

## 432 AND ABOVE EME NEWS

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**CONDITIONS:** This month the 6 cm Dubus CW EME Contest was the major event. Conditions during the contest were not the best with the Moon near apogee (high path loss) and high spectral spreading making weak CW copy more difficult. Never the less, weather (WX) was good in most places and turnout excellent. Scores were generally a little better than last year despite the conditions. The top reported score is from the OK1KIR group with 33x29. There are no contests in July, but coming up the weekend of 3/4 July will be a 9 cm microwave activity weekend (MVAW). This activity will bring out 9 cm stations on all modes. Use of the 3400 Logger is encouraged. This is an excellent time to check out your equipment and try to make a 9 cm EME QSO. The 432 CW Activity Time Period (ATP) is Sunday 11 July from 0530-0730 & 1430-1630. There are no conflicting events – Give 70 cm CW a try again!

**DXPEDITION NEWS:** There are not many July dxpedition opportunities. **KA6A** will be doing grid hoping up the US east coast in July on 144, 222 and 432 and will have single yagi EME capabilities. 70 cm will be his third priority. **HZ0ZOP** is still QRV at time on 70 cm. It does not appear he will be QRZ on 23 cm before Aug and more likely Sept. See Alex's report in this newsletter (NL). There are many dxpeditions scheduled for Oct. **DG8NCO** and **DK5EW** are planning a trip to **J6 St. Lucia** and will be on 2, 70 and 23 cm. On 1 to 5 Oct **N1V** (N1AV) will be QRV on 1296 from **Hawaii** see <https://www.n1rwy.org/?p=803> for more info (BL11 or BL01). **W2HRO** will be QRV from **V47, St. Kit** on 1296 in Oct – see Paul's report in this NL. **TX7MB** is also to be QRV on 26 Oct to 11 Nov from **Marquesas** on possibly 432, but other bands may have priority.



Alex (HB9DRI) setting up to put Thailand on 1296 EME

### REPORTS:

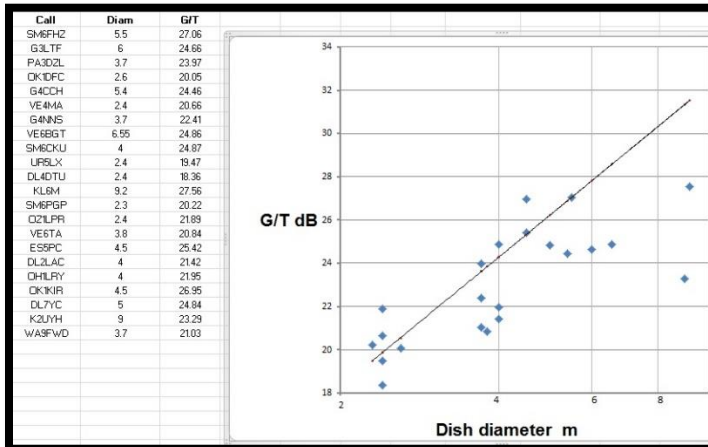
**DB6NT:** Michael [db6nt@gmx.de](mailto:db6nt@gmx.de) sends 6 cm EME info – During the 5760 Dubus CW EME Contest the weather conditions were good. I worked PA3DZL, ES5PC, OK1KIR, G3LTF, VK3NX, DL7YC, OZ1LPR, OK1CA, DL4DTU, UA3PTW, G4NNS, SM6FHZ, K2UYH, WA6PY, VE4MA, SA6BUN, OH1LRY, KL6M, OK1DFC, 9A5AA, UR5LX, DF3RU and JF3HUC for a total of 23x21. I also heard HB9Q, VE6BGT, VE6TA, WA9FWD and SM4DHN.

**DJ3JJ:** Andreas [dj3jj@gmx.net](mailto:dj3jj@gmx.net) reports **QSOing using CW on 1296 DU3T in June** -- On 15 June, I had a successful CW sked with DU3T. Ron was using his 4.6 m dish and the Moon had -1.3 dB of extra path loss at the time. We worked during my lunch break at 1030. He was calling CQ on 1296.020. I copy him directly and answered his CQ. Within 10 min we made a (549/529) QSO. Ron was surprised to copy me so easily with my 2.5 m dish and 200 W @ feed.

**DL7APV:** Bernd [dl7apv@gmx.de](mailto:dl7apv@gmx.de) reports worked a few new stations on 432 in June – I added initials with KA6U using 2 yagis and 500 W from EL39, UA3MBJ using 1 yagi and 150 W from KO87, VE6WK using 1 yagi and 75 W from DO20, and DL5DAW using 4 x14 el yagis and 400 W from JO31. I just received an Airspy SDR with a 10 MHz bandwidth to use for pulsar hunting. Unfortunately, QRM seems to kill this advantage. I have to try adding a notch filter for 433 where there are lot of ISM birdies even in my country side QTH.

