

## 432 AND ABOVE EME NEWS FEBRUARY-2 2008 VOL 36 #3

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**CONDITION:** There is unanimous agreement that the 70 cm CW Activity Time Periods on 19/20 Jan were among the best for activity if not for conditions. This same weekend was also the designated EME Activity Weekend (AW) and produced good activity on 23 cm. There was also reasonably activity on 23 cm during the pre-AW weekend (9/10 Jan). Feb should be an especially busy month with the DUBUS Digital EME Contest on 9/10 Feb, the 1296 EME SSB Contest on 16/17 Feb [see the rules in the last newsletter (NL)] and the 70 cm CW ATP on 16 Feb 2200-0000 and 17 Feb 1400-1600. There is also a dxpedition to Cocos Island (T19KK) with 70 cm EME between 8-14 Feb – see below. On 15/16 March will be the DUBUS 432 (and 6 cm up) EME Contest.

**DXPEDITION NEWS:** The latest news from the Cocos Island dxpedition ([dh5fs@freenet.de](mailto:dh5fs@freenet.de)) is that they are on their way by boat and that 1) the call changed to T19KK, 2) the 70 cm activity will be expanded by 2 hours on JT65b on 12 Feb (after the CW session) and 3) they expect to be QRV 8 Feb. For more information see <http://www.ti9.eu.com/EME.htm>. See info on DL1YMK's latest dxpedition plans below.

**9H1TX:** Dave [davcut@maltanet.net](mailto:davcut@maltanet.net) was active on 432 during the Jan AW -- I spent the hour before and after the 70 cm CW ATP on 19 Jan just listening. I saw lots of wide traces of stations calling and good activity especially before the start. For filtering I am using Winrad, but couldn't get the signals out of the noise, not because they were very weak, but because the signals on 70 cm are different than on 2 m. They seem a bit "skewed" and also have QSB. I heard OZ4MM very strong. On 20 Jan I heard OZ4MM again and SV1BTR, but saw less activity. I tried to call Stig, but unfortunately I have a failure in the T/R relay of my SSPA and lost RX. So after two or three calls I stopped. In the coming weeks I will improve my station. As I now have an LNA, I will separate the TX/RX line 7/8 and 1/2, but will be QRP for a bit longer.

**DL1YMK/CX:** Monika and Michael [DL1YMK@aol.com](mailto:DL1YMK@aol.com) announce their 2008 Moonbounce dxpedition plans -- Everything is settled for this year's EME dxpedition. We will be operating from 1 May to 12 May from Uruguay using the callsign DL1YMK/CX, as licensed by the Uruguayan telecom authority URSEC. We have been struggling for nearly a year to get a fully legal high power permit for operating from CX on 70 cm, 23 cm and 13 cm moonbounce. The dxpedition only became feasible by the extremely constructive and effective help of two local hams, which is even more appreciated by us knowing the 'normal' power limit to be 50 W on UHF & up. To make things even more complicated on 13 cm there is no regular ham radio frequency allocation in CX to be congruent with IARU-regions 1 & 2, but by courtesy of URSEC we got a unique permit to transmit on 2320 and on 2304 MHz. Unfortunately, URSEC refused 9 cm operation because of a mobile communication service. Our stay time wise covers the European WW EME-contest (10/11 May), as well as an ATP on 70 cm (4 May). K1RQG will coordinate skeds as in previous years. I will provide a time frame to Joe within next week, indicating the planned slots of activation for each band. Please keep in mind that CX-land is at 30 deg South, so Mother Nature will confine our moon window to a certain extent (which is good for our tourist activities, hi).

**DL3OCH:** Bodo sends some follow up thoughts on the OA4BHY dxpedition. At first I wanted to take only 23 cm to Peru because there had never been any activity on that band. Later I decided to take 2 m as well. My friend Jorge, OA4BHY, is active operating via satellites already and he has been very interested in EME. I therefore decided to help Jorge do the first 23 cm EME QSOs ever from Peru. My friend and tested portable EME equipment worked great during the first night of operation. Jorge did the first 23 cm EME QSOs on JT65c from Peru on 27 Dec – [see last month's report]. There were six more skeds in our calendar. Unfortunately the transverter stopped working for the very first time. After activities from 35 squares and 23 different DX locations, the PLL lost lock. The equipment was an IC-7000, BJ-250 HB transverter made by DJ9YW giving 65 W at the antenna and a 59 element yagi also made by DJ9YW. Look for more dxpedition activity in the future.



