432 AND ABOVE EME NEWS
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CONDITIONS: The conditions and activity during the 13 cm part of the EU/DUBUS EME Contest seemed to be excellent. In the *World Above 432 MHz* there can be no question that 13 cm is now the second most popular band behind 23 cm. OK1KIR has the highest reported 13 cm score of 54x45 with ES5PC close behind with 51x41. This is truly amazing for a band where many of the QSOs are made crossband (XB). The XB aspect certain does add a new dimension to the contest. Although there were no dxpeditions (to my knowledge) in March, there are many coming up; starting with 9Y4 on 70 and 23 cm from Tobago during the week of 7 April, and on 8-10 April T88QX from Palau on 23 cm. Unfortunately the April 4K dxpedition to Azerbaijan has been delayed. In May 6W/PE1L will be on from Senegal. Although not a new DXCC, GS3PYE/p will be on from a rare Scottish Island/grid at the end of April. For more details on all of these see the reports in this newsletter (NL). There is lots more to keep you active off the Moon in April. The 70 cm CW activity time period (ATP) is on 6 **April from 1030-1230 and 1930-2130.** Also on the same weekend is the 6 cm part of the EU EME Contest on 5/6 April, and for JT fans the ARI New Modes EME Contest is on 12/13 April.

4K/DL8YHR: Frank dl8yhrfrank@aol.com and Carsten (DM1CG) have had to delay their trip to Azerbaijan because of logistics problems. They are trying to fix things and hope to do the dxpedition later this year.

6W/PE1L: Rene hasperrene@gmail.com sends news that they will soon travel to Senegal -- From 9 May until 25 May PA3CEE, DL2NUD and PE1L will be active as 6W/PE1L. The locator is Ik14jp. We are glad Hermann will join us the first week, so even 13 cm will be activated from Senegal! A house is rented and upgraded electricity arranged and paid for. Our license is in progress and transport of luggage arranged; medication for malaria has been bought and our visa pre enrolment is approved… Everything is on schedule. On 432 we will have a small station with a 23 el yagi (same as 9G5EME). On 1296 we will have a 67 el yagi and 100 W (same as 9G5EME); and on 2320 we will have 67 el yagi and some power (same as 9X0EME). If we can manage Internet, we will be on N0UK logger and HB9Q logger for last minute freq changes, etc. In the next mail we will give the timeslots for each band. Welcome to our website: http://www.emelogger.com/6w. Supporting youth sport (football) and education in Senegal is one of our goals during our visit. We want to contribute and sponsor as much as we can. As you know the Atleticoteam (René and Eltje) has always worked with the locals and we're sure Hermann feels the same. Doing EME in Africa is not cheap. There are big costs, without support it's not possible to do this kind of trip. PSE see our web page.

9Y4TBG: Dithmar (DF7KF) DD@ade-vertrieb.de is working to put Tobago Island (FK91) on EME on 144, 432 and 1296. The call maybe 9Y4TBG, but this is not certain. Operation will be from 7 to 14 April, but will start on 144. They will set up later for the higher bands. They will announce operating times on the N0UK chat as soon as possible. QSLs are via QSLs via DL9MS dl9ms@online.de.

DK3WG: Jurg <dk3wg@web.de> added 3 new stations on 432 in March using JT65B. QSO'd were W1AW/5, RU1AA and PY1UNU.

ES5PC: Viljo viljo@comnet.se reports on his activity in EU EME 13 cm contest -- I was QRV with my 4.5 m dish. It seems to be so far the best activity in a single weekend that I have ever experienced on 13 cm. In the first Moon pass I worked 38 stations: OK1CA, OH2DG, VK3NX, UA4HTS, UA3PTW, SP7DCS, YO2BCT, IK3COJ, OK1KKD, SP6OPN, JA8ERE, JA8IAD, JA6CZD, JA4BLC, F1PYR, OZ5G for an initial (#), OK1KIR, PA3DZL, PA0BAT, SM6CKU, OH1LRY, DL1YMK/A, SV3AAF, S59DCD, ON5RR (#), HB9SV, G4RGK, SM3BYA, W5LUA, W7JM, HB9BCD (#), VE6TA, 9A5AA, WA6PY, G3LTF, G4BAO, K2UYH and WA9FWD. In the second pass I added 13 more: HB9Q, G3WDG (#), DL7YC (#), OK2ULQ, IW2FZR, G4CCH, F5JWF, SP7JSG, PA3CQE (#), IK2RTI, DJ3FI (#), IZ2DJP and WA8RJF. This makes a total of 51x41 stations worked. Heard were K5GW and IK6EIW. It is well possible that we had over 55 stations QRV this time. The conditions seemed to be better on Sunday for me. Thank you for all the activity and see you in the next parts of the contest!