**G3LTF:** Peter [g3ltf@btinternet.com](mailto:g3ltf@btinternet.com) is getting back to normal after his accident and reports on his June activity primarily on 6 cm -- I was QRV on 6 cm for the Dubus/REF Contest. The WX was very kind with very little wind. Activity was a bit down compared to last year, especially on Sunday. On 12 June, I worked UA3PTW, OK1CA, VK3NX, DB6NT, OH2DG, KL6M, ES5PC, PA3DZL, KL6M, DL7YC, OZ1LPR, SM6FHZ, IK3COJ, G4CCH, G4NNS, SA6BUN, OK1KIR, OH1LRY, UR5LX, VE4MA, K2UYH, VE6BGT and WA6PY, and on 13 June JF3HUC, DF3RU, OK1DFC, SM6CKU and VE6TA. My score was 27x22. Heard were JA6XED, JA8ERE, IK2RTI and IK0HWJ. Bad WX after the contest prevented a try with DL4DTU. I was very pleased to get Sun noise measurements from 21 stations – See the following graph. Notes are as follows. G/T is

calculated from the reported Y factor and dish diameter. The 5.76 GHz solar flux is taken as 154. The calculation takes account of the lower level of flux intercepted by larger dishes (Boven correction). Several stations, especially those with smaller dishes reported WiFi interference, which would reduce their Y factor. I am working on a possible correction to this based on their moon noise measurement. The line on the chart is simply an extrapolated G/T based on SM6FHZ's value, purely to aid comparison.



**G4CCH:** Howard [howard@g4cch.com](mailto:howard@g4cch.com) was active in both the 23 cm VK3UM Memorial EME Contest in May and the 6 cm leg of the DUBUS EME Contest this month – During the 5 GHz contest on Saturday, it was too windy and very difficult to keep my dish on the Moon due to backlash in my azimuth drive. My echoes were weak, and most reports were weaker than previously. I thought something was wrong in my feedbox, but persevered with it. Sunday was better and in the days after the contest I was happy to add a few more QSOs. I worked using CW ES5PC, DL7YC, G3LTF, SA6BUN, OH1LRY for initial #55, OK1CA, KL6M, OK1DFC, SM6FHZ, OK1KIR, JF3HUC, SM6CKU, PA3DZL, UA3PTW, OZ1LPR, UR5LX, SM6PGP, VE4MA, WA6PY, DF3RU and VE6TA for a total of 21x17. Copied but missed were JA8ERE, PA0BAT, DB6NT, JA6XED, G4NNS, VE6BGT, K2UYH, IK3COJ, IK2RTI and WA9FWD. I added on 16 June using digi mode UN6PD for digital initial {#5} and IK0HWJ {#6} and also using CW #56, on 18 June DL4DTU using CW #57 and using digi {#7}, and on 21 June K2UYH on CW. On 6 cm, I am using my HB 5.4 m dish with scaled N2UO round septum feed, 40 W at the feed, RX NF 0.6 dB. I have a new slew drive, which I'm hoping to get on the dish soon – hopefully it will cure my azimuth backlash issues.

**G4DDK:** Sam [jewell@btinternet.com](mailto:jewell@btinternet.com) sends an update on his 3 cm plans -- Although I have been playing with 10 GHz EME for several years, I have not yet had a successful QSO. This is mainly due to poor tracking of my 2.3 m dish making life extremely difficult! I run a DRIACS antenna controller on a SPID RAS, but the lack of an absolute encoder with adequate resolution on the azimuth drive has been a continuing problem. A gravity pendulum on a

MAB25 takes care of the elevation. In 2019, I fitted an azimuth MAB25 encoder according to idea of G4BAO. I only recently got round to trying this on 10 GHz. It has been used successfully on 23 thru 6 cm EME for over a year. I have built a new feed box to house the 10 GHz transverter and 15 W PA. In early June, I got impatient and just tried the transverter/LNA and waveguide switch on receive and was pleased to see that the dish remained sensibly on the Moon for several hours at a time with only slight adjustment of angle required as the Moon moved further beyond transit, due to a slight 'lean' of the main mounting pole. I have now started on the job of integrating the PA onto the 6 mm thick baseplate of the removeable feed box. With effort and a little luck, I will have TX capability by July.

**GM4PMK:** Roger [gm4pmk@marsport.org.uk](mailto:gm4pmk@marsport.org.uk) has put Scotland on 9 cm EME – I have made only one 9 cm QSO with HB9Q so far, I'd be happy to arrange skeds. My dish mount is limited to > 3 degs in declination and 345 to 40 in GHA. Currently I have my 23 cm feed in the dish - it takes about an hour to change feeds. The other constraint is wind; it needs to be less than about 25 mph. I will be away from beginning of July thru Aug. I plan to install a new equipment cabinet at the dish to protect my PAs from the inclement Scottish WX. My setup is a 3.2 m dish with RF Hamdesign septum feed and at it about 22 W (from a pair of Lonica SSPAs), and G4DDK preamp. I measured around 9 dB of Sun noise last time I checked. I am looking forward to more 9 cm QSOs!

