# 432 AND ABOVE EME NEWS
# JANUARY 2004 VOL 32 #1

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

**CONDITIONS:** I want to send my very best season's greeting and wishes for Happy New Year as well as forward the many messages of good cheer contained in the reports received this month. Despite the late hours, poor weather in many places, mediocre conditions and the spreading of act ivity due to the last of a coordinated skeds list, there was still plenty of activity to be found during the Dec activity weekend (AW). HB9Q lists 3 initials on 70 cm and SK0UX gave out 6 initials on 1296! The Jan AW (10/11) should produce similar opportun ities. Activity should heat up in Feb and March. The EME SSB Contest is planned for 23 cm on 7 Feb starting at 0000 to 2400. Full rules will appear in next month's NL, but will be basically the same as last year. In March the Eur World Wide EME will begin. Dxpeditions are planned by DL3OCH on 1296 in Feb and for 3B9C on 432 in March/April – see the reports below.

**HIGH CONTEST SCORES:** It appears the top score on 1296 is now held by K5JL. Jay reports a score 82x32. This is no small accomplishment from NA and has not been done in many years. There has been no change on 432, with HB9Q still holding the top place. OH2PO ended with 97x36 [Tnx to Jukka, OH6DD jukka.sirvio@vesatel.fi for this information] and appears in third place this year behind DL9KR.

**3B9C DXPEDITION:** A major dxpedition is planned to Rodriguez Island during March/April by the Five star DX association, who in the past have put on 9M0C and D68C. They plan to be QRV 432 EME. For more news nearer the date see http://www.fsdxa.com/3b9c.

**7M2PDT:** Shu pdt_umesan@ybb.ne.jp was active on JT65 during the Dec AW (13/14 Dec). He had skeds with G4YTL, EA3DXU, JH3QYM, JA6AHB and SK0CC. Unfortunately I do not have information results. He is running 16 x FO 14 el yagis and 1.2 kW. Shu also called CQ on .028.

**A71AW:** Hamad a71aw@hotmail.com worked HB9Q on 70 cm during the ARRL contest – I am installing some extra equipment to improve my setup. I still need a good pre-amp, narrow IF filter for my rig and some audio filtering. My present setup for 432 is very basic. The antenna is a 3 m TVRO dish on a fully functional AZ-EL mount, a tri-band dual circularity patch feed on the 432/1296/2401 bands (I am using the dish mainly for AO-40). Right now I only use a single circularity because I don't have the coaxial relays to switch between different pols. A 100' of LDF-40 ½ Heliax goes to my shack, where I have a 100 W brick amplifier to my FT-847. Out of 4 skeds tried thus far, only one resulted in a complete QSO with HB9Q and it was so hard for me to copy him! I am also setting up for 1296 EME and should have a much better station for that band in the beginning of next year. My plan is to have 100 W at the feed from MKU-13100 MOSFET PA with a MKU-13 G2 144-1296 transverter and MKU-131AH HEMT 0.4 dB NF preamp.

**AC6ZZ:** Don ac6zz@yahoo.com is another new station interested in trying EME. He has a 3 m dish (Wineguard Ku-band) in his back yard. He expects that 1296 will be easier band for him to try EME, but only has an ICOM 81a on 23 cm FM. Don requests ideas on inexpensive ways to at least monitor EME signals to evaluate his options.

**DL3OCH:** Bodo DL3OCH@t-online.de is planning another dxpedition for the period from 7 to 22 Feb 22. He plans to be QRV from ZB2, EA9 and maybe CN -- The guest license in ZB2 won't be a problem. I already have been there and everything went fine. I don't need a license for EA9, but I don't know about CN and will apply for a license soon. –- Stations interested in dxpeditions skeds should e-mail Bodo directly. He has been experimenting with JT65 and has had some good results. He may use this mode for the dxpedition.