Success: G3LTF is QRV again with an improved 6 m dish

G3LTF: Peter pkb100@btinternet.com reports that his 6 m dish is operational again -- On March 5th I completed the rebuild of my 6 m dish following the crash in late Nov. My thanks go to friends for specific help (you know who you are!) and to many others for encouragement and good wishes, thank you all. I did manage to get the profile to be more accurate and the results so far support that. Also the hour angle backlash in the polar mount has been almost eliminated, improving tracking. I made Sun and Moon measurements on 5 March on 23, 13, 9 and 6 cm. The figures in ( ) are the last set of measurements on the pre crash dish in July 2013 when 10.7 cm SF was 104; on March 5th it was 158, which is +1.8 dB, and the Moon was very slightly nearer. The 1.8 dB will apply to 13 and 23 cm but the 6 cm value won't change by as much. 23 cm Sun was 22.4 dB (20.3), Moon 0.4 dB (0.4); 13 cm Sun 21.3 dB (19.1), Moon 1 dB (0.8); 9 cm Sun 19.4 dB (16.8), Moon 1.2 dB (0.85); 6 cm Sun 16.7 dB (15.5), Moon 1.4 dB (1.1). I conclude that there is a big improvement at the higher frequencies. As I re-assembled the ribs and rings, it became clear that there was quite a large area that had been in error, probably 10-15% of the dish area. There is still some more improvement to be gained from feed position adjustment. After peaking the 6 cm feed, it is now much closer to the theoretical focus point. A qualitative assessment of the sidelobes at 9 and 6 cm looks like they are significantly better. My first QSO was on 7 March on 13cm with VK3NX followed by SP7JSG for initial #115, UA3PTW #116, F1PYR, G4BAO, and SP7DCS. On 8/9 March I was active in the 13 cm DUBUS CW contest and had a very enjoyable weekend. I

worked 46 stations, OK1CA, OK1KIR, OH2DG, UA4HTS #117, SP6OPN, UA3PTW, JA6CZD, JA4BLC, JA8ERE, JA8IAD, OH1LRY, SM6CKU, IK3COJ, PA3DZL, YO2BCT, F1PYR, DL1YMK/A, PAOBAT, SM3BYA, G4RGK, ON5RR, SP7DCS, S59DCD, SV3AAF, K5GW, VE6TA, WA6PY, W5LUA, ES5PC, G4BAO, K2UYH, HB9Q, VK3NX, G3WDG, OZ5G, HB9BCD, HB9SV, 9A5AA, IW2FZR, DL7YC, OK1KKD, G4CCH, F5JWF, SP7JSG, OK2ULQ and PA3CQE. I heard LX1DB and IK6EIW, and CWNR IZ2DJP. It was good to see so many of the smaller stations calling CQ. I worked on 1296 CW, on 10 March IKL5VLS, PA0BAT, SM6PGP (559/569) for initial #385 - this QSO was a very interesting and significant as Hannes called me completely on random, on my CQ with his 1.8 m prime focus dish with only 270 W of RF (see http://www.2ingandlin.se/Circularly%20polarized%20patch%20feed%20for%201296%20MHz_A.pdf for more details), NC1I #386, IZ1BPN and VE3KRP, on 11 March OK1CS and I5YDI, and 12 March DG5CST #387, PA2DW, LZ1DX and I1NDP. The WX has now worsened again and the Moon is at too low declination, so I am busy getting ready for the DUBUS 6 cm.

