432 AND ABOVE EME NEWS
SEPTEMBER 2010 VOL 38 #9

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THE NL WEB VERSION IS PRODUCED BY REIN, W6SZ AND AVAILABLE AT http://www.nitehawk.com/rasmit/em70cm.html

CONDITION: Activity on the microwave bands, particularly the 6 cm activity weekend (AW) organized by G3LTF livened up would might have been a less than spectacular month EME wise. The was a reasonable turnout for the DUBUS 70 cm CW activity time period (ATP) considering the summer time period, but CW activity on 23 cm was definitely down. JT activity continued to attract some new stations, many of whom are promising to become QRV on CW. There is little dxpedition activity this month, but this picture will change in the fall. OH0/DK2ZF will QRV on 70 cm between 9 and 21 Aug but this is only in preparation for a much more extensive dxpedition to the Pacific in the fall – see Rolf's report. 9Q1EK is still in the Congo and could come on 432 at anytime with 4 yagis. Sept dxpedition activity is planned by OK1DFC for ZA and later by DL3OCH for KH0, KH2 and possibly BW. The next 70 cm CW ATP is on 28 Aug from 2100 to 2300 and on 29 Aug from 0600 to 0800. The next EME activity weekend (AW) is 4/5 Sept, which is also the ARRL's Microwave EME Contest weekend. Of course, coming up in less than a week is the 14th International EME Conference, EME2010 in Dallas on the 12th through the 15th Aug.

9A4QV: Adam adam9a4qv@yahoo.com is preparing equipment to join the 23 cm EME group -- I have an 8' mesh TVRO dish, but need to finish my PA to be able to work some stations on CW. I hope to be QRV by the end of this summer. Now it is too hot for this activity - hi. I remain active off the Moon on 70 cm, but am frequently away for weeks because of travel for QRL.

BW/DL3OCH: Bodo dl3och@gmx.de is currently in Taiwan and may be able to become QRV from there on 23 and 70 cm. He is planning a dxpeditions to KH0/KT3Q, Saipan and KH2/KT3Q, Guam between 21 and 27 Nov. Operating time from KH2 will be very limited and probably be only on 23 cm. In both locations Bodo will use the transverter and yagi setups that he has used for most of his other dxpeditions. He promises to send more information just as soon as his plans solidify.

CT1DMK: Luiz cupido@mail.ua.pt enjoyed the great activity during on 6 cm AW -- I was QRV both Saturday and Sunday, but mainly during the NA window. Sorry no JA or VK's this time. I worked: PA0BAT, OK1CA, SV3AAF, OH2DG, OK1KIR, F2TU, G3LTF, G4NNS, ES5PC, OH2DG, DL4MEA, W5LUA, VE4MA and WA6PY. I also had a partial with ON5TA and armchair SSB copy from LX1DB, F2TU and OK1KIR. I added 5 initials and am now at initial #30 on 6 cm. The main problem was temperature, which peaked to 42 degs C outside. On Saturday I had temperature problems right after I started. The feed assembly was 60 – 65 degs C and I decided to lower the TWT beam current and hence the power drop to about 25 W. Then it was possible to have the TWTA on without tripping the TWTA supply. Not too long after, the preamp started to deteriorated quite a lot. I discover the glue that held the absorbing rubber inside the preamp case had melted, and that the rubber had fallen off and on top of the first FET. Operations resumed with preamp unclosed. (It was good exercise to climb to the dish so many times under the Sun – hi). I have a very very short window to my east, so JA and VK, etc. don't really happen for me on random! While I still have the 6 cm system on the dish, I would like to have some skeds with eastern stations in JA, etc.

DK7ZF: Rolf niefind.rolf@t-online.de is planning some major EME dxpeditions -- I am very busy preparing for travel to Southeast Pacific between 1 Oct and 4 Nov. I will operate on both 144 and 432. On 432 I will have 2 x 19 el DK7ZF xpol yagis, 400 W from a BEKO HLV-550 PA a with switching PS for much easier travelling, and a preamp at the feed point. I will also be able to switch polarization. Between 9 and 21 Aug I will be in OH0 (KP00) for a mini dxpedition to do a final system checkout before the big trip. I look for stations on 70 cm on the 9, 10 and 11 Aug between 1600 and 1800. I will call during the first period on 432.090 using JT65B, but will answer calls on CW (using 1 minute sequencing). [A list of 432 skeds is at the end of this NL]. Last minute information can be found at DL8EBW's MMMONVHF http://www.mmmonvhf.de/latest.php.

