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

CONDITIONS: If you are wondering what happened to the Aug NL, see the Lunar Weekend Calendar back in the Dec 2002 NL http://www.nitehawk.com/rasmit/NLD/eme0212.pdf. This is one of those long months between sked weekends (SW). 26/27 July was not an official SW, although there was quite a bit of activity around this weekend because of the ES8X dxpedition to Kihnu Island – see their report later in this NL. Most of the July activity was during the SW on the 5th and 6th primarily on 1296 where activity and condition were generally good. 432 activity seems to be slipping a bit this summer, but was where most of the ES8X action took place. 70 cm will get another boost in Oct during 1st weekend of the ARRL EME Contest. JW/SM2BYA, Spitzbergen is expected to be QRV on a 32 m dish – see Gudmund's report. The coming 23/24 Aug SW is shaping up to be a good one with the possibility of new stations on both 432 and 1296.

MICROWAVE EME CONTEST: EME activity on the microwave bands appears to have dropped off this summer. This problem has been recognized both in Eur and NA, where many feel one solution is to re-institute a separate Microwave EME Contest. W5LUA and I discussed this topic at the recent CSVHF Conference. Al feels that the ARRL will support such a contest. I know that DUBUS/REF are also interested in Microwave Contest. It would be great if we could have a true international contest that all interested groups sponsor. The real question is where and when. W5LUA feels strongly that the contest should cover all microwave bands 13 cm and up. I would prefer separate dates for different bands, but this is probably not practical. The harder issue is settling on a date. Summer seems an ideal time to boost activity, but there are so many competing activities. Would you support a June or Sept Microwave EME Contest? Let's hear you thoughts.

JH1KRC is a new station on 23 cm – see report on page 2

7M2PDT: Shu pdt_umesan@ybb.ne.jp is now QRV on JT44 as well as CW on 70 cm -- I have received the 1st license from Japanese government for JT44 operation on 70 cm EME. I can now be QRV on JT44 and CW on 70 cm. My HPA output on JT44 is 700 W. I have not yet worked anyone on JT44 and am interested in some JT44 skeds.

DL0AO: Tom (DJ5RE) thomas.hoeppe@asamnet.de was at the club station on Saturday, 5 July to help paint the outside of the shack -- With about 10 persons, we managed to complete the job in only one day. During a break for lunch, I listened on moonrise and worked HB9Q (529/429), VK4AFL (529/529) and a bit later JA6AHB (439/449). Heard was UA3PTW. I will not be active next sked weekend due to vacation in Italy. [I think he means 26/27 July.] I will try to fill a time block in the USA window for skeds in Aug.

DL3OCH: Bodo DL3OCH@t-online.de is trying to finalize his Sept 1296 JT44 dxpedition plans – I want to make skeds for TK and IS0. Unfortunately the elevation of the moon is pretty low, but I have little flexibility in the time available for this trip. I do not have a problem with operating in the night. Usually I am up very late and don't go to bed early. So far I received interest in JT44 skeds from DJ9YW, K2UYH, OE9ERC and HB9Q. Several other stations have also asked for a sked, but they do not have JT44 and I feel a QSO would be impossible. Right now it appears that I can be QRV on 9 Sept from TK (JN42), on 10 Sept from TK (JN41) and maybe also IM0 (JN41), and on 12 Sept IS0 (JN40). Here is some more information on my station. I am using an Icom IC706 on 50 MHz and a transverter build by DJ9YW to get to 1296. The transverter produces 4 W on 1296 MHz. It drives an LDMOS PA with about 95 W out in AB-mode. The PA has an integrated power supply to bring the car's 12 V to the 28 V needed by the power devices. My frequency drift is about +/- 6 Hz at 0°C till 50°C! My antenna is a gain-optimized yagi by DJ9YW that is about 5 m long and has a gain of 18.7dBd. I use 4 m of Aircom Plus cable for feedline. I use a radio controlled digital clock for time and a laptop (Acer 650 MHz Celeron) for JT44 operation. There is an opt coupler for switching the PTT. Also I use a GPS mouse to synchronize the clock at the laptop and to get the exactly grid square.

DK3WG: Jurgen DK3WG@darc.de copied KM5A 2 times on 70 cm, but did not complete with him. He did QSO ES8X on sked. Jurgen will not QRV for the Aug weekend. He will be QRV again on 20 Sept.