**DL4MUP:** Dave dave.powis@redknee.com reports – Dec conditions on 23 cm were not quite as good as I had hoped, but still very enjoyable. I must have displaced the feed on the dish slightly when I installed a 13 cm feed. I did not spot the misalignment until Saturday night, and had already QSO'd LA8LF in spite of the offset! Consequently, I head nothing in the skeds with W7QX, or UR5LX, which would have been marginal without this problem. The fact that I worked Anders made me think there was nothing was wrong, but with the addition of 3 degrees elevation my echoes were there! On 23 cm I worked LA8LF, SK0UX for initial #51, W5LUA, G4CCH, VE6TA #52 and F2TU. Nothing was heard on a sked with VA7MM. I also spent a very limited amount of time listening on 13 cm, but did not hear any EME stations. This will be my last activity from the dish's current location. As soon as the ground is frozen hard enough to get a truck close to the dish, it will be moved to its permanent home about 1.5 km east. It will still be in JN58ri, so there will be no change in my initial status. I'm not sure the move will have been completed and the station re-established by the Jan AW, but it is my intention to be back on 23 cm and to bring my 13 cm TX into operation during the early part of the new year. The station will consist of a 3 m dish, 0.4 dB NF LNA and TH347 PA – see my webpage at http://www.qsl.net/dl4mup for more details.

**F6DRO:** Dom Dominique.DEHAYS@enac.fr in JN03tj will be QRV on 6 cm EME very soon with 20 W to 1.8 m dish using an W2IMU horn feed. He is interested to trying skeds with some of the "big guns" who are QRV on the band. His plans for 432 are on hold while he builds a new PA.

**G3IRQ:** Peter g3irq@prackham.freeserve.co.uk is a new station on 1296 EME. Presently his operation is limited to times when he has a visual moon as he uses a TV camera for moon tracking. In the future, Peter hopes to get his dish under computer control.

**G3LTF:** Peter 100633.1656@compuserve.com found conditions during the Dec AW good, especially on 432 with slow libration and little Faraday fading – Despite the good conditions, the late night operating times and gales here made activity low. On 13 cm I ran a couple of tests on 12 and 13 Dec with OH6NVQ, who has a 3 m dish and 150 W on 2320. I heard him O copy on both occasions, but he heard nil from me. I need to get my new SS PA in operation at the feed and get some more power on the moon! Looking at the increased scores on 13 cm in the contest, all from Eur and JA activity, I repeat my question. Why is

there not more US activity? What's the problem? On 1296 I was pleased to work on 12 Dec Sergej, UR5LX (M/O) for initial #201 - he was quite clear despite only 100 W at the feed. On 13 Dec I worked DF3RU, F1ANH, LA8LF and SK0UX. On 432 I spent a lot of time calling CQ with great echoes and no replies, but on the 14th I did work YU1EV and had an unsuccessful sked with YO4FRJ who was 559, but couldn't hear me despite my trying every pol angle. I also heard DJ7GK, K2UYH and OE9XXI and CWNR KL7HFQ, who was a good signal. I am happy to take skeds any time the moon is above 5 degs N dec on 70, 23 or 13 cm.

**G4NNS:** Brian brian-coleman@tiscali.co.uk is QRV on 3 cm and writes that when possible he makes digital recordings of EME signals. Recordings are mostly on 10 GHz, but he also recorded W5LUA/OK1UWA on 24 GHz during their EME tests. He has posted some of these recordings as MP3 files on his web page at <http://myweb.tiscali.co.uk/g4nns>.

**G4RGK:** Dave g4rgk@btinternet.com has a new e-mail address - he could not stand the SPAM. He also reports that he will not be active during the Jan activity period as he will be away on holiday in EA8 – [poor fellow!]

**GW3XYW:** Stuart's gw3xyw@thersgb.net Dec report follows -– My new 23 cm Septum Feed was tested on the Moon on 6 Dec. I added a flare to the horn at 1.0 lambda for better performance with my 0.5 f /d dish. Echoes were found immediately at respectable strength, but there seemed to be no activity or any replies to my CQ calls. I wondered whether I was on the correct pol, but checking the DUBUS article confirmed that all should be OK. G4CCH kindly ran a test with me to confirm that all was OK. I worked on 23 cm 11 Dec at 2230 G4CCH (559/559) and (54/54) on SSB, on 13 Dec at 2350 OZ6OL (449/549), and on 14 Dec at 0005 JR4ZZS (549/559) and 0030 SK0UX (439/449). High winds prevented further activity. Use of the septum feed will now allow a major overhaul of my W2IMU feed that has been in use for over 20 years and has some corrosion build up. The Sun is too low at present to get a valid comparative sun noise reading for the Septum feed.

**HB9JAW:** Michael HB9JAW@Bluewin.ch will not be QRV in Jan – Due to a heavy workload and very bad weather, I was unable to be QRV for the Dec SW. After last weekend's snowstorm my Dish is covered with 15 cm off snow. In Jan I won't be able to be on either, so I guess there is no need to clean the dish now – Hi.