**OH4BHY operates 1296 EME, DL3OCH (left) – yagi at top**

**I1NDP:** Nando [nando.pellegrini@tiscali.it](mailto:nando.pellegrini@tiscali.it) was active during the Jan AW and reports good conditions and a quite a number of stations on 70 cm EME. He worked on JT65B VK4CDI, UA4AQL and OH4LA. On CW he QSO'd JA0TJU, J11NNJ, OK3RM, 15YDI, K1RQG, F3VS, SP6JLW, SM2CEW I5CTE, KL6M, RW3PX, DG1KJG, SV1BTR, DL7APV, OZ4MM, SV3AAF, VK4AFL, OZ4OL, IK6EIW, PA3CSG, S53RM, DK3SE, SM4IVE, DK8VS, and on SSB DF3RU.

**I04DF:** Vico [lodzauli@tin.it](mailto:lodzauli@tin.it) reports that his group is currently targeting 24 GHz EME operation. They were hoping to be QRV for activity near the end of Jan and were setting up to measure moon noise. They have a 7 m dish, but do not know its efficiency on 24 GHz. They are presently not QRV on 23 cm because of a problem with their PA power supply made by HB9SV and don't know when they will be ready to try 23 cm again.

**JH1KRC:** Mike [jh1krc@syd.odn.ne.jp](mailto:jh1krc@syd.odn.ne.jp) found conditions on 1296 in Jan good – It was fun to work 3 initials on 19 Jan, SV1BTR (549/559) with a very clear and stable signals, IK3COJ (449/559) after several calls and DF3RU (O/539). [Mike also listened to the HAARP 40 m EME tests and copied their echoes (M/O)].

**K1ROG:** Joe was active on both 432 and 1296 EME in Jan – I worked on 432 on 17 Jan (shortly after coming in from changing feeds) SV3AAF and on 18 Jan DF3RU, SM4IVE, WE2Y and WW2R. I had a great time during the 70 cm ATP and worked 18 stations: OK3RM, SP6JLW, I1NDP, SM2CEW, RW3PX, I5CTE, F3VS, DG1KJG, DF3RU, SV1BTR, DL7APV, OZ4MM, KL6M, DK8VS, SV3AAF, WA6PY, W7CI and WW2R. I missed a couple including WE2Y who had a nice signal [worked him on Friday]. Someone was very patient with me from 0910 to 0935 on 20 Jan, but I could not copy the call. On 26 Jan I worked UA6LGH as well as W8TXT, but only had a partial with WA9KRT. Later I successfully QSO'd WA9KRT on his moonrise followed by W9ZIH on his moonrise. These are both horizon only stations at this time and are both looking for others that would like to run with them. WA9KRT is currently running 8 x 23 el yagis and about 100 W at the feed. I think W9ZIH is running 4 x FO22 yagis and at least 1.2 kW. I will confirm the details. W9ZIH would like a schedule with DL9KR next good moon. Ron, W9ZIH does not have Internet, but is on 75 m.

**K5JL:** Jay [k5jl@hughes.net](mailto:k5jl@hughes.net) during Jan reports nil with K5QE on 23 cm. There was a lot of activity on 23 cm and he worked a couple new ones; PA3FXB, SV1BTR who was peaking S-8 and VA7MM with a very nice signal. He also heard K7XQ.

**K5SO:** Joe [k5so@valornet.com](mailto:k5so@valornet.com) was on 23 cm in Jan and worked LA9NEA, SV1BTR (579) for initial #111, K5JL, NY2Z, VA7MM, WA6PY, K7XQ and VE6TA. VE3KRP got away due to an amp arc over. Joe has been working on a 1420 MHz Hydrogen line receive system.

**K7XQ:** Jeff [k7xq@secure.elite.net](mailto:k7xq@secure.elite.net) was active on 70 and 23 cm during Jan – I worked on 432 I1NDP for an initial (#), OZ4MM (#) and DL7APV, and heard K3MF. On 23 cm I QSO'd SV1BTR for an initial (#), LA9NEA, VE6TA and K5SO. I also heard VA7MM and K5JL. The highlight was working SV1BTR with a very nice stable (559) on 1296. Within the next few months my 432 array will be rebuilt to accommodate 8 x 13 wl XPOL yagis. My present 9 wl yagis will be modified to add more length and to add vertical elements. I am totally sold on cross polarity for the lower EME bands!

**LA9NEA:** Viggo [la9nea@online.no](mailto:la9nea@online.no) reports on his activity during the 19/20 Jan AW. I was QRV on 23 cm from 2200 and QSO'd PA3FXB for an initial (#), N2UO, SM5LE (partial), VE6TA, K5JL, K5SO, VE3KRP, NY2Z (#), VA7MM, K7XQ, WA6PY and SV1BTR. I closed down at 0200 Sunday morning and was QRV again in the afternoon from 1530 to 1645. Contacted were IW2FZR, SM3LBN and SV1BTR. I found conditions not too good on Saturday evening. I had a lot of wind, especially during my near QSO with SM5LE when I had to stop TX and secure the antenna for a while. Conditions were much better on Sunday afternoon when solid signals were copied from worked stations.

