432 AND ABOVE EME NEWS
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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(x)ieee.org
NETNEWS EDITOR (BASED REFLECTOR NEWS) REIN, W6SZ pa0zn(x)arrl.net WITH HELP OF N4PZ AND WB2BYP
INITIAL LIST G4RGK, DAVID DIBLEY, E-MAIL zen70432(x)zen.co.uk, AT: http://www.zen70432.zen.co.uk/Initials/index.html
EME NETS: 14.345, 1500 SATURDAY AND SUNDAY, NET CONTROL: STEVE GROSS, N4PZ n4pz(x)live.com
ON0EME EME BEACON, 1296.000 IS QRV WHEN MOON >10°, SEND RX REPORTS TO WALTER (ON4BCB) on4bcb(x)gmail.com
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CONDITIONS: Despite less than optimum conditions there was an excellent turnout for both the DUBUS 23 and 6 cm contests that occurred on successive weekends. However, scores for the 1296 contest appear down a bit from last year. One exception is the OK1KIR group reporting 72 QSOs. Possibly it is just the plurality of contests. As more and more stations become QRV for the microwave bands, there are more and more contests to take part in. It shall be interesting to see what happens during the 13 cm contest coming up on 15/16 June. This contest has been a rising star in recent years. I am also expecting some big growth in the 9 cm contest, which follows two weekends later on 29/30 June. Both OK1CA and OK1KR reported 27 QSOs in the 6 cm contest – not bad for a band that was almost empty a few years ago. A casualty of the contests has been the 70 cm CW Active Time Periods (ATPs). There are no reports of May ATP activity; probably because many of the people who send in ATP reports were busy in the 6 cm contest. The situation is no better this month. The June ATP is on 29 June from 2330-0130 and 30 June 0800-1000. The same dates as the 9 cm contest. There is nothing to report in the way of dxpeditions until Aug when SV5 (Dodecanese) will be on 432 and 1296 TNX to DL8YHR and DM1CG.

DJ3JJ: Andreas dj3jj@gmx.net is setting up for 9 cm EME and hopes to be QRV in time for the DUBUS Contest on 29/30 June -- I am still working on a 9 cm SSPA design. I have 2 versions. One will do 150 W and the other 300 W out. There are very nice LDMOS transistors available for this band that are not too expensive.

ISS Bounce QSO on 1296 by DJ5AR & PA3FXB

DJ5AR: Andreas DJ5AR@darc.de is QRV on 23 cm with a 3 m dish and 200 W and on 13 cm with the same dish and 75 W has discovered an interesting adjunct to moonbounce, ISS (International Space Station) bounce. He QSO PA3FXB on 23 May by bounce signals off the ISS. He says that signals are best during the ascending part of the pass (easy CW copy), but weaker during the descending part. They automatically corrected the the Doppler shift, but the shift became so rapid at the end, their software could not keep up with it. They believe this is the first ISS Bounce QSO on 23 cm. DF2ZC claims the first and only ISS scatter QSO on 2 m with DH7FB back in 2007. [See also Jan's report.]

DL7APV: Bernd dl7apv@gmx.de sends a short note that he back in full operation on 70 cm –- My second repair of my EL drive seems to be working well. My Sun noise is down about 1 dB, but this is no surprise when I look along my bent booms - HI. In May I did add KD7YZ for state 47. I still need MO, HI and VT.