**HB9Q:** Dan dan@hb9q.ch sends the following update – Due to heavy and gusty winds, we had to reduce the planned Dec activity to a few hours. On 432 there was also not much activity and conditions seemed to be unstable. Never the less we did work 3 initials. The most exciting one is A71AW. Hamad is running a 3 m dish and 100 W. He has an amazingly good signal and was peaking (429)! It was really great fun to work him. We also worked KD1VW and SK6EI for new ones. They also had quite good signals. For more information about the QRP stations we have worked see our webpage www.hb9q.ch.

**JA6CZD:** Shichiro writes that a high-rise building (27 m) has been built to east of his house that blocks his NA window. To the east he cannot see the moon at elevations less than 80 degs. Thus he has no possibility of EME to much of NA. Shichiro is now QRV on both 23 and 13 cm. He was active during the ARRL EME Contest, but had problems with the accuracy of his moon tracking. He plans to improve the accuracy. He did QSO on 1296 on 18 Oct HB9BBD, F2TU, G3LTF and G4CCH, and on 19 Oct OE9XXI, F6KHM, F6CGJ and SM3AKW. He was on 2.4 GHz on 14 Nov and worked LX1DB, SM3AKW, G3LTF and JA4BLC.

**JH3QYM:** Norihisa jh3qym@sannet.ne.jp is active on 70 cm EME with 8 x 31 el W1JR yagis and 300 W TX feeding 35 m 12DSFA transmission line. He has worked using JT65 JA6AHB and K2UYH and had a partial with 7M2PDT. Norihisa is interested in skeds.

**K4EME:** Cowles candrus@rica.net was active off the moon during the Dec SW. He ran a sked with YO4FRJ on 432.085 and copied him FB but notes that his TX freq was low. Unfortunately Adrian did not copy him.

**K5JL:** Jay cliebman@ionet.net was disappointed with the activity in the ARRL EME Contest this year -- We are going to have to do something to get stations active again. Lots of stations that could have been on, were not! It was good to hear both VK and ZL on 1296. I finally got my logs together and got the DL3HRT and DK0ZAB confusion straightened out. I ended with only 82x32. [Jay may be disappointed, but his is the top 1296 score reported.] Greg NA4N is operational now on 23 cm. He is building up a GS-15B amp, but now has single 7289 and is O copy. He will be looking for contacts.

**K9SLQ:** Wayne k9slq@parlorcity.com has been spending more time building than operating, but was active on 70 cm in Dec. He worked UA3PTW and heard K2UYH (569). Wayne plans also to be on 1296 before long.

**KD6R:** Gene k6d@aol.com is trying to get back on EME on 1296 with his 28' dish. Gene made his first 1296 EME QSO last May with K0YW, but found that his selsyn readouts although fine for 432 and 144 were not accurate enough for 1296. So he got an auto tracking system from VE1ALQ. He has had a few problems, but has it now working, although his AZ is rotating too fast. He says the system went past the programmed stop, but that his limit switches prevented a disaster. To fix this he is considering changing from an ac to a dc motor or relocating his gearbox and using a chain and sprocket to slow down the AZ speed. Gene made a circular polarized VE4MA feed horn out of Aluminum tubing, but used brass screws for tuning. He was warned by WA6PY that the Brass and Aluminum combination would corrode and cause problems, so he has switched to a VE1ALQ feed. Unfortunately heavy snow last winter bent the dish's EL drive support bracket. With the help of W6AT, he has lowered the dish to the ground and fixed the bracket, but needs help to rise up the dish again.

**KE2N:** Ken KE2N@cs.com felt that the first weekend of the contest on 70 cm produced fair conditions but that the second was poor. Ken had Murphy intervened on Saturday of the first weekend with a vaporized coax connector out on the tower. He also reports that he could hear the solar flare on the Sunday of the first weekend and that it raised his noise floor! Ken QSO'd in Oct DL9KR, HB9Q, F6KHM, N2IQ, OH2PO, K5GW, JW/SM2BYA, N9AB, WA4NJP, K1FO, K4EME, UA3PTW, KU4F, SM2CEW, OZ4MM, K2UYH and JA6AHB, and in Nov HB9JAW.

