432 AND ABOVE EME NEWS SEPTEMBER 2009 VOL 37 #9

EDITOR: AL KATZ, K2UYH; DEPT. ELECTRICAL/COMPUTER ENGINEERING, 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: TOM KIRK, KA2VAD (609-584/8424), E-MAIL kirkt@lintech.com

NETNEWS EDITOR & INITIAL LISTS: G4RGK, DAVID DIBLEY, E-MAIL g4rgk@btinternet.com (based on K1RQG's Netnotes & 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 k1rgg@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@ieee.org [TXT OR PDF OR "ON WEB" NOTICE]

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CONDITIONS: I had though this Aug would be just another so - so summer month. It was far from it. The 6 cm Activity Weekend (AW) was a resounding success. 5.7 GHz QSOs with more than 15 different stations were reported – see CT1DMK, F2TU, G3LTF, G4NNS, LX1DB, OK1KIR... Sept is now being suggested for a similar AW for 3 cm. On 1296 the unexpected appearance of Antarctica caused quite a stir. DP1POL is now QRV on 1296 with a surprisingly strong signal for a single yagi station - see Felix's report. I must admit that 70 cm did seem to suffer from the summertime low activity malady. The cancelation of the 70 cm SV8, Los Island dxpedition did help. But I expect with the ARI's CW EME contest during the Sept AW, 12/13 Sept, and the ARRL's VHF contest this same weekend, 432 will pick up greatly. WA9KRT will be operating from KY (horizon only) during this contest and looking for 70 cm EME QSOs. In Oct, of course all hell breaks lose with the start of the ARRL EME Contest. DL1YMK has scheduled a mystery EME dxpedition for this weekend! See Michael and Monica's report later in this newsletter (NL). There will also be a dxpedition to Mongolia with 432 EME operation - see the JT1YO report. Because of all the contest activity, there are no 70 cm CW Activity Time Periods (ATPs) scheduled until Dec. I am looking forward to an exceptional fall EME season with more surprises!



DP1POL – Felix & 67 el yagi. It is winter at the South pole!

AL7RT: Dan dpahunt@alaska.net was up early to be active on 23 cm on the Moon during the Aug AW. He heard a lot of NA activity and worked K2DH, K5SO and K1RQG. He also heard VE3KRP and N0OY with nice signals. Dan has troubled with the stability of his transverter. It seems to be an issue with the xtal heater. He says he will not be back on until the problem is solved, but I would expect to hear him off the Moon in Sept.

CT1DMK: Luis cupido@mail.ua.pt writes on the great time he had during the 6 cm AW -- I operated only during the west window of Saturday and a bit also on Sunday. I made 8 QSOs and added one initial. Orked were W5LUA, F2TU, G4NNS, OE9ERC (SSB), WD5AGO, OE9ERC, PA0EHG for an initial (#) and OK1KIR. I heard a few more but I was fighting to fix a problem with my automatic tracking that kept causing me to lose the Moon. (It was simply a bad contact on one of the sensor cables). I had also to keep TX periods short since outside it was quite hot and the TWT and power supply were at the feed point, under the sun, and really got hot. During my skeds with WA6PY and VE4MA nil was heard. My station consists of my 5.6 m dish with CP feed and 45 W power out. I am seeing 0.6 dB ~ 1.2 dB of Moon noise.

<u>DP1POL:</u> Felix <u>dp1pol@agcw.de</u> (also DL5XL and N5BC) has put the Antarctica on 1296 EME -- There's always something new to discover in

amateur radio! After 23 years of hamming, I completed my first ever moonbounce QSO with DJ9YW on 21 Aug! This was quite exciting for me and I'd like to express my thanks to DF1OI, DJ9YW and DL3OCH, who raised my interest in EME and really helped getting me on the air. I am currently working at the German research station "Neumayer III" in Antarctica (DXCC CE9). I'll be here for a few more months. My 23 cm EME station will be set up at least until Oct, maybe longer. If anyone would like to arrange a sked, please contact me by e-mail or look for me around 1296.090. My grid locator is IB59uh and I run about 500 W to a single 67 el yagi. DJ9YW's JT65c signal was (18DB). Although most my QSOs to date have been on JT65c, I should be very workable on CW by the bigger stations. Thus far I have worked DF3RU, DJ9YW, ES5PC. ES6RQ, G4CBW, G4CCH, K2UYH, LZ1DX, OE9ERC, OK1DFC, OK1KIR, PA3CSG, RD3DA, and W5LUA. I cannot send QSL cards myself, as we have no postal service at this location, so all QSL requests will have to be sent to Ray, DL1ZBO (Rainer Hilgardt, Hans-Sachs-Weg 38, 64291 Darmstadt, Germany). He is my father-in-law and a very reliable QSL manager. [Since this report Felix has OSO'd OE9ERC on CW].