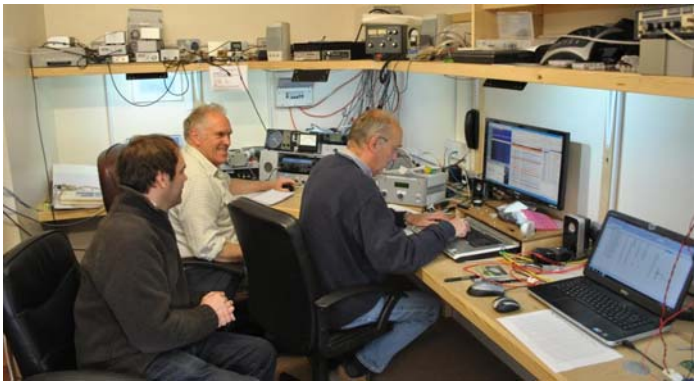
G3LTF: Peter g3ltf@btinternet.com a very busy month with activity on all bands from 70 to 6 cm –- I QSO'd on 5 May on 3.4 GHz SP6OPN initial #41 and 9A5AA #42 (first G-9A) and DXCC 24 and LX1DB, and on 2320 SM2CEW, and on 7 May on 2320 SM6CKU with an improved signal. In the 1296 DUBUS Contest, I worked on 11 May UA3PTW, F5SE/P, DJ8FR, SV1BTR, OH1LRY, SP6JLW, JA4BLC, ON5TA, OH2DG, UA5Y for initial #373, SP7DCS, SD3F, OZ6OL, ES5PC, LA8LF, HB9Q, OK1KIR, I1NDP, 9A5AA, YO3DDZ #374, OK1CS, I5MPK, OK1CA, DL3EBJ, OK2ULQ, LZ2US, IK5VLS, PE1LWT, PA3DZL, IZ1BPN, K2UYH, LZ1DX, NA4N and F5JWF, and on 12 May HB9BCD, HB9SV, IK5QLO, CT1DMK, JA6AHB, UA4AAV, SM2CEW, N4PZ, IK6EIW, WA6PY, KL6M, W5LUA and IK1MTZ. CWNR were OK2KKD - heard working big guns but never found calling CQ, JR4AEP, UA4HTS, SM3JQU, JA4LJB, SP3XBO, G4DZU, G4CBW, TI2AEB and SV1CAL. I also heard SM7FWZ, OZ4MM and LX1DB. I ended with some nice SSB exchanges with K2UYH, I1NDP and CT1DMK right at moonset. Overall, I had a total of 47x42, and copied 60 stations. I added on 12 May at moonrise on 432 CW VK4EME for initial #448 (he is running 100 W) – this was my first new one on 432 in 12 months!, on 15 May on 3400 HB9Q on SSB for Dan's first QSO on this band, on 16 May on 432 OK1KIR and K5DOG #449 - an easy CW QSO only wish other JT op would try, and on 17 May on 5760 SQ6OPG, PA3DZL and W5LUA. The next day in the DUBUS 6 cm contest I worked SV1BTR, SQ6OPG, ES5PC, OK1CA, F2CT, F1PYR, OK1KIR, G100RSGB, PA3DZL, OH2DG, F1PYR (DUP), PA0BAT, WW2R (operating K5GW's station), G4CCH for initial #40, K2UYH and W5LUA, and on 19 May CT1DMK, SP6GWN, IK2RTI, F2CT DUP on SSB and VE4MA. CWNR were JA6CZD, SM6PGP and ON5RR. My total was 19x17. There were 30 stations on, but I had no VK window and only 1 hour with JA due to the low declination. The 6 cm system will be improved when I can get the outer 1 m of the dish covered with 6 mm mesh instead of the present 12 mm.

G4CCH: Howard howard@g4cch.com is now QRV on 6 cm -- I started work on my 6 cm system a few months back, and after some frantic work on the Friday before and Saturday of the DUBUS 6 cm Contest, I am really pleased to report my first QSOs on this band. When the system first went up, I couldn't hear any signals at all, and was feeling a little despondent, then I decided to look for Moon noise. After a few minutes, I found the Moon and could see >1 dB of noise. Soon after I was hearing my first 6 cm EME signals, and making my first QSOs. I was running just 10 W at the fed on my 5.4 m (18') dish, and didn't really expect to achieve very much… How wrong I was! Over the weekend, I made 16 QSOs, and another 3 more on the Monday making 19 in total so far, including: SV1BTR, F2CT, G3LTF, PA0BAT, OK1CA, G100RSGB, OK1KIR, WW2R, W5LUA, K2UYH, VK3NX, SQ6OPG, ES5PC, PA3DZL, SP6GWN, F2CT again on SSB, VE4MA, F1PYR, LX1DB and SV3AAF. Gotaways were ON5RR, IK2RTI and JA6CZD. Fortunately it was calm over the weekend, but on the Monday I realized the significance of the +/- 0.5 deg backlash in my azimuth drive. My old WW2 prop pitch gearbox is getting tired. QSB was very noticeable as the dish moved in the breeze, so really must do something about this problem. The system here is 5.4 m HB mesh dish, N2UO septum feed scaled to 6 cm, 10W at feed point and an MGF4919 LNA with a 0.6 dB NF.

G4IDR: David davidredmang4idr@gmail.com updates us on his progress – see picture in the last NL – I now have worked my first 4 23 cm stations on EME with my 1.7 m dish, scalar feed with hybrid for circular pol, 40 W SSPA and G4DDK preamp. I QSO'd on JT65C HB9Q (7DB/17DB) - also copied his SSB 52, I1NDP (13DB/19DB), PY2BS (15DB/26DB) and UA3PTW (12DB/19DB). Thanks to these bigger stations, it was great fun and shows what is possible with JT65C. I also tried with 3 m dish stations W3HMS and PA3FXB. I copied them (23DB) and (21DB) respectively, but they could not copy me. Overall, I am very pleased with the last 2 week's efforts and have a real incentive to get my 500 W PA going to even things out between TX to RX. Thanks also to G4DZU for his support to get me this far on EME. My prior EME was on 6 and 2 m with a single yagi, so it is a real improvement using circular pol and not having to worry about Faraday or spacial offset.