**HS0ZOP:** Alex (HB9DRI) [hb9dri@emeham.com](mailto:hb9dri@emeham.com) reports on his 1296 status in Thailand – My plan to finish my 23 cm station was delayed due the Covid situation in Thailand. I travel twice within the last 2 months and each time was force to quarantine for 14 days with no access to my radio equipment. My wife Helene managed to send the 1st batch of QSLs to HB9Q, DL7APV, UA3PTW, OK1KIR, JA6AHB, DK3WG, PA3DZL, PA2CHR, DL9KR, OH2DG, NC1I, E050FF, UA4AQL, RD3FD and 7M2PDT. The second batch (the last with another 13 QSL cards) will be dispatched soon. My 23 cm station progress is not as I expected. I am still working on the 1 KW Kuhne SSPA; the mechanical parts (heatsink, box, in/out lines directional coupler and PS are ready). I just need to finish the Arduino controller (ON7EQ version) same as my 70 cm 1KW SSPA. The antenna is almost ready, but not yet in place. I expect to finish within the next 6 weeks. On 15 Aug, I will be in Switzerland for 4 weeks. Regarding activity on 70 cm, I found some time to operate, and have had nice QSOs using Q65 -- but signals were too strong to judge true advantage of this mode. Similar to my experience on 13 cm, I found on 70 cm mainly the same stations, and as soon as the Moon moves to southern Dec, very few stations show up. My permits are extended and I hope to soon be on 23 cm. On 19 May, after one failed attempt, I was able to complete a QSO with PY2BS. This QSO was difficult because Brazil is almost the antipode of Thailand; and we both are in big cities with at low elevation a lot of noise. With Brazil, I complete WAC, probably the only award I can reach with my short time in Thailand. I have 25 DXCC, 64 initials and 100 QSOs.



**IK1FJL:** Valter [valter\\_dls@yahoo.it](mailto:valter_dls@yahoo.it) reports on his June 1296 EME -- I was not as active after the Dubus Contest, but did get some work done around my shack, I cleaned up the confusion from all my many cables! I plan to try some Q65 QSOs on 23 cm, but this new mode doesn't excite me very much. In my modest opinion JT65 is more than enough. In June, I worked on 23 cm CW RA4HL (559/569), VK4AFL (O/O) for an initial (#), DF3RU (579/579) -- during this QSO I demonstrated EME for visitors to my QTH, DJ3JJ (O/O), I5MPK (559/579) and FR5DN (559/569). I am looking forward to the second part of ARI Contest in Sept.

**KNOWS:** Carl [carlhasbargen@q.com](mailto:carlhasbargen@q.com) writes about his June efforts -- I am preparing for my trip to NB to enable G3LTF to complete 432 WAS on CW. I am working on sew together aluminum mosquito mesh for my 12' portable dish that will slip over the dish ribs and not depend upon Velcro to stay in place. Based upon my speed of work, I have another 40 hours of sewing to do! I am using aluminum wire as "thread". I replaced the rusty linear actuator on 8' dish at my northern EME site in hopes of using it for the Dubus 6 cm Contest. During the contest weekend, the dish moved just fine, but I had zero watts out of my 6 cm amp and could not find the source of the problem. Alternatively, I set up for 23 cm EME with my 16' dish. I used WSJT-V9 with JT65C to work IK7EZN (21DB), W2HRO (19DB), KB2SA (18DB), LA3EQ (21DB), DF2VJ (23DB), KD5FZX (11DB) and DL6SH (11DB). I think these reports are about 7 dB less than if I had been using WSJT-X. I had forgotten to upgrade my WSJT-X before this weekend, so version 2.4 was expired. As a result, I was not able to work several folks who I could see well, but were just using Q65. I did have initials with IK2DDR (24DB) and N0CTR (25DB). Kendall (N0CTR) lives here in Minnesota and is closer to my dishes than my own home! Perhaps at some point we can get together and I will be able to say I have finally met another EME operator face to face!

**NY2NY:** Jay [JAYB1943@OPTONLINE.NET](mailto:JAYB1943@OPTONLINE.NET) has returned to 70 cm EME after more than 20 years -- I had many 432 QSOs in the 70 & 80's with the call K2OVS. I am now a "small pistol" on 2 m and 70 cm EME; I am QRV a few times a month with moderate power and single yagis. I have yet to make a QSO on 1296 EME where I have 250 W and a 55 el loop yagi on the horz. HB9Q says he has heard me. I will be looking for QSOs and can be found on the 432 logger.