G4RGK: Dave zen70432@zen.co.uk was QRV in the DUBUS Contest and writes – It has been a bad winter in this part of the UK. I had lots of repairs to do. Minor repairs to my dish have now been made and a new 13 cm RA3AQ feed has been built. I am seeing around 14 - 15 dB of Sun noise now, which is an improvement over the old feed. In the 13 cm contest I was QRV for most of the first pass and a couple of hours in the second pass. I worked on 8 March OK1CA, UA3PTW, G3LTF, OK1KIR, ES5PC, SP6OPN, HB9Q and PA3DZL for 8 QSOs. Heard and CWNR were HB9SV, OH1LRY, F1PYR, PA0BAT, OK1KKD, ON5RR, S59DCD, SM3BYA, UA4HTS, SP7DCS, DL1YMK/A, SV3AAF, IK3COJ, K5GW, DL7YC, SP7JSG and F5JWF. My 60 W at the dish does not seem sufficient, and I need to improve my power.

GS3PYE/p: John (G4BAO) john@g4bao.com sends news of a small scale QRP EME dxpedition to the Isle of Lewis (IO68) – On 26 April – 3 May, the Camb-Hams traditional Scottish Island activation will be underway. We're headed to the top of the Isle of Lewis in the Scottish Outer Hebrides (IOTA EU-010). The location is The Decca, IO68UL. While this will be mainly an HF-VHF expedition, I'm continuing to educate the gang in the joys of "Achievable Moonbounce". And by this I mean EME that doesn't involve using a dish the size of Jodrell bank or a yagi array the size of an apartment block. To this end GS3PYE/P is planning to take 150 W to a single 55 el Yagi on 1296. [They will also be on 2 m EME.] We will focus on JT65c, but we'll be more than happy to reply on CW, if we hear you. Look out for us on HB9Q and work this very rare VHF/SHF square and IOTA. I plan to be testing the 1296 system from home in the weeks leading up to the trip, so please call me if you see me on HB9Q.

IW2FZR: Dario (IW2FZR) dario296@virgilio.it writes that he recently visited the QTH of HB9SV and reports that Enrico is now set up for EME on 3 cm – see picture. He sends his TNX to Enrico and his XYL for their very fine hospitality. More pictures can be found at http://www.webalice.it/dario.fzr/hb9sv.htm.

HB9SV with his 3 cm dish and feed

IK6EIW: Stefano asmag@libero.it reports on his 13 cm contest efforts – I was only able to be QRV on Sunday. I spent all Saturday repairing my transverte (RX mixer); after this I realized that I wasn't able to receive any signals until my dish was at 20° elevation. On the horizon, the QRM was at S7 on S-meter. The noise from my town (2 km way) was terrible. I had QSOs with HB9Q, OK1CA, OK1KIR and SP6OPN for 4 contest QSOs, and heard PA0BAT (in QSO with HB9Q) and G3LTF with a nice (539) signal and many others. I plan to rebuild my transverter, LNA and input band pass filter.

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp was on 13 cm for the EME contest – I worked 11 stations on CW on multiple sub bands. I QSO'd OH2DG and VK3NX on on 2302, W5LUA, VE6TA and K2UYH on 2304, OK1CA, ES5PC, SP6OPN, G3LTF and PA0BAT on 2320 and OK1KIR on 2424 for 11 QSOS. Heard on 2320 were PA3DZL, IK3COJ, UA4HTS, YO8BCT, OK1KKD, SM6CKU, HB9Q and DL7YC - all (559~579). Before the contest on 7 March I worked SM6CKU for initial #61 on 2320.

JA6CZD: Shichiro ja6czd@mx35.tiki.ne.jp installed 13 cm gear on his 2.4 m offset dish for the DUBUS contest and worked 4 stations. QSO'd on CW were OK1CA, ES5PC, OK1KIR and G3LTF. Before the contest, Shichirou worked on 23 Feb JA4BLC (O/O) on 2424 and on 7 March SM6CKU on 2320, both for initials. [TNX JA4BLC for forwarding this report.]

JA8ERE: Mikio sgl01011@nifty.ne.jp worked 5 stations on CW in the DUBUS 13 cm EME Contest. He QSO'd on CW W5LUA, K2UYH, OK1CA, ES5PC and G3LTF. Mikio worked SM6CKU on 7 March for an initial on 2320. [TNX JA4BLC for forwarding this report.]