G100RSGB: Brian (G4NNS) brian-coleman@tiscali.co.uk reports on his special call activities in May -- The special call sign G100RSGB celebrating the

100th anniversary of the founding of the Radio Society Great Britain was assigned to the UK Microwave Group for the weekend of 18/19 May. As this coincided with the DUBUS 5.7 GHz EME Contest, our activity was concentrated on that band. A system test on 17 May resulted in QSOs with F1PYR and SQ6OPG, but although the contacts were completed, it was clear that there was something badly wrong with the receiver at G4NNS. So before moonrise on Saturday, the transverter was returned to the bench and its NF was measured using a PANFI borrowed from G8ACE. Its 2.8 dB NF explained all, and the front end NE32584 was rapidly replaced. With the NF back to 0.8 dB, there was no time to further investigate the cause of the failure, and with fingers crossed the transverter was returned to the antenna. The Sun noise was checked (12.5 dB) and we were ready for moonrise. We contacted 18 stations on 6 cm with our relatively QRP system (3.7 m dish and 25 W). Many thanks to all who called us. On day 2, we changed bands to 10 GHz. With the DUBUS contest still in full swing, we are especially grateful to the three stations we contacted. There is a QSL system in place from the RSGB, but as this uses the bureau, I will QSL direct to anyone whose address I have as soon as I get cards from the RSGB. While waiting for the Moon, we also made over 20 tropo contacts on the microwave bands 23 cm, 6 cm, 3 cm and 1.2 cm. Thanks to all who helped.



L-R EA1DDO, G4NNS and G4LDR operating G100RSGB

HB9Q: Dan and team dan@hb9q.ch are now QRV with a new 10 m solid dish on 1296, 23xx and 3400 – We can QSY from one band to another in less than a minute. We are especially interested to work QRP stations using single yagis and low power. We are equipped to work CW, JT65c, SSB and SSTV on all bands. Although the optimization is still ongoing, and may never stop, we are very happy with the first results. For more information about the equipment please visit www.hb9q.ch on the 1296, 23xx and 3400 sections. Photos will soon be added to the home-page. If you like to work us, please contact Dan by e-mail, he is happy to let you know when we are active. (We usually can be QRV on short notice, and also during workdays).

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp reports on his April/May activity -- I could not join the DUBUS 3 cm & up contest in April due to transverter problems. During the 23 cm CW contest on 11/12 May, I worked 30 stations including 3 initials with DJ8FR, OH1LRY and OK2ULQ. In the 6 cm contest on 18/19 May, I worked VK3NX, SV1BTR, OK1KIR, OH2DG, PA3DZL for initial # 20 and OK1CA. I used my 3 m Cassegrain dish with 60 cm sub-reflector and a 25 W SSPA. Back in March/April, I played with some surplus TWTAs on 5.7/10 GHz, and installed one of them at the back of the dish. The output power is 70 W feeding an 80 cm long WR90 waveguide. I was pleased with the echo improvement in comparison to my 25 W SSPA. I worked on 10368/10450 crossband, on 28 April JA6CZD (559/569), on 1 May JA1WQY (O/O), on 11 May F5JWF (O/O) for initial #9 (O/O), on 16 May OH2DG (O/O) #10, and on 20 May on 10450 JA6CZD (559/559) and LX1DB (O/O) #11.

KD7YZ: Bob kd7yz@denstarfarm.us in KY is now QRV on 432 EME with 4x18 G0KSC yagis and 350+ W –- Thus far I have worked on 23 April at 2310 OK1DFC (23DB/28DB) JT65B, on 16 May at 1854 OK1KIR (17DB/18DB) JT65B and 1912 K5DOG (25DB/28DB JT65B, on 21 May at 0215 W7MEM (25DB/23DB) JT65B, on 22 May at 0152 K2UYH (14DB/17DB) JT65B and 0215 K2UYH (439/O) on CW, on 23 May at 2343 UA3PTW (18DB/O) JT65B, on 24 May at 0050 DL7APV (21DB/O) JT65B, and 0239 W7IUV (24DB/24DB) JT65B, and on 25 May at 0758 VK4EME (30DB/24DB) JT65B. I am continuing to make improvements to the system. I still have a problem with excessive white noise output of the "AirCam" Webcam that is underneath my topmost yagi. For now, I need to remember to disconnect the cables that go to this webcam before I attempt an EME QSO. I use a single 7/8th coax to the end of the AC2004B (RF relay), which allows use of 2x15 LFAs on 144 and the 4x18 LFAs on 432. This latter device seems to be unfit for 432 EME as it gets excessively hot after perhaps ten sequences at 400 W through it. My Coaxial-Dynamics wattmeter shows only perhaps a 1.2 VSWR. I am interested in both JT and CW skeds – please email me.

