432 AND ABOVE EME NEWS
FEBUARY 2006 VOL 34 #2

EDITOR: AL KATZ, K2UYH; ENGINEERING DEPARTMENT, THE COLLEGE OF NEW JERSEY, PO BOX 7718 EWING, NJ 08628
TEL (W 609-584-8424) OR (H 609-443-3184), FAX (609-631-0177), E-MAIL a.katz@ieee.org
PROD/MAIL: BRIAN MULLANEY, KB2TIS/TOM KIRK, KA2VAD (609-584/8424), E-MAIL mullaney@mccc.edu/kirkt@lintech.com
NETNEWS EDITOR: G4RGK, DAVID DIBLEY, E-MAIL g4rgk@btinternet.com (based on K1RQG's Netnotes and Reflector News)
EME NETS: 14.345, 10 AM ET SATURDAY AND SUNDAY (AFTER VARO NET ENDS ON SUNDAY)
NET CONTROL AND SKEDS CORDINATOR: JOE, K1RQG, TEL (207-469-3492), E-MAIL k1rqg@aol.com
EME DIRECTORY: http://www.dl4eby.de/, DL4EBY/DK0TU, KLAUS TIEDEMANN, TEL (49-30-7955467), E-MAIL: tklaus@snafu.de
NL EMAIL DISTRIBUTION and EMAIL LIST CORD: WARREN, W2WD wbutler@comcast.net [TXT OR PDF OR "ON WEB" NOTICE]
EME STANDINGS: DAN GAUTSCHI, HB9CRQ/HB9Q E-MAIL hb9crq@hb9q.ch OR SEE HIS WEBPAGE AT www.hb9q.ch.
THE NL WEB VERSION IS PRODUCED BY W6/PA0ZN AND AVAILABLE AT http://www.nitehawk.com/rasmit/em70cm.html.

CONDITIONS: Considering Jan was an in between month (between the ARRL EME Contest and the DUBUS/REF World Wide Contest Starting in Feb), Feb activity was pretty good. In fact, 23 cm activity and conditions were excellent. Unfortunately 70 cm conditions were terrible. Many reports indicated very poor copy. I found 432 copy some of the worst I have experienced, but there were still stations active off the moon. Feb has something for just about everyone. It will be a very busy month with lots of attractions: a) the AW is 4/5 Feb, b) the 1296 EME SSB Contest starting 4 Feb at 0800 and ending at 0800 5 Feb – see rules in last month's NL, and c) the EWW EME Contest for Digital Modes covering 432 & 1296 on 11/12 Feb - see rules in last month's NL. In addition there is talk of a 70 cm Cumulative CW EME – see end of this NL. Congratulations are in order to 23 cm EMEer, JH1KRC, who demonstrated that EME can be achieved on 15 m at the other end of the spectrum!

3X0Y: Lance (W7GJ) w7gj@accessoutwest.com sends the following Peter 1 (EC41qd) moonbounce dxpedition update – By the time you read this the Peter 1 team will be on their way. The 70 cm station made it onboard ship and is also on its way. A number of 70 cm CW and JT skeds have been arranged. The first opportunity for EME work will be on 13 Feb and last with prim conditions to 19 Feb (approximately 84 hours of moon time). There will be some additional time on 21/22 and even into the 23 Feb. Detailed information about the dxpedition can always be viewed at: http://www.peterone.com. Moon position information, frequencies and sequences of operation, as well as other EME updates and current schedule information are available at: http://www.bigskyspaces.com/w7gj/3Y0X.xls. 3Y0X will always TX 1st on JT65B or CW (skeds) on 432.105. The sked station should TX 2nd on 432.105.8. Random calls should be during the 2nd period on 432.106-.107. Please be aware that moonrise and moonset may actually be between 1 and 2 degrees below the horizon, especially when the moon is near the horizon to the north and they have a clear shot over the ocean. Therefore, the moon times may be slightly greater than shown on the above spreadsheet. You will notice from your review of the printout, that the lowest elevations are primarily at the beginning of the period, which is also the quietest. Please note that there are lots of good moonset windows with Europe! North American stations have very limited horizon windows with them. The 70 cm station is 4 x 18 el yagis (full az-el) and 110 W PA. There are several complications that may adversely affect the EME operations: 1) Uncertain ground gain on the thick ice shelf, 2) Nearby QRO HF stations that could affect receive sensitivity of the EME stations, 3) High winds and stormy WX common to the region, 4) Equipment problems, 5) Availability of skilled EME operators, 6) Unforeseen changes to the trip transportation itinerary, including landing and departure dates, and 7) Limited communication with the operators on the island. In view of all these considerations, schedules are not guaranteed. Stations are encouraged to also call 3Y0X on random at any time, on the designated frequencies. Random calls should be made only when 3Y0X is being copied. I must post all the skeds by 27 Jan. This dxpedition represents a very unique opportunity to utilize EME to provide otherwise impossible contacts on VHF/UHF bands, and we are greatly indebted to K4UEE, K0IR, W0RUN and the entire 3Y0X team for their generosity in accommodating this historic undertaking. [Also see W0RUN's report later in this NL].