**OK1CA:** Franta [fr.strihavka@seznam.cz](mailto:fr.strihavka@seznam.cz) sends his June report -- The last leg of this year's DUBUS EME Contest was on 6 cm CW, and not at a good time. Signal spreading was very bad and reached a maximum of 140 Hz. Many stations also had problems with interference from WIFI in the 6 cm band, both in the EU and NA. However, despite the poor conditions, the activity was good from all areas. On Saturday, I made 27 QSOs and added initials with JA6XED and IK0HWJ to bring me to #83. **My QSO with IK0HWJ was of special importance to me as it was my CW EME initial #1000 for all bands 432 thru 24 GHz made over my 28 years of EME activity.** I heard but

missed JA8ERE on Saturday, and on Sunday I was QRV only for the first 4 hours and added four QSOs. **My final score was 31x28.**

**OK1DFC:** Zdenek [ok1dfc@seznam.cz](mailto:ok1dfc@seznam.cz) was recovered from his bout with COVID and reports on his June operation -- I was QRV on 6 cm only on Sunday 13 June. I managed to make many CW and some multimode QSOs during the day. On Saturday I had made a new W2IMU collar for my 6 cm square septum feed. The result was very good and it turns out that the properly calculated collar helped to illuminate the whole area of my offset antenna very well. The only problem I noticed was with the spreading. The maximum spread was around 140 Hz and at that time, I had trouble reading stations that used higher CW speeds. Normally high speed CW does not give me any problem. I QSO'd for the DUBUS 6 cm Contest using CW UR5LX, OH1LRY, OK1CA, UA3PTW, OK1KIR, KL6M, DB6NT, SA6BUN, G4CCH, SM6FHZ for initial #38, DF3RU, JF3HUC #39, ES5PC, PA3DZL, G4NNS, IK0HWJ #40, DL7YC #41, G3LTF, OZ1LPR, VE4MA, SM6CKU, VE6BGT, WA6PY #42, VE6TA and WA9FWD #43 for a total of 25x23. After the weekend, I still wanted to test listening to the new DL0SHF beacon on the 24 GHz band, which uses 4.5 W and a 3.7 m dish. From the first tuning, I had no problem decoding the beacon signal on 24048.025, which operates in the new Q65-60E mode. I was surprised how easily I could detect the beacon with so little power. The new Q65 mode is a great help for experiments on higher EME bands and I hope to use it to make contacts in the 47 GHz band. During May, I worked a bit on modifying my equipment and mechanical storage for the 47 GHz band. I now have a power of 1.1 W and an LNA with a NF of 2.4 dB. I'm looking forward to getting the fall tests started. I am trying to get a TWT amplifier so that I can do TX experiments as well.

**OK1KIR:** Vlada [vlada.masek@volny.cz](mailto:vlada.masek@volny.cz) and Tonda send news of their EME in June -- The last part of EME Dubus CW Contest on 6 cm was made more challenging by large spectral spreading and the Moon close to apogee. Also, the high declination probably decreased participation of southern hemisphere stations. In addition many stations suffered from WiFi interference. Regardless of all these troubles, activity was quite good. We made following contacts on Saturday 12 June at 0508 OK1CA (569/579), 0529 UA3PTW (569/579), 0636 VK3NX (569/569), 0601 PA3DZL (569/569), 0615 ES5PC (579/589), 0637 JA8ERE (569/559), 0704 JA6XED (569/569), 0716 OZ1LPR (569/569), 0731 DB6NT (569/569), 0738 KL6M (569/569), 0744 DL7YC (569/579), 0838 SA6BUN (579/579), 0846 DL4DTU (549/559) for initial #116 - Norbert's first 6 cm EME QSO, 0909 G4NNS (569/579), - (a break for 10th birthday of Tonda's grandson) - 1335 G3LTF (569/589), 1353 UR5LX (559/559), 1403 OH1RLY (569/579), 1415 IK0HWJ (569/569), 1559 IK3COJ (O/O), 1609 VE4MA (569/569), 1621 DF3RU (559/559), 1631 VE6TA (559/559), 1644 VE6BGT (569/569), 1816 WA6PY (569/559), 1833 SM6FHZ (569/569), 1913 SM4GGC (559/549) #117, 1944 9A5AA (O/O) and close to moonset 2017 K2UYH (559/569); and on Sun 13 June at 0743 OK1DFC

(569/579), 0801 JF3HUC (569/559), 0959 G4CCH (559/569), 1130 SM6CKU (569/579), 1546 WA9FWD (559/449) and 1555 partial SP6GWN (549/-) as Henryk suddenly disappeared. We also heard HB9Q, OH2DG and IK2RTI. Our total contest count was 33x29. ON Sunday we measured Sun noise of 17.2 dB and Moon noise of about 1.5 dB (WiFi interference prevented a precise measurement). **Our total result in the Dubus Contest 2021 after all 6 parts was 358x207 or 7,410,600 points.**

**PA3DZL:** Jac [pa3dzl@icloud.com](mailto:pa3dzl@icloud.com) had a great time during the Dubus CW/SSB Contest on 6 cm -- Conditions on Saturday were good but even better on Sunday. There were very nice signals from almost all stations. I could not be active Saturday evening due to family commitments and missed the NA window. I QSO'd OK1KIR, OK1CA, VK3NX, KL6M - on my moonrise, OH2DG, DB6NT, ES5PC, DL7YC - strong, G3LTF, SA6BUN - strong, UA3PTW, OZ1LPR, G4NNS, UR5LX, OH1LRY, JA8ERE - strong, JF3HUC - strong, SM6FHZ, OK1DFC, DF3RU, 9A5AA, SM6CKU, G4CCH, VE4MA, WA9FWD, WA6PY, VE6TA and VE6BGT for a total 28x23. Heard were JA6XED, HB9Q - strong and IK0HWJ. After the contest with my 6 cm rig in the dish, I worked on CW on 15 June IK0HWJ for initial #77 and **UN6PD #78 and DXCC 35** and using Q65D, and on 19 June DL4DTU #79 and using Q65D. My 6 cm rig is my 3.7 m solid Andrew dish (f/d 0.34), squeezed CT1DMK/LX1DB feed by PA7JB, 100 W SSPA @feed and NF 0.5 dB LNA.