DL9KR: Jan Bruinier@t-online.de reports that on 27 June he gave KM5A his first 432 EME QSO on sked with an easy 559/539 exchange for initial #782. Jan says that Steve will be easily workable by others. He was aiming with leveling bubble, protractor and compass. His 4 yagi array was movable on a "roller coaster" sort of pedestal. Jan also reports that on 28 June he called CQ on a deserted band and was answered by DK8VS - so Werner seems to be still active, and worked ES8X on random on 26 Jul. Jan notes that KJ7F was in wrong sequence during his ES8X sked.

ES8X: Tom (ES2RJ) Toomas.Kull@Orbis.ee is coordinator for his group EME operation during their dxpedition to Kihnu Island – see the last NL and also the Sept 2002 NL. They were operational on the island this year from 26 July to 4 Aug. Their main focus was on 432 EME this year where they used 4 x 11 wl BVOPT 32 el yagis (about 26 dBi) with full AZ/EL control a to a GS35B PA with 1 kW at the feedpoint. On receive they had a 0.5 dB NF mast mounted preamp to a TS790A. The feed line is 15 m of 1/2" hardline (about 1 dB loss). I do not have their full report, but I do know that they were quite successful on 432 using both CW and JT44. They also tried EME on 1296 with a single 44el 15 WL yagi, 100 W at the feedpoint and 0.5 dB NF mast mounted preamp to a TS790A. Most skeds were on the horizon. I know there were a number of skeds, but I have only received reports of success with them on 1296 with JT44 by OE9ERC and OE9XXI.

F2TU: Philippe PIERRAT F2TU.Philip@guideo.fr has written software to correct for Doppler shift during EME -- My software "EME Doppler Control" is on my Web page (download at: http://www.qsl.net/f2tu/Eme_Doppler.htm). This software computes the Doppler shift and to automatically corrects the RX and TX VFOs. It also gives information about the position of the Moon, Sun and important radio sources. The software can also be run without any connection to the Transceiver, and accept transmission speeds between the PC and Transceiver

from 4,800 to 57600 Baud. It can be used with all Kenwood Transceivers, either VHF or HF, connectable to a PC.

F5VHX: Graham Graham.D@wanadoo.fr writes -- I now have 350 W on 1296 (mostly in the shack and about 200 W at the feed from 4 x solid state amps). I made 40 initials with my 50 W QRP signal. I should now be able to work the 3.X m dish guys rather easily. I will be calling a lot in the upcoming activity weekends. I am finally making progress on my second dish. I have the ex commercial mount transported home and plans for getting it planted are advancing. I will pick up the 6.1 m ribs during July or Aug. I guess 432 'QRP' may be ready for the second quarter of 2004. My Mark II, 4 band radiometer prototype is running (helical filters for 144, 432, 1296, and broadband 28 MHz to 2.5 GHz). The PC data acquisition software is also running in alpha/beta form, but still have quite a bit of stuff to do. Doug (VK3UM) is about to start helping with evaluations on 432 of the basic detector, etc. Thanks to those that expressed their interest to me in the MK I. For those that didn't, if you think that you might be interested, please drop me a line. This is NOT a commercial project and I need a critical mass before I can run PCBs. There are two very high-density SMT parts on the new board and I am investigating having them mounted for a nominal charge. There has been a suggestion that as it is basically a 'power meter' could I do software for that as well?. The answer is *perhaps*, if I can find the time. I have much of the software needed in hand. The challenge is to find a coupler design that is either cheap to buy or simple to build.

F6CGV: Louis is not been heard off the moon lately. For those who have been wondering what happened –The tripod holding his feedhorn broke during the SSB Contest. Before the disaster, he worked F6KHM (only 5 km away on SSB off the moon)! Because of this failure, Louis did not make the EWW EME Contest, but hopes to be back on soon.

F6DRO: Dom, Dominique.DEHAYS@enac.fr reports -- I'm working on my 70 cm EME project and hope to be QRV before too long. The antenna mount is now complete, but I need some 7213 tubes? I got 2 surplus cavities, but have only one tube. I have not modified the cavities for 432 operation, so I'm not absolutely sure they will work on 70 cm.