KJ7OG: Steve steveb29@comcast.net is setting up for 13 cm EME from Tucson, AZ and is looking for information on the expected spectrum pollution from non-ham users (WIMAX, etc). He has a 2.3 m TVRO dish, Spectrian PA and a OK1DFC square septum feed.

LA8LF: Anders anders@la8lf.com was active in May during the 23 cm DUBUS Contest -- WX was very cooperative here during the contest. Unfortunately, I could not find the double slug tuner that I use between the 300 W drive unit and the TH-327 HPA. I was therefore 4 dB down on power to the feed. I worked 43 stations on Saturday, but only 6 on Sunday for a total of 49 QSOs. Initials were OK1CS, UA5Y, OH1LRY, ON5TA, UA4AAV, IK5VLS and KL6M to bring me to #257. I plan to be QRV in the DUBUS 13 cm contest in June.

OK1CA: Franta strihavka@upcmail.cz was active in both DUBUS contests in May – In the 23 cm contest, there was good activity particularly on Saturday from the all regions. I worked 7 stations from Italy for example. I was not QRV all time and still I made 52 QSOs. The new ones for me were OK1KKD, YO3DDZ, OH1LRY, JH3EAO, SM6CSO and IZ2DJP to bring me to initial #289. In the 6 cm part, the activity was also good on Saturday, and I worked 25 QSOs and only one CWNR CT1DMK. I was QRV only 3 hours on Sunday, and I worked JA8ERE and JA6CZD for a total of 27 QSOs. 6 cm initials were SP7JSG, F2CT, G100RSGB, ON5RR, SM6PGP, WW2R, K2UYH and G4CCH to bring me to initial #46. MY most interesting QSO was with SM6PGP. He has the only a 1.8 m dish. The weather was very good for microwave, clear with SE wind.

OK1DFC: Zdenek ok1dfc@seznam.cz sends news of his 2013 activity – My activity this year has been more limited than I would have liked. In Jan I had health problems, and in Feb I was changing jobs. As of March I am working for PPC-BELDEN and had even more travel than previously. In April, I finally had more time for EME. On 15 April, I helped Bodo, DF8DX, test his 1296 station in preparation for his dxpedition to Africa. I worked Bodo HB9EHJ (21DB/O) for digital initial {#171}, followed by IK5VLS, PA2DW JT and (559/559) CW, 9G5EME (21DB/O) {#172} and DXCC 84 - speaker copy from Ghana. I QSO'd 21 April on 432 9G5EME (O/O) for digital initial {#267}, DXCC 93 and first OK-9G QSO, PA1TK (19DB/O) {#268} and YO8RHI. The same day, I switched back to 1296 and worked PA3FXB, YO2BCT, EA1RJ, YO2LEL, IK5VLS, 5H1DX/3 (20DB/O) {#173} DXCC 85 and first OK-5H- Bodo was speaker copy, IK5QLO (O/O), I1NDP (O/O) and PY2BS (5dB/O)!!! Also on the same day, I switched back to 432 for W2CNS (18DB/O) {#269} finally NY state and WAS 35, nil 5H1DX - due to problems at his QTH, ZS6OB (10DB/O), F6HZL (559/559) for CW initial #166, LZ1DX (O/O), UX0FF (O/O) {#270}, YL2GD (O/O), LU1CGB (O/O), WA4NJP (55/52) on SSB, G3LTF (579/579), K4EME (O/O) and WC7V (O/O). On 23 April, I finally worked on 432 5H1DX (15DB/O) {#271}, DXCC 95 and KD7YZ (O/O) {#272} using 30 W and decoding in AVG for KY and WAS 36. I am expecting to be more QRV during summer period. I have confirmed some new DXCCs in future and hope to reach my dream of DXCC soon. I will also follow up on completing WAS. I have some contacts for stations with tropo setups that I should be able to work on moonrise.