**SM5DGX:** Anders [jatk@live.se](mailto:jatk@live.se) sends news about his plans to become QRV on 3 cm – I just obtained a 3 m offset dish that I plan to use for 10 GHz. It is good for thru 24 GHz. I will start with about 20 W from an SSPA. I also have a 160 W TWT that I want to get working. I expect to be QRV by late this summer.



**SM5DGX and friend in front of his 8 m dish**

**SM6CKU:** Ben [ben@sm6cku.se](mailto:ben@sm6cku.se) was QRV on 6 and 23 cm in June – Unfortunately, I was only able to be on for the 6 cm Dubus Contest on Sunday. On Saturday I had a power supply failure. I did listen and heard many stations with good signals. On Sunday morning SM6PGP showed up and after an hour we sorted it out. It turned out my 48 VDC PSU was bad. I had a spare and was on the band at 1024. I worked the following stations: OH1LRY, G4NNS, PA3DZL, DL7YC, SM6FHZ, G4CCH, OK1KIR, UR5LX, SA6BUN, G3LTF, UA3PTW, K2UYH, VE4MA, partial SM6PGP as Hannes lost his AC power in the middle of the contact, DF3RU, OK1DFC, VE6BGT for initial #72, ES5PC, WA6PY and finally VE6TA for a total of 19x17. Heard but not worked was WA9FWD. Conditions were good despite the near 2 dB of extra path loss. I had no problems copying anyone of the above. I measured 15.3 dB of Sun noise and 1.5 dB of Moon noise, CS/G was 5.5 dB using my 4 m dish with an f/d of 0.4 and an SM6FHZ feedhorn. I am available for skeds most days except Wednesday morning - email me.

**UR5LX:** Sergey [ur5lx@ukr.net](mailto:ur5lx@ukr.net) (KO70wk) reports on his 6 cm activity in the Dubus Contest – I used my 2.4 m offset dish with a 40 W SSPA in 6 cm contest to QSO using CW PA3DZL, ES5PC, OK1KIR, OZ1LPR, UA3PTW, OH2DG, G3LTF, OH1LRY for initial #53, OK1CA, SM6FHZ, OK1DFC, KL6M, SA6BUN, DB6NT, DL7CY, SM6CKU, G4CCH and G4NNS for a total of 18x14. Heard were DF3RU, JF3HUC, JA8ERE, K2UYH – replied QRZ and WA6PY.

**VE4MA:** Barry [barryve4ma@gmail.com](mailto:barryve4ma@gmail.com) had a good time in June with both his participation in the Dubus 6 cm Contest and reception of the new 24 GHz DL0SHF Beacon and other stations -- During the Dubus Contest, I worked 22 stations and 20 mults with my limited window. QSOs included OZ1LPR, G3LTF, UA3PTW, ES5PC, DL7YC (big signal), OK1KIR, WA6PY, K2UYH, SA6BUN, DB6NT, DF3RU, SM6FHZ, OH1LRY, VE6BGT, G4CCH, SM6CKU, OK1DFC, PA3DZL, WA9FWD, VE6TA and KL6M. Signals were generally strong but with a large libration spreading (~120 Hz) that caused the signals to often not as easy to copy as they should have been. On 14 June, I copied the new 4.5 W 24 GHz DL0SHF Q65-E60 beacon at (15DB). Later Per put the 100 W TWT on the beacon and it was at (3DB). This was near Apogee and the spreading was near 300 Hz. It appears that the signal report given by WSJT-X is not an accurate absolute reference, as it is affected by the receiver frequency response, so direct comparisons of reports between stations are not necessarily accurate. With the beacon I had a S/N margin of 4-5 dB. On 24 GHz, on 15 June I QSO'd DL0SHF using CW (569/539) and also DK7LJ (569/539) for an initial (#); and on 16 June I briefly copied SA6BUN and WA6PY in their sked - both were (T-M) copy. Conditions were really bad with large spreading and atmospheric absorption.