DL1YMK: The Michael and Monica team dl1ymk@aol.com announce a mystery EME dxpedition for Oct -- We intend to operate from a dxpedition location in Oct using the call ???/DL1YMK (some place in Europe). We plan to be QRV on 70, 23, 13 and 9 cm (no 2 m this time). With the exception of 9 cm, which is our weakest band so far, we will not make any skeds in advance. I am hoping that there is enough interest to catch a new DXCC in a limited period of time. The timetable for all bands follows. The first time listed is our moonrise, the second time is the start of our Moon window to the US east coast, the third time is the start of our window to US West coast and the fourth time is our moonset. The "//" indicates a change to the next day Z. 3 Oct, 23 cm: 1600/2300//0140/0500, 4 Oct, 13 cm: 1600/2300//0200/0600, 5 Oct, 9 cm: 1600/ 2330//0230/0800, 6 Oct; 1600//0030/0330/0900, 7 Oct; 1630//0100/0400/ 1100, 8 Oct: 1700//0200/0500/1200, 9 Oct, 70 cm: 1800//0300/0530/1300, and 10 Oct, 23 cm: 1900//0400/0700/1330. On 9/10 Oct the ARRL EME Contest is taking place. On the 6/7/8 Oct we have indicated no preference for a band because it is during the week and based on our experience only limited time for playing on the moon for most working people. This will be the time for all the retireds to work us! We are flexible as usual, it depends a little on the first weekend result, what we will do during the week and which feed we put into the dish. Changing the feed takes only 15 minutes. We expect bad weather and high winds at this particular location (and probably a lot of trees also, hi), so it will depend very much on the WX, if we have a chance to set up the dish and to get on the moon. Please send sked requests for 9 cm beforehand direct to DL1YMK as we are not sure, if we will have any internet access in the 'outback'. We improved the equipment on most bands, more on this in our next report.

F2TU: Philippe f2tu.philippe@orange.fr completed QSOs during the 6 cm AW with HB8SV for initial #29, W5LUA, OK1KIR, ES5PC, CT1DMK and OE9ERC. He also had a partial with PA0EHG - the Moon was in a tree at the time. Philippe also copied LX1DB, G4NNS, WD5AGO and pieces from ON5TA. He asks that stations using the HB9Q logger not to forget that there are stations calling CQ and tailending.

G3LTF: Peter g3ltf@btinternet.com reports on his July/Aug activity -- I spent a great deal of time this month building a 6 cm station for the 6 cm AW and despite a few problems I did get it going in time and made several QSOs. I had an LO chain giving me 10 mW TCXO controlled that I had built last year. Everything else, transverter, CP feed, preamp were all built and integrated in about two weeks. I used the same "system architecture" as I did for 9 cm, so its plug compatible with that system, but there are a few loose ends to tidy up in the spectral purity area! I started out with the idea of listening only, but G4NNS kindly loaned me a 7 W SSPA that only needed a heat sink and the 9 cm PSU was close enough in voltage to use. Although I measured sun noise on the Friday before the AW, I didn't get the system pointed at the moon until Saturday morning and some rain overnight had made a leakage path to the TX inhibit line, so I couldn't transmit. By Sunday morning, 16 Aug, I'd fixed that and

immediately saw an echo on the SDR and could just hear it as well. I called CQ and was answered by OK1KIR for initial#1 followed by F2TU #2, OE9ERC #3 and ES5PC #4. Next I worked G4NNS #5 and DF9QX #6. By this time I was having big problems with the wind moving my dish. I then worked W5LUA #7. I heard PA0EHG and also IK2RTI and the previous day, I also had heard WD5AGO, CT1DMK and LX1DB. Many thanks to Brian for organizing this event and to K1RQG for his support with the sked lists. I now need to analyze my overall 6 cm performance and select where to focus for improvements, but I was very pleased indeed with the dish's performance at 6 cm. My dish is 6 m 0.375 f/d with the center 4 m in 6 mm mesh, the rest is 12 mm. The receive side is an ATF36077 preamp built to a W5LUA design, NF 0.7-0.75 dB. The feed is an RA3AQ septum design for 0.37-0.45 dimensions scaled from 3.4GHz data. I am seeing 12 dB of sun noise and 0.7 dB of Moon noise. The dish beamwidth measures 0.75 degs, which means that the center 5 m is being illuminated. I'm interested to get hold of a TWTA for 6 cm with anything > 50 W output.