**KM5A:** Steve smw@rapidnet.com is still having problems receiving on 70 cm EME and writes – I hate giving the "M" signal reports, but that has how it has been since my first contact. Everyone copies me fine and I struggle to copy everyone. I now know that the antenna gain (as opposed to directivity) is only 22 dBi and I have an environmental noise temp of about 75 deg Kelvin. A new array will help that a lot. Still, I'm enjoying myself immensely. I operated at 1 kW on TX. [Steve is QRV on 432. We QSO'd in Dec – see my report.]

**LU7DZ:** Eduardos lu7dz@yahoo.com.ar reports that N4PZ will be at his house for the month of Jan -- We will build 4 K1FO antennas for 432 and get my system working. I have one of N4PZ's GS23B PAs with 1500 W output.

**N2UO:** Marc mfranco@lintech.com was active on Saturday of the Dec AW – I only worked W5LUA on CW and OE9XXI on CW and SSB. Signals were very good. Did not hear anybody else during the short time I was on. Someone called me with a callsign ending in "X", but I couldn't figure out the rest. It turned out to be SK0UX. I also run a sked with VA7MM, but they had problems and couldn't make it. I heard them during the contest, so I know I can work them.

**N4PZ:** Steve n4pz1@juno.com would like to try EME with some stations on 5.7 and 10 GHz. His station is a 7.5' dish with EL and AZ linear polarization with 10 W at the feed. System NF is 1 dB+ on 5.7 and 1.5 dB on 10 GHz. Sun noise is > 7 dB on 5.7 and 8-10 dB on 10 GHz. Steve has a TV camera on dish for moon tracking, and thus must be able to see the moon to operate. He feels he needs help with procedures and how to handle Doppler shift at these frequencies. He has had lots of experience on 144 and 432 EME in the past, but this is his first attempt on the microwave bands.

**N5ITO:** Dave david@davidv.net is interested in 70 cm EME. He has a 100 W amp and an old Cushcraft 80 element DX-420 Collinear array on an AZ/EL mount. He figures to have about 16-17 dBd and is looking to try skeds with some of the big guns on 432.

**OM6AA:** Rasto om6aa@stonline.sk sends his Dec activity report – My schedule allowed me to be active on 16 Dec only. I arranged 3 skeds with ZS6AXT and both fame stations from 24 GHz, W5LUA and OK1UWA, on this day. Winter decided to begin the day before these skeds. We had heavy snow and wind all night long. I had to sweep the snow from the dish before each sked. Despite the weather problems, I have worked ZS6AXT (O/O), W5LUA (449/M) and OK1UWA (M/M). I have finished this year with initial #27, and I have parked my dish for the winter. My next activity will be in the spring.

**ON5RR:** Marc marc_kleyn@mastercard.com sends a small message for the Dec NL -- After a long time of non-activity, my co-op Michel, ON7EH and I were back on the air during the ARRL contest. In the first leg we worked 20x12 on 1296. We had initial with JA6AHB for #103, DL1YMK #104 and F6KHM s #105. In the second leg we concentrated on 13 cm. Due to an unknown reason, we could not hear a thing. We searched for what is wrong, and hope to find the cause soon. Anyhow, next year we'll be active from our new location on both

bands. We'll publish our findings ASAP, as we want to compare both locations. Maybe next year we'll also try a 6 cm, if we can find a suitable PA.

**PA0PLY:** Jan jan.kappert@comtestnl.com notes -- I intended to run 23 cm during the second leg of the ARRL contest using a new OK1DFC feed, 3 m dish, 150 W PA and 0.3 dB NF LNA. I was limited to operation with a visual moon because of my TV camera tracking. On the Saturday, the weather did not permit me to see the moon for more then 10 minutes during the 2 hours I had in my very limited window to the west. I found two stations readable, but due to heavy fluctuations I was not able to get their callsigns. I called a few times was unable to detect my own callsign as well. As the weather did not improve, I have concluded that I must complete my AZ/ELE indicators to be independent from the need for a visual moon. I also did some work on my 10 GHz station with surprising results. The feed return loss could not be measured at all. PA0EHG and I, end up to removing the feed from its mounting plate to have a better look inside. It turned out that waveguide was really "cutoff". Aluminum corrosion blocked the whole guide!