**VE6BGT:** Skip [macaulay.skip@gmail.com](mailto:macaulay.skip@gmail.com) reports great conditions for the 6 cm Dubus Contest – I had mild weather and no rain for a change! My fairly new GaN FET SSPA worked like a charm with its newly built 50 volt analog power



supply - old school stuff, Hi. Great echoes and good signals from all over! I worked: VK3NX (569/569), VE6TA (569/579), KL6M (579/569), OZ1LPR (559/569), G3LTF (579/569), DL7YC (579/579), OK1KIR (569/569), OK1CA (579/579), UA3PTW (569/569), ES5PC (569/569), SA6BUN (569/559), VE4MA (559/569), OH1LRY (579/559), WA9FWD (549/569), JF3HUC (559/569), K2UYH (559/569), WA6PY (569/569), SM6CKU (569/569), OK1DFC (559/559), DF3RU (569/569) and PA3DZL (569/569) for a total of 21x19. I did hear G4CCH but missed him this time. A lot of these contacts were first time QSOs - initials. It was a lot of fun as usual. I plan to be on for the 9 cm MVAW event on 3/4 July.



**VE6BGT dish with 6 cm feed**

**VE6TA:** Grant [ve6ta@xplornet.com](mailto:ve6ta@xplornet.com) writes on his recent 23 and 6 cm activity – I worked on 1296 on 9 May using CW VE6BGT and **DU3T for initial #338 and DXCC 63** – Ron had a great signal; and on 15 May during the Dubus 23 cm Contest WA9FWD, N5BF, K2UYH, DU3T, WA6PY, KL6M, VK5MC, K5DOG, QRZ'd NQ7B (?), LZ2US, G3LTF, IK2DDR, 9A5AA, VA7MM, OK2DL, OK1CS, OK2ULQ, IK1FJI, CT1FGW, DL6SH, DG5CST, G4CCH, W6YX, DL0SHF, DL7YC, I1NDP, UA3PTW, IK3COJ, SP7DCS, N8CQ, OH1LRY, LZ1DX, SM5DGX, OK1KIR, F6CGJ, N4PZ, ES5PC, W2BYP, VE6BGT, VK4AFL, IK3MAC, OK1CA, OK1KKD, DF3RU, SM7FWZ, SP3XBO #339, OH100SRAL (whew!) #400, ON5GS, OE5JFL, PA3DZL, LX1DB, SP2HMR, SM2CEW and VE4MA for a total of 52x48. In the Dubus 6 cm Contest, I contacted on 12 June VK3NX, VE6BGT, KL6M, DL7YC, OK1KIR, OZ1LPR, OK1CA, ES5PC, SA6BUN, SM6FHZ, OH1LRY for initial # 39, K2UYH, WA6PY, JF3HUC, DF3RU, PA3DZL, OK1DFC, UA3PTW, SM6CKU, VE4MA, WA9FWD, G4CCH and G3LTF for a total of 23x20. Great activity for both legs of the contest. Probably a record number of 6 cm QSO's for me as well. Currently I am working on a 450 W SSPA for 902 that has been collecting dust in my

closet. So, I may have a little more goo for a proposed 902 weekend in Oct.

**W2HRO:** Paul [w2hro.fn20@gmail.com](mailto:w2hro.fn20@gmail.com) writes that he is planning a dxpedition to V47, St. Kitts in Oct on 1296 and possibly other bands – I am still finalizing my plans, but the trip looks pretty solid. NC1I is helping with the equipment. I have a place to operate from. More info to follow. In the mean time I remain active on 432 and 1296 EME.

**WA6PY:** Paul [pchominski@maxlinear.com](mailto:pchominski@maxlinear.com) was **QRV in DUBUS 6 cm Contest** -- QSO'd using CW in the contest were UA3PTW, OK1CA, OH1LRY, G3LTF, DB6NT, 9A5AA, VE4MA, DL7YC, SA6BUN, SM6FHZ, G4NNS, KL6M, OK1KIR, ES5PC, JF3HUC, K2UYH, VE6TA, VE6BGT, VK3NX, PA3DZL, OK1DFC, G4CCH, DF3RU, SM6CKU, OZ1LPR and VE4MA for a total of 26x21. I was called by 2 other stations, but mainly due to a higher than usually WiFi interference level, I wasn't able to copy the callsigns. I suggest that when you receive a QRZ, you should respond with your call, rather than repeating the other station's callsign 4 to 5 times and at the end sending your callsign a few times. Sometimes the beginning of a transmission is stronger and later signals gets weaker. Maybe this is due to the Moon tracking or the PA gets hot and power decreases. I can't measure CS/GNG, MN or Sun noise on 6 cm due to the high interference level at my QTH. Sometimes I get high noise bursts, 20 dB above average, making it impossible to copy even the strongest stations. This can last from a few seconds to few minutes. The high libration and close to the apogee conditions didn't help the copy weaker signals. This year the ARRL EME MW Contest weekend will be again during apogee and during a time of very high libration; 270 Hz at 10 GHz and 400-600 Hz on 24 GHz. On 24 GHz even the new digital modes will be very difficult. In my opinion contest dates, especially for 24 and 10 GHz should be chosen during times of low libration and not during apogee, even at the cost of lower declination.