F6KSX: Jean-Jacques, F1EHN jjm_f1ehn@wanadoo.fr of the F6KSX EME Group wants to correct the report of ARRL EME Contest all time top high scores that appeared in the last NL (see the OK1KIR report). He notes that there was an error in the QST report of the 2001 ARRL Contest for the multi operator score on the 10 GHz band. F6KSX scored 18,700 points during this contest for first place and the top all time score in this category. (The original error was recognized by the ARRL and report on in this NL).

G3LTF: Peter 100633.1656@compuserve.com sends big news – On 30 July I worked ZL1KA for initial #195 on 23 cm. We only had about a 20 minute window due to trees and house blockage here. I did a lot of echo tests at moonrise over several days in May to find the sector where I heard them earliest and also to accurately calibrate the aiming system. Fortunately Brent was able to make the best day this month and we exchanged (M/M) fairly easily. For 70 W he is a good signal. Working ZL fulfils an EME lifetime ambition!! Otherwise EME activity seems at a low ebb. I worked on 1296, on 7 June LA8LF, OZ6OL and KA0Y, on 5 July F5VHX, W2UHI, G4CCH, K5JL and VE6TA, and on 6 June LA8LF, F5VHX and DL8OBU. I went on 432 on 20 July, but the only station there was OE9ERC. I worked on 27 July ES8X for initial #373 on 432 and GW3XYW and F5VHX on 23 cm. I heard nil from ES8X on 23 cm, but thanks and well done to them for a successful dxpedition.

G4CCH: Howard howard.ling@g4cch.com reports on his 1296 activity during the July SW -- Activity was good this weekend, unfortunately no initials this time. I worked on 4 July at 1905 W2UHI (569/579), 1923 VE6TA (539/559) and F5VHX (539/539), on 5 July at 1325 HB9JAW (56/55) on SSB, 1500 F5VHX (549/569), 1534 OH2DG (569/569), 1605 IK2MMB (559/569), 1810 LA8LF (559/569), 1835 W2UHI (569/579), 1851 N2UO (549/559), 1857 SM3AKW (559/569), 1955 WA6PY (539/539), 2036 G3LTF (569/569) and 2058 VE6TA (549/559), and on 6 July at 1347 OZ4MM (579/569), 1503 ON5RR (549/539), 1907 IK3COJ (539/549), 2003 K5GW (58/57) on SSB, 2110 VE7BBG (539/559), VE6TA (549/559) and K5JL (589/579). I plan to active again in Aug.

HB9BBD: Dominique dfaessler@bluewin.ch reports he was able to work OH3CMK (539/559) on sked with CW. JT44 was not needed!

HB9JAW: Michel hb9jaw@kaktus.ch was active in July on 1296 but again -- I QSO'd on 5 July HB9Q (57/57) on SSB, HB9SV (57/57) on SSB, F5VHX (559/569) for an initial (#) and G4CCH (55/56) on SSB, and on 6 July OZ4MM (55/56), ON5RR (559/559) (#), IK3COR (539/559), LA8LF (559/579), K5GW (57/57) on SSB, WA6PY (559/559) (#), then someone called me once but I couldn't finish the QSO because a fuse blew. I concentrated more on the fuse then on the EME signal - sorry. I was also active on 432 on 5 July and QSO'd JA6AHB (559/579). I checked 70 cm often, but no other signals were heard on either Saturday or Sunday. I had to replace my HV transformer for my 1296 final, and was on the moon again on 2 Aug. Echoes did not seem strong on 23 cm, but I worked on 2 Aug at 1330 GW3XYW (559/559) (#) and ZS6AXT (559/589) - also heard was OZ6OL and G4CCH, and on 3 Aug OZ6OL (559/569), SM2CEW (569/569) and ES8X heard but to weak for a contact. On 432 on 3 Aug, I caught at 1835 ES8X (0/0) (#) on random – (449). Echoes on 70 cm were very strong all the time.

HB9Q: Dan hb9crq@hb9q.ch report on July activity -- We only were QRV for a few hours on 144 and 432/1296 during the July activity weekend. Conditions seemed to be quite okay. We worked only a few stations on random. Never the less, we caught OM6AA on 1296 on 7 July for DXCC 30 and initial #130. This was the first ever OM - HB9 on 1296 EME. More details can be found on my Webpage at www.hb9q.ch. We plan to be QRV again for the Aug SW.