DK7ZF dxpedition arrays – 432 yagis are in the center

DL4MEA: Gunther -- guenter.koellner@nsn.com writes about his 6 cm AW activity and associated conflicts -- Imagine preparing for over a year for 6 cm activity, and then having to help on the family farm because the red currants are ready for picking just when the activity is finally happening! Despite the red currant picking, I managed to be QRV on early Saturday morning before departing, and late on Sunday after returning home. In preparation, I had built up a DB6NT transverter, 26 W PA and AGO round septum feed to use with my 4.5 m dish on 6 cm. While testing prior to the AW, I could not find any echoes. I had built two W5LUA preamps, but they showed just 5.5 dB of Sun noise using an ATF35076. The transverter barefoot was showing 8 dB. Swapping one of the AT35076 for a NE32584 gave 8 dB. So I decided to use the transverter without the preamps. I covered the center wide mesh part of my dish with self-adhesive aluminum foil (just EUR 20 for 20 m²) but this did not give any significant improvement. My Sun noise was still 8 dB and there was no indication of Moon noise. I did not see any echoes even though VK3UM's calculator predicted 10 dB levels. I added a tap to the 117 MHz LO so I can measure it in the shack. (Return is via the 7/8" cable that is normally used for 70 cm and 23 cm TX). Starting the contest I tried to work OK1KIR (strongest signal of all), but they did not copy. I tried with OK1CA and F2TU, but still no copy of me. Then F2TU mentioned on the logger that he has 30 W and since I could hear him with a great signal, I knew I *must* copy my echoes, if the TX is OK. I then checked everything again, and there it was - the center pin of the feed was not making a connection to the TX cable. I fixed the pin and immediately had echoes. I then worked OK1KIR, F2TU, G3LTF, OK1CA, PA0BAT and SV3AAF (1st DL-SV QSO on 6 cm). On Sunday, with extreme outside temperatures of 36 degrs C, I saw that my LO was 20 kHz high and drifting upwards continuously. My G8ACE oven turns off at 40 degs C, but inside the box it was much hotter. My shiny aluminium foil was heating the focal area with many kWs from the Sun. I fixed this by opening the box and putting a little blower in front of the oven. I then worked CT1DMK (1st DL-CT on 6 cm), W5LUA and LX1DB. During the

last QSO, I thought my RX device blew, but my RX gain just dropped. I could no longer copy my own echoes, but LX1DB was still readable and we were able to complete the QSO. It is amazing that some stations have a clear signal, which can be copied narrow band, but others (even strong ones as W5LUA) were spectrally spread and just matching my 100 Hz filter. For me 6 cm is the last band my dish can support. Now I need a new dish. For the ARRL contest, I will only be QRV only on 23 cm and probably 70 cm because I will be away during the microwave part in Sept. I will not be in Dallas for the EME Conference because the cost of the airfare was crazy. One month later, it would have been half of the cost!

F2TU: Phillippe f2tu.philippe@orange.fr reports a great weekend of activity during the 6 cm AW – The excellent turnout should encourage many ops to become active on this excellent band. On Saturday I contacted SV3AAF (559/559), OK1CA (569/579), OH2DG (559/569) for initial #37, PA0BAT (559/559), G3LTF (559/559), JA6CZD (549/549), ES5PC (549/559), JA8ERE (559/559), DL4MEA (539/539) #38, G4NNS (549/549), OK1KIR (559/559), LX1DB (579/579), ON5TA (O/529), VE4MA (559/559), CT1DMK (559/559), WA6PY (O/O) #39, DF9QX (529/539) #40 and WD5AGO (549/559). On Sunday I was active starting at 0710, but the stations heard had already been contacted, so it was fun to answer calls on SSB. I Contacted G3LTF (559/43), OH2DG (569/44), OK1KIR (44/44), LX1DB (56/56) – broadcast quality!, G4NNS (44/51) and closed the afternoon with W5LUA (569/569) for my 19th contact. On Sunday, the Sun was about 2° from the Moon, but this was no problem with my 8 m dish. I always copied about 2 dB of Moon noise. Also no problem with the 36 degs C outside in the shade as my feed is well ventilated. On 6 cm I was running my 8 m dish (f/d = 0.51) with a circular polar W2IMU feed and 30/35 W at the feed.