**K2UYH:** I (Al) [alkatz@tcnj.edu](mailto:alkatz@tcnj.edu) had fun on EME in June, but it will be hard to match April/May -- I operated exclusively on CW during the weekend of 12/13 June in the Dubus 6 cm Contest. I made 19 QSOs and 17 multipliers with OK1KIR (569/559), G3LTF (569/559), UA3PTW (569/559), ES5PC (569/559), OZ6LPR (569/539), DB6NT (569/569), VE4MA (569/559), DL7YC (569/559), OH1LRY (559/549), G4NNS (559/O), SA6BUN (569/519), OK1CA (569/569), KL6M (569/559), 9A5AA (569/559), VE6TA (559/559), WA6PY (569/569), VK3NX (559/O), VE6BGT (559/559) and SM6CKU (569/559). I lost UR5LX after having exchanged reports but never received his Rs. I would have had a higher score, but attended a close friend's memorial service on Sunday and missed most of the second day. Although there was a lot of frequency spreading making CW copy more difficult than normal, it was still great fun. My station consisted of my 28' dish with a 35 W SSPA and about a 0.5 dB NF LNA. My dish is a C-band dish with a wide mesh never intended for 5.6 GHz operation. It is probably equivalent to about a 9' dish on 6 cm, but still has a very sharp pattern. It is amazing that Russ' (K2TXB) auto-track program can keep it on the Moon! After the contest on

21 June, I worked on 6 cm CW G4CCH and had a partial with DL4DTU – he lost Moon before we could complete. I will be QRV for the 9 cm MVAW on 3/4 July.

**NET/CHAT/LOGGER NEWS:** **DL4DTU** was active in the Dubus 6 cm contest with a 2.4 m dish and reports 9.5 dB of Sun noise and 0.6 dB of Moon noise. **F2CT** sends a correct to his May NL 3 cm contest report. He missed listing QSOs with 9A5AA and OZ6OL. [Guy was not able to be QRV for the 6 cm contest]. **JA4BLC** is not presently QRV. Yoshiro has only a 2.4 m dish, but no gear mounted. He will not be QRV until autumn. **KB7Q** is looking for ideas for fall dxpedition sites. Besides 144, 432 and 1296 operation, 222 is also possible. Contact Gene at [geneshea@gmail.com](mailto:geneshea@gmail.com). **VK3NX** was QRV on 6 cm during the Dubus Contest and worked stations in NA, EU and JA (?). **JH1KRC** is rebuilding his 6 cm station and had no chance to be QRV. Mike has a new email address [qq363gud@voice.ocn.ne.jp](mailto:qq363gud@voice.ocn.ne.jp).

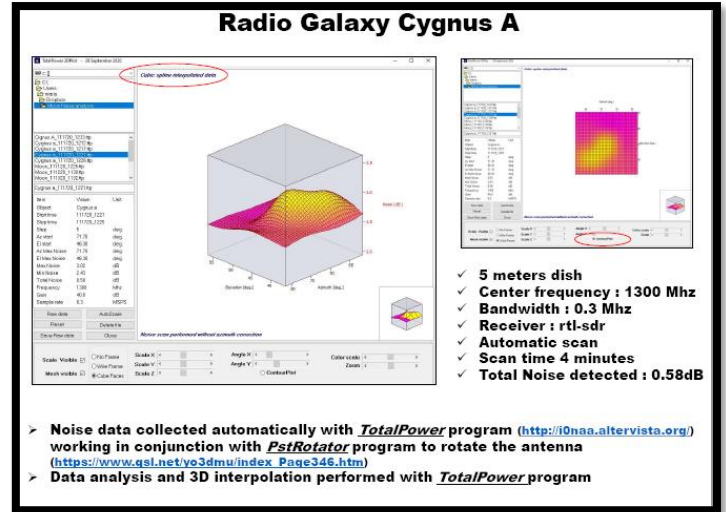
**FOR SALE:** **PA3DZL** with PA0BAT and PA7JB have 10 GHz SSPAs for sale. They are 18 ~ 22 W from 10.5 V supply. They have a separate DC board for +10 V and -5 V with protection. Heatsink is not included but needed. For more info email Jac [pa3dzl@icloud.com](mailto:pa3dzl@icloud.com). **W2HRO** has 1.8 m folding dishes (10 lbs) with 1296 circular pol feeds for sale. Larger dishes are also available along with LNAs, isolation relays and terminations. More info can be found at [www.Sub-Lunar.com](http://www.Sub-Lunar.com). Paul's goal is to offer specialized EME equipment and ultimately a turnkey station for 1296 EME. A video showing his folding dish and patch feed can be seen at <https://youtu.be/p66s1jF7760>.

**TECH:** Want to easily make a loop feed for 432. **KNOWS** suggests rather than fabricating the cylinder that the loop fits into out of sheet metal as he did the first time, just buy a pan of the approximate size. He has found several, but recommends a 16" "Tezzorio" cake pan. It is available on Amazon for ~ \$25 at [https://www.amazon.com/Tezzorio-Aluminum-Smooth-Sided-Professional-Bakeware/dp/B07H6NQZGL/ref=sr\\_1\\_2?dchild=1&keywords=tezzorio+16+inch+cake+pan&qid=1622739697&sr=8-2](https://www.amazon.com/Tezzorio-Aluminum-Smooth-Sided-Professional-Bakeware/dp/B07H6NQZGL/ref=sr_1_2?dchild=1&keywords=tezzorio+16+inch+cake+pan&qid=1622739697&sr=8-2).