**PA0PLY's 1296 Septum Feed**

**SK0UX:** Hans (SM0MXO) gustavsson.hans@bredband.net reports that his club is now QRV on 1296 -- We run a 6 m dish and 100 W, which we hope to increase to 400 W soon. During the Dec AI We were active on Saturday from around 2000 until 0830 Sunday morning. There was lots of snow and rain all the time, but it was fun to find the so many stations QRV. We worked OE9XXI, LA8LF for initial #25, G3LTF, F1ANH #26, OZ6OL, DL4MUP #27, GW3XYW #28 and a new DXCC, W5LUA #29, VE6TA #30, G4CCH heard was, N2UO CWNR many times between 0615 and 0645, OK1UWA CWNR, JR4ZZS and IK3COJ. The station was operated by myself and Viljo (ES5PC).

**UR5LX:** Sergej ur5lx@kharkov.ukrtel.net is QRV on 1296 with a 3.2 m dish, 150 W PA and a FHX35 LNA. He is looking for skeds with stations having a 5-6 m dish and 400 W or more of power.

**VA7MM:** Marc ve7cmk@hotmail.com fills us in his group's EME efforts -- In the fall of 2002 myself and colleague Toby Haynes conceived 'Project Moonbounce'. We purchased used equipment, none of it working and restored it to a functioning 23 cm EME station. We made 11 contacts in the Nov leg of the ARRL EME contest. Our station is comprised of a 3 m dish f/D= 0.375, home made VE4MA feed, OZ9CR amplifier running at 400 W output, about 200 W at the feed, and a receive NF of about 0.4 dB. We are designing a new receive preamp to improve our NF and intend to have it deployed by early Jan. We intend to have our feed power increased to about 300 W by the summer. It has been an exciting project and the momentum has not let up. In Dec we worked F2TU, G4CCH and OE9XXI. We are interested in skeds and have been doing some experimenting with JT44 and JT65. We also intend to be QRV for the ARRL VHF Contest on 24/25 Jan.

**VE6TA:** Grant ve6ta@telusplanet.net writes – Activity was down considerably from the contest weekend but still very enjoyable here in Dec. I found the elevation drive had moved by 5 degs after some very strong winds. Also I have some extra attenuation in the receive line, so I had to add a bit more gain to the receive preamp to make signal levels comfortable in the shack. I worked the following stations on 1296 during the AW: K2UYH (559/559), OZ4MM (569/549), LA8LF (559/449) for initial #85, SK0UX (439/449) #86, G4CCH (559/549) and DL4MUP (O/O) #87. I had two skeds with UR5LX where we were both sending reports, but did not complete, and managed to oversleep my sked with JR4ZZS. I found conditions to be poorer than last month, but was very happy with the initials. I plan to be QRV on 23 cm again next month and will look for any stations that I may have missed.

**VA7MM's 3 m dish**

**VE7BBG:** Cor ve7bbg@shaw.ca has been experimenting with JT65 on 1296 – I made some small improvements on my end. I reduced the feedline loss on TX by another 0.5 dB and cured some intermittent instability in the preamp post amp combination at the feed. I now see 13.5 dB of sun noise with a flux of 78. I have been copying JT44 and JT65 signals on 2 m over the last few weeks. If freq stability is good enough on 1296, I would say JT65 shows its worth with signals from -20 and lower. I shall stay with JT44 on random for the time being and will look for random QSOs on 1296.044.

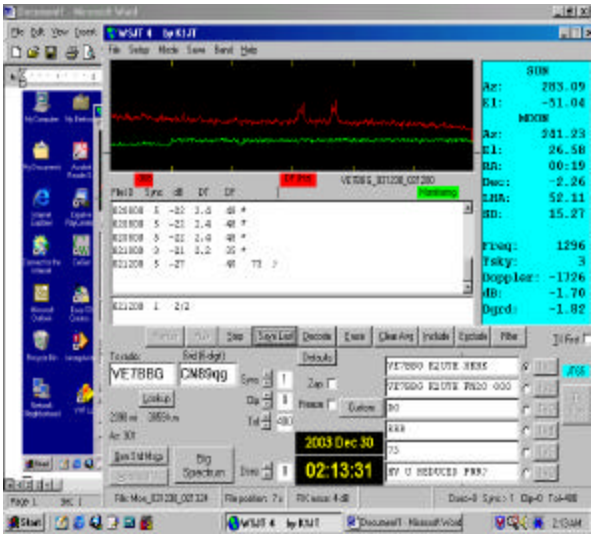
**W7QX:** Jerry w7qx@sedona.net reports that he is back on 1296. I was active during the contest, but was having transmitter problems until the very end when I did work K5GW and K5JL. I am trying to obtain a schematic for Siemens RWNH120 TWT power supply. I have a PS in need of repair and am trying to get on 10 GHz.