G3LTF: Peter's g3ltf@btinternet.com July report follows – Most of my EME activity since June has been on 6 cm. The microwave bands are so interesting and challenging for building stuff, and the divisions that trouble the lower bands are not there. On 4 July on 6 cm, I was delighted to work OH2DG for initial #12 and Eino's first 6 cm QSO by any mode and the first G-OH QSO on 6cm. Later that day I was on 23 cm and worked HB9CKL and N4PZ. On 10 July, we had the 6 cm AW. Fortunately the wind was not too high otherwise the backlash in the drives makes it hard to keep the dish on the Moon. I worked SV3AAF, OK1KIR, F2TU, JA8ERE #13 and the first G-JA QSO on 6 cm, ES5PC, OH2DG, G4NNS, PA0BAT, DL4MEA #14, DF9QX, LX1DB #15, VE4MA #16 and the first G-VE QSO on 6 cm, CT1DMK #17 and OK1CA. The next day was more difficult because of the sun was much closer to the Moon. I think at the end of the day I was getting some receive performance degradation. At the start, 0600-0800, the libration was very low and signals were truly T9. I worked OK1KIR, F2TU who called me on SSB (34), VE4MA, OH2DG, W5LUA and WA6PY #18. I heard JA6CZD, WD5AGO and was heard by G3LQR, WD5AGO and ON4TA. I have a long "to do" list mainly concerned with the feed as I think I may be illuminating too much of the outer dish (beyond 4 m), which has only 12 mm mesh. I measured 12.3 dB of Sun noise on Sunday, SF=82. I was running about 23 W at the feed. The receive preamp is an ATF36077 W5LUA design, NF about 0.7 dB. It really was an excellent weekend of EME with lots of activity and several new stations on the band. On 14 July, I was on 9 cm and worked WA6PY (549) for initial #33 and W5LUA. On 1 Aug I added JA6CZD on 6 cm for initial #19 - good signals even though there was 1.7 dB of extra loss. I have improved my preamp by replacing a faulty 1 pF capacitor, which got me back to 0.7 dB NF again. I then went on 432 for the ATP but my big PA failed (big time!) and so I went back to the old K2RIW that I now use for tropo with about 400 W at the feed. I worked SM2CEW, I1NDP, SM3AKW, OZ4MM and K2UYH. I heard W8TXT, but couldn't attract his attention, probably due to the QRP here. The PA is now repaired and fully refurbished, so I'm hoping it will do another 10 years or so. I am looking forward to seeing everyone at Dallas.

G4RGK: Dave g4rgk@btinternet.com was back on EME in July -- I have not been active since May, the July ATP was my first opportunity to get on this summer. During the first period, the Moon was in the trees most of the time, but I was able to work OZ4MM and I1NDP on CW. I also heard DL9KR and SM3AKW, but never copied either calling CQ. Later on I worked VK4EME and JE1TNL on JT. VK4EME has a good signal and was good copy on CW at times working stations. During the second ATP period on 1 Aug, I spent a long time calling W8TXT, but was unable to get him to reply. I guess this was due to polarization alignment (Faraday) problems. As I was suspected that something was wrong, I checked my Sun noise. The figures that I saw when I pointed to the Sun were unbelievable. I later found out that there had been a C3 flare followed by an erupting filament, which accounted for the huge rise in solar noise that I was seeing. I have never seen levels that high before. Was anything different about this one? Just before the Moon set, I put the antenna back on the Moon and was able to work DL7APV and K2UYH. No progress with the 13 cm station at the moment due to the lack of time, but I am 80% there. I just need to get the TX chain sorted out. I am sorry not to be able to get to Dallas, but unfortunately this was out of my control, regards to all.