AF6O: Jim jim@forsyth.net is one of the new stations on 70 cm that primarily operates JT65. He has 4 x 9 wl yagis and 1200 W and is in DM14ej. He certainly has enough station to make CW contacts, but feels more comfortable with JT for now. He has so far worked N9AB, W7AMI, KE7NR, HB9Q and K2UYH – all on JT. Jim wants skeds and can be contacted via e-mail.

DL3OCH: Bodo dl3och@gmx.de had a dxpedition surprise for the 1296 gang -- I have planned a new dxpedition. I will go to 9A, T9, YU, ZA and Z3 from 1 to 16 April. I don't know the exact route yet because I don't have detailed maps, but there are plenty of new grids to be activated. As far as I know, there was never a 23 cm EME contact from T9, YU, ZA and Z3. [Before the breakup of Yugoslavia there was some YU activity. I don't know the DXCC rules, but I suspect it will not count as a new country. I am sure the are many new people who have not worked YU on 1296]. I did some research on how to get a license in ZA and Z3. It shouldn't be a problem, but you never know. I will plan to do some JT65 EME from DL in March, as soon as it gets a little bit warmer. [There have been some questions on Bodo's yagi. He is using a yagi made by DJ9YW. It is similar to a DL6WU yagi design, but modified by Heinrich for a little more gain. His yagi has 59 elements, 21.8 dBi gain and is 5 m long].

DL9KR: Jan <bruinier@t-online.de> was QRV on 432 in Jan. He heard FR5DN (569) at times and worked RW3PX and VK7MO easily on CW for an initial. Jan has worked at least 20+ single yagi 100 W stations.

F1EHN: JJ jjm_f1ehn@wanadoo.fr that he has a web page dedicated to the month's EME data – I update it every month and there is a link to NL web site. It is at http://www.f1ehn.org then click on the "EME data" page.

F6CGJ: Jean [no e-mail] was on a few hours in the ARRL contest in Nov and made 33 QSOs and 3 initials. He could not be on for the 2nd weekend. They had a big storm, but no damage to the dish, but hopefully will be QRV for the EWW EME Contests.

AF6O's array with 4 x 9 wl yagi for 432 EME near center

G3LTF: Peter g3ltf@btinternet.com sends a catch up report – First 1296, on 20 Nov I worked LX1DB on SSB and SM3LBN and on 10 Dec I worked JA4JLB for initial #228 and JA1BGU #229. These were skeds as I missed them in the contest and there doesn't seem to be much random activity from JA these days. On 11 Dec I worked ZS6AXT, IW2FZR, WW2R #230, VE6TA and then on SSB F2TU, W7BBM and G4CCH - all three were excellent copy. On 18 Dec I was on looking for G4DDK but we didn't quite make a full QSO. I did have a nice CW chat with IK2MMB. On 19 Dec I worked ES5PC and VK4AFL (549/549). My window to Trevor is quite obstructed by trees and our house so the ground noise is high, but despite this he was excellent copy and clearly has the system working very well. On 6 Jan I had a really good solid QSO with G4DDK #231. For a 2.3 m dish and 200 W Sam is good copy - especially at perigee. The next day, on 7 Dec I worked ZS6AXT, F2TU, LA9NEA (now an excellent signal with his 5 m dish), IK3COJ, SM2CEW, ES5PC, K4QI, LX1DB on SSB and K5PJR. On 8 Jan I worked VK4AFL, JH1KRC (569), OZ4MM and SM3LBN (559/559) - now much louder, OK1DFC, ES6RQ, IW2FZR, VE6TA, K5SO, N2UO and OZ6OL. On 11 Jan I added G3LQR and I finally made it with GM4ONN #232 - but with a very weak signals. I heard him much better at apogee a few days before. On 14 Jan at Moonrise I worked VK4AFL again (549/559) and made some good recordings of his signal. Most of my

activity has been on 1296, but on 8 Jan 8 I did get on 432 and worked JA6AHB and FR5DN and CWNR SV1BTR,and DJ8VK. Sadly 432.000 to .040, which was clear here for 10 years now has a number of loud spurious computer clock signals from our new neighbors, which makes the band somewhat less attractive, but I will continue. I think that 432 suffers more than 1296 from the fact that perigee and high declinations don't coincide any more, but its very interesting how much activity the new 2 m activity days have generated. Take a look at the results on http://web.telia.com/~u37031777/. I think we have to do the same for 432. I continue to work on a new PA for 13 cm and a complete a 9 cm T/R system as well as all the normal upgrades and maintenance to the dish system.