G4NNS: Brian brian-coleman@tiscali.co.uk sends his TNX to all who participated in the 6 cm AW, but especially to G3LTF who lead the way with his 9 cm AW initiative, to K1RQG for running the sked list and to PA0EHG for hosting the station performance information at:- http://home.kpn.nl/alphe078/ -- If you have not already done so please send Hans your information. I made 15 QSOs with 14 stations including 5 initials to bringing my initial total to #15 and even made some SSB QSOs. I also managed to make polar plots of the antenna with both the circular and linear feeds and recorded some echoes with both systems to compare spreading. Results can be found at my updated web page http://myweb.tiscali.co.uk/g4nns/index.html - follow the link to 5.7 GHz EME. Areas needing improvement have been identified, so it was a very useful weekend. Are there any 100 W power transistors for 5.7GHz out there?

IK50LO: Andrea andrea@isaacasimov.it is now QRV again on EME on 1296 – It is almost 10 years since my last QSO on EME then on 70 cm. Now thanks to the help of JA4BLC, I am back on EME; this time on 23 cm with a QRP system that I hope to improve soon. I am using a solid 2.4 m 0.37 f/d dish with a septum circular horn and 30 W at the feed. I was QRV on the morning of 15 Aug for my first test and QSO'd on JT65C G4CCH (17DB) #1 and K2UYH (14DB) #2. Heard were DF3RU (17DB) and SM5CFS. I am very pleased to be back and I will work to increase my ERP soon. I will be QRV on QRP again on CW in the I-EME Contest in Sept and hope to work some of you.



IK5QLO's 2.4 m dish with septum feed for 23 cm

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp writes -- I visited JA6CZD again early in Aug and worked with Shichiro to finish his auto-tracking system (0.1 deg. absolute encoders, JH3ERQ interface board and F1EHN software. Many thanks to Shichiro and his XYL Kimiko for their wonderful hospitality. As I had an RX problem, I did not join the 5.7 GHz AW on Friday/Saturday. Fortunately I fixed it and was QRV for the last Eur window on Sunday. I worked OK1KIR (559/549) and OE9ERC (569/559). I heard JA6CZD.

<u>JA6CZD:</u> Shichiro ja6czd@mx35.tiki.ne.jp was QRV during the 6 cm AW and worked G4NNS, W5LUA, OE9ERC and OK1KIR on 5760. [TNX to JA4BLC for forwarding this report].

<u>JT1YO:</u> Jim (K7YO) <u>k7yo@yahoo.com</u> reports that he will be putting Mongolia on 70 cm EME between 9-14 Oct. He will be going with W7EME, who will be operating on 144 EME. Activity will be concentrated during the

ARRL EME contest during the weekend of 10/11 Oct. The 432 station will use 2 x FO-33 yagis and a 120 W Tokyo Hi-Power PA with outboard T/R relays and preamps. There are still a lot of details missing. I am trying to have Jim make skeds in advance. There is also a slim possibility that they could take 23 cm or even 13 cm equipment.

K1ROG: Joe k1rqg@aol.com was on 23 cm EME during the Aug AW -- I did not find much activity at first on 15 Aug, but later I worked VE3KRP, AL7RT, K5SO, N0OY, K2DH and K5SO all on SSB. I also heard SM6FHZ in QSO with VE3KRP. Ingolf had a very nice signal. On 16 Aug I stayed up until 0930. I worked SM6FHZ, K8EB, IW2FZR, G4CBW, G4CCH and K2UYH. I then had a few hours rest and added SM2CEW, DL3EBJ and VE3KRP - all had very nice signals. I would like to especially thank G4CBW for answering my CW CQ as I believe he is another newcomer to the low end of the band. It was good to hear a lot of NA activity.

<u>K2DH</u> Dave <u>k2dh@frontiernet.net</u> worked on 1296 during the Aug AW. He contacted on the first day SM6FHZ, N2UO, AL7RT and K1RQG, and on the second day SM2CEW, K8EB and VE3KRP, and heard K1RQG, K2UYH and others. Dave says he is procrastinating putting higher bands in the dish, but will be there sometime soon.

K5SO: Joe k5so@valornet.com was active on 23 cm EME a bit during the Aug AW. He QSO'd AL7RT, VE3KRP, NOOY and K1RQG. He had a problem with his HPSDR and had to reload the software, but it came right up. Joe is working on how to extend the size of his 28' dish. He has plans to increase his dish's diameter to 40'.

K8EB: Erv mrdxcc@sbcglobal.net is now QRV with W2UHI's dish on 23 cm EME [see the picture in the last NL]. During the Aug AW, he got up at moonrise and worked 6 on JT: ES6RQ, G4CBW, SM5CFS, PA3DZL, DF3RU and UA9UHN, and 6 on CW: K1RQG, SM6FHZ, K2UYH, DL2EBJ, W7BBM and VE3KRP. Erv is now working on getting W2UHI's high power 1296 PA going.