**YO4FRJ:** Adrian yo4frj@xnet.ro was QRV again on 70 cm (KN34aw) during the Dec AW, but is bothered by noise from his city and especially from a nearby TV station. Because of his noise problem, he operates above .080 and reports that 432.150 is one of the few frequencies clear enough for EME. He heard nil in skeds with K4EME and K2UYH, but did QSO PA3CSG (549/549).

**ZS6AXT:** Ivo zs6axt@global.co.za missed the Dec SW, but still managed some initials – With all the Christmas activities and family engagements, I missed the Dec activity weekend, but on 16 Dec I had a 23 cm sked with OM6AA that was a success with (O/O) reports for my initial #190 and country 36, and on 17 Dec I added OK1UWA on 23 cm. His signals peaked 559 for #191. This was also my QSO number 2,380 on 23 cm EME. Unfortunately after this contact, I had a very bad lightning strike. Much of my equipment (elevation readouts, transverter, etc.) was damaged or wiped out! Do not expect any EME activity from me for at least the next 2 months!

**K2UYH:** I had mixed results in Dec. During the AW I worked on 13 Dec on 1296 at 0526 VE6TA (559/559), 0550 WA6PY (559/549), 0610 OZ4MM (579/569), 1200 JR4ZZS (559/559) for initial #220 and 1233 JH1KRC (559/559), then switched to 432 at 1300 JH3QYM (O/O) on JT65 (–16 DB) for initial #671. This was my first JT65 QSO. I also copied 7M2PDT, who was only 1 kHz higher calling on another sked. The next day I had a partial on 432 at 0600 YO4FRJ (O/?) and worked at 0644 UA3PTW (559/559). I switched to 1296 at 0730 for a JT44 sked with VA7MM but heard nil from them and instead worked at 0735 VE7BBG (117/106). I believe this was my first truly random

JT44 QSO. I wend back to 432 to QSO'd at 0815 YU1EV (549/559) and try again at 0830 with YO4FRJ with similar results to my earlier sked. I copied Adrain FB, but he heard nothing from me. I also ran some experimental sked with the new JT65 mode. I tested in early Dec with DL3OCH using an early version of JT65. Although Bodo was able to decode my calls, I was never able to copy calls from him even though signals were peaking to –22 dB. At the end of Dec, I tested with VE7BBG and was able to complete my first JT65 QSO on 1296. I used a later improved version of JT65, but copy of calls was not as good as with JT44. The special coded reports worked very and were copiable a very low power, but unknown text did not decode or took longer to decode. Results on 432 with JT65 were more encouraging, so the problem may simply be due to the increased spectral spreading on 1296. K1JT is reported to be working on a special version of JT65 with a greater frequency shift for use on 1296.

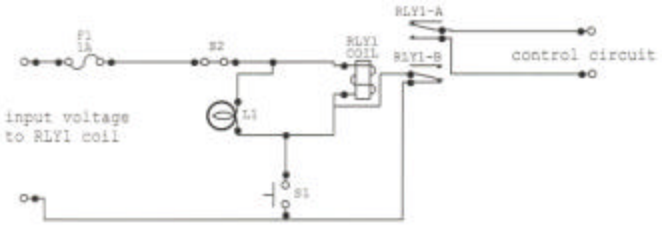



**VE7BBG's 73 on JT65 with 20 W to a 11' dish**

**NET/REFLECTOR NEWS BY G4RGK:** **JA6AHB** ja6ahb@nifty.com is QRV with JT65 on both 70 and 23 cm with his 7 m dish and is looking for skeds. **DL0SHF/DK7LJ** and friends have received signals from the ESA Mars Express using a 7.5 m precision dish. The JPL MARS Odyssey was also heard, a little bit weaker than the MARS EXPRESS. **DM2BHG** recommends to stop an IC746's cooling fans from causing frequency drift during JT44 operation that the crystal box be filled with cotton wool. **9H1BN** is almost ready on 23 cm with a 3 m dish and Septum feed. He still needs to work on his TX and move his preamp from his shack to the feed. **DL4MEA** (JN58ri) reports his 70 cm EME station is working fine after having problems in the second leg of the ARRL contest. His rig consists of 4 x 4 m long yagis with coax feed, GS35b PA (1 kW due to lack of drive), 0.4 dB NF LNA and FT847. **OK1DFC** ok1dfc@tesmail.cz has worked JW/SM2BYA, HB9Q and SM2CEW, and heard DL7APV, K1FO and JL1ZCG on 432 this year with his single yagi tropo antenna. He is interested in skeds. **DL1SUN** is QRV on moonset/rise using 2 x 9 wl yagis and 200 W. **DK3WG** worked RW3PX on 70 cm for initial #405 in Dec. **DF6NA** plans to build a new online TOPLIST for grid squares for 6 m to 24 GHz – see http://www.vhf-dx.net/top.shtml. **F2TU** has a new email address f2tu.om@guideo.fr.