G4CCH: Howard's howard@g4cch.com summary of Jan AW activity on 23 cm CW/SSB – I worked on 5 Jan G4DDK (529/419), on 6 Jan SM2CEW (569/569), K4QI (569/569), VE6TA (569/569), K5PJR (539/549) and K5SO (579/579), on 7 Jan OZ4MM (589/559), G3LTF (569/569), SM3LBN (569/539), LA9NEA (569/579) - nice sigs with his new 5.3 m dish, ZS6AXT (569/579), ES5PC (559/569) and IK3COJ (559/559), and heard were K2UYH (569), G4DDK (539), K5PJR (549), VE6TA (569), LX1DB (58) on SSB, SM3AKW (559), F2TU (55) on SSB and IK2MMB (559), and on 8 Jan W7BBM (56/56) on SSB and K4QI on SSB, DL0SHF (59/57-8) on SSB, but zapped a tube in my 6 tube PA on the final over. It took a while to find and replace tube and also discovered that all of my new tubes had the wrong thread and would not fit the existing heat exchangers (water cooling). By 1525 it was all working again with more power and better efficiency. I then worked IW2FZR (569/569), JH1KRC (559/559), F5HRY (559/529), F2TU (55/55) on SSB, K5JL (579/579), VE6TA (569/569), IK2MMB (569/559) and SM3AKW (569/569). The system is 5.4 m HB dish, W2IMU feed, F1EHN/VE1ALQ tracking, 650 W PA and 0.31 dB NF LNA.

G4DDK: Sam jewell@btinternet.com is QRV on 23 cm and is up to initial #8 – I am pleasantly surprised at how easy copy is with the bigger stations, although a fair number of medium size stations are regularly heard and even smaller stations such as GM0OOM (working K5JL) have been detected on Spectran. My own echoes are now 90% seen on Spectran and still occasionally heard, albeit briefly, on libration peaks. I think that the 'bare' OK1DFC septum polarizer feed is well matched to the 0.4 f/d of my dish, but I now get the feeling that there may be a dB or so of receive sensitivity to be won by tailoring the feed illumination better. However, the TX seems to work so well I am nervous of making too big a change to the feed arrangement less I lose TX performance. The question is should I keep the feed optimized for TX so that more stations can hear me, or do I change the feed (add cavity ring) to improve the RX side for me with the possible loss of TX capability? I think this may be a difficult one to answer. I don't wish to increase TX power at this stage. Stations worked so far are G3LTF (519/419), G4CCH (529/419), K2UYH (529/449), OE9ERC (569/449), F2TU (539/419), DL0SHF (56/519), W5LUA (O/O) and K5GW (579/559). K5JL is a got-away several times! OZ6OL was CWNR (529) and G3LQR heard frequently (319). Thanks to everyone for their patience with my small signal. My system is 200 W from the DB6NT 13200b AMP , 2.3 m (kti s7.5) TVRO dish with an OK1DFC feed without choke/cavity ring and WD5AGO preamp at 0.3 dB NF. I have a very limited window (restricted to GHA 305 to 28) and move the dish around to get a clear shot at the moon. I am interested in skeds and plan to be active during the AWs.

GM0ONN: Iain <iain.gm0onn@virgin.net > is now up to initial #7 on 1296 -- Stations I worked were G4CCH #1, HB9BBD #2, OE9ERC #3, F2TU #4, DL0SHF #5 CW/SSB QSO, G3LTF #6 and K5GW #7. I made no new records, but had good fun being DX! I shall continue to be active throughout 2006, but may disappear on business over Aug/Sep for a 2 month period. I also plan to make some Station enhancements over the next 12 months.

GW3XYW: Stuart gw3xyw@thersgb.net is available via e-mail (despite his spam problems) and reports on his EME activity and plans – My 2006 EME Activity so far has been on 2 m and 70 cm using JT65b. On 432 I worked on 6 Jan N9AB (O/-6), AF6O (O/-13) and EA3DXU (O/-16) all with JT65b. Since I operate 70 cm on the dish and 2 m on 4 yagis, it is possible to run both bands in one session, although the change over is far from fast and window capabilities are different. My intention is to st ay on 2 m and 70 cm for a while. I will looking for JT65b and CW contacts on 70 cm and am available for skeds.

GW4DGU: Chris chris@chris-bartram.co.uk reports on his 10 GHz results -- As work took up most of my time in the second half of last year, and the PSU for my 40 W tube is still not completely finished, I decided to put the 10 W SSPA back on my little 2.4 m dish. I was fed-up with being a 10 GHz EME SWL! I had a few teething problems, which included my tracking going awry and my good antenna relay becoming lossy on RX. I repaired the latter with a rather less good relay. My moon noise fell from its usual 1.3 dB to 0.6 dB! Despite this problem I actually made a QSO! I ran tests with PA3CSG who was easy copy and was able to detect a weak, but unreadable signal, presumably from me, on the right frequency. G4NNS and I detected each other, but there wasn't enough signals to exchange any information. That stacks-up with a previous test. When I had the 40 W TWTA running and a good RX. Brian's 9 W was just about copiable and Brian was able to copy me. IQ4DF sent me (O) reports during our sked, but there was a mix-up, which caused it to fail. I copied nothing from W5LUA and assume that he wasn't on. LX1DB was a good signal and after a test, which failed because of a mix-up with frequencies, we had a nice (529/449) QSO. I'll keep the 10 W system on the dish for the next month or two. I'm happy to receive sked requests. My next step is to finish the PSU for the 40 W TWTA. I can update the system with a few hours work - all the heavy-duty metalwork is complete. In the future, I intend to move to separate feeds for TX and RX. With a small dish, that makes an awful lot of sense. I've had a few discussions with mechanical engineer friends, and have sorted-out the mechanics in my head. I now need to sit down and draw them. The new feed assembly will be designed from the start to accommodate both linear and circular polarization. I also have sitting on a shelf, a good 200 W Varian 8-12 GHz TWT. Before going down the long and tortuous road of designing and building my own PSU, I wonder if anyone has something suitable they'd like to sell me? The voltages required are –9 kV at 20 mA for the helix, 4.5 kV at 400 mA referenced to the helix, for the collector, and 6.3V at 5A for the heater. In 2006, could we all make a resolution to return to the development of EME, rather than arguing incessantly and irrelevantly about modulation schemes?