LA9NEA: Viggo la9nea@online.no sends news on his Aug 23 and 13 cm operation -- I worked the following EME stations during the AW with my 2.85 m solid summer dish, on 15 Aug on 23 cm SM5CFS on JT65c (best 21DB), VE6TA (549/449) on CW, K2UYH (11DB) on JT65c and SM6FHZ (539/O) on CW, and on 16 Aug on 13 cm SP6GWN (539/M), LZ1DX (O / RO), SM2CEW (549/519), SP6OPN (549/549) and VE6TA (O/O) – all on CW. My "summer dish" will be stowed away during the winter and my 5.3 m mesh dish will be back in operation for Sept AW.

LX1DB: Willi wbauer@pt.lu found a lot of activity on during the 6 cm AW but had some problems with his PA over heating due to the summer Sun. He made 10 QSO: WD5AGO on random, DF9QX, PA0EHG, ES5PC, CT1DMK, 0E9ERC (SSB), W5LUA (SSB - Willi has now worked W5LUA on EME SSB on all bands up to 24 GHz!), OK1KIR, G4NNS and a partial with WA6PY (M/-).

NOOY: Pete petesias@yahoo.com was QRV on 23 cm and reports his system is working well. He QSO'd during the Aug AW VE3KRP, K1RQG and K5SO. All had good signals. Pete expects to be QRV more regularly for a few months as he does not have any travel scheduled.

N6VMO: John n6vmo@n6vmo.com is a relatively new station on 1296 EME in CM94sq. He was heard active on JT in July with a big signal (14DB). He has a 10' TVRO type dish with scalar septum feed and 300 W from a GS-15B water cooled PA.

OK1KIR: Tonda (OK1DAI), Vlada (OK1DAK) and Jan (OK1VAO) vladimir.masek@volny.cz report on their club's EME activity in Aug - It was very hot and sunny, but we had great activity during the first EME 6 cm AW ever. A very fruitful discussion on Moon-net before the AW brought a lot of new technical info and measured performance parameters that helped us make some 11th hour improvements. On Saturday, 15 Aug, we opened the CW log with HB9SV (O/549) for initial #31, followed by OE9ERC (559/559), G4NNS (549/569), ES5PC (549/569), F2TU (569/569), LX1DB (569/569), PA0EHG (559/559) #32 and DXCC 19, W5LUA (569/569) and CT1DMK (549/549) for a totally of 9 stations. On Sunday we added JA6CZD (559/559), JA4BLC (549/559), G3LTF (M/O) #33, DF9QX (549/539) #34 and IK2RTI (559/569) to increase our total to 14. We heard ON5TA just (T – several traces) level on 15 Aug) and nil from WA6PY. Both were using linear pol and promised to change to CP in the future. We missed WD5AGO because of poor time management – the Moon disappeared, hi. During Sunday morning we experimented with JT on 6 cm EME. First we tried JT65C with ES5PC. Unfortunately, we were not able to decode Viljo's transmissions, probably because of too wide a spread of signals (60-80 Hz), the fast Doppler change and relatively weak signal levels. The Moon was close to the Zenith with high declination at the time. We also

tried with OE9ERC, who had a stronger signal, but still no success. We then switched to the new JT4G mode. We have had no experience with it so far. A few periods were spent on setting all parameters properly. After that we decoded ES5PC's signal very easily, like the JT65 modes on 70 or 23 cm. BTW signal levels indicated in JT4G were higher than during JT65C trials (25DB/21DB). Afterwards we completed a very easy JT4G QSO with OE9ERC (20DB/17DB) for our second digital QSO on 6 cm. The signals during both QSOs were audible on the speaker. (Viljo made a funny comment on the HB9Q logger: "It seems to be much easier and faster to make CW QSO than a JT one", which I am sure will be applauded by the CW sticklers, hi). Screen shots of JT4G QSOs can be seen at http://www.ok1kir.cz/5760/05760_JT4G.htm. During the AW we measured a CS/G of 4 dB, Sun noise of 14.3 dB (SF 67) and Moon noise of 1.25 dB. We looking forward to a third AW for 3 cm proposed for 12/13 Sept.

ONSTA: Eric eric.vanoffelen@skynet.be reports on his first 6 cm EME activity -- I heard during the 5760 AW F2TU, OK1KIR, LX1DB, ES5PC and WD5AGO, and QSO'd OE9ERC. Thank you Erich for my first 6 cm EME QSO! I had some problems with my elevation screwjack and encoder. My station is a 2.3 m offset dish with a linear pol and 7 W at the feed. I am seeing 0.4 dB of Moon noise and 9.5 dB of Sun noise. It seems that CP is the way to go on 6 cm. I need to find a good feed design for my 0.7 f/d dish. Does anyone have a recommendation? [Are you sure the f/d is correct? This value seems large for an offset dish. The IMU horn design works well for shallow dishes. It is optimum for ~0.6].