OK1KIR: Tonda's and Vlada's vladimir.masek@volny.cz club continue its EME successes and includes in this report their results from the 10 GHz & up contest missed in thier last report – During the EU EME contest on 13/14 April we suffered from very high frequency spreading (actually close to maximum) and the highest degradation because of Moon's apogee. Regardless of these penalties, participation was high. On 10 GHz, we made in total 27 QSOs. We worked on Saturday OK1CA (549/559), JA6CZD (O/O) XB (10368/10450), UR7D (539/539), 0720 ES5PC (549/559), DL0EF (559/559), PA0BAT (O/O), F1PYR (559/579), F5JWF (559/579), IK2RTI (559/569), 1014 OH2DG (449/449), JA8ERE (O/O) on 10450 for initial #75 and QN field, HB9SV (569/579), UA5Y (O/O), SP6JLW (O/O), IW2FZR (O/O), G4NNS (559/559), K5GW (579/569), W6YFK (O/O) #76, SV1BTR (O/O) #77, K2UYH (559/559), IZ2DJP (O/O), WA6PY (549/559), VE4MA (O/O), LX1DB (579/579) and W5LUA (569/569), and on Sunday VK3NX (O/O) and SP7JSG (559/559). CWNR were JA1WQF and UZ5DZ. Moon noise was checked at 2.6 ~ 2.8 dB during the weekend. On 24 GHz signal spreading was extreme and only two stations were worked, both on Sunday, W5LUA (549/439) and LX1DB (549/549). We were called by the third station, but terrible spreading prevented our "digging" the callsign from the noise. We were heard by PA0BAT, PA7JB and OK1CA, all are not yet QRV for TX. G/CS noise was 3 dB and Moon noise was only 1.8 dB at 50 deg EL (Sunday morning 1.6 dB at 18 deg EL). Our overall impression is that the apogee and even highest possible spreading was not able to beat down 10 GHz EME enthusiasts, while 24 GHz was terribly

impacted. On 432 we QSO'd on 16 May on JT65B at 1752 UX0FF (12DB/O) for digital initial { #77}, 1807 K5DOG (16DB/16DB) {#78}, 1848 KD7YZ (18DB/17DB {#79} and KY for our 45th US state, 1949 WC7V (26DB/23DB) {#80}, 2017 ZS6OB (18DB/19DB) {#81}, and on 19 May at 1502 JS3CTQ (22DB/25DB) #82 and in the sked BX1AD (-/O) - we did not find a signal trace of his 100 W signal. On 1296, we found good activity in the 3rd part of EU EME Contest and made 71 CW QSOs and 1xSSB. Among them were 7 initials with UA4AAV, OK1KKD, SP6MLK, OH1RLY, SM6CSO and SV1CAL to bring us to CW initial #355. Heard were IZ2DJP and RW3PX. Outside of the contest we worked with JT65C on 11 May at 0922 UN6PD (17DB/O), 1818 RN3A (24DB/23DB) for digital initial {#144}, and on 12 May at 0814 YL2GD (27DB/22DB) {#145} and 1316 GW3XYW (16DB/8DB). On 13 cm, we tested the potential JA band at 2400 +/- several MHz and found it free of any interference. From our view, a change from 2424 to 2400 MHz would be highly appreciated. This info was sent to Mike at jh1krc@syd.odn.ne.jp. On 5760, in the 4th part of EU EME Contest we made 27 QSOs. Initials were ON5RR for #67 and G4CCH #68. Unfortunately growing background noise interference from WiFi on 5.6 GHz eliminated peaking the beam on Moon noise and decreased readability of week signals. It seems that 6 cm has becomes impacted in the same way as 2424. On 10368, we also worked on 19 May at 1639 F1PYR (559/549) and 1721 G100RSGB (569/579). Moon noise was 2.6 dB.

OZ4MM: Stig vestergaard@os.dk brings us up to dateon his recent activity -- Back in April on 1296, I worked on CW initials with TI2AEB and DJ5AR. In the DUBUS EME 23 cm contest, I had very little time to be QRV, but even so, I QSO'd at least 33 stations in about 2.5 hour. The weekend after the contest, I added SQ7DQX on SSB for another initial. The 2 great expeditions on 1296 were a zero from here, as I was not able to be on in their windows because of an extraordinary level of activity at QRL. But, I did at least catch 9G5EME on 432 in JT mode. The initial activity from KD7YZ was a disaster here. I heard him very well, but after few echo tests, my TH347 final went to safe mode with no output. I still haven't found the failure; it seems the fault is in the protection circuitry, which shuts down the amplifier when it thinks there is a problem. It's an old modified Italian ABS broadcast transmitter, which was intended to operate "stand alone" from a remote site. I hope to find some time for fault location, but I presently have a lot of other stuff to do, including attending the Swedish EME meeting with OZ6OL. It will be great to meet some of the EME group.