JA8IAD: Michi ana11142@yahoo.co.jp was also active in the contest. He worked 8 stations on 13 cm CW: W5LUA, K2UYH, OK1CA, ES5PC, SP6OPN, OK1KIR, G3LTF and PA0BAT. Michi worked SM6CKU in Feb for an initial. [TNX JA4BLC for forwarding this report.]

KL6M: Mike melum@alaska.net sends news on his dish repair progress -- I'm plugging away here, little by little to get the dish back up. A minor setback was a recent 2' of snow, but I know I won't get sympathy on that subject. I'm hoping to get a crane in here before the ground thaws, hopefully mid April. I have only a couple more things to do structurally before I'm ready for the crane. There are MANY things to do electrically before I am QRV again. All my cables were destroyed, including my new EW-52 waveguide, which I had planned to use on 5760. All is repairable (eventually). I hope to be QRV in May after a trip to MS and AK in early May. Sorry, no Dayton this year. Updated detailed status is available at http://kl6m.com/DISH/DISH.HTML. I have had a tremendous outpouring of support, which I appreciate very much.

N8DJB: Craig cats@amplex.net has been back on 23 and 70 cm EME for about a year -- I haven't sent report for at least 15 years, but here's my news. My power on 23 cm is now up to 150 W and I am pleased with the number of contacts being made. I could double this power if I could only locate another good Eimac 3CX100a5 that accepts the screw-on type water jacket - most seem to be clamp on. I am working on adding 13 cm EME and have copied 2304 EME signals already. Recently I received my 13 cm 75 W Spectrian SSPA back after repairs. I have been using my expanded 5.6 m dish on 70 cm with good success and have made numerous contacts there. Finally, just this week I took possession of a 650 W amp for 33 cm. I am receiving excellent Sun noise on 902 and am now looking for skeds on this band.

NC1I: Frank frank@NC1I.COM sends his March report -- My travel plans for March got cancelled, and with a busy April and May expected, I tried to spend as much time as possible operating EME. I was joined by W1QA over the weekend of 8/9 March. Bob did some of the 23 cm JT operating and worked on some of the never ending projects around the shack. We finished the month with 101 EME QSOs. 35 of those QSOs were on 70 cm (all JT) and 66 were on 23 cm (51 JT and 15 CW). Obviously some stations were worked a couple of times during the month. Conditions on both bands seemed quite good most of the time but not outstanding. I have left out exchanged signal reports/grids to keep this report from getting too long! All QSOs were on JT unless indicated otherwise. We worked on 23 cm starting on 7 March at 1653 UA4LCF, 1706 IK5QLO, 1714 LU8ENU, 1728 ZS6Y, 1740 IW5BHY, 1750 PA3FXB, 1757 IK5EHI, 1908 IK5VLS and 1938 G4CCH, 1948 N4PZ on CW, 2000 IK5QLO on CW, 2016 G4CCH on CW and at 2024 I1NDP on CW, 2105 W3HMS, 2114 VE3KRP and 2136 IK5EHI, on 8 March at 0340 VK2DVZ, 0349 VK2AMS, 1939 RD3RA, 1956 IK5VLS, 2005 G4DZU, 2012 PA3FXB, 2018 GM4PMK, 2102 YL3AG, 2115 N4PZ on CW, 2209 I1NDP on CW and 2229 G4CCH on CW, on 9 March at 0358 N6OVP on CW, 0436 VK2JDS, 0453 VK2JDS on CW, 0502 VK2AMS, 0513 VK4CDI, 1854 PA3FXB, 1916 I1NDP and 1940 DL6SH (running 35 W), on 10 March at 0044 W4OP on CW, 2107 G3LTF on CW, 2120 PA0BAT on CW, 2125 IZ1BPN on CW, 2132 IK5VLS on CW and 2301 W3HMS, on 11 March at 2112 PE1HNG, 2136 LU8ENU, 2147 PA2DW, and 2158 ZS6Y, on 14 March at 2229 UA4LCF, 2255 IB5BHY, 2325 PA3CQE and 2348 VE3KRP, on 15 March at 0904 JA6AHB and 0911 VK4CDI, on 16 March at 0040 YO2BCT