IK2MMB: Sergio ik2mmb@email.it reports on his Jan 23 cm AW operation -- I worked a dozen of CW stations during the AW. I heard and CWNR K5PJR. He was weak, but very workable. I had problems with some tropo-locals distracting me at times. Other gotaways were G4CCH, SM2CEW and LX1DB.

IW2FZR: Dario dario296@virgilio.it started off the year well – I worked on 1296 on 6 Jan SM2CEW, IK3COJ, IK2MMB, LA9NEA, ZS6AXT, K5JL, SM3LBN, K2UYH, VE6TA, F2TU, ES5PC and K4QI, and on 8 Jan OZ4MM, JH1KRC, G3LTF, G4CCH and OK1DFC - all on 23 cm CW mode. My web page can be found at http://iw2fzr.no-ip.com/.

JH1KRC: Mike jh1krc@syd.odn.ne.jp reports on his Jan EME – 8 Jan was a special date to me. The EU window was enjoyable with many stations worked including OK1DFC for initial #53, OZ4MM, ZS6AXT, G3LTF, ES5PC #54, IW2FZR, LA9NEA#55, SM3LBN#56 and G4CCH. Heard was OE9ERC. When the moon was in shadow of my trees, I tried an echo tests on 15 m and easily copy Q5 signal both on CW and SSB at an el of 10.8 degs and AZ of 283.7 deg at around 1600 (1 am local time). I used a IC-756PRO2 transceiver with a KW amplifier and CL-15DX 6 el monoband yagi (1-WL boom) made by Creative Design, which was mounted at 24 m. It's designed radiation pattern has a gain of 18 dBi at 10 deg. There was no noise on the band - very quiet. The stable echoes were heard continually for ten minutes or so until the moon was at an el of 8 deg and close to the mountains. There was no fast QSB. The next day I tried in the afternoon without success - the local noise was S5 at the time, but the following weekend I was again able to copy echoes at el of 12.5 deg. Echoes were continuous, but unstable (up and down in seconds) and quite audible. I have wav. Files at http://eme.dokidoki.ne.jp/sound/jh1krc/index.html I guess the path loss figures for the low band EME need to be reconsidered. [The path loss decreases for fixed gain antennas because the aperture becomes larger. The big limitation is cosmic noise and atmospheric absorption/reflection].

K4QI: Russ' K4QI@aol.com Jan EME report follows – I was on 1296 and QSO'd on 6 Jan IK2MMB, K5JL, LX1DB on SSB, G4CCH and VE6TA, and on 7 Jan LA9NEA, ES5PC, K5PJR, G3LTF, IW2FZR, WW2R, VE6TA, OZ6OL, G4CCH on SSB, W7BBM on SSB and K5GW on SSB. Condx seemed pretty good both days. I noticed much stronger sigs from VE6TA and G3LTF that what I have heard in the past.

K5PJR: Tony k5pjr@centurytel.net reports on Jan 23 cm operation -- I worked about 8 stations in past week. QSO'd on 7 Jan were K2UYH, K5JL, VE6TA, K4QI and G3LTF.

K7XC: Tim k7xc@charter.net writes in response to requests for EME skeds – I realize NV is very rare on any band via EME right now. Currently, I am in a rented home with a temporary tower supporting the long boom terrestrial antennas and some wires for HF. I do fully intend to become active on EME again after I purchase a home of my own. Planned are 4 bay arrays on 2, 222, and 432 at KW power levels. I will inform the EME community once I am again "fully QRV". I can run moonrise and moonset with my long terrestrial yagis and 100 W out on each band, but my current goal is to actively chase down the remaining 9 grids needed to finish my 222 VUCC... Any skeds with new 222 MHz grids, whether its via AU, MS, Tropo, or EME are more than welcome and highly encouraged. Only after that is done will I entertain skeds on other bands, Moonrise/set EME or otherwise.

K7XQ: Jeff k7xq@secure.elite.net reports a quick 1296 CW QSO with VE6TA during the Jan AW. Grant was an initial and had a great signal. Afterwards I called CQ, but nobody else was heard.

KL6M: Mike kl6m@qsl.net reports in Jan that on 432 he caught N4PZ (549/559) and tried with WB7QBS with no luck. He says activity in general seemed very low. Mike is still working on his 1296 amp.