KL7UW: Ed kl7uw@acsalaska.net is now QRV on 432 -- I made my first 3 432 EME contacts on 14 June with DL7APV, UA3PTW, and I1NDP. I was running about 85 W and using a 2 el quad feed (H pol) with my 4.9 m dish. This is essentially the same set up used when Arecibo was on in April. Efforts on 1296 are not making much progress. I still am unable to see Sun noise and have sold my old 1296 xvtr, although it seems to be hearing a test signal, OK, and I have ordered a new DEMI 1296-28 with A32 PLL to go with my new Elecraft K3. This eliminates using a 144/28 converter, and since the new xvtr is rated for 25W, I have sold my old 18 W PA to Derek, ZS5Y. That ought to improve his drive power by a factor of three. The downside is the 4 to 12 week wait for the new xvtr. I also purchased a 23 cm MGF4619 VLNA kit that G4DDK is producing. Sam hopes to bring it to the Dallas EME Conference for a NF check. I suspect a cable problem. The center pin on the 1/2-inch hardline was a little off center. I will check for power at the feedhorn end of the hardline this time and that should ensure that it will work OK. When I get the 1296 300 W SSPA installed, I will have output monitoring using a directional coupler and a high SWR shutdown circuit. I am building a new 432 PA that runs on 28 V and only requires 10 W drive. I will run a second 1/2-inch line for it to the TR relay at the 432 feed. I am planning to build a cylindrical dual-mode septum for 1296 to replace my square OK1DFC feed and a dual-dipole 432 feed for permanent installation (aka VK3UM). Later, I will side-mount a small septum for 3400. But for now I will feel good just to get the 1296 feed up in time for the fall EME Contest as winter arrives in early here.

N9HF: David kerl@bellsouth.net in FL is QRV on 432 EME and hopes to be on 1296 as well soon – I made my first 432 EME QSO on 1 Aug with K2UYH on JT65C. After looking over the contact, I have come to the conclusion that I worked him on a side lobe of my array. There are 2 reasons why I say this. One is, when we were working, I copied him at a -21 dB for 3 or 4 periods. The other is, about 30 or so minutes after our QSO, I went outside and sighted up thru the array where I had left it. It is only 7 feet above ground, and the Moon was dead center in the middle of the square of antennas. The station is 4 x 22 el K1FO yagis, 30' of ½" Heliax and an FT-847 with a GAS FET preamp in the shack. Putting electronics outdoors in Florida corrodes things fast! All of my antennas were sprayed in a booth with 2 coats of clear enamel. I recently built a 10' stress dish for 1296 EME. I have an OK4DFC feed, 150 W and W6PQL LNA. I am not yet on the air, but hope to soon. In the mean time I am available for skeds on 70 cm.

OH2DG: Eino eino.metsamaki@sulo.fi is now QRV on 6 cm -- It was fantastic to work my first 6 cm QSO via Moon. Before that I succeeded in QSOing the Maldives, 8Q7QQ, on 23 and 70 cm. TNX to the 8Q7 team. Also TNX to Michael and Monika for a FB R2/DL1YMK QSO on 23 cm - the first R2-OH QSO on 1296. During the 6 cm contest in April, I copied many good signals of other stations including VK3NX, OK1KIR, F2TU, OK1CA, G4NNS, PA0EHG, SV3AAF, IK2RTI, ES5PC, JA8ERE, JA6CZD and LX1DB. I tried a 6 cm QSO with VK3NX without success. TNX to Charlie for the try. G3LTF helped me figure out what was wrong. My medium power amplifier was not operating correctly. I copied my echoes for the first time on 2 July and completed my first QSO on 4 July with G3LTF (559/559) for the first G-OH 6 cm QSO. Next I worked VK3NX (559/439) first VK-OH and G4NNS (549/529). During the 6 cm AW on 10/11 July, I QSO'd OK1KIR (559/559), OK1CA (559/559), PA0BAT (549/549) first PA-OH, SV3AAF (549/539) first SV-OH, F2TU (569/559), JA6CZD (549/539) first JA-OH, G3LTF (559/559), ES5PC (559/559) first ES-OH, G4NNS (549/539), CT1DMK (549/549), WA6PY (O/O), JA8ERE (559/449) and W5LUA (579/569). Al has a very nice signal on 6 cm. TNX to all for the FB QSOs. During the AW, the Sun and Moon were quite near each other, and the plastic box containing my equipment started to melt in the dish focus. I had to cover the box with temperature insulation material. My 6 cm system consists of an old DB6NT transverter (LO and mixer/amplifiers located in separate boxes), CP-long horn feed with single choke á la OH2AUE, LNA á la W5LUA, HB 3 stage MPA and HB PA with four NEZ6472-8A in parallel giving 30 W at the feed. Many TNX to K6QPV for the NEZ devices. I am seeing 1.8 dB of Moon noise and at Perigee echoes 12 dB above the noise.