and 0050 YO2BCT on CW, 0100 SM6PGP, 0108 IK5VLS, 0122 HB9Q (4DB/2DB!) and at 0320 LU8ENU. On 70 cm we QSO'd using JT on 7 March at 2345 KD5CHG and at 2351 PY2BS, on 8 March at 0010 K5DOG, 0100 KE6ILX, 0303 JA6AHB, 0322 W1AW/7, 0404 VK4EME, 0428 VA3ELE, 1702 DK3WG, 1752 PA2V, 1905 RU1AA, 1914 SM7GVF, 2132 DF3RL, 2140 LU7HI, 2220 SM2DIC, and at 2250 LU8ENU, on 9 March at 1800 ES3RF, 1908 M0EME, 1854 PY2BS, 1923 OK1TEH and 1934 PA2V, on 10 March at 2318 LU7HI, on 11 March at 0023 PY2BS and 0108 K5DOG, on 12 March at 0108 K5DOG, on 15 March at 0000 K5DOG, 0039 LU7HI, 0050 RU1AA, 0115 VA3ELE, and 0230 OH6UW, and on 16 March at 0143 OH6UW, 0150 PY2BS, 0216 LU8ENU, 0226 LU7HI, and 0307 VE3ELE. Two things are very apparent, an overall lack of activity from the states (on both 23 cm and 70 cm) and poor activity in general on 70 cm. We will continue to activate the NC1I station as much as possible in hopes of generating activity in those areas. I can understand why many EU and VK/JA stations won't stay on for much of the NA window, especially during off (overnight) hours. I think we have the ability to work almost anyone setup for EME and many more stations that only have horizon capabilities. We especially encourage horizon only stations to let us know when they have Moon so that we can make it a point to get on during those times. Activity from three areas really stood out over March, "VK", "PA", "I" and South America. Last month I asked about clarifying who some of the R22 stations were for the purpose of counting initials and was told [K2UYH] that special calls don't count as initials. I understand that but I suspect some of the R22 stations we worked have never been worked by us before under any call. If it's a station that we have never worked under any call, I would think it would count as an initial [of course]. Anyhow it would be helpful if someone could provide a check list showing the home call for each of the R22 calls that were active. [See the RL22OG report in the past Jan NL from RA3AUB. Perhaps Mikhail, ra3aub@mail.ru, can provide additional information on who is operating under what call? There was also information on the Olympic Games Awards in the Feb NL, but the call conversions were not included.] We will be operating under the special call W1AW/1 in April. [See the full information under the W1AW/1 report in this NL.] My availability during this time period is uncertain at best, so the vast majority of the activity using W1AW/1 will be on WSJT. My limited availability will be during the week (not over the weekend). I will make every effort to activate W1AW/1 on CW when I can be available. We will post any such plans on Moonnet. The posts will probably be made no sooner than a day prior.

N6OVP's 10' dish – Dave is looking for sked on 1296

OK1CA: Franta strihavka@upcmail.cz 13 cm contest report -- I was QRV in DUBUS EME Contest on 13 cm on the 1/2 March weekend. Before the contest I improved my feed with a simple choke, which reduced my ground noise at low elevation. I worked without any problem QSOs down to an elevation of my antenna of about 4 degs. I worked 45 QSOs on Saturday. I was QRV again on Sunday for about 3 hours, but only added 2 QSOs for a total of 47 QSOs. Initials were UA4HTS, UA3PTW, ON5RR, HB9BCD and DJ3FI to bring me to #126. The activity was very good from all regions. My complete log is at www.ok1ca.cz.