OZ5NM: Niels risby@post1.tele.dk is very near to be ready for operation on 2320 EME and later 3 cm with 4.5 m dish and 200 W. He still has some minor problems with RX, but is very close now. OZ4MM worked him on 19 May(549/519) for his 13 cm initial #1. [TNX OZ4MM for passing on this report.]

PA0PLY: Jan pa0ply@pa0ply.nl sends information on his stations status -- My 3 m dish has flipped over for a second time, and I have not yet had the time to restore it to operation. My 70 cm gear has also been off the air due to the necessary replacement of the old shed where the HPA was housed. Just before closing down 70 cm operation, I was active during the ARI contest and worked K4EME (23DB/O) for mixed initial #77*, NC1I (24DB/8DB), K5DOG (26DB/O), W7AMI (22DB/18DB) and UN6PD (26DB/21DB) #78*.
After completing the new shed and reinstalling the 432 HPA, on 23 May I worked ZS6OB (28DB/28DB) and a new continent. Pine is very active at the moment and uses 4 variable pol K1FO yagis.

PA3FXB: Jan jvmmap@bart.nl reports on his side of the 23 cm ISS bounce QSO and his EME -- On 23 May at 0600 DJ5AR and I succeeded in having an ISS bounce QSO on 23 cm. We think it is the first in the world. We know VA7MM and VE7BBG did ISS bounce tests on 23 cm - (it's on the website of VA7MM) but a QSO is not mentioned there). Two things are very difficult concerning ISS bounce on 23 cm: 1) the ISS moves very fast, so your antenna must be capable of moving fast, and 2) The huge associated Doppler shift. Andreas and I both used our EME systems. We both have a 3 m dishes. Both of our dishes can move fast and have accurate pointing. For Doppler compensation Andreas used his SDR and homebrew software (great job!!). I used my TS2000X with Doppler compensation using SatPC32. Finding the right software to automatically control my TS2000X was not easy. There is a lot of software for satellite tracking, but adding 23 cm to the data set of ISS is almost always not possible. So, I was very pleased to find SatPC32 where this is possible (and very easy). Signal levels are very much dependent on the distance to the ISS. On ISS rise the signals are readable S1 to S2 and increase during the rise to about 20 dB or more over the noise when ISS is directly overhead. When the ISS is descending the signals go weaker again. The Doppler shift change is highest when ISS is directly overhead, so that even with superfast compensating software, signals become a bit 'jumpy' (but strong). Close to ISS rise or set, the Doppler shift change is much slower and the compensation software keeps track easily, resulting in relatively stable but somewhat weaker signals. There is some fading on the signals, but not so much that it becomes a problem to copy. Signals stay crystal clear, no spread whatsoever, which is perfectly logical because ISS is a relatively small object. Both Andreas's and my recording are on his website, http://www.dj5ar.de/. Andreas and I hope to find more QSO partners to try with us on ISS bounce. We also plan to do some tests with PI9CAM when they are QRV again in the fall. EME wise, I am still very active on 23 cm. My dish only sees the Moon for about 16 days per month, so on those days I try to be on the moon as much as possible. I have been QRV on 23 cm EME since Dec 2006 (CW and JT) and I still absolutely in love! I am now up to (mixed) initial #205. The nice thing is that every month new stations appear on 23 cm EME. 23 cm is really a very active EME band. A recent highlight was working the 9G5EME dxpedition. For hours I hardly saw any signal from them, but at the end of their period of 23 cm activity, signals became a tiny bit stronger and a QSO was possible! The last several years, I taken part in the ARI EME Marathon (JT section), and every year I have put more QSOs in my log - *Glimlach* [smile face]. The best year until now was last year with 334 JT QSO's - amazing activity on 23 cm! I have been on 13 cm two times (ARRL 2010 and 2012) and hope to be on that band in future again. Also there the activity is growing. Changing the feed from 23 cm to 13 cm is a lot of work, but I hope to make that easier in the future. On 23 cm, I changed to a N2UO feed (built by PA7JB) and mounted on a single pole. In the past I had the feed mounted with 4 poles. On 13 cm I am going to mount the feed on one pole too. This change will make switching feeds much easier. See you off the Moon on 23 and 13!

PA3FXB 3 m dish used for 23 cm ISS QSO & EME

PI9CAM: Jan (PA3FXB) jvmmap@bart.nl sends news on the dish's restoration -- Just like all big projects, we have some delay. We had hoped to be QRV again before summer, but as it looks now we will be QRV somewhere around Sep/Oct. It is not because of problems, but just that we want to do things "right" this time. When we brought the dish back to life in 2008, we knew we were probably heading for a big restoration and that we would have to remove most of the electronics in the near future. So some things were done in a preliminary way. Now it's different! We hope to have the dish up and running for at least the next 40 years. So now we are taking the time to do things properly even if it takes a bit longer. In the next few weeks/months, we will be installing the coax cables, antennas and electronics again. We hope to be back on the moon soon!