**NC1I:** Frank [frankp@gcq.net](mailto:frankp@gcq.net) writes -- I have been hard at work upgrading my station, specifically the array controls. All of my 25 year old power supplies and related switching components have been disabled and removed from the shack. I had been manually tracking since the early 80's using RealTrak to provide moon data. We have now implemented the new Green Heron Engineering RT-21 universal control boxes to power and control both the azimuth and elevation. We are using F1EHN EME System tracking software along with Green Heron Engineering's "GH Tracker" to auto-track. The GH Tracker program links the communication between the RT-21 boxes and F1EHN's tracking software. The new system easily provides azimuth tracking within two tenths of a degree. Elevation tracking is currently within about 1/2 degree. My elevation actuator uses a 115 VAC motor and we are finding it difficult to slow it to the desired speed for finer tracking. PWM control does not work as well for AC motors as it does on DC motors (such as the prop pitch I use on azimuth). The current 1/2 deg tolerance on el is more than adequate for my array, however we will continue to work to improve it. I am extremely impressed with the Green Heron controllers and the factory support has been unbelievable! The Green Heron controllers will work with virtually any rotor on the market and should be very easy to configure for custom drive assemblies. This should provide a very simple and accurate drive system that is nearly plug and play. In addition to the new controllers/auto tracking upgrades, I have also relocated the equipment in the house so I still need to fire the station up and make sure everything (preamp, T/R relays, etc.) is working as it should. At this point I fully anticipate being back on 432 for the upcoming ATP/AWs and contests.

**OK1DFC:** Zdenek [ok1dfc@seznam.cz](mailto:ok1dfc@seznam.cz) achieved his #200 CW initial and 49th DXCC on 1296 in a QSO with YL3AG – I found good activity on 23 cm in Jan. QSO'd on 1296 on 13 Jan at 1310 RD3DA (559/559), 1337 RW3BP (559/569), 1348 SV1OE (559/559), 1412 LA9NEA (559/569), 1426 IK3COJ (569/569), 1550 IW2FZR (579/589), 1614 RD3DA (17DB/14DB) on JT65c, 1745 PA3FXB (13DB/17DB) on JT65c, 1853 RA3IS (26DB/O) on JT65c EME for JT initial #25 – he was using a 2 m dish and 10 W, 1900 PEIHNG (21DB/17DB) on JT65c, 1912 VE7BBG (13DB/9DB) on JT65c, later K5GW (599/599) - UFB signal and VE6TA (569/579), and on 17 Jan YL3AG (539).

**OK1TEH:** Petrzilka [ok1tehlist@seznam.cz](mailto:ok1tehlist@seznam.cz) announces that on 18 Jan he worked his 1st 70 cm SSB EME QSO – I worked HB9Q using a 23 el DK7ZB 5.7 m yagis 600 W PEP from HB GS31B PA (by OK1VPZ). Before our SSB QSO, I copied Dan -13 dB on JT65b. I'm the smallest station Dan has worked on SSB. During Jan I also worked on CW I1NDP, DF3RU and OZ4MM. I want to work as many stations as possible. I prefer CW skeds, but in case that your station is too small, we can try JT65 too. I generally need  $\geq$  8 m dish or 16 x yagis + QRO for a CW QSO. 8 x yagis is sufficient for JT65b QSOs. I have heard K3MF and K4EME ~ -23 dB on JT65 and would like to try with them.

**ON4BCB:** Walter [walter.crauwels@skynet.be](mailto:walter.crauwels@skynet.be) writes about his Jan 1296 activity -- After replacing my general 12 V power supply, I worked IK2MMB (559/559), ES5PC (559/559), K9SLQ (589/569) and K9SLQ (55/55) on SSB.

**OZ4MM:** Stig [vestergaard@os.dk](mailto:vestergaard@os.dk) reports great activity during the 432 EME CW ATP – On 432 I found signals degraded from the Dec ATP with deep QSB. I worked total of 25 stations in the 2 segments. QSO'd were SP6JLW, I5CTE, DG1KJG, OK3RM, RW3PX, F3VS, SV3AAF, WW2R, W7AMI, K1RQG, DL7APV, I1NDP, WE2Y, K7XQ for initial #301, KL6M, SV1BTR, S53RM,

UA6LGH, VK4AFL, SM4IVE, OZ6OL, IK6EIW, SM2CEW, PA3CSG and DK8VS. A station called me around 1655 I did not identify. I wonder who it was? On Saturday I spent a little time on 1296 too and worked SV1BTR for initial #297, DF3RU and IK3COJ. Heard were JH1KRC and JA6AHB. On moonrise, Sunday, I worked VK4AFL on 13 giving initial #67 with an FB signal through the trees.