OK1CS: Emil emil.ok1cs@gmail.com did well in the 1296 SSB contest -- I QSO'd on Feb at 0905 OE5JFL (57/56) JN, 0912 JH1KRC (55/55) QM, 0915 DF3RU (55/55) JO, 0917 SP6JLW (56/54) JO, 0931 PI9CAM (58/57) JN, 1005 F5SE/p (56/54) JN, 1007 UA3PTW (56/55) KO, 1011 UA4HTS (54/55) LO, 1031 LZ1DX (44/44) KN, 1043 OK1CA (57/56) JO, 1050 DL6SH (56/57) JN, 1107 RA3AUB (56/55) KO, 1136 DF8FR (55/55) KO, 1344 DG5CST (54/56) JO, 1348 OK2DL (58/57) JN, 1357 HB9Q (59/57) JN, 1551 G4RGK (559/55) IO CW/SSB, 1627 LX1DB (58/57) JN, 1645 K2UYH (57/56) FN and 1725 CT1DMK (56/55) IN for a score of (18x2+1)9 = 351 points.

OK1KIR: Vlada and Tonda vladimir.masek@volny.cz send their clubs latest microwave EME report -- During Feb and Mar on 24 GHz we worked on 1 Feb F1PYR on CW at 1041 (O/O) for initial #18. We also QSO'd later in JT4F with reports of (11DB/13DB) for digital initial {#7}. We tested in real operation our new 13 cm transverter with frequency synthesizer A32 (from N5AC) covering all 4 subbands that are currently used on 13 cm. We collected 13 cm QSOs at 1541 with UA4HTS (559/569), 1604 ES5PC (579/589) and 1636 UA3PTW (569/579) for initial #131, and over the weekend in the 13 cm part of the DUBUS Contest we completed QSOs on 8 March at 1014 VK3NX (569/579), 1053 SP7DCS (559/579), 1102 UA4HTS (559/569), 1105 UA3PTW (569/579), 1119 JA4BLC (559/559), 1130 G3LTF (569/579), 1137 OH2DG (569/569), 1143 IK3COJ (569/569), 1149 PA0BAT (569/569), 1209 JA8ERE (559/569), 1236 JA6CZD (559/559), 1303 ES5PC (579/579), 1309 JA8IAD (559/549), 1317 OK1CA (579/579). 1326 OK1KKD (569/559), 1349 SM6CKU (569/559), 1405 YO2BCT (559/549), 1409 F1PYR (569/529), 1420 S59DCD (559/579), 1428 G4BAO (549/519), 1440 SP6OPN (579/579), 1446 DL1YMK/A (569/569), 1505 PA3DZL (569/569), 1514 SM3BYA (559/569), 1525 OH1LRY (559/559), 1539 ON5RR (549/549), 1557 G4RGK (549/559) #132, 1619 SV3AAF (569/569), 1704 IW2FZR (559/559), 1922 W5LUA (579/579), 1931 HB9SV (579/589), 1958 N8OU (559/559), 2013 W7JM (569/559), 2035 K5GW (579/579), 2102 HB9BCD (559/559) #133, 2117 WA6PY (569/579), 2158 VE6TA (569/569), 2252 K2UYH (569/579) and 2309 WA9FWD (559/549), and on 9 March at 0003 WA8RJF (O/O), 1123 HB9Q (56/55) SSB, 1210 OZ5G (559/559) #134, 1220 G3WDG (549/569) #135, 1242 DL7YC (579/579) #136, 1345 IK6EIW (549/559), 1359 SP7JSG (559/599), 1418 9A5AA (559/559), 1423 OK2ULQ (559/579), 1510 F5JWF (569/569), 1655 G4CCH (579/589), 1848 PA3CQE (569/559) #137, 1943 IK2RTI (579/579), 2009 DJ3FI (549/559) #138, 2033 IZ2DJP (559/559) #139 and 2206 WA8RJF (549/559) DUP. In total we made 55 QSOs with 54 stations for an overall score 54x45. Out of the contest we worked with JT65C on 9 March at 1447 YO8RHI (11DB/20DB) for digital initial {#17} and at 1500 UA3PTW (21DB/O) {#18}.

ON0EME: Walter (ON4BCB) on4bcb@gmail.com reports that ON5GJ is copying the beacon with a 3 m satellite dish feed by a HB double patch antenna for 23 and 13 cm, a 1296 to 2 m converter and FUNcube (SDR).