JH1KRC: Mike jh1krc@syd.odn.ne.jp writes – On 19 June my station was examined and licensed by our Telecom Agency. My station is equipped with a NL-327 amplifier for 23 cm, which was built by DL9EBL and modified by myself with your good devices, also a 7213 coaxial cavity amp and a 14.5' TVRO dish with a full-size WA6PY feed for 23 cm, and a loop feed with a reflector plate for 70 cm. My power amplifiers will easily produce the licensed maximum power (500 W) for each band with margin. WA6PY feed is well tuned for the isolation and polarization, far more than 25 dB each, even if the VSWR at each port is not less than 1.5. My station is also equipped for the HF bands with a long wire and 6 element yagis for 15m and 20 m each, installed on a 36 m Skyneedle. Unfortunately, I live 90 miles from my EME station (QM04am) and do not have a lot of free time for skeds. I also still need to work on my AZ-EL readout/tracking system. I presently need a visible moon for tracking with a CCD camera mounted at the hub. On 12 July I ran echo tests with great success. It was cloudy and rainy before I reached to my shack, but the moon became visible for a few minutes and I managed to point it to the moon by manual control. In a few minutes, I found my echoes with RST (529). The signal came up to (539) for the most of time, and was O copy at worst. I found could track the moon manually just by listening to my own echoes for 3.5 hours until when the beam was blocked by the trees. I hope to work many stations.

JW/SM2BYA: Gudmund sm2bya@telia.com writes that it now looks as if the JW/SM2BYA 432 MHz EME operation will really go ahead, and sooner than expected. We have entered a booking request for the EISCAT Svalbard Radar 32-m antenna for the weekend of 18/19 Oct (the first ARRL EME contest weekend) into the scheduling system. At this time there is about a 95 % likelihood that we can have the entire contiguous 48-hour time slot! The operation will be predominantly CW and some SSB. Sorry, no JT44 and no skeds. Since it will be one of the busiest contest weekends of the year, we have decided to pick a TX frequency and a listening band high up in the CW segment to minimize the risk of mutual interference between our operation and the regular contest traffic. The plan is for JW/SM2BYA to use 432.073 MHz for TX and .075 - .080 for receiving. To comply with the Region I band-plan, any SSB operation must be above 432.150. We have been thinking of 432.173 for transmitting and .175 - .180 for RX, but don't know how this fits with US and Japanese use of that part of the band. Maybe we should move even higher up? If anyone has any comments on our choice of frequencies, please let us know ASAP so we can reconsider changes well ahead of time. Any other suggestions will also be appreciated.

K7ICW: Al k7icw@juno.com reports that his enquiry about 70 cm EME was misinterpreted. He is not QRV on 70 cm at the moment. If Al does become operational he says that he prefers to use *Pingjockey* for his skeds.

KL6M: Mike kl6m@qsl.net writes -- I have some work to do to get ready for 432 EME operation again. Something was busted the last time I tried it. I have the feed down and plan to do a full set of system checks. I have been busy with lots of ham radio projects. I am still refining the position system. I am building a new feed mounting system. I am constantly working on my new console and mounting equipment into it. I have made some badly needed improvements to my HF system, and am working on my 1296 amp, and on a new 432 amp, and on and on!

K7XQ: Jeff k7xq@elite.net is having some problems – It has been a poor year so far on 1296 EME. I've found very little to no activity in last several months. My preamp has started acting up, but it now seems to be working. I QSO'd on 2 Aug HB9Q (549) and G4CCH (539). I also CWNR N7AM (539) and heard F5VHX. I'm temporarily off 432 because I am retrofitting my 432 power supply

to also work with my new GS15B amp for 1296. I should be back on 70 cm in a few months.

KM5A: Steve smw@rapidnet.com has completed his first 70 cm EME contact with DL9KR. Steve would like to thank the following for helping him be successful: K5JL for hardline advice, K1RQG for the net control and equip, KL6M for telling him never to get discouraged, WA1JOF for info on power requirements, W7CNK for putting on a signal, K2DH for test signal and more equipment, and K1FO for info on care and feeding of amps.

KU4F: Thorton cockram@prodigy.net was active on 432 in July. He worked K1FO, VK4AFL and VK3FMD. He is looking for KM5A.