OK1CA: Frana strihavka@upcmail.cz reports on his participation in the 6 cm AW -- I was QRV only at Saturday 10 July during AW activity. I worked OK1KIR (569/559), OH2DG (559/559) for initial #19, PA0BAT (559/549), SV3AAF (559/539), JA6CZD (569/549), F2TU (579/569), DL4MEA (O/O) #20, ES5PC (549/559), CT1DMK (559/549), WA6PY (O/O) #21, G4NNS

(559/539) and G3LTF (559/559). I also had partial QSOs with JA8ERE and ON5TA - not complete and I heard VE4MA and WD5AGO. There was very good activity thanks to G3LTF's organizing efforts.

OK1KIR: Tonda ok1vao@o2active.cz writes about the 6 cm AW -- There was great activity during the first day of the 6 cm AW. We worked on 10 July at 0256 OK1CA (559/569), 0335 OH2DG (559/559) for initial #39, 0350 PA0BAT (559/559), 0403 JA8ERE (559/449), 0413 SV3AAF (559/559), 0446 ON5TA (O/O) #40 and first ON/OK QSO on 6 cm, 0535 G3LTF (559/559), 0625 JA6CZD (559/549), 0721 DL4MEA (559/539) #41, 0734 ES5PC (549/559), 0813 G4NNS (559/559), 0824 F2TU (559/559), 0922 LX1DB (579/569), 1005 DF9QX (O/O), 1335 WA6PY (O/O) #42 , DM field and CA state, 1359 CT1DMK (559/559), 1438 VE4MA (549/549) and 1525 WD5AGO (549/549), and on 11 July at 0404 SP6GWN (M/549) #43 and DXCC 22, 0453 PA0BAT (559/559), 0703 G3LTF (559/559), 0830 QRZ SV3AAF (??), 0909 F2TU (44/42) on SSB and 1429 W5LUA (569/569). Using the JT4G digital mode we worked on 11 July at 0615 ES5PC (24DB/17DB), 0637 PA0BAT (23DB/19DB) for digital initial {#4} and 0852 G4NNS (20DB/O). At 0510-0520 we measured a Sun noise of 15.2 dB (SF=80), a Moon noise of 1.3 dB and CS/G noise of 4.4 dB. The Sun's proximity to the Moon created no problem; even later at 1530 on 13 cm, we had good echoes.

ON5TA: Eric eric.vanoffelen@skynet.be sends his 6 cm AW report -- I had a great time during the 10/11 July AW! My set up was a 2.3 m offset dish that I normally use for 3 cm EME, a septum feed hastily built 2 days before and my terrestrial system with a modified surplus 6 GHz amplifier, giving about 8 W output on Saturday and a lot less on Sunday because of the exceptionally hot weather! Moon noise was 0.5 to 0.6 dB and Sun noise was about 10.5 dB. I was delighted to work OK1KIR, F2TU and LX1DB. I also heard PA0BAT, OK1CA, VE4MA, CT1DMK, JA8ERE, G3LTF, G4NNS, W5LUA and OH2DG. A 35 W PA is under construction. Many thanks to G3LTF.

OY3JE: Jan oy3je@egholm.fo in Faros is coming on 1296 EME. He currently is using a a 44 el Wimo yagi and a LNA from G4DDK in his shack. With this set up he has copied K2UYH (24DB) on JT65C. He is using a Flex-5000 and a Kuhne TR12896H transverter. He plans to add a 10 MHz input. The setup is currently only RX, but Jan has a 150 W (PE1RKI) PA that he hopes to have on soon. He also has a 2.4 m dish and an OK1DFC feed that he plans to have in operation in the very near future.

OY3JE 44 el yagi used to copy 1296 EME signals

SM2CEW: Peter sm2cew@telia.com reports on the 70 cm ATP -- A busy schedule mixed with very windy weather has prevented me from being active lately. However, I was QRV for the 70 cm ATP on 1 Aug and worked G3LTF, I1NDP, SM3AKW, W8TXT, N4GJV, K2UYH, OZ4MM and DL9KR. Conditions improved by the end of the ATP, but were still not too good. Stations in NA were worked cross-pol and Europeans were vertical. My schedule is now looking better so I can be QRV most days in Aug, and will be looking for stations that are not in Dallas for the conference. I will also try to evaluate my dish performance. I have a feeling that signals are down from what they used to be. My newly finished a noise meter (AD8307) will come in handy when looking for moon noise on 23/13 cm.