**SM2CEW:** Peter [sm2cew@telia.com](mailto:sm2cew@telia.com) reports -- The 70 cm CW ATPs on 19/20 Jan were pure fun! Activity was really good and I also found conditions quite good with little Faraday shift. I worked I1NDP, OK3RM, K1RQG, I5CTE, SP6JLW, DG1KJG for initial #428, F3VS, DL9KR, SV1BTR, KL6M, RW3PX, WE2Y, OZ4MM, VK4AFL, PA3CSG, DL7APV, SV3AAF, OZ6OL, DK8VS and DF3RU. Heard were UA6LGH, S53RM, SM4IVE and IK6EIW to mention a few. We had a tremendous snowstorm, but fortunately there was no damage to my antennas. I am temporarily QRT due to the snow, but might just join the 23 cm SSB contest, if things are working ok here by then. [Peter also discusses the use of digital modes on 2 m and his concern about the abuse of the Internet during dxpedition QSOs on this band].

**SM4IVE:** Lars [sm4ive@telia.com](mailto:sm4ive@telia.com) was on for the 70 cm CW ATP in Jan – I was active during the AW, but only for a short period. On 18 Jan I worked K1RQG. On 19 Jan I was not QRV due to family commitments as my daughter had passed her examinations as a Nurse so we had a small party. I was up at 0300 and listening, but no signals were heard. On 20 Jan I worked OZ4MM, VK4AFL for an initial (#), PA3CSG, SV3AAF (#), I5CTE, UA6LGH, I1NDP and DF3RU. From time to time signals were quite ok, but the difference between operating with 4 x 22 el yagis and my old 13 m dish is really huge. Work is under way and maybe the new dish will be finished this year.

**SM5LE:** Sven [SM5LE@telia.com](mailto:SM5LE@telia.com) says -- What a week-end! Two new initials (#) and many repeated QSOs to evaluate my focus point adjustment. It really paid off to have the focus adjusted by echo, sharp max and good repeatability. On CW I worked SV1BTR (#), RW3BP (449/339) - a 2.2 m to 2.8 m dish QSO, HB9SV, IK3COJ (#), K5JL, SM3LBN, K9SLQ and partial with VE3KRP. Heard and called on CW were IK2MMB, and on JT RD3DA, VE7BBG, PA3CSG, ES5PC and RW3BP. A lot of CW CQs on 1296.010 did not seem to be a good idea. I also heard SSB on .015 but these guys did not give their calls often, so I do not know who it was. I will try hard to get my SSB running and I might have found the problem; the switched power supply regulation doesn't work for SSB. I have to try big capacitor or battery on the power supply output. Has anyone noticed such a problem with switched supplies?

**SV1BTR:** Jimmy [jimmyv@hol.gr](mailto:jimmyv@hol.gr) writes that Jan was especially exciting as he was QRV on 3 EME bands for the first time -- Entering my 15th EME activity year, it is most rewarding to feel the same adrenaline each and every time I operate. The CW body pump never stops working and the mind never rests. The highlight was successful 23 cm operation using my 3.6 m dish. Despite 3 dB of TX line loss, I made my first 1296 QSO in Dec. In Jan I was active for both the DUBUS 2 m and 70 cm CW EME ATPs, which exhibited once more very good activity as well as 23 cm. I worked 54 new and old friends via the moon on 144 and 432. On 1296 CW on 19/20 Jan, I made 23 QSOs (19 stations in 6 hours). On Saturday: IW2FZR, LA2Z for an initial #8, DF3RU #9, JH1KRC #10, LA2Z, OZ4MM #11, IK3COJ #12, SM5LE #13 and JA6AHB #14, and on Sunday: K5JL #15, DJ9YW #16, VA7MM #17, K7XQ #18, K5SO #19, WA6PY #20, VE6TA #21, LA9NEA, NY2Z #22, VE3KRP #23, LA9NEA, IK3COJ, SM5LE and SM3LBN #24. Despite 2 random QSOs with Sven during the weekend, we worked again in a CW test sked before I went QRT to see how a different feed alignment for me was working. On 432 I contacted 11 stations in 3 hours with non-stop azimuth pointing problems. On the first pass: WE2Y, SM2CEW, K1RQG, F3VS, KL6M, SP6JLW, I1NDP, SV3AAF and I5CTE, and on the second pass: OZ4MM and VK4AFL. Before the event I worked easily WW2R for an initial (#) on CW sked.

**SV3AAF:** Petros [sv3aaf@yahoo.com](mailto:sv3aaf@yahoo.com) was active during Jan 70 cm ATP -- I experienced mostly average fluttery conditions with a good amount of traffic going on even after The ATP slots. I worked DL9KR (569/549), OZ4MM (559/449), SV1BTR (449/519), DL7APV (449/539), K1RQG (569/539), I1NDP (449/559), SM2CEW (O/O) and SM4IVE (O/O). My 23 cm EME project moved at a slow pace during Jan. The vital parts not yet constructed/acquired are a Septum feed, parts of the dish mount and the concrete foundation.