LA8LF: Anders milcom@tiscali.no was active on 1296 – I worked on 23 cm, on 5 July F5VHX (449/449) for initial #131, SM3AKW (559/559), HB9SV (589/569), W2UHI (559/549), N2UO (449/449), G4CCH (569/559), K2UYH (569/559) and WA6PY (O/O) #132, and on 6 July G3LTF (569/569), DL8OBU (0/0) #133, HB9JAW (579/559) and on SSB K5GW (56/55). I am now the lucky owner of a 30 W SSPA and 2 120 W SSPAs for 13 cm. I intend to use the 30 W SSPA as a driver and want to combine the two 120 W units for at least 200 W. My problem is that I do not have access to a Network Analyzer in order to build and match the input and output combiners. Each of the 120 W units requires 12 W of drive, so there can be some margin in the input combiner design to allow me build and adjust it. The difficult part will be the output combiner.

LX1DB: Willi WILLI.BAUER@airport.etat.lu writes -- Here is some news from LX. I am still alive. I modified the south part on my house. I was very busy with this project and my EME activity consequently was low. I will replace in Aug my small dish (3.9 m) for 5.6 and 10 GHz with a 3 m Andrew solid dish that is specified up to 24 GHz. I also expect to have at least a 16 W transistor amplifier for 24 GHz on by the end of the year. I have a 4 W transistor PA working already.

N2IQ: Mark gummer@dreamscape.com was active on 1296 in July. He called CQ and worked HB9SV, K5JL, W2UHI, WA6PY, F5VHX and N7AM. CWNR were VE6TA, G3LTF and LA8LF.

N2UO: Marc <lu6dw@yahoo.com> besides briefly operating K2UYH's station to work EX8S on 70 cm on 26 July, was also active from his home stations on 23 cm. He QSO'd on 5 July at 1735 HB9SV (569/559), 1755 LA8F (449/449), 1851 G4CCH (559/549), and 1929 W2UHI (549/539), and on 6 July at 1921 K5GW (569/559), 2004 OZ4MM (559/549) and 2008 N2IQ (539/539). He also caught HB9Q on 2 Aug. Marc has been operating AO40 and worked GW3XYW. He is interested in QSOing other EMEers via this mode.

N3FTI: Steve n3fti@yahoo.com is working on a 10 GHz EME station – I have been collecting parts for some time and I think I just about have everything ready. The footing for the dish was dug last week. I hope to have the concrete poured next week. The antenna is a 2.6 m solid "Birdview" TVRO dish. I plan on using a W2DRZ CT-1 controller with NOVA software for AZ-EL control/tracking. A Boonton Digital power meter with homebrew 144 MHz narrowband noise amplifier will also be utilized to fine tune the dish position for maximum Sun and Moon noise. A VE4MA (Kumar Type) feed will be backed by a WR75 transfer waveguide switch to a 0.8 dB NF converted 11 GHz LNA. The LNA output is then filtered by a 10 GHz HP bandpass filter. A DEMI Transverter along with a 50 W Siemens TWTA will be located at the rear of the dish and fed to the Transfer switch via ~10' of EW90 waveguide. I will keep you informed on my progress.

OK1AYK: Jaromir ok1ayk@volny.cz is trying to make his 1st QSO on 70 cm EME. He is located in JN78gx and has a 5 m dish, 800 W out PA and 0.5 dB LNA. [Several stations tried skeds with him in July without success, but no feedback has been received from his end.]

OM6AA: Rasto om6aa@stonline.sk is now QRV on 23 cm. I be believe he is the 1st station to be active from the Slovak Repubic on 1296 EME. He submitted an SWL report of stations heard during the ARRL EME Contest in the fall, but did not make his 1st QSO until this June. Rasto had problems with his azimuth rotor, but after repairs worked G4CCH (339/O) for his initial contact. On 7 July he added OE9ERC #2, HB9Q #3 and a partial with me. We finally worked on 23 July to give him a #4 QSO. He is using a 3 m solid dish with f/D = 0.29, VE4MA feed horn, quadrature hybrid and 150 W PA with YD1270 to about 10m 7/8" and 5m 1/2" of coaxial cable. His RX is 0.5 NF with ATF 36077. Rasto is often not available for skeds during the regular SWs because of his work schedule.