SV3AAF: Petros sv3aaf@yahoo.com was QRV for the 6 cm AW -- I was on for the July 6 cm AW and found very good activity. I worked: OK1KIR, PA0BAT, OK1CA, OH2DG for an initial (#), JA6CZD (#), G3LTF, F2TU, ES5PC, DL4MEA (#), G4NNS (#), LX1DB, CT1DMK and W5LUA. CWNR were VE4MA, WA6PY and JA8ERE. Heard were WD5AGO and partials from DF9QX. As this was more than a 2 hour window event and as equipment for these microwave bands are installed at the dish exposed to the elements, summer time heat was a problem. I guess in such cases there should be a general understanding that stations at the cool part of the day, should take responsibility for CQ calling. At this end the temp was over 60 degs C at the PA heat sink for the entire afternoon, but I blasted it anyway. Replacing the TWTA with GAS FETs at some point is in schedule, so let it be. Of course the temperature compensated oscillator was invalidated, as there was no compensation whatsoever at the >40 degs C of the TVTR compartment. I had to monitor the fundamental frequently. Conditions were good, although I have seen better, but they don't change that much on this band anyway. I experienced QSB to the east and weak Sun noise late in the second day.

VK4EME: Allan vk4eme@westnet.com.au writes on his 70cm activity since March -- I has been mostly on JT65B, and worked on 20 March DL7APV (15DB/23DB) for digital initial {#1} and OK2POI (22DB/27DB) {#2}, on 26 March DL5FN (13DB/26DB) {#3}, OK1KIR (15DB/22DB) {#4}, UA3PTW (14DB/O) {#5} and DK3WG (13DB/22DB) {#6}, 27 March K2UYH (13DB/16DB) {#7}, K2UYH (O/O) on CW initial #1, UT6UG (19DB/O) {#8} and OK1DFC (12DB/12DB) {#9}, on 17 April HB9Q (5DB/9DB) {#10}, JA6AHB (8DB/18DB) {#11} and OK1DFC (4DB/12DB), 19 June W7AMI (14DB/24DB) {#12}, VK4CDI (19DB/28DB) {#13} and JH7PAV (26DB/22DB) {#14}, 10 July K7XQ (17DB/O) {#15}, 17 July 9H1TX (23DB/24DB) {#16}, I1NDP (17DB/16DB) {#17}, 18 July K7XQ (15DB/O), 30 July DL7APV (13DB/17DB), UA4AQL (15DB/29DB) {#18}, and 31 July G4RGK (15DB/23DB) {#19}, EA3XU (18DB/O) {#20}, OZ4MM (O/539) CW #2. I also CWNR ZS6WAB (10DB), JE1TNL (16DB) and F6FHP (18DB). The major highlights were working JH7PAV (50 W to 2 x 25 el yagis) and on 16 July hearing my own CW echoes for the first time. I am still down 3 or 4 dB on Sun noise according to VK3UM's program; so I have more work to do on the RX side. I am running close to the Australian legal power limit, i.e., 100 W to 16 x DL6WU yagis with full polarity rotation. I am looking forward to the Northern Hemisphere winter and more activity.

WA3QPX: Paul wa3qpx@atlanticbb.net active on 432 but recently had problems and writes –- I had everything working again for a while, but wiped out a 20 year old power divider. I have had a replacement on order for about two months now. I did work I1NDP (14DB/12DB) on JT65B and CWNR ZS6WAB. I also had problems with the alignment of my Tohtsu TR relays. The relay with the misalignment was a CX600NL. The contact misalignment was for both the CX600NL and the CX800N. I was at K1JT's earlier this year to pick up some M2 432 9 WL yagis for my current array and while there looked at his CX600NL Tohtsu relays. The contacts were aligned perfectly. Apparently earlier shipments were OK. My guess is Tohtsu QC has changed. They should be in great disgrace. I had to file down the body of two relays to get the contacts to align after smoking two of them. I do not have the soldering techniques to re-align the wiper arm. So far I am out about $800 for replacements, but now I have spare parts. I am running these relays on 432, 220, 144 and 50 MHz with Lunar Links PAs. The Lunar Links are fantastic. Can't say enough about Steve. His construction and protection circuits have saved me from Tohtsu's disgraceful quality control and has saved me replacing 3CX800 finals.