**W5LUA:** Al [w5lua@swbell.net](mailto:w5lua@swbell.net) is set up again for 24 GHz and worked DK7LJ in Jan for the first DL - W 24 GHz contact. This was Al's country # 7. He will try to get some stations together for 24 GHz activity on the NA moonrise on 16 Feb. Al notes that there will be a Lunar eclipse on 21 Feb.

**WA6PY:** Paul [pchominski@maxlinear.com](mailto:pchominski@maxlinear.com) had his operating time shortened by a sewer repair problem, but was on both 70 and 23 cm in Jan -- On 20 Jan on 432 I QSO'd in sked SP6JLW and on random K1RQG - great signals. Next I switched to 1296 and QSO'd SV1BTR, K5JL, LA9NEA and K5SO. Heard were K7XQ and VE6TA, but I was forced to back to my repair work. I plan to be QRV for the 1296 SSB contest. On 432 I am still only using a dual dipole feed with 8 wl extension and on 1296 a 3.6 m dish.

**WA9KRT:** Don [wa9krt@hotmail.com](mailto:wa9krt@hotmail.com) is QRV on 70 cm EME with running about 100 W to the middle of an array of 8 x 23 el homemade VE7BQH yagis at 100'. Dan worked K1RQG, but had nil results with K2UYH in Jan.

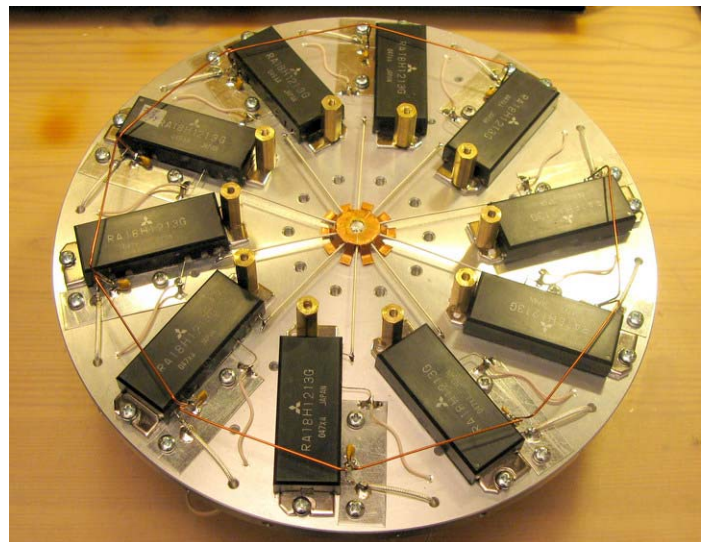
**WW2R:** Dave [ww2r\\_eme@g4fre.com](mailto:ww2r_eme@g4fre.com) reports on his recent activity -- Before going to England for the Christmas holiday, I was on 432 on 16 Dec worked HB9Q on JT65b and then on SSB (55/53) for my 1st 432 SSB QSO and DXCC #14 followed by K7XQ and KE7NR on JT65c. After my return in Jan I worked SV1BTR on a sked before the 432 ATP for DXCC 15. During the ATP I worked OZ4MM, who was a loud signal for the whole 2 hours. I also heard DL9KR, DF3RU, SV1BTR, W7CI, KL6M and probably DL7APV. After the ATP I worked K1RQG and on 17 Jan K2UYH on JT65b and CW for our initial on JT. On 1296 on 27 Jan I worked RD3DA on digital and SV1OE on CW for DXCC 28. I will be next QRV for DUBUS 432 CW EME contest as I have a 50th birthday party to attend on 17 Feb. On 7 MHz I heard the EME signal from the HAARP station on 7.402 MHz on 20 Jan.

**K2UYH:** I [a.katz@ieee.org](mailto:a.katz@ieee.org) do not have much to report this month. Because of business travel I was away during the 70 cm CW and APT and AW. My only QSO was on 17 Jan at 0100 with WW2R (15DB/17DB) on JT65b and (559/539) on CW. I had previously worked Dave on CW on 432, but it was an initial on JT. I also tried on 70 cm with WA9KRT. Because Don is a horizon only station, I had to wait until the moon was far south, but apparently the brush and small trees were still significantly attenuating the signals as nil was heard in either direction. I plan to be more active in Feb and will be QRV for both the DUBUS Digital Contest and the 1296 SSB Contest.