W6XY: John (K2YY) johnhill5000@gmail.com reports for the Stanford EME group -- Team W6YX would like to apologize for not being able to make a QSO during the DUBUS 23 cm Contest. We suffered systemic hardware failure seconds after our dish lined up with the Moon and a dozen existing QSOs started pouring down Linrad's waterfall. We are making repairs and will be QRV for the US Field Day. Moon rise will be on 23 June (GMT) for us. Not ideal Moon conditions, but a great opportunity to demonstrate moonbounce. Please make an effort to be QRV. Since we can observe the entire 1296 EME sub-band with our SDR and Linrad, we tend to not call CQ as much, but rather wait for other stations to call CQ and pounce on them. For participating US and Canadian stations, we will be using the Field Day exchange 9F SCV. Hope to QSO with you soon!

WA6PY: Paul pchominski@maxlinear.com was activite in both the 23 and 6 cm contests -– On 1296, I worked on 11/12 May 9A5AA, CT1DMK, DJ8FR, DL3EBJ, ES5PC, F5SE/P, G3LTF, G4CCH, HB9SV, I5MPK, IK5VLS, IZ1BPN, K2UYH, KL6M, LA8LF, N2UO, N4PZ, NA4N, OH1LRY, OH2DG, OK1CA, OK1CS, OK1KIR, ON5TA, OZ4MM, OZ6OL, PA3DZL, SD3F, SM2CEW, SM7FWZ, SP6JLW, SP7DCS, SV1BTR, UA3PTW, VA7MM,

W4AF and W5LUA. I heard the pileup on LX1DB on SSB; LX1DB was strong. From about 1700 on there was very hard libration making it difficult to copy even strong signals. It was nice to QSO again 9A5AA (x-YU2RGC) after so many years. I was on again a week later for the 5760 contest, but on Saturday I had a serious failure of my TWT PSU. It burned out a few Zener diodes, which in turn created more damage to other parts of the HV section. I could not fix it during my short moon window. The next day, I made a temporary fix using a chain of lower voltage rectifier diodes, capacitors and resistors instead of Zener diodes. My window on 19 May started at 2330, and I QSO'd OK1KIR, PA0BAT, CT1DMK, K2UYH and a partial with VE4MA. Barry had a very good signal. Now with my power boosted from 15 to 25 W out from my RW85 TWT, it is getting easier to find my (weak) echoes. Local QRM is still a big limitation… I NEED higher elevation.