LA9NEA: Viggo la9nea@online.no reports on his Jan AW activity – I was QRV and worked on 6 Jan at 1801 SM2CEW (559/569), 1806 IK2MMB (559/559), 1813 IK2FZR (559/569), 1823 SM3LBN (549/539) and 1916 K5JL (569/559), and on 7 Jan at 1516 G3LTF (559/559), 1525 F2TU (579/569), 1543 SM3LBN (549/O), 1604 G4CCH (579/569), 1638 ZS6AXT (559/559), 1654 IK3COJ (549/539), 2144 ES5PC (559/559), 2205 VE6TA (559/559), 2213 K4QI (549/549) for an initial (#), 2228 W9IIX (549/559) (#), 2235 LX1DB (579/569) (#) and QRT at 2300.

N1BUG: Paul paul.kelley.n1bug@gmail.com in Maine (FN55mf) reports on his 70 cm plans – I noticed some are asking about active stations on 432, so maybe you can put in the newsletter that I should be QRV soon. My previous brief 432 EME operation with a single 22 el FO yagi resulted in 23 CW initials. I have been wanting to get something a little bigger up for several years, but kept running into delays. I finally started construction of an 8 x 21 el yagi array in late Dec and it is progressing nicely despite winter weather. I plan to have this up sometime in Feb or early March at the latest. Power will be at least 500 W. I will have full elevation capability, but some minor window limitations at rise and set due to trees and buildings getting in the way.

N2UO: Marc (lu6dw@yahoo.com) send his Jan AW report – On 8 Jan I worked on 23 cm K5GW, K5JL, VE6TA, G3LTF and K5SO - all on CW, and DL0SHF on SSB with excellent signals. I even recorded his transmissions since it was outstanding. I played the recording to some people who could not believe such a nice SSB signal could be received with a 10' dish - (I had to tell them also what was used on the other side, HI). I have finished the construction of my entirely homebrew multiband software defined radio. I even etched my own double-sided PCB boards. I based my design on the series of articles that appeared in QEX by K5SDR, particularly with regards to the synthesizer interface, so my radio is compatible with the SDR100 software, but I can also use my own software developments. I plan to start using this radio for EME very soon, replacing my homebrew IF transceiver.

OK1DFC: Zdenek ok1dfc@seznam.cz Jan activity report – I was only QRV on 1296 this AW for a relatively short time. I did have nice QSOs with OZ4MM (579/569), JH1KRC (559/449) for initial #146, G3LTF (559/559) and IW2FZR (559/569). At 1615 I recognized a problem with my LNA – possibly in the first stage. Thanks to poor weather, I could not make repair immediately. I hope to be QRV again next AW. On my webpage www.ok1dfc.com I will put some pictures of my snow covered garden.

RW1AW: Alex rw1aw@appello.de reports that he was QRV on 23 cm on 17 Jan – After an echo testing, I had a very nice QSO at 0627 with DL0SHF (operated by Carsten) (599/569) on CW and (59/54) on SSB. My rig is a 6 m dish, DB6NT SSPA at 580 W (450W in feed), W2IMU circular long feed and 0.18 dB NF LNA.

VE6TA: Grant ve6ta@telusplanet.net writes on his end Dec and Jan EME activity – Back on 20 Dec on 13 cm I worked WD5AGO with great signals. I then spent some time placing the 23 cm feed back on the dish. I find with the 3 arm supports that the weight of the feed causes the tripod to move with gravity. I had to modify the feed support temporarily until warmer weather returns. On the first pass, I worked on 23 cm on 6 Jan G4CCH (569/569), K4QI (569/569) and K5SO (579/579), 7 Jan ZS6AXT (559/559), K2UYH (579/569), SM3AKW (569/569), K5JL (589/579), IW2FZR (559/559), SM3LBN (559/539) for an initial (#), K5PJR O/O) (#), LA9NEA (559/559), IK2MMB (569/559), ES5PC (559/559), LX1DB (589/579), LX1DB (56/56) on SSB - tremendous signal, also heard on SSB was G3LTF (55), K4QI (569/579), WW2R (439/559) - much better than our last QSO, and on 8 Jan G4CCH (569/569), K5SO (579/579), K5JL (589/579), G3LTF (569/569), N2UO (449/559) and OZ6OL (559/569). Activity appeared to be quite good from Europe, average to poor from NA, and non-existent from the pacific. Conditions seemed OK as the 10' dish guys were easy copy. All of the chatter about EME expeditions has me wondering, if we need to do more promoting dxpeditions on the UHF and microwave bands. It would seem that it would be rather ideal as compared to the vhf bands due to the small size of the equipment. Perhaps I am wrong not having faced the logistics of organizing one myself. With the recent advances in SSPA technology of late, it seems that carrying around a bulky tube amp and supplies would not be needed these days for good solid CW or digital stations to hear their echoes and work many others. Certainly a 12' stressed dish could be carried in a golf bag and 4 yagis for 432 can't be much more of a problem. I picture someone sitting on a hotel roof-top in one of the Caribbean islands with an scantily clad assistant helping them point the arrays and serving drinks... Shhh don't tell my wife HI. Maybe if CW is still around when I get closer to retirement, I can make this happen myself without the assistant of course!

VK3HZ: Dave dwsmith@bigpond.net.au is a relatively new station to 432 EME using his tropo system and JT65. He has an FT847 driving a GS35b into a 21 el DL6WU at 12 m and on the RX side an KA0RYT preamp, but still at the shack end of the coax for the moment. He is interested in skeds and should be easily workable by the bigger stations.