**NETNOTES BY G4RGK: VE6TA** was on 23 cm on 12/13 Jan and worked LX1DB on CW and SSB, K5GW and OK1DFC. During the Jan AW he added SV1BTR for an initial. **K9SLO** was QRV on 23 cm in Jan and worked IK3COJ and HB9SV during the AW, but had his moon time limited by a family emergency. **VE1ALQ** has nest in his 1296 feed and cannot be QRV on the moon until he cleans it out. Darrell asks what can be used to cover the WG input that will not degrade performance. [Ordinary fiber glass window screen seems to work fine]. **VE3KRP** reports working on 1296 SV1BTR for initial #32, VE6TA, K5JL and LA9NEA in Jan. **W8TXT** could not get on moon for the 70 cm ATP due to a frozen elevation rotator. But later worked K1RQG. He reports windshield deicer works good to de-ice a frozen jack screw. **W7MEM** was frozen up too and not on for the ATP. Mark also had a broken fish line in his 70 cm PA. **AL7RT** was not active in Jan - lot's of snow, but hope to be on for the SSB contest. **WB2BYP** is setting up for 432 EME operation as well as 1296. **VE4SA** had no contacts, but heard many stations in Jan. Shawn tried with SV1BTR but no joy. **WA8RJF** should be already QRV on 23 cm or very soon. **WA5WCP** should be very shortly set up again from his home for 23 cm EME operation. **KJ6HZ** is working (very slowly) on a 432 EME system (4 x 19 yagis and 300 W PA). **VE4MA** expects to be ready for 24 GHz EME operation for next moon cycle. **RW3PX** added an initial with 15CTE (449/549) on 432 in Jan. **UA4AOL** worked 11NDP on 432 with JT65b in Jan. **DK3WG** QSO'd on 432 with JT65b S54T, 9H1TX for DXCC 83\* and OE5MPL for mixed initial #438\*.

**FOR SALE: W2DRZ** invites folks interested in sequencers, tracking systems and other interface electronics for EME to check: <http://www.w2drz.ramcoinc.com/Overview.htm>. **OH2DG** is looking for C band medium power (28 ~ 30 dBm) 5.7 GHz amplifier. Contact Eino at [eino.metsamaki@sulo.fi](mailto:eino.metsamaki@sulo.fi). **WD5AGO** has for sale a couple of CP feeds for 5.7 and one for 3.4 GHz and 2.3 GHz. Tommy is not going into manufacturing feeds for 2.3, 3.4 and 5.6 GHz. These are just some extras. He does have everything in place for the 1296/2304/3456 LNA production. Just call/e-mail if you need some - [wd5ago@hotmail.com](mailto:wd5ago@hotmail.com). **K4KIY** is looking for dish. Contact Tom at [fsts4442@cybermesa.com](mailto:fsts4442@cybermesa.com). **N4PU** has 12' dish available for pickup. **K5PJR** has 13' and 20' dishes available. Contact Tony at [K5PJR@centurytel.net](mailto:K5PJR@centurytel.net) for more information. **G4DZU** is looking for replacement jackscrew motor. **K5JL** is looking for a 5cx1500 or a 4cx1500A. **K2AXX** has for sale among other stuff a DEMI 432-28 Transverter, 28 MHz IF, 25 W output in good condition for \$US125 ORO, a 3 GHz Toshiba 40 W SSPA for \$US50, and a Siemens RW-1125 TWT (10 W at 10 GHz) and dead power supply for \$US25. He also has SMA coaxial relays for sale for \$US10. Contact Mark at [mark@k2axx.com](mailto:mark@k2axx.com) or (585)243-5606 before 9 pm nightly for more details. **K5CBL** is looking for 4 x FO 25 432 yagis. **VE4MA** is looking for one or two GS-15B cavity PAs for 23 cm. **K2DH** is looking for a VE4MA feed (for 1296?).

**TECHNICAL:** 700 W Ring SSPA for 23 cm by RW3BP [rw3bp@co.ru](mailto:rw3bp@co.ru) -- After attempts to get high power from a small tube (GS34), I decided to get high power from Mitsubishi's modules. I was surprised to get 70 W from the RA18H1213G module that is rated at 18 W. My first attempt was to combine 6 modules. The second was to combine 10 modules. Finally I ended up with 700 W output (saturation power) at 16 V and 124 A. The RF to DC efficiency is about 35%. I water cool the amplifier. The main problem is the high thermal resistance of modules. To operate key down modes as JT, I need to reduce the voltage down to 12 or 13 V. At 13 V, the output power is still 500 W. I simply combine the modules with radial quarter wave air lines -- see the picture. For the input divider, I use a combination of resistors and lines because I have too much drive from my transverter. I use two SE-1000-15 power supplies. For more information see [http://www.vhfdx.ru/component/option.com\\_zoom/Itemid.99/catid.499/PageNo.1/](http://www.vhfdx.ru/component/option.com_zoom/Itemid.99/catid.499/PageNo.1/). With this PA I hear good CW echoes and sometimes readable SSB echoes with my 2.8 m dish.