PA0EHG: Hans alphe078@planet.nl reports on his 6 cm AW activity -- About two months ago I saw the suggestion for a 6 cm EME AW. I was for long time interested to try something on 6 cm, so I decided to give it a try and start building my EME setup for this band. I was planning to use my 3 m dish with automatic tracking and proven performance for 24 GHz, so there should be no problem for 6 cm. Several years ago I bought on EBAY a defective TWTA with a defect in the HV supply. I started to try to repair this supply in the hope that the TWT (tube) would be OK. I found several components burned and replaced these. After this the supply started up, but still was giving problems with 12 V on the heater, which was not good and was the reason for a quick shut off. Some further trouble shooting and some more defective components were replaced. Then the TWTA started up and voltages seemed good. After a first time switch on of the HV, the helix current looked good so I started to see if it would give some power. It measured up to almost 60 W on the first try, which was more than I expected. At that time I decided to buy a DB6NT preamp to get a good noise figure. My RX converter was just some building blocks and I mounted these into a box, which could be mounted at the dish. The TX unit was to be modified and more important it needed a much more stable frequency source. The next thing to do was a proper feed for my dish. I decided to go for circular polarization and found the OH2AUE design and the designs for a septum feed. I started building both to see which performed best. The OH2AUE design worked almost instantly with good return loss and circular polarization. The round septum feed I made did not perform as expected, CP was no good and it did not bring me a good return loss as well, so I decided to go with the OH2AUE feed. Two days before the activity weekend I had mounted on the dish and could see solar noise and try to optimize the feed focal point. I measured 12.6 dB of solar noise, which looked promising. The next day I measured Moon noise at 0.9 dB, also a good value. On Saturday morning I started mounting the TWTA and TX at the dish and connected everything together. A first TX test was OK and I was ready for the Moon. After getting the dish on the Moon I performed some echo tests and found my echo instantly. The first sked with OK1KIR was very easy. They had a loud signal and a very easy QSO resulted. After this I made QSOs with OE9ERC with a very loud signal and W5LUA. During the last over in this QSO, I blew my preamp and it looked to be over. I took the preamp off and opened the unit to see what was wrong. The first FET was blown and I could not do anything more unless I replaced the fet. I took some fet (don't know what type it is) and replaced the blown FET and tried to see if it was working. It looked reasonable, but not as good as before. I remounted the preamp and found that my Moon noise was reduced to 0.5 dB. After this I made QSOs with ES5PC, CT1DMK and LX1DB. On Saturday evening I tried to improve my preamp by tuning it for a better NF. On Sunday I was QRV again and made QSOs with G4NNS, F2TU and DF9QX. Moon noise was around 0.6 dB and I could again hear my own echoes. For me the AW was a big challenge. I had to build my station within two months time. It showed some problems but performed well. I don't have a clue why my preamp was blown, the new FET survived without problem. This needs further improvement and I will also try to make me a new septum feed to see what was wrong with my first try. My setup is 3 m dish, 40 W into the feed, circular pol and NF before blowing the amp of 0.6 dB. I will try to get it repaired. Thanks to G4NNS for his initiative. I hope to be regularly QRV on 6 cm and am available for skeds. Anyone interested PSE e-mail me. Last but not least I am trying to make a stations performance list. I would like to get info from stations who are QRV on 6 and 9 cm. I need to know antenna parameters, dish size, pol (CP or lin), f/d, RX NF, power into feed, measured

Sun noise, measured Moon noise, measured value CS/G, initials worked. Please send this info to my e-mail. The performance list will be on my website: http://home.kpn.nl/alphe078/6cmemestations.htm and http://home.kpn.nl/alphe078/9cmemestations.htm.

SM2CEW: Peter sm2cew@telia.com reports on his Aug EME operation -- I fired up on 13 cm on 16 Aug and worked PA3CSG for initial #22, LZ1DX #23, VE6TA and LA9NEA #24. PA, LZ and LA were also new DXCCs. I then switched to 23 cm and worked G4CCH, K2DH, K1RQG and DL3EBJ for initial #202. A problem developed with my FT-736R 23 cm module. The radio started kick out on me during my QSOs with K2DH and DL3EBJ. I am looking into the cause. I was also having problems with my 1296 driver amp due to a bad tube. New tubes (2C39BA) were kindly provided by G4RGK so this problem is now solved. On 22 Aug I worked WA9KRT for initial #437 on 70 cm. We worked on Don's moonrise. Don has a good signal when the moon is just on the horizon, indicating a very tight pattern as the signal drops rapidly with the rising moon. [Could this also be ground reflection]? My CW standings are now at on 70 cm #437 initial and 77 DXCC, on 23 cm #202 initial and 42 DXCC, and on 13 cm #24 initial and 15 DXCC.