VK7MO: Rex rmoncur@bigpond.net.au is now set up for EME for both 23 and 70 cm from his home and is up to initial #5 on 432 -- I am running 120 W from a solid state HL-250U linear, to a 35 el yagi from my balcony. Feedline losses are very small with only two m of LMR400. The linear amp has to walk around with the back of the antenna on a TV trolley. The preamp sits right on the dipole. I use an level from a hardware store at the center of the antenna to keep track of elevation. Azimuth is manual and achieved by loosening a clamp. El is achieved by operating a TV actuator to make the level read right. The actual station is at the back of the house with 30 m of coax between. So I have to walk back and forwards through the house to adjust the antenna between each over. The rig is an IC-910-H, which is frequency locked to GPS.

VK7MO's 35 el yagi and balcony location

W0RUN: Gordon gordon@alpharadioproducts.com writes on the 3X0Y Dxpedition -- I love ops and get 90% of my kicks out of seeing a station well used by anyone. I hope I can spread the "EME bug" among some of the other people on the dxpedition, so we can make as much use of the moon time as possible. I am still definitely a novice and appreciate how supportive the community is toward those who are trying to come up the learning curve. My EME contacts on each of the 3 bands make me feel that I have already accomplished something significant. I think it would be a real "kick" if we can make Peter 1 QSOs on 3 new bands!

W5LUA: Al al_ward@agilent.com in Jan worked GW4DGU on 10 GHz, but reports no joy on 47 GHz in tests with AD6FP. On 1296 he was active during the post AW and QSO'd W9IIX, VE6TA, K5JL and G4DDK. He reports more than 1 kW out of his PA.

W7IUV: Larry's larry@w7iuv.com main interest is 2 m EME, but is willing to take skeds on 70 cm -- I am not planning on making a career out of 432 EME, but I do have an interest in seeing just what I can do with my minimal antenna. So far I've worked HB9Q twice and N9AB once, all with 50 W. The antenna is an FO-33 and I have a good preamp in the shack. I seem to have good ground gain at moonrise. In a few days or so, I should have 250 W and will be looking for JT65 skeds. CW is a problem with my Kenwood TS2000 right now, but not impossible. I thus prefer JT skeds. BTW my grid is wrong in the JT CALL3.TXT file. I tried for a year to get it fixed without success. My correct grid is DN07dg in Washington State.

WD5AGO: Tommy's wd5ago@hotmail.com 13 cm EME report -- Due to many factors, a small under-the-radar dish in the backyard for 13 cm was at the top of my to do list. This is the second time I've tried 13 cm. This time I have some power! Initially several attempts were made to work OE9ERC and W5LUA, which failed. I was not happy with there signals, but my own echoes were 1 dB above noise. It is was not till the ARRL EME Contest that I discovered stations were being hear on RH, on LH and on linear polarization. Obviously some thing was wrong with my feed. This lead to a whole new test procedure to tune up the feed horns and get correct RH/LH pol. I found the feed was more LH than RH on RX. On some pol in between, I worked on 24 Sept OZ4MM for initial #1, OH2DG #2, F2TU #3 and ES5PC #4. The next night, I ran TX-Hor, RX-Vert and easily worked OE9ERC #5 and W5LUA #6. I CWNR LX1DB for 6x6 in the contest. During the next 2 months were built several different horn designs and choke arrangements. We have tested all of them and found two that had the BW and efficiency that worked best for our dish - more on the designs later. Of

course we fixed our Polarization problem with all the feeds and they are 1.5 dB circular or better. On 12/13 Dec, I tested the feeds in the dish and made QSOs with W5LUA (539/549) and (33) on SSB (feed #1), and on 18 Dec G3LTF (O/339) #7, WA6PY (339/449) #8 (feed #2), 20 Dec VE6TA (339/339) #9 (feed #3), and 13 Jan K9KFR #10. Echo's were 1 to 2 dB above noise. The station at present is an SSPA (180 W at the feed), 0.36 dB NF, 30 dB gain HB LNA, 2 ring scalar septum feed, and 2.4 m 0.375 f/d mesh dish. My sun noise is 10 dB @ 96 SFU, 6.2 dB CG/50 ohms. [Cold sky to 50 ohms is near meaningless]. We are going to add a 4" mesh rim around dish to make it 0.34 f/d to raise the CS/G during break. Needless to say, we are having a great time on 13 cm.

WW2R: David robinda@nortel.com made improvements to his 1296 system in Jan – I replaced the LDF4 hardline with LDF5. The power at the feed is now 140 W. My main loss now is in the FSJ4 on the dish, which I will replace soon. On 6 Jan, I wasted 2 hours trying to recalibrate camera pointing. During the AW on 7 Jan I worked K4QI for initial #10, VE6TA, OZ6OL #11 and OZ4MM #12, and heard LX1DB rag chewing on SSB as well as G4CCH, IW2FZR and G3LTF. On 8 Jan I had echoes audible in 2 kHz BW, but after the EU window ended no one to work! As there is no Echo software in WSJT590, tried W7PUA's EME-2 software on the DSP10, which said my echoes averaged 1.1 dB S+N/N. My dish and mount are currently separated, while I work to make it track the moon better. I should be back on for the Feb AW. I have a Spectrian Amp now converted for 2304 and producing 200 W. 13 cm will be the next band I will be QRV for on EME. You can find a write up on my EME setup at http://users3.ev1.net/~g4fre/1296eme.htm.