WA6PY: Paul pchominski@maxlinear.com reports on his activity during the July 6 cm AW and later on 9 cm – During the 6 cm AW, I was lucky; WIFI QRM was very low. For some periods of time on Saturday I could even track the Moon on noise. For noise measurements I used both my wideband power meter, and an old IC202 (as a narrow band noise meter) connected to an AC voltmeter. For some QRM, this second solution works much better because the IC202 has quite an efficient noise blanker. I could hear my weak (M) copy echoes. The Sun was close to Moon and at the end of my activity during my QSO with G4NNS, the offset was only 1.5 deg in AZ and 0.5 deg in EL. I was forced to offset the dish during RX periods compromising the received signals. But G4NNS was quite strong. I also QSO'd CT1DMK, G3LTF, G4NNS, F2TU, LX1DB, OH2DG, OK1KIR, OK1CA and W5LUA. Heard but lost were VE4MA and ES5PC. I am not sure if Barry could copy my weak signal. Prior to the AW I QSO'd VK3NX. I now have 11 initials on 6 cm. My current setup for 6 cm consist of 3.6 m dish CP septum 5 steps feed with Chaparral flare, 1 dB NF LNA. The LNA when cascaded with the isolation relay, transverter and cables is 1.4 dB. My TWTA 15 W, and at the feed 10 W. CS/G noise is about 3.5 dB, Moon noise about 0.5 dB and Sun Noise about 10.5 dB. Now I know what I have to improve in my system. LO frequency drifts is at least 10 times too high. I also need automatic dish tracking and to increase my TX power. The NF of my RX is too high, but this will be the easiest to solve. After 6 cm AW, I changed setups on the dish to 9 cm. Thanks to the advise of G3LTF, I've got from eBay two 15 W Ionica modules and integrated into the SSPA with Pout = 25 W. This

SSPA is mounted on the rear of the dish. Power at the feed is 20 W. The feed is a 5 step septum scaled from a Dual Mode N2UO feed for 1296. I replaced the Dual Mode flare with a Chaparral. Circularity is within 0.5 dB and isolation is about 23 dB. It looks like the Chaparral feed has a lower isolation then original Dual Mode. Probably I have an incorrect length of the waveguide. Unfortunately I do not have access to Ansoft HFSS at the moment and cannot simulate and optimize this feed. On 14 July, I QSO'd W5LUA G3LTF and OZ6OL and had good copy M grade echoes. On Sunday 18 July I QSO'd K2UYH. During the QSO with K2UYH, the Moon was low and I was shooting through my 2 m yagi. From the beginning I could not find my echoes. K2UYH was very strong and easy to find. I tune my TX based on Doppler shift calculated using the VK3UM program. When the QSO was finished, I found my echoes. I have a problem with aiming, although it is easier then on 6 cm, but still creates problems. I will have to build auto tracking for my antennas. My temporary LNA is a quickly modified C-band TVRO LNB with not very good NF. CS/G noise is 3.5 dB, Moon Noise is 0.3 dB and Sun Noise is 11.5 dB. EME link parameters on 9 and 6 cm bands are very close to those predicted by the VK3UM EME Calculator program.

WA6PY's 9 cm EME (two SSPAs and feed above his head)

WW2R: Dave's g4fre@g4fre.com reports on recent activity – I was on 6 cm in April. On 24 April upon pointing dish at the Moon, I immediately heard F2TU and OK1KIR. I Called F2TU and received (M) back, but didn't complete as the Moon disappeared into his trees. I then CWNR OK1KIR (who was louder) for 20 minutes. I also heard VE4MA and SV3AAF. On 25 April signals were way down. I heard F2TU weakly and got only a very weak signal from VK3NX and it was not possible to work him. I also heard W5LUA, but no sign of ZM2TV. Tracking the Moon was an issue as at the low declination where there are some pointing errors due to the weight distribution on the dish. Tracking the Moon on noise was impossible as I was suffering from 1 second pulses that brought the noise floor up 6 dB on both my G3WDG noise amp and my GR noise meter. Fortunately the K3 noise blanker made the pulses have no effect on the receiver. During the 432 DUBUS EME Contest at the same time, I only heard K2UYH and I1NDP! Who would have thought that I would hear more on 5760 than on 432! During the July 6 cm AW my Moon/Sun separation was only 2 degs. With my antenna beamwidth of 1.3 degs, this allowed me to hear lots of Sun noise, but little else. It also stopped me from tracking using Moon noise. I am looking forward to next 6 cm activity period to have my first 2 way!