SM2CEW's 13 cm septum feed with DB6NT transverter, switching and preamp. The SSPA is placed behind feed and all mounted at the feedpoint.

SM6FHZ: Ingolf ingolf.fhz@gmail.com recent EME results and a correction -In the Aug NL my locaters are not correct. My old grid locator was JO66ew. I am presently at JO57xj. The e-mail address shown in the Aug NL was also out of date. As noted I am an initial for all those who worked me at the old OTH. I contacted on 18 July while waiting for SK6OSO JA4BLC, ON4UN, HB9CKL, LZ1DX, OK1KIR, OE9ERC, VE6TA and DF9QX - all on CW. A getaway was SV1BTR who had a very nice signal. I also looked for E77DX, but never heard them on, pity. I then drove to the observatory to join the SK6OSO operation. I worked on 19 July SK6OSO on CW for my shortest EME distance QSO ever, 2.3 km. We worked when the moon was in about 90 degree AZ (antennas almost in parallel) and with 2.3 kHz Doppler to avoid QRM from the direct signal as much as possible. The direct signal from SK6OSO was very strong. We had to send two characters at a time and wait for them to come back from the moon before sending the next two in order to reduce the QRM in spite of using narrow CW filters. After the QSO I moved to the observatory again and joined the SK6OSO operation. On the EoA weekend, 27 July I was visited by SM6CMU, Ingo, and we worked at 1022 VK3UM (SSB), 1138 LX1DB (SSB), 1221 VK5MC (CW), 1417 RK3WWF (CW), 1451Z SP6JLW (CW), 1701 PI9CAM (SSB), 1710 W1M (SSB), 1750 HB9MOON (SSB), 1802 OE9ERC (SSB), 1824 K0C (SSB), 1846 IK3COJ (CW), 1858Z LX1WB (SSB), 1908Z W5J (CW) and at 1914Z G4CCH. I added on 15 Aug VE6TA, DL3EBJ, G4CCH, SM3JQU, OZ6OL, K2UYH, LA9NEA (with his smaller summer dish - fun!), K2DH, N2UO and VE3KRP, and on 16 Aug K1RQG, IW2FZR, K8EB, DF3RU and a partial with VE3KRP near moonset. Getaways were AL7RT and the 15th and G4CBW and W7BBM on the 16th - all with very nice signals. From the ten months of my 23 cm EME operation, I have the following list of stations heard but not worked: AL7RT, CT1DMK, DL1HYZ, G3LQR, G4CBW, HB9Q, IK5WJD, JA4LJB, JA8ERE, VE4MA, VE4SA and W7BBM. I would very much like to work these stations. I plan to be on the Moon on 12/13 Sept with priority on my western window that has improved from 230 degrees to 280 degrees azimuth. I am also planning to use my 5.5 m dish on 70 cm EME. The PA is ready, a GS23b cavity with 1 kW out - I can push it harder, but I will start there. I do hope to see you all off the Moon soon.

<u>UA9UHN:</u> Slav <u>ua9uhn@mail.ru</u> is QRV on 23 cm with 3.7 m dish and 50 W. From the end of July to 15 Aug he added QSOs with PY2BS, G4CBW, SM5CFS, VE7BBG, VK4CDI, DJ9YW, VK2JDS, JA6AHB, K8EB, ES6RQ and K2UYH on JT65c. He is also QRV on CW.

VE3KRP: Eddie <u>eddie@tbaytel.net</u> was on the moon on 23 cm during the Aug AW. He worked the first day SM6FHZ, K1RQG (CW and SSB), K5SO and N0OY. He heard K2DH. The second day he QSO'd DF3RU, G4CCH, K8EB for initial #55 and K1RQG. The following weekend he added HB9IZ. Eddie had some tube problems with his 2 x 2C39 PA, but is back in operation. [Eddie asks about specs for the ML7815R? I have used many 7815s and find they perform similar to 7289s. 7211 are even better but have a different capacitance].

VE6TA: Grant ve6ta@clearwave.ca 23 and 13 cm Aug AW results -- I managed to work the following fine stations on CW EME this weekend. There were a few challenges with my elevation indication. I found the encoder bearing packed full of dirt after the dry summer, we have been having. This caused the elevation indication to stick more and more often. A good cleaning with some contact cleaner and canned air appeared to have it. I QSO'd on 1296 SM6FHZ, LA9NEA, DF3RU, DL3EBJ for an initial (#), IW2FZR, VK4CDI (#) - was running 45 W and a 3.7 m dish and VK2JDS (#), and on 2304/2320 SM2CEW, LZ1DX, LA9NEA for an initial (#) and SP6OPN (#). With the arrival of a new switching supply from WA9FWD, I was able to give the twin Spectrian amps a bit of a workout. I have no problem now running at a sustained 300 W output (probably about 150 – 200 W at the feed) on 13 cm, which gives better echoes. QSB was very pronounced on 13 cm this weekend, which made fast CW copy difficult due to the characters being chopped up. TNX to all for the QSOs.