ON7UN: Eddy ejespers@wanadoo.be and ON4BCB Walter Walter.Crauwels@skynet.be are building up a 23 cm EME station. They already have a 20' dish mounted on a tower, and have modified TH327 PA (from HB9BBD) ready to go. You can find details of their amplifier modifications at http://web.wanadoo.be/on7un. Details of their station and progress can be found at http://users.skynet.be/on4bcb/EME/index_eme.htm. They should be interested in skeds very soon.

ON5RR: Marc marc_kleyn@mastercard.com writes that his group is QRV on 1296 again -- On 6 July, Michel and I started up the station again after a period of inactivity of several months. The complet e station was running like it should! Even our OZ9CR amplifier did not need retuning. Echo testing gave signals up to 539 - 549. It is great to hear your own signals coming back from the moon. We QSO'd old friends like OZ4MM, G4CCH and IK2MMB. But a nice surprise was working two initials: HB9JAW 559/559 for initial #101 and F5VHX (O/O) #102. The setup was the same as before, no changes have been made. We will not be active for the Aug activity weekend, but hope to be QRV the rest of the year. We are still accepting 13 cm skeds. Is anybody interested? During my absence, my spouse and I bought a new house, did quite a bit of decorating and are now busy in the huge garden. All my free time was spent on this and now we are struggling to get the permits to build a new shack, antenna mast, etc. We are still active from our old location (OK for JA, VK, Eur and the east coast of NA, but limited window to the NA west coast). I hope to be active from our new location before the end of the year, or early next year. The new grid locator will be JO10xr and will count as an initial as the present locator is JO20cx. For skeds or info, just mail to moonbouncer@pi.be.

OZ4MM: Stig vestergaard@os.dk was active during the July SW -- I didn't get QRV on Saturday in the activity weekend, as we arrived back from vacation and was very tired. On Sunday (6 July) I was on 1296 and found good activity, but unfortunately no initials. Stations worked were G4CCH (569/579), SM6CKU (549/560) - nice to have Ben back on, HB9JAW (56/55) on SSB, F5VHX (559/579), ON5RR (549/559), IK3COJ (549/549), IK2MMB (559/569), K5GW (589/589) and N2UO (539/559). I also listen a little on 432, but heard only a few stations.

PE1ITR: Rob rob@itr-datanet.com is listening on 432 EME and has copied OE9ERC off the moon. He will be away on holiday in Aug, but should be ready to take skeds in Sept. Rob is located in JO21qk, and has 2 x 28 el 8.5 wl yagis, 120 W and a 0.38 dB NF LNA. Because of his low power, his preferred mode is JT44.

PY5ZBU: Don py5zbu@onda.com.br (GG54in) wants to let everyone know that he is still QRV and available for skeds -- Just a few words to let you know that I am still active on 432. I am mostly listening and completing skeds with stations who email me – I especially try to be available for stations needing to complete their WAC. I can be on as and when required and am available for any skeds. My present dish is 7 m dia, but is deep. The f/d is 0.34. Power at the feed is about 950 W. I am doing much less traveling than in the past and thus spending more time at home. [Don what is your status on 1296?]

OM6AA 3 m dish for 1296 EME

SM2CEW: Peter sm2cew@telia.com reports that he worked OM1YL and KM5A on 432 during the last week of July. He also worked PA0PLY on 70 cm during the month, but heard nil form OK1AYK during their sked.

VK3FMD: Charlie ibnkarim@bigpond.com is QRV on 432 with a single yagi on the horizon. He reports that on 6 July he QSO'd KU4F on CW with very loud signals and had an easy QSO. Charlie will accept both CW and JT44 skeds.

W7MEM: Mark's w7mem@juno.com new 70 cm array appears to be working well. He QSO'd OE9ERC during the July SW with FB signals. Mark is located in (DN17nt) in Idaho.

W2ETI: Richard (WA2ILK) rcf@eventide.com reports that the SETI EME Beacon is still in operation and should be copiable whenever the moon is in view from NJ. The beacon is excellent test of 1296 weak EME signal receiving capability and a good frequency reference. The current status of the beacon including its precise power and frequency can be determined by checking http://www.setileague.org/eme/statuspg.htm.

W2UHI: Frank fblumn@pathwaynet.com as usual was active on 1296 EME during July. He worked G4CCH and VE6TA. F5VHX was CWNR. Frank also tried to work I0UGB who was (559), but never received Rs.