K2UYH: I a.katz@ieee.org was on 9 cm. WA6PY e-mailed me about planned 3400 activity during the week, but I could not make it because of my work schedule. Paul offered to leave his system in place over the weekend and set up a sked for 18 July. Unfortunately when I put my 9 cm gear in place at the feed of my dish, I discovered that my preamp was dead. I did not understand how this could have happed as it was fine the last time the system was in use during the ARRL Microwave contest. I made a rash decision to try a 13 cm preamp. I put it in place and easily worked at 2145 WA6PY (O/O) for my initial 9 cm EME QSOs. All my previous QSOs were during the ARRL Microwave EME Contest as K1JT. Later in the week, when checking out my system after putting my 1296 feed back in place, I caught on 24 July at 0400 ON4BHM (15DB/18DB) on JT65C for mixed initial #374*. It was Guy's 1st EME QSO. I was on 432 on 31 July trying for A71AW without success, but did QSO at 0448 DL7APV (10DB/8DB) JT65B, 0526 YO3DDZ (16DB/21DB) JT65B #799*, 0612 partial EA3XU (17DB/lost) JT65B and 0638 K7XO (18DB/21DB), and on 1 Aug for the CW ATP at 0652 I1NDP (559/329), 0700 OZ4MM (569/559), 0709 SM2CEW (569/569), 0725 G3LTF (559/559) and 0735 W8TXT (559/569). Thing quieted up at bit and I went up to 1296 at 0820 for S57SU (24DB/24DB) JT65C mixed initial #375 - his 1st NA QSO, and then back to 432 at 0930 for G4RGK (14DB/O) JT65B, 1000 partial KL7UW (0/-) JT65B, 1014 F6APE (22DB/O) JT65B 1020, and 1054 N9HF (24DB/25DB) JT65C #800* - Dave's first 70 EME QSO. I could not decode Dave during an initial sked attempt on JT65B. I then arranged for a second try using JT65C, which was successful. I wonder if our decode problems were somehow related to a huge solar flare that was taking place at the same time as our skeds? Did anyone else experience strange effects?

WB2BYP's 28' dish is now on the mount and should be operational soon. Congratulations John!

FINAL: This newsletter is a bit rushed as I have been pushing to get it done before I leave for the EME Conference and some of the regular features are missing because of the short turn around. Hopefully everything will be back to normal in Sept.

Less than 3 weeks after the 14th EME Conference in Dallas is the first leg of the ARRL's EME Contest with the Microwave EME Contest weekend on 4/5 Sept. I hope you have been making your plans to join the fun on 13 cm up. Based on the 6 and 9 cm activity this month, there should be a big turnout. The two regular (50 to 1296 MHz) contest weekends are both in Oct, on 2/3 and 30/31 Oct. Start making your plans or you will missed

GLOBAL ERUPTION: During the early hours of 1 Aug, there was a huge, colossal disturbance on the Earth-facing side of the sun. DL7APV reports receiving more than 35 dB of Sun! The so called *solar event* included a long-duration C3-class solar flare, a "solar tsunami," and a massive filament eruption! It has been years since something similar has occurred.

I hope to see all of you at the conference. 73, Al – K2UYH

OH0/DK2ZF's 70 cm Dxpedition skeds (CW will be 1 minute periods) he 1st.

Aug./Date	UTC	callsign	Locator	Freq	mode	MY AZ/EL
9	16:00	G3LTF	IO	432,090	CW/EME	
9.	17:30	MS				293/3
10.	4:30	MR				
	14:00	PA3CSG		432,090	JT65B/EME	232/30
10.	15:00	DL9KR	JO40DE	432,090	CW/EME	196/
10	15:30	SM2CEW		432	CW/EME	
10.	16:00	OK2POI	JN99AJ	432,090	JT65B/EME	260/16
	17:00	K2UYH	FN20QJ	432,090	JT65B/EME	272/9
	18:00	MS				
11.	6:00	MR				91/7
	11:00	PA3CSG			JT65B/EME	
11.	12:00	DL9KR		432,090	CW/EME	183/44