W5LUA: Al w5lua@sbcglobal.net reports on the 6 cm AW -- Over several days of activity I was able to work WD5AGO, JA6CZD for initial #31, HB9SV #32, OE9ERC, F2TU, ES5PC, G4NNS, LX1DB on SSB, PA0EHG #33, CT1DMK, OK1KIR, OE9ERC on SSB, G3LTF #34, DF9QX #35 and JA4BLC for a total of 15 QSOs. My system is a 5 m dish with 90 W at the feed. I am very happy with my WD5AGO septum feed. Most of the time signals were nearly T9 with very little spreading. I guess we need a similar activity period for 3 cm. How about in Sept? I also worked in Aug DP1POL on 1296 from KC4 land for a new initial and DXCC.

W8TXT: Mike (no e-mail) reports that he did not have much luck during the Aug 70 cm ATP. He was active but heard only N4GJV on. No one else seemed to be around. Mike is working on a bigger PA.

WA6PY: Paul pchominski@maxlinear.com sends his latest news -- A weekend before the AW on 5.76 GHz I checked again my system and WiFi QRM was not that bad as before. Due to the previous QRM, I wasn't prepared for this event, but I decided to give it a try. I used a linear horizontal polarized chaparral feed with a very poor mount that created a shadow. My RW85 TWT was giving me only 15 W out or about 7 W at the feed. On Monday 10 Aug I measured 10.5 dB of Sun noise using my 3.6 m mesh dish. I was on all my skeds, but I was struggling with frequency calibration and finding the Moon. Due to the interference, I have a lot of local 0.5 to 1 dB peaks. I did not hear anybody until my sked with F2TU on 16 Aug. Then I heard someone 15 kHz higher then expected from my QRG calibration weak signal. When I aim the antenna, it was OE9ERC. I heard OE9ERC and F2TU in QSO - both stations. From this point on I knew my AZ/EL and frequency offsets. I run back to the house and setup a new sked with OE9ERC and we made an easy OSO. W5LUA reported that he heard me during this QSO. The next day I heard in sked W5LUA very well, but Al could find only traces of my signals. QRM is still present, but with the NB of TS2000 I can receive signals. When I find the Moon, I can almost track from the Moon noise, but from time to time the noise floor suddenly goes up by about 5 dB. I will investigate what this can be. I plan to build CP feed and a proper feed mount for 3.4 and 5.7 GHz and also increase my TX power. I plan to be QRV on 3 cm in Sept.

<u>WA9KRT</u> Don <u>wa9krt@hotmail.com</u> now has 100 W on 432 with 4 tower mounted yagis (on the horizon only) and a preamp. He confirms QSOing SM2CEW in Aug. Don will be in KY (EM870b) during 12/13 Sept AW. He will take horizon only CW EME schedules (4 yagis and 120 W) with anyone that would like to try on 70 cm EME.

<u>WD1V:</u> John john.seney@gmail.com is a new station on 23 cm EME in FN42. He has made QSOs with K7XQ, G4CCH, W5LUA and K2UYH on JT and possibly some on CW. He is using an 11' dish with a VE1ALQ feed, DEMI 150 W PA mounted on the feed and a TS2000X. He says he uses an Apple iPhone Compass app for AZ tracking.

<u>WD5AGO:</u> Tommy <u>wd5ago@hotmail.com</u> writes – I have been very busy here with adding a room above the garage to my QTH and moving lab equipment. I

also replaced my 2.4 m (extended to 2.8 m) Andrews dish with a 3.1 m 0.38 f/D dish with a closer mesh. I was hoping for better results on 6 cm during the AW. Sun noise was 10.5 dB, still down from optimum, and 0.6 dB moon noise. My feed is a HB round septum CP horn with a scalar ring. Power at the feed is 22 W from a 30 W TWTA. I worked W5LUA, G4NNS for initial #10, OE9ERC, ES5PC, LX1DB, CT1DMK, and heard OK1KIR, F2TU, JA6CZD and copied traces from ON5TA plus my own echoes. I had to take the amp out on Saturday morning due to rain, which when my wife got me out of bed after a 1.5 hour nap had already soaked the TWT PS. I dried it out with a hot blower. 3 hours later reinstalled it for the Asian window and still had echoes! Later that evening I took the 6 cm system completely out. I had a fun time even though it is a lot of work to move 6 cm system to base of dish. I have now started to tweak up the 13 cm system and am getting 12 dB of Sun noise with an SFU 68. I am still working on getting a couple more tenths dB of NF with LNA cooling and a new larger 3 ring scalar ring, peaked for a 0.4 f/D that I will have running this month and on through Nov/Dec when we will work on the 9 cm system. I will be at MUD in Dallas and will show the new CP feeds and LNAs there.

