry at [t2600@sbcglobal.net](mailto:t2600@sbcglobal.net). **VE3KRP** has 4 brand new 8874/3CX400A7 tubes for sale or trade for good microwave gear. Contact Eddie [atteddie@tbaytel.net](mailto:atteddie@tbaytel.net). **KE4LKQ** is looking for a 23 cm EME system/components and advice. Contact Victor at [ke4lkq@adelphia.net](mailto:ke4lkq@adelphia.net). **W7MEM** is looking for a 70 cm 1 kw or more PA. He also needs 7/8 connectors, 45AN and 45AW, for Heliac. Contact Mark at [w7mem@msn.com](mailto:w7mem@msn.com). **W7GBI** has for sale a 432 PA in a 5' rack, Eimac cavity with 8938 (two spare 8938's), 4CX250 driver, 3.1 kW HV PS with varais on HV and heaters, and Bird 2 kW wattmeter in the top of the rack. 10 W of drive will make 2 kW out. Contact Charlie at [w7gbi@earthlink.net](mailto:w7gbi@earthlink.net). **W6YFK** is looking for info on Henry Radio 432 amp [8938 tube]. Tel 650-948-1288. **WA3DJG** is looking for a 1296 quad hybrid coupler for short VE4MA horn. **W2DRZ** has El & AZ controller systems for sale. See Tom's web page at <http://www.ramcoinc.com/w2drz/index.htm> and <http://www.ramcoinc.com/w2drz/ordering.htm>.

**FINAL:** This is a much larger than usual NL and as a result I held a few items including the Technical section for next month. • Included with this NL is the 2006 EME Calendar. [TNX to G3SEK, now GM3SEK. Ian has retired and moved to Scotland, but has not given up his interest in EME. He says he has an excellent QTH for EME and hopes to be QRV again within a year]. I have marked proposed AWs with an \* and shaded them in yellow. I have tried to favor weekends with low path loss and reasonable moon times over high northern declination, but have always kept the AW at > 5 degs. Please review my selections and let me know your thoughts. There is no reason the AW dates cannot be changed. • A new EME Reflector for which many of the 432 and Up gang are signing up has been established at <http://web.telvia.com/~u37029479/> by SM7WSJ. Hakan is presently active on 2m EME, but is coming on 70 and 23 cm soon. • There was quite a discussion on the contest with many recommendations that there should be separate contest weekend for JT and CW operating modes. I will have more on these suggestions next month. • There was also discussion on the sending of CW. I find it is often more difficult to copy moon signals on 432 than 1296, but on either band proper keying is worth 3 to 6 dB and maybe more. Spacing of letters and extra space between calls is very important... And don't forget the DE. The DE indicates the start of the sending call! VE1ALQ suggest that if you hear "YYYY" to treat the QSO as a sked and go to a 2.5 min sequencing and send your call for 2.5 min (until the end of the sequence). This will give a structured time period to complete the exchange. • I know there is more to say, but it will have to wait until next time. Please have a wonderful Christmas Holiday [or whatever you celebrate] season and a very Happy New Year. There should be plenty of activity off the moon in Dec. I will be looking for you there. 73, Al – K2UYH

# Lunar Weekend Calendar for 2006 by GM3SEK

At 2400 Sat/ 0000 Sun	Declination (deg)	Signals (dB)	Sun offset (deg)	Sky temp (K, 432MHz)	Comments
0 / 1 Jan	-26.4	0.8	+13	41	Moon in south.
*7 / 8 Jan	14.4	0.5	+105	20	Day(PM).
14 / 15 Jan	24.4	-0.8	-172	14	Night.Apogee.
21 / 22 Jan	-10.9	-0.5	-97	21	Moon in south.
28 / 29 Jan	-24.5	0.9	-10	24	Moon in south.
*4 / 5 Feb	18.6	0.4	+87	24	Day(PM).
11 / 12 Feb	21.8	-0.9	+166	14	Night.Apogee.
18 / 19 Feb	-14.9	-0.4	-117	26	Moon in south.
25 / 26 Feb	-22.2	0.9	-29	24	Moon in south.
*4 / 5 Mar	22.0	0.3	+68	24	Day(PM).
11 / 12 Mar	18.7	-0.9	+147	13	Night.Apogee.
18 / 19 Mar	-18.8	-0.3	-135	26	Moon in south.
25 / 26 Mar	-19.3	0.9	-48	20	Moon in south.
*1 / 2 Apr	24.4	0.2	+48	24	Day(PM).
8 / 9 Apr	15.3	-0.9	+128	14	Night.Apogee.
15 / 16 Apr	-22.2	-0.2	-153	35	Moon in south.
22 / 23 Apr	-15.4	1.0	-66	17	Moon in south.
*29 / 30 Apr	26.3	0.1	+29	29	Sun noise.
6 / 7 May	11.7	-0.9	+109	14	Day(PM).Apogee.
13 / 14 May	-24.8	-0.1	-170	35	Moon in south.
20 / 21 May	-10.7	1.0	-82	17	Moon in south.
*27 / 28 May	27.6	0.0	+11	29	Sun noise.
3 / 4 Jun	7.9	-0.9	+90	15	Day(PM).Apogee.
10 / 11 Jun	-26.7	0.0	+169	66	Moon in south.
17 / 18 Jun	-5.3	1.0	-98	19	Moon in south.
*24 / 25 Jun	28.3	-0.1	-10	35	Sun noise.
1 / 2 Jul	3.9	-0.9	+72	15	Day(PM).Apogee.
8 / 9 Jul	-27.9	0.1	+152	166	Moon in south.
15 / 16 Jul	0.0	1.0	-114	19	Moon in south.
*22 / 23 Jul	28.4	-0.2	-26	29	Sun noise.
29 / 30 Jul	-0.2	-0.9	+53	16	Moon in south.
5 / 6 Aug	-28.5	0.1	+133	166	Moon in south.
*12 / 13 Aug	4.9	0.9	-131	19	Night.
19 / 20 Aug	27.6	-0.3	-43	20	Day(AM).
26 / 27 Aug	-4.4	-0.9	+35	20	Moon in south.
2 / 3 Sep	-28.5	0.2	+115	149	Moon in south.
*9 / 10 Sep	9.1	0.9	-149	20	Night.
16 / 17 Sep	25.9	-0.4	-60	20	Day(AM).
23 / 24 Sep	-8.6	-0.9	+17	20	Moon in south.
0 / 1 Oct	-27.6	0.3	+97	41	Moon in south.
*7 / 8 Oct	12.8	0.9	-168	20	Night.
14 / 15 Oct	23.5	-0.5	-79	14	Day(AM).
21 / 22 Oct	-12.6	-0.8	-4	21	Moon in south.
28 / 29 Oct	-25.7	0.4	+79	41	Moon in south.
*4 / 5 Nov	16.3	0.8	+172	24	Night.
11 / 12 Nov	20.7	-0.5	-98	14	Day(AM).Apogee.
18 / 19 Nov	-16.2	-0.8	-22	26	Moon in south.
25 / 26 Nov	-22.7	0.5	+61	24	Moon in south.
*2 / 3 Dec	19.7	0.8	+153	24	Night.
9 / 10 Dec	17.6	-0.6	-119	13	Day(AM).Apogee.
16 / 17 Dec	-19.4	-0.7	-42	26	Moon in south.
23 / 24 Dec	-19.0	0.6	+43	20	Moon in south.
*30 / 31 Dec	23.1	0.7	+134	24	Night.