WA6PY: Paul pchomins@san.rr.com continues to have excellent results with his small dish on 23 cm -- I worked on the 5/6 July weekend on 1296: PA3CSG, HB9SV, LA8LF, W2UHI, G4CCH, N2IQ and HB9JAW. I have the foundation for new dish mount now ready. I will weld a short tower section to support the radar pedestal that will hold the dish. I am also making progress on 5760 MHz and need to check out my TWTA. I have also started to work more seriously on a 24 GHz transverter.

ZS6AXT: Ivo zs6axt@global.co.za has been silent since he had problems with his dish, but now reports – After some pause I am back on line! Finally our weather was bit warmer, so I managed to repair my half seized gear in EL drive. What a job! But it works again – I will have to oil it more often, HI. [Ivo was QRV on 2 Aug.]

K2UYH: I a.katz@ieee.org did not have much luck arranging skeds by e-mail for the July SW. I was active on random on 1296 on 5 July for a short time and worked at 1834 LA8F (559/569), 1845 W2UHI (569/569) and 1900 F5VHX. (559/569). We had company, so my operating time was very limited. I checked the moon again latter in the day, but the band was quiet. I ran skeds on 432 on 6 July at 2000 S53J nil on JT44 due to a frequency misunderstanding – we were both in different parts of the band, and 2130 OK1AYK nil. About 10 minutes into this latter sked, I had a PA failure. I was able to fix my PA the following week and all now appears back to normal. On 7 July at 2130 I had a partial with OM6AA (O/O), but never received R's due to a setting moon. We did complete on 23 July at 1030 OM6AA (439/549) for initial #211 and DXCC 42. I was at the CSVHF conference during the weekend ES8X was active. Fortunately I was able to arrange for N2UO to operate my station during my 432 CW sked. Marc easily QSO'd them on 26 July (449/449). This was not an initial as I had worked them last year on JT44, and thus did not run JT44 with them on 70 cm this year. K2TXB was able to operate my station on 27 July for my 1296 JT44 sked with ES8X, as I was not make it back from the conference in time. Russ thought he heard their signal, but got very little copy via JT44. I ran an additional sked with them on 29 July at 1300, but was only able to get "ET8X". I arranged for another sked on the 31th at 1830 during which I used linear polarization. My echoes were the same level as the previous day using circular pol, thus I should have had a 3 dB advantage, but nothing significant was detected. This result raises a question about the effectiveness of JT44 on 1296. Based on my previous experiences, I should have been able to easily QSO ES8X on 23 cm. However, JT44 should be more sensitive to conditions on 1296 than the lower bands. Dispersion and libration effects cause greater signal spreading on 1296. JT44 must decide between characters only a few Hz apart. If the spreading is wider than the spacing, JT44 loses some of its advantage. Perhaps it is signal spreading this the cause of the propagational differences I have experienced. This may mean that multiple attempts and some luck may be required for JT44 QSOs with small stations on 23 cm. In Aug, I will be at the NE VHF Conference during the SW, but am interested in skeds on days other than the 23rd and 24th.

NETNEWS BY G4RGK (BASED ON K1RQG's NETNOTES): SM4IVE reports very slow progress on the new dish. **PA3CSG** worked F5VHX on 23 cm EME in July with a good signals. **WB0TEM** is inactive on EME. His dish is still up, but the mast still bent. All his equipment is still working. **WA1JOF's** new dish is nearing completion. He now has to put in rings and is getting ready to fit the screening. **W9IIX** now has two GS-23 amps assembled and looking good, but it will be a while before they can be powered up. His dish is currently down and he is getting ready to put up a 12' dish. **AD6FP** has a 6' offset dish and is seeing 9.1 dB of sun noise and 0.8 dB of moon noise on 47 GHz. **VE6TA** worked F5VHX for initial #81 on 23 cm. **VE4MA** is playing with 10 GHz preamps and refurbishing his system. **ZL1KA's** e-mail is addis.zl1ka@xtra.co.nz. **WA9FWD** is now up and running on 3456 MHz EME. He has 11.5 dB of sun noise and 85 W of power. **K5GW** now has the GS15B amp on 1296 running a cool 350 W. **KE2N** has a new email address ke2@cs.com. **F6KHM** had a surprise visit from FY5DG and gave him the information he needs to solve his PA problems. **FY5DG** is in France until Aug, when he will return to FY land. **G4RGK** is temporary QRT as he is knee deep in bricks and rubble, but hopes to be back in the fall.**WB8TGY**, Mark wb8tgy@yahoo.com is interested in trying 432 EME using JT44. **N7AM** has a new e-mail address jackriggs@comcast.net.