YO2IS: Szigy yo2is@yo3kxl.ampr.org sends his EME report for 2005 -- I was glad to take part in the ARRL EME Contest in 2005. It was my 16th participation in a row. The station is the same and again performed quite well, despite its age and lack of use! The conditions and participation in the second leg were superior compared with the first. The top challenge was a random QSO with FR5DN, who was producing an excellent EME signal. Phil also gave us a 'new one' on 6 m some years ago... My XYL says such omnipresent hams are the 'total radio amateurs' - she is right! I called him again for a dupe on Sunday. He got me on my first attempt. It was a pity that at the low declination there was still leaves on the trees, as they limit my EME window. I try to ignore the urban QRM (PC birdies always on top of the EME signals and operate at antenna positions so as to avoid the worst directions. I am also down on the TX side. My old K2RIW is now a 'overrun workhorse'; some more effective PA is needed. My contest results were for the first leg: OH2PO, DL7APV, OZ4MM, HB9Q (569) - huge signal, my XYL (YO2DM) QSO'd them also, and G3LTF. As usual a lot of CWNRs were K1FO, OK1CA, N9AB, DK3WG, S53RM and JL1ZCG (559). Heard were EA3DXU, DJ6MB and G4RGK. In the second leg, I started with the big surprise, FR5DN. He was (429) on .013 calling CQ! Luckily there were no pileups, so after several calls I got a random 'new one', initial #163 and DXCC 45. Next was G4RGK, OE5EYM and DL9KR (579). On Sunday I added DF3RU, UT3LL #164, SV1BTR - very solid signal, then FR5DN (dupe), and finally SM2CEW. CWNR were DJ6MB, SP6JLW, K4EME and SM4IVE - he was my 1st EME on 70 cm back in 7 Sept 1990, DK3WG, SM3AKW and RW1AW. Also heard were VK3UM, N9AB, YU1EV and via tropo (529) DL0GER. I wonder why some of the veterans could not hear me. Not even a single QRZ. There were also very few stateside stations. I am hoping to get on 23 cm EME, but still have some work to do. I have no provisions for digital modes yet. I still like to decode weak signals by myself – it is a real challenge, the 'salt and pepper' of the EME. Why should the skipper get off his yacht or the ham take off his headphones? I desire skeds and can be reached by e-mail.

ZS6AXT: Ivo zs6axt@telkomsa.net reports – Since Christmas we have had very stormy weather - over 100 mm of rain in 24 hours! Thus everything is soaked with water. This is probable the reason that I had some instability in my preamp during the Jan AW on Saturday. Activity was quite low. I expected better, but I suspect the weather up north was not very friendly either. On 7 Jan I worked on 23 cm G3LTF, IK3COJ, F2TU, LA9NEA, G4CCH, HB9BBD, K5JL, IW2FZR, K2UYH, SM3AKW, VE6TA and ES5PC. This last QSO was with heavy QRM from a strong station, which decided to call on our frequency! CWNR was SM3LNB many times - it seemed like he had a bad preamp on his side. On Sunday I worked JH1KRC, OZ4MM, ES6RO, F2TU, SM2CEW, K5GW and K5SO. After that I gave up as the strong winds were unbearable. Also heard were OK1DFC and F1ANH. I was hoping for few new initials, but no luck. Amazingly I was getting very good reports, even with my slightly damaged horn. I guess that I am well over 1 dB down on RX and TX. I made very little progress on my 3 cm EME dish over the Christmas holidays. My backache from before Christmas is now gone. I hope to continue now. The CP horn for 3 cm is close to finished.

K2UYH: Despite a week of business travel, I was reasonably active in Jan and very please with 6 initials on 70 cm including one on random CW and one on 1296. Who says there was no activity on 432 in Jan. I started at the end of Dec with a 70 cm JT65B initial on the 28th at 1500 with AF6O (-22/O) for #710*. The following week I QSO'd on 432 on 6 Jan at 0200 VK7MO (-21/-19) on JT65C #711* and 0230 VK3HZ (O/O) – Dave tail ended for #712*, and on 7 Jan 0321 VK7MO (-22/-17) and 0348 AF6O (-14/-18), both on random JT65C. On 8 Jan, I switched to 1296 to work at 1930 G4DDK (449/549) for initial #257*, 2016 ZS6AXT (559/579), 2028 IK3COJ (569/569), 2040 ES5PC (569/579), 2048 IW2FZR (559/559), 2058 IK2MMB (579/579), 2106 VE6TA (569/579), 2115 SM3AKW (569/579), 2120 SM3LBN (559/559), 2129 called by W9IIX and 2130 K5PJR (559/559) – all on CW. I then went back to 432 and QSO'd (on 8 Jan) at 2148 SM3BYA (559/459) on CW and 2200 OM3WBC (-23/O) on JT65C for #713*, and on 9 Jan at 0350 partial VK4CDI (?/O) on JT65C, 0420 VK7MO (-22/-19) on random JT65C, 1915 W7IUV (O/O) JT65C on sked for #714*, 2035 DL7UAE (-14/O) on random JT65C, 2138 RW3PX (459/O) on CW – libration was very poor and the polarization was 90 degs between TX and RX and 2205 I1NDA (449/449) #715* - nice surprise on CW.