K2UYH: I a.katz@ieee.org had a very busy month on EME. I QSO on 1296, on 5 May at 1205 DJ5AR (13DB/16DB) JT65C for mixed initial #435* and 1248 ON5TA (13DB/7DB) JT65C. The following weekend, I operated with K2YY (in the area from CA) and NE2U the 23 cm DUBUS contest. We QSO'd on 11 May UA3PTW (559/579), G3LTF (569/559), SV1BTR (569/569), OK1KIR (569/579), IZ1BPN (559/579), UA5Y (579/589) for CW initial #343, OH2DG (569/569), F5JWF (559/579), I5MPK (559/569), DL3EBJ (569/579), DJ8FR (559/579), IK5VLS (549/549), UA4AAV (559/559) #344, OK1CS (569/569), OH1LRY (559/599), F5SE/P (569/579), LA8LF (569/579), N2UO (569/569), PA3DZL (569/569), SP6JLW (579/589), SP7DCS (569/579), LZ1DX (569/579), ON5TA (559/569), NA4N (559/569), I1NDP (589/589), 9A5AA (559/579), SD3F (569/579), W4AF (549/569), OZ6OL (569/569), WA6PY (569/569), OK2ULQ (559/579), ES5PC (559/579), CT1DMK (569/569), VA7MM (559/579), SM3JQU (559/559), OK1CA (579/579), SM7FWZ (569/579), JA8ERE (569/569), JA6AHB (579/569), JA4BLC (559/559) and JA4LJB (559/579), and on 12 May VK5MC (569/559), KL6M (559/579), IK5QLO (539/559), IK2RTI (569/579), N4PZ (589/589), IK6EIW (559/559), SM2CEW (579/589), W5LUA (579/579), HB9BCD (569/579), OZ4MM (589/589), G4CCH (579/589), LX1DB (56/57), IK1MTZ (569/579), I1NDP (55/55) SSB DUP, G3LTF (55/55) SSB DUP and CT1DMK (45/45) SSB DUP. We had a great time operating the contest, but ended with a total score of 54x48, which is about 20% lower than last year. Three days later, K2TXB and I took for KY thanks to another old friend WB2SZW (our pilot). We arrived in Huntington,WVA, next to the KY border on Wednesday evening. We were picked up by KD7YZ and his XYL Mary. We arrived at Bob's QTH in the KY mountains several hours later. We brought with us a 7650 PA for 432, preamps and other equipment, plus a complete 1296 EME station with my portable 7.5' dish. I had hoped to have Bob quickly going on 432, but the way his stations was configured (single feed line for RX and TX to his preamp at the array) required significant modification to get my big PA working in the shack. We did not get everything working on 432 until after moonrise in the afternoon. And then the thunder storms started rolling in. We thus decided to put off 1296 operation for another trip. Bob made 2 QSOs off the Moon on 432 and all seemed to be working well. We then packed up and headed back to the airport and were in Dayton by late Thursday night. We spent the day at Dayton, and after closing flew back to NJ. The next day I set up for the 6 cm contest. I only have 18 W on 6 cm, so my signal is far from big, but I still had an excellent time operating the contest. I learned from G3LTF, to narrow down my RX bandwidth (BW) on spread signals. I normally leave my BW at 1 kHz or even wider on 70 and 23 cm. On 6 cm, it really does help my copy to reduce the BW down to ~250 Hz or even less – TNX Peter. I worked on 18 May SV1BTR (569/559) for initial #13 and DXCC 8, ES5PC (559/O) #14 and DXCC 9, OK1CA (559/559) #15, PA3DZL (559/449), F2CT (579/559), OK1KIR (569/559), G3LTF (559/559) #16 and DXCC 10, W5LUA (569/559), G100RSGB (569/539) #17 [same as G4NNS, but not QSO'd before, not as K2UYH], WW2R (569/559) [same as K5GW] and G4CCH (449/O) #18, and on 19 May PA0BAT (559/549) #19, F2CT (55/55) SSB DUP – my 1st 6 cm SSB, CT1DMK (559/559) #20 and DXCC 11, VE4MA (O/O) – Barry was (559) but had difficulty copying me and WA6PY (O/O). I ended with a total of score of 15x14. This is my best and first 6 cm DUBUS Contest. I also worked on 22 May, on 432 at 0143 WC7V (20DB/O) JT65B, 0147 KD7YZ (17DB/14DB) JT65B mixed initial #853*, and 0205 KD7YZ (O/O) for CW initial #730. I worked Bob using no sequencing. I just said look for me down on 020 CW. It was an easy QSO.

NETNEWS: **JA4LJB** copied on 6 cm during the DUBUS contest F2CT very loud using the 5 m dish (6 mm mesh) he uses for 23 cm EME with a septum feed – TNX to JA4BLC for passing this info. **BX1AD** is reported to be active again from Taipei on 432 EME. **PA0BAT** and **PA7JB** are now QRV on 24 GHz EME. **VK3UM** was unable to be QRV for this year's DUBUS 23 cm Contest. **W3HMS** is working on adding 9 cm EME to his station and expects to be QRV in 2-3 months. **YO2BCT** plans to be able to operate both on 2320 and now 2304. Look for him in the DUBUS contest.

FINAL: As I write this NL the Swedish EME meeting is taking place. Just judging by the level of EME activity this weekend, the conference has to have been a great success. I hope it will wet everyone one's appetite for EME2014, the International EME Conference to take place in France next summer.

Alex, IV3KKW and Enrico, I5WBE invites stations to please send in their logs, even if you made only one QSO, for the ARI New Mode EME contest to i5wbe@i5wbe.it. They are needed by 31 May.

Congratulations to F5SE, who is now a grand-père!

Although I find it help to see the time of QSOs in the reports, when the reports are for contest activity, I remove the times as there is a concern by some operators that such information could be used to falsify contest logs.

Jan, PA0PLY has uploaded the latest version of his very excellent EME database at http://www.pa0ply.nl/directory.htm. Please check it out and send any additions and changes to him.

Quote of the month from TI2AEB: "A rectangular horn produces rectangular waves."

I am afraid there is no technical material this month. The closest is my comment on the effect of RX bandwidth on decoding spread CW signals. I have highlighted this in yellow. So, please keep the tech material coming, along with the reports. I will be looking for you in the 13 and 9 cm contests. 73, Al – K2UYH

PI9CAM dish with feed box reinstalled – to be QRV by fall

G100RSGB (G4NNS) feed & xverter/SSPA for 6 cm