K2UYH: I a.katz@ieee.org missed the 70 cm CW ATP on 9 Aug, but was QRV for the AW. I found enough unexpected new stations on 1296 to keep Aug quite interesting. I worked during the AW on 15 Aug on 23 cm at 0911 DF3RU (8DB/O) on JT65c, 0938 IK5QLO (27DB/14DB) for mixed initial #356* -Andrea's second QSO, 0950 LA9NEA (14DB/11DB) on JT65c, 1006 EA3XU (27DB/18DB) on JT65c, 1027 DL3EJB (8DB/O), 1055 SM6FHZ (559/569) on CW, 1100 LU1CGB (20DB/21DB) on JT65c #357* - another new station reported on in the last NL and 1135 PA3DZL (16DB/15DB) on JT65c, and on 16 Aug at 0920 K1RQG (589/589) on CW, 0930 K8EB (569/569) on CW, 0940 DL3EBJ (559/559) on CW, 1027 PA3DZL (11DB/10DB) on JT65c, 1043 EA3XU (26DB/O) on JT65c and 1059 UA9UHN (17DB/10DB) on JT65c. I then switched to 70 cm but forgot to correct for the 7 degs offset in my tracking and only had a partial at 1447 DL7APV (13DB/-) on JT65b - Bernd was try to work UR3CTB (new 70 cm station) and after realizing my error QSO'd at 1505 VE2ZAZ (19DB/20DB) on JT65b. On 23 Aug I was back on 23 cm to work at 1755 DP1POL (20DB/21DB) on JT65c #356* and mixed DXCC 71 and 1849 WD1V (13DB/12DB) on JT65C - another new station surprise. I would not have been around at this low declination except for an e-mail from K2TXB telling me about DP1POL - TNX Russ.

NETNEWS BY G4RGK: YO8BCF is now QRV on 23 cm for both JT and CW with a 5.4 m dish and 44 W at the feed. RD3DA is celebrating working DP1POL on 23 cm for WAC. WB2BYP is starting excavation at his new QTH for mounting his 28' dish. GARGK should be QRV on 23 cm very soon with his new dish. It is already mounted. K5JL was not QRV for the Aug AW, but did have some nice visits from WB2BYP and K6DV. K6DV was towing a sister dish to Jay's and it looked in good shape. KOYW is making progress on his portable dish mount – all is mounted. WA8RJF was on 13 cm during the Aug AW and reports nothing heard. **W7MEM** heard only 2 stations on 70 cm during the Aug AW. JH1KRC repots that the JA EMEers and KDES/8J1AXA team made an exhibition at the JA Ham Fair 2009 in Tokyo and were successful in raising funds for their Big Dish project. WB7QBS has his 432 antenna now back in air and trying to calibrate it. N4PZ has his 10' dish mounted and the feed, preamp and camera in place. KORZ needs KY and VT on 70 cm EME to complete WAS. <u>VE4MA</u> ordered a W2DRZ controller. Barry can get on 23 cm and 13 cm but not 5.7 GHz. He recently picked up a 47 GHz TWT.

FOR SALE: VE1ALQ has noticed increased interest in circular polarized feeds for 6 & 3cm. He has some of these available and provides design details – see http://www.velalq.com/dishfeeds/dishfds.htm. These are designs that were originally optimized by CT1DMK. VE3KRP is looking for good (NOS) 2C39/7289 tubes. K7ICW is looking for GS-35B and GS-15B tubes? W7MEM needs a source of 7/8" feed line. DL1YMK is looking for an SSPA (40-50w) for 3 cm. K0YW is still looking for about a 6' and a 12' dish.

FINAL: Throughout the reports received this month were praises and TNX to Brian, G4NNS, for his initiative to organize 6 cm AW and to Joe, K1RQG for his handling the skeds, many of which I cut to conserve space and avoid repetition. I also often edit comments of TNX for all the terrific QSOs. I hope we all appreciate what it takes to get regular on the Moon and the efforts of our fellow EMEers. TNX to all on the Moon – especially 70 cm and up!

There are a number of events coming up of interest to the EME community. Among these on 26 Sept is the Mid Atlantics States VHF Conference in near Philadelphia, PA – see http://www.packratvhf.com/VHF%20Conf/vhf%20conf/html and Microwave Update, MUD on 22-24 Oct - see www.microwaveupdate. Org, and Weinhelm weekend unfortunately on 12/13 Sept. It is not too early to start thinking of the International EME Conference coming to Dallas, TX this summer.

Please keep the news and technical information coming. I hope to be seeing you all off the Moon during Sept. 73, Al – K2UYH