**RW3BP Radial 1296 SSPA producing 700 W**

**SOAP BOX:** Here are two guest editorials with somewhat different points of view, but wishing for the same end and concerned about the future of EME:

**SV1BTR** writes: I came across a very interesting decision of RSGB on its Contest Rules for 6 m thru 70 cm. It clearly shows that in the Internet/Chatroom days we are living in, the Radio Amateur Unions and Contest Organizers (e.g. RSGB, DUBUS, REF, etc.) are still acting responsibly by putting Amateur Radio as their first priority and prohibiting Assisted Class and Chatroom QSOs in their contests. The ruling states "The active use (posting messages, arranging skeds, self spotting etc) of the DX Cluster and other spotting networks (including internet facilities for example ON4KST) to assist an entry to a contest on 6m, 4m, 2m and 70cm is banned in all RSGB contests with the exception of three IARU Region 1 coordinated contests (50MHz Trophy in June, 144MHz Trophy in September and 432MHz to 248GHz IARU in October) and the 144MHz Marconi contest in November where permitted by the IARU rules for these contests. You may spot a DX station as long as your operating frequency is not given. A list of do's and don'ts can be found here <http://www.vhfcc.org/rules/08rules/dods.html>." The list of do's and don'ts for RSGB contests could be a useful model for the ARRL to follow in their EME contest rules for all modes with No Assisted Class. Pardon me, but I am really troubled with questions I want to share with you: I REALLY WONDER WILL ARRL EVER DO THE SAME FOR THEIR EME COMPETITION? Take out the Assisted Class? Bring back the focus to Radio, the challenge to the operator, the thrill of Random EME operation? Because even though Assisted is intended for newcomers to EME and/or QRP stations, (by the way such class never existed in the CW days!!! for a far more difficult mode of operation on moonbounce), in the ARRL EME Competition it is fully used by experienced, average, QRO, etc. stations using the digital modes. I do understand the reasoning and arguments of QRP and for newcomers to moonbounce. I really do, but please allow me to say that they claim they need help only because they "were brought up" by the majority of their fellow logger ops this way. It is the Teachers' fault -- influence, who put them in this norm from day 1. However, in the recent past a new digital software tool has been released that enables those working digital to work stations on random. It is MAP65. A paper on Random QSO practices has been published by K1JT. Joe gives examples on how random digital QSOs can be made and examples of frequency segments for CQ callers and listeners. W7EME suggested the same several times in the past. Will these suggestions ever be implemented? Some stations (a minority) have worked digital unassisted in recent contests,

developing various ways to be more effective. Congrats to all of these stations for taking the lead in trying to improve their station and help others! But why has the ARRL introduced Assisted Class since it is used for other purposes? Why should it remain? Can you tell me why in the CW only days such a class never existed for any operator, QRP, QRO, new or old? Why did CW contest QSOs take place 99% on random? Why can't we have a Radio - not an Internet - ARRL Contest without exceptions? Those who claim fun as their first priority regardless of anything else, or those who for their own reasons can only operate assisted on 6 m thru 23 cm, they could ask the ARRL to organize a separate rally type of EME event where everything is allowed to maximize their beloved QSO numbers. Why not? One final note: I totally understand the need of specific forms of assistance for 13 cm and above EME (frequencies allocations, Doppler shift, multiple feeds, etc.) for all modes of operation. This is not the topic of this discussion.

**K6JEY** writes: I am responding to what you said in the NL about the reaction to JT modes. I think you have been very measured and thoughtful in your statements. I thought I'd add a few things and you can quote me if you wish. I thought what you said in the NL was right on the money regarding the JT problem. I have no idea why a few of our group has managed to monopolize the conversation in a negative way. It reminds me of the CB days. People howled and howled about how we couldn't let CB'ers into the hobby. My thoughts were, and are, that the biggest problem is getting new blood into the hobby. Once in, we can retrain them and retain them. Many ex and current CB'ers are great hams, it turns out. The fringe still hangs out where they always have- on CB. We would be very amiss to make the same mistake again with new blood coming into the EME group. It is very probable that the excesses we see on 2 m will stay there. The culture has taken a hold and people who want to operate that way will probably stay there, just as they have on other bands and in other modes. I very much doubt that any of the quality of the EME culture on the upper bands will be challenged. Certainly anyone who wants to manufacture a QSO whether on CW or on JT on the higher bands won't have much luck with the current operators. One issue does need a response. I think the reluctance to separate modes on the contests continues to deteriorate the esprit of the group. I think it is very important that the ARRL rise to the need. Is anyone we can email to encourage a change in the situation? I am concerned that the Conference this summer could degenerate into a JT argument like it did in Trenton. I am going to try JT on 23 cm and hope it will allow me to get on the band more.