FOR SALE: **W1ZX's** dish is still available. Contact K1RQG for details. **F6DRO** Dominique.DEHAYS@enac.fr is looking for some 7213 tubes. **K0YW** advises that ENCO, www.useenco.com, has a variety of Acme thread nuts and rods in 3' and 6' lengths. **K5JL** found a bad transistor in N4PU's LT23 transverter and is looking for a replacement. **NU7Z** is looking for a 24 V 20 A switching power supply and a hybrid for 2304 to run 2 amps. **WA6KBL** reports that 24 GHz Power Amps with +30 dBm (1 W) output and 36 dB of gain made by Toshiba for 23-26 GHz are available from Pyrojoseph on eBay for $65 min bid or Buy It Now for $75. They use WR34 waveguide that has has holes that match WR42 flanges without modification. The link is http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=25392&item=2545835472.

TECHNICAL: The interested in JT44 by new stations to EME has raised the old question on what frequency a sked station should transmit on. The correct answer for CW skeds is the skeds frequency. Still, many stations transmit so that their echoes fall on the sked frequency. This is especially the case when responding to a station you hear during a sked. If a station does not respond to my calls, I will move my TX to where I hear his echoes. More than once this has made a QSO possible when the other station did not respond. On CW, there is not a big problem. Most stations tune several kHz to make sure they are not missing a reply. Exact frequency helps, but is not critical for good copy. The situation is different on JT44. For skeds, transmitting on the sked frequency is the best procedure. You then listen on the mutual Doppler offset as calculated by the JT44 program when the sked station's grid in the box next to his call. If you TX so that you hear your own echoes on the sked frequency, the sked station will hear them on a different frequency, which can be quite a ways off. For example on 1296 when I run with VK, I hear my echoes about 2.5 kHz lower than my actual TX freq. If the VK station set his TX freq so that he heard his echoes on the same frequency as he heard me, he would be TXing about 5 kHz below my actual TX freq. I would hear his echoes at the mutual Doppler of about 300 Hz. This would correspond to a freq about 4.7 kHz below my actual TX freq, and to a freq about 2.2 kHz below where I hear my echoes! It can get quite complex! Thus stations should always TX on the sked frequency and listen on the mutual Doppler offset when running JT44.

FINAL: The TrentonInternational EME Conference is now less than one year off (6,7 and 8 Aug). We had hoped to have the hotel information up on the Conference WEB page http://www.qsl. net/eme2004 by now, but we have run into to a little snag with our hotel negotiations. We are not satisfied with the rate offered and are investigating alternate options. We hope to have details settled before the end of the month. It is now time to think about papers and presentations. At the conference there will be a presentation on the unique W2ETI EME Beacon located in NJ, and possibly a tour. If you have any talk ideas, please let Marc, N2UO or myself know. We are planning some very special events. Start making your travel plans now.

NU7Z reminds everyone to get their reservations and white papers in for Mircowave Update 2003 http://www.microwaveupdate.org as the date is near.

Please do not forget update your standings on HB9Q EME Initial Top List at www.hb9q.ch/database/search.htm.

Because of the long time period between SWs this month, I decided to put out the NL a little early. As a result there are no skeds yet to postfor the next (23/24 Aug) SW. However as skeds are received (or generated from requests), K1RQG will be post them to W6/PA0ZN's WEBpage at http://www.dl4eby.de/ltskd.htm. Please send your sked request to Joe at k1rqg@aol.com. If you make skeds by direct via the Internet/e-mail, please also send your sked (copy) details to Joe so that he can include them in the listing.

Please keep the reports, pictures and technical material coming in. (My backlog of technical material is running low. I could use more!). I will be away during the next SW at the NE VHF Gathering in Endfield, CT on 22-24 Aug trying to promote more EME activity on 70 and 23 cm. So, I won't be active during the SW, but will be looking for you off the moon on other dates. 73, Al – K2UYH