**FOR SALE:** **G0RUZ** has a fully tested and working Eimac 8938 for sale. It is perfect for 2 kW out on 432. Email Conrad at conrad@g0ruz.net . **K7XQ** has for sale two new Menlo Industries 10 W 1.2 - 1.7 GHz bricks. They operate on +15 VDC and draw 6 Amps. They have sma connectors. **PE1LWT** is looking for information on using BVO70-8.5 yagis in a cross yagi array? He wants to build a pair of these to be QRV on 70 cm EME in the spring. **SM5BSZ** has received several e-mails with questions about how to find a supplier for ATF33143 and power PIN diodes in small quantities. If you need a few of these components see http://www.antennspecialisten.se/en/ham/components.html. **SM4SJY** sm4sjy@algonet.se is looking for Bird 43 slugs with the following specs: 2 GHz 25 W or 50 W and 144 MHz 250 W. **W7QX** is trying to obtain a schematic for Siemens RWNH120 TWT power supply – see Jerry's report. **W2DRZ** reports a product by JWM Engineering Group (9 Westchester Court, Trabuco Canyon, CA 92679 - telephone (949) 713-6367) for use on the microwave bands employing a PIC processor for control of LO frequency. The frequency can be change by a jumper or a switch. For further info see http://jwmeng.com, for 1296, 2304, etc LO see http://jwmeng.com/model1152.html and for 10 GHz use http://jwmeng.com/model5112.html.

**TECHNICAL:** K5JL sends information of the following Fault Protection Circuit -- Should you be in the transmit mode and the station power is interrupted or glitches, many bad things can happen. The most common being the quick switching of the pre-amp while still in the transmit mode. Usually this results in a loss of the device in the pre-amp. Bad things can also occur in the exciter to final amplifier chain. The following Protection Circuit will eliminate the bad things caused as a result of a power glitch. The circuit consists of a DPDT relay. Any coil voltage will work as long as it will operate the DPDT relay. When S2 is closed and the momentary push button switch is pressed, the relay coil is energized. It will stay energized until there is a power interruption. The control circuit or PTT line is run through the other set of relay contacts and is made when there is voltage on the relay coil. Upon an interruption the relay drops out opening the control circuit. The control circuit will remain open until




S1 is manually pushed to reset the relay.

**Fault Protection Circuit**

**TECHNICAL2:** **KK7KA** writes that those wanting accurate computer time from the internet for use with JT44/JT65 can, If running Win XP, set their clocks by double-clicking the clock on the taskbar, selecting the Internet time tab, and adjusting the settings. Unfortunately, this method normally synchronizes only once a week, which is probably too infrequent for JT65. This can be changed to once an hour with a registry setting - see http://www.tweakxp.com/display.aspx?id=133. For other OS Dimension 4 is a popular free utility - see http://www.thinkman.com/dimension4/. There are many other free utilities for time. See http://boulder.nist.gov/timefreq/ service/its.htm or search the Web.

**FINAL:** We are still trying to come up with a suitable date for a Microwave EME Contest. What do you think about have the contest during the AW on 10/11 July?

You might want to consider moon activity during the ARRL VHF Contest. There should be NA stations looking extra points via the Moon. Because of the southern dec, moon time will be pretty much limited to 1530 to 1830 on 25 Jan.

The 2004 EME Conference in New Jersey is now just 7 month away and the list of attendees is starting to grow. Please see **http://www.qsl.net/eme2004/** and let us know your plans to attend. We are also looking for presenters and papers for the conference proceedings.

Please keep the news, reports and technical material coming. I have to travel for business on the Jan AW, but I will try to be active before and after and to hear you off the moon then. 73 and HNY, Al – K2UYH

**OM6AA's Dish in Winter**