**Florence-EME2008** [eme2008@ari-crt.it](mailto:eme2008@ari-crt.it): It is 2008 and not too early to finalize your travel plans. The conference dates are 8-10 Aug. Florence is a busy place at this time of year and hotel space is limited, so it is very important that you make your hotel reservations early. The conference organizing committee is recommending 3 hotels: Fleming (3 stars), Alexander (4 stars) and the Mediterraneo (3 stars). The two hotels closest to the Conference Center only have a limited number of rooms. The Hotel Mediterraneo favored by the

committee as a Conference Center Hotel has plenty of rooms reserved for the conference (125), but is a 25 minute bus ride from the Conference Center. Those planning to participate in the pre and post conference tours should book their hotel from 5 to 11 Aug (total of 7 nights). On 11 Aug there will be a trip to Marconi's house in Bologna, the Radiotelescope Medicina and a visit to the CRBR hosted by IQ4DF. In addition two separate tours on 6/7 are being organized. A one day trip to Siena and San Gimignano, and a second one day trip to Pisa and Lucca. See the web site for more info at [www.ari-crt.it/eme2008](http://www.ari-crt.it/eme2008). It is being continually updated.

**FINAL:** This is the second 2008 Feb NL. With the moon's ~29 day cycle it was time that we slip a month.

The scores of the 2007 ARI CW EME Contest (70 cm up) are shown at the end of this NL. Congratulations to SP6JLW, G4CCH, F2TU, RW1AW and DF1OI for winning their respective bands, and to Italian band winners IK2MMB, IW2FZR and I4BER.

DL9APV found a mistake in his 2008 Lunar Calendar. The DUBUS 13 and 9 cm EME Contest scheduled for 12/13 April is missing. Please make correction to the 2008 Lunar Calendar, which appeared in the Dec 2007 NL.

W7EME [oxaca@oregoncoast.com](mailto:oxaca@oregoncoast.com) is writing up the 2007 ARRL EME Contest for QST's Contest Column and need your input. He is looking action stories, excitement, photos, blunders, new contester experiences, etc., basically anything anyone would like to say or share about the 2007 ARRL EME test. [I know a few people who have a lot to say - hi!]

WIQA [bob@W1QA.com](mailto:bob@W1QA.com) [part of the NCII group] is investigating the best deals for travel to EME2008 - Florence from NA. Bob is a long time frequent flier and is willing to contact United Airlines (part of the Star Alliance group) and see if they would be willing to offer any discounts for EME2008 attendees. If this idea interests you, he would like to hear from you. The only thing Bob needs to know is the approximate number of possible attendees from the US and Canada (to tell the airline). His past experience has been that often an airline will offer a price discount and/or waive certain restrictions (like minimum stay, days of week for travel, etc.) Regarding conference payments, Bob asks the Conference Committee if they have made any arrangements for payment for the conference fees? Will you be able to accept credit cards or PayPal? If not, he suggests that maybe a way to collect funds and then wire them in one lump. K2UYH did this for some of the NA group for the Würzburg Conference. Bob offers to help in the same way.

An updated list of the 70 cm and UP EME CW Standings by G4RGK can be found at <http://www.zen70432.zen.co.uk/Initials/index.html>.

I think this covers the latest news. I hope I have not missed anything important. Please keep the information coming. We can always use more technical info and pictures. I plan to be active in both the DUBUS Digital EME and the I296 EME SSB Contests, and will also try to make some time for the 70 cm CW ATP. I will be looking for you off the moon. 73, AI - K2UYH

**The XIV Italian EME CW/SSB Contest Results for 8-9 Sept 2007:**

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Call.          n.QSO    Ita.          Points          Antenna
***** 432 MHz - Cat. D) *****
1) SP6JLW      6        -            60              8 x 32 BV
2) JA6AHB      4        -            40              7 mt. dish
***** 1.2 GHz *****
1) G4CCH       40       4            484             5.4mt.dish
2) RW1AW       36       4            444             8 mt. dish
3) SP6JLW      31       4            374             6.5 mt. dish
4) F2TU        28       3            343             7.8 mt. dish
5) ES5PC       21       4            294             4.5 mt. dish
6) DL4MEA      14       4            224             4.5 mt. dish
7) JA6AHB      14       2            182             7 mt. dish
8) SP7DCS      5        -            50              3 mt. dish
***** 2.3 GHz *****
1) F2TU        6        1            81              7.8 mt. dish
2) RW1AW       3        1            51              6 mt. dish
***** 10 GHz *****
1) RW1AW       12       1            141             6 mt. dish
2) F2TU        5        -            50              7.8 mt. dish
3) SP7JSG      2        -            20              ?
***** 24 GHz *****
1) DF1OI       1        -            10              2.4 mt dish offset
***** Classification Italian Stations - 1.2 GHz *****
1) IK2MMB      23       3            230             3.5 mt. dish
2) IW2FZR      22       2            220             4 mt. dish
3) IK3COJ      21       1            210             3.8 mt. dish
***** Classification Italian Stations - 2.3 GHz *****
1) IW2FZR      4        -            40              4 mt. dish
***** Classification Italian Stations - 10 GHz *****
1) I4BER       1        -            10              3 mt. Dish

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