Several of **KNOWS'** bake pan feeds including a HB version, dual band and an empty pan

**ASTRONOMICAL CORNER** The following are the results of measurements by taken by IONAA using his 5 m dish on 1300 MHz and his TotalPower program.



**IONAA 5 m dish with 23 cm feed**

The concept of using a lunar crater on the backside of the Moon for a radio telescope site is nearing reality. It has NASA funding, although not yet an official project. Interest is in very low frequency radio astronomy. The impact on our knowledge of the universe could be immense! Info on the Lunar Crater Radio Telescope (LCRT); Illuminating the Cosmic Dark Ages, can be found at <https://www.jpl.nasa.gov/news/lunar> and at <https://www.jpl.nasa.gov/news/lunar-crater-radio-telescope-illuminating-the-cosmic-dark-ages>.

**FINAL:** The 1296 Beacon, ON0EME is still not QRV. However, DK7J reports the 24 GHz beacon, DL0SHF has



been regularly QRV since 6 June. It is normally in digi mode QRA64/wide spacing on 24,048.025. It is using a 3.7 m dish with a 4.5 W SSPA, but can be switched to a 118 W TWTA for special tests.

► G4RGK has updated his CW Initials/DXCC listings. There is much of interest including WAC info – see <http://www.zen70432.zen.co.uk/Initials/index.html>.

► A 902 EME AW is being planned for 2/3 Oct. Stations expected to be QRV are KL6M, W5LUA, VE4MA, PY2BS, K2UYH, K9ZR, K5DOG, VE6TA, K2DH, N8DJB and possibly others.

► EME 2022 Prague: There is no new news. EME2021 IS postponed to Aug 2022. Let's start making plans to attend Prague 2022. It a little more than a year away!

► SA6BUN (DL3YMK) sent out an open email about why he is not sending in his logs for the Dubus CW EME Contest. Michael operated the 3 and 6 cm weekends and achieved a very competitive score in both events. He is troubled by the lack of respect for the rules concerning the use of the Internet and related com links. The rules state: "During Contest time, it is not allowed to use other communications medium such as internet or packet radio, to self spot, announce CQ frequency, make skeds, exchange any QSO progress info, confirm whether the QSO was valid or not...". Michael observes that a considerable number of contest stations do not follow these very simple rules. They hang around the loggers such as HB9Q during contest time and exchanging contact details. He further states -- Actually, I have no objections to doing this, as long as those stations regard the contest as a sort of QSO-party for themselves and do not appear in the score list of participants. But this has not been the case; and there

has not been any attempt to enforcement the rules by the contest sponsors. As long as there is no rule enforcement by some sort of referee (as there was in former times); this kind of contest is not worth my investing time in compiling and sending in my logs. [It is important to note that in reporting scores in this NL, no attempt has been made to separate reports of QSOs between those seriously operating the contest according to the rules; and those making QSOs using the Logger. High scores reported in the NL are not necessarily valid contest scores. I do not think anyone wants to discourage QSOs between contest stations and those just trying to make QSOs and using the Loggers]. Michael proposes besides enforcing contest rules, why not simply switch off all Loggers, chats, etc. during the Dubus CW EME contest times? [Although this is conceptually a solution, there are many stations who are not interested in the contest or even CW. Many of these operators would object to their loss of the Logger. A better solution would be to establish a committee to check for violations of the rules]. Michael hopes his wake-up call is enough of a reminder to get the majority of operators strictly keep to the contest rules again.

► We are now near the end of June and this is the June issue. I think this time we will get it mail before the 1<sup>st</sup> of July. Thanks for the reporting on the 6 cm Dubus Contest. Your support has been terrific! Coming up is the 9 cm AW and Let's keep the Moon alive no matter what mode you operate. 73 and stay well, AI – K2UYH and Matej – OK1TEH.

**The top 20 of G4RGK's CW Initials list follows:**

	Call	70cm	33cm	23cm	13cm	9cm	6cm	3cm	1.2cm	0.6cm	Total
1	DL9KR	1100									1100
2	K5JL	827	11	254							1092
3	K2UYH	748	3	434	99	51	60	19			1414
4	SM4IVE	662		314	36						1012
5	K1FO	613									613
6	DK3WG	551									551
7	G3LTF	486		500	145	75	87				1293
8	N9AB	440									440
9	SM2CEW	437		203	25						665
10	OK1KIR	400		490	187	85	117	143	32		1454
11	SM3AKW	390		265	70						725
12	UR5LX	367		23							390
13	KU4F	355		48							403
14	K0RZ	342		3							345
15	VK3UM	339		179							518
16	HB9Q	335		369	146	63	70	64			1047
17	OZ4MM	303		320	82						705
18	F2TU	287		387	134		58	73			939
19	DL7APV	275									275
20	OH2DG	269		354	148	68	89	83	12		1023