NETNEWS BY G4RGK: **VE6JW** is working on 10 GHz EME. **F5VHX** still is not QRV again on 23 cm. **W4OP** has 160 W out individually from two 23 cm PAs and is working on hybrids. He copied K5JL, W9IIX, W5LUA, VE6TA and K9SLQ in Jan. **WA4NJP's** has bad news. Ray's 36' dish came down and was severely damaged in an ice storm. He is not sure it can be repaired, but will be back, it just may take some time. **HB9BBD** worked on 1296 in Jan VK4AFL (579), ZS6AXT (589), ES5PC (579) and W9IIX (539) - conditions seemed to be good. **SV1BTR** worked KL7HFQ on 70 cm in Jan for an initial. He found some very poor 70 cm conditions – very difficult copy during the AW. **K9KFR** is QRV on 13 cm again with 400 W out. **W2DRZ** was not on the moon in Jan due to snow in his dish. **N8CQ** is 450 W out on 23 cm from each of two GS-15B PAs. **N8CQ** has 450 W out of each of two GS-15B PAs. **K7LNP** is making progress on his dish mount. **WB7QBS** is QRV on 70 cm EME, but had nil results in a sked with KL6M. **N9AB** also reports nil heard from WB7QBS. **WJ7L** in Utah is setting up for 1296 with a 3 m dish. Dale's plan is to have 400-500 W at the feed in 4 to 5 months. **K5JL** was QRV on 23 cm during the post AW. He worked on 14 Jan at 1200 VK4AFL. Jay says K5AZU was on as well. **WA5WCP** is working on adding 13 cm EME. **DK3WG** is handling QSLs for RW3PX - send envelope, etc. to Jurgen. **LX1DB** was on 10 GHz in Jan and added GW4DGU and PA3CSG. **SM2CEW** had some storm damage to his dish, but has made repairs and is back in service. **NA4N** hopes to be back on 13 cm EME in Feb. **W7CI** was on 70 cm EME in Jan, but found little to no activity.
FOR SALE: **N8CQ** is making 13 cm Septum feeds – contact Gary at gabercr@nc.rr.com for info on cost. **K2DH** is looking for a HP or Agilent apllication note AN117-1 and for an HP-86222B plugin for an HP-8620. Dave has for sale or trade an HP-86242D. **VE6TA** notes that there are a lot of SSPAs on eBay for 900 MHz as well as 13 cm. **W4SC** looking for info on Conextant Jupiter GPS receiver module from Rockwell.

FINAL: I must admit all the acrimony over CW vs. the JT modes is getting to me. I endorse the concept of separate initial tallies for CW, SSB and JT and making a distinction for mixed initial totals – I use an * to indicate a mixed total in the NL. I believe this encourages stations to make QSOs on as many modes as possible and increases overall activity. Everyone accepts the fact that it is harder to work a station on SSB than CW. This is part of the fun of the EME SSB Contest. JT operation requires different skills, (despite statements, often from people who do not operate JT that the computer does everything), and is generally easier than CW. I do not think we will have a repeat on 432 and above of has happened on 144 where the majority of EME QSOs are made on JT. The only way this can happen is if we cause it ourselves by putting up a wall between the modes. On 144 the antennas are huge in comparison to 432. On 70 cm a modest sized 4 yagis station with a 100 W brick can make regular random CW QSOs. W0GGM proved this, years ago. Most stations presently active on JT on 70 cm also operate CW, because they can! We want to encourage those that have not tried to given CW a try. I do not believe the 3X0Y near fiasco was intentional. Because of the lower Doppler shift, libration rate, etc, JT provides a greater advantage on 144 EME then on 432. On 6 m, the advantage is enormous. I can thus see why a primarily 6 m EME operator would believe in the use of JT. Education is much more effective than confrontation and appears to have prevailed with regard to 70 cm EME from Peter 1. Let's hope that all goes well with this dxpedition, as dxpeditions are one of the biggest generators of activity!

DUBUS is sponsoring 2m CW EME Activity Contest. This contest lasts the whole calendar year and consists of 8 CW EME Activity Events that take place in 8 weekends across the year (outside of the EME contest months). It has been suggested that we could use a similar cumulative contest to stimulate CW activity on 70 cm. DL7APV has offered to take a lead in organizing this contest. These activity events can only enhance the regular AWs. I'm for anything that increases activity and offer the full support of this NL.

2006 EME conference – Rainer reports the conference website www.eme2006.com/index1024.html has now switched from pre-register to register.

That's the news for this month. I shall be looking for you all during the SSB and other Feb contests. 73, Al – K2UYH