PA0BAT: Gerard geesi005@planet.nl was active in the 13 cm DUBUS EME Contest -- I worked 33 stations, 7 of them were initials, and there were 7 getaways. I used my 3.7 m dish with a 400 W SSPA at the feed. Because EU and USA use different bands for TX (2320/2304), we are forced to make crossband QSO's. This works well for skeds, but in contests it is very frustrating for smaller stations as myself to spend a lot of time to attract the attention of US stations with almost with no result. I estimate that I called CQX for about 4 hours without any reply; I certainly won't do that again. Some call CQX, others don't. And often the US band is covered with those lucky EUs that are allowed to TX on 2304. A similar thing applies of course to JA and VK, but these are mostly quite easy to work. Would it make sense to agree to a subband (for instance .040 - 060, or .150 - .200, or whatever) where stations intending to do crossband can call CQ? The collateral advantage is that these stations are away from the mess around 100 (I never understood while no better spreading occurs). [One problem with going to a separate sub-band for crossband operation is that you are pretty much limited to only crossband QSOs. After a CQ, I usually tune with two receivers, one on 2304 and the other on 2320. Because of my relatively small common window, it can get pretty intense with everyone calling at the same time. No one seems to call later on toward the end of the window.]

PA2CHR: Chris post@pa2chr.nl writes about the possibility of 432 EME from Albania -- This summer I will visit various locations in the Balkan region to operate on the VHF/UHF bands. All equipment is built into my car and if necessary powered by a generator. My main activity will be on the lower bands (70 MHz, 6 and 2 m), but I will operate from my fourth stop, Albania (JN91) as ZA/PA2CHR on 70 cm. 432 operation is planned (likely) for 2 June on 432.088 using a single 38 el yagi and 300 W.

PA3DZL: Jac pa3dzl@planet.nl had a great time on 13 cm during the EU Contest – I used my 3.7 m mesh dish and managed to work 6 initials. Before the contest I worked UA3PTW for initial #79, PA0BAT on SSB, UA3PTW on SSB and PA3CQE on SSB. During the contest I made 36 QSOs with VK3NX XB, OH2DG, UA4HTS, OK1KKD, UA3PTW, IK3COJ, SP6OPN, F1PYR, PA0BAT, ES5PC, OK1CA, SP7DCS #80, S59DCD, SM6CKU, ON5RR, G3LTF, OK1KIR, YO2BCT, DL1YMK/A, OH1LRY, SV3AAF,

SM3BYA, K5GW XB, W5LUA XB, HB9Q, DL7YC #81, IW2FZR, HB9SV, 9A5AA, SP7JSG, HB9BCD #82, OK2ULQ, G4CCH, G4RGK #83, F5JWF and PA3CQE. During the contest I heard and called X-band on 2304 WA6PY, WA9FWD and K2UYH. Unfortunately I could not get their attention, signals were UFB! After the contest added YO8HRI #84 and SM6CKU. I hope to be QRV again on 6 cm during the contest in April.

PA3DZL's 3.7 m dish used in the EU Contest

PI9CAM: Dick (PA2DW) jvmmap@bart.nl notes -- For those waiting for QSLs from PI9CAM, I have good news. Today I have cleared my backlog! A number of direct QSL's still had to be processed as I have been busy and when not being busy I was mostly lazy, hi! QSLs are now going out for: KN0WS, ES6FX, I5YDI, UX0FF, LU8ENU, KD7YZ, UT5DL, PE1RDP and UA4LCF. I case you are not one of above and still need a QSL from PI9CAM, be aware that I can help you. I have a box full of fresh QSL cards!

RU1AA: Alex ru1aa@yandex.ru is now QRV on 70 cm EME. He made his first EME QSOs on JT65B with DL7APV, UA3PTW, DK3WG, W1AW/5, JA6AHB and R22WG. [Thanks DK3WG for forwarding this report.]

SM3BYA: Gudmund SM3BYA@wannberg.net reports on his experiences during the recent 13 cm contest – On 13 cm I use 3.8 m dish with 210 W at the feed and a 35 K overall RX noise temperature. I can TX/RX on 2304 and 2320 and RX on 2301.975. To my own surprise I managed to get on the air for the DUBUS 13 cm session. My EME rig is still housed in an unheated part of the tractor shed. If we had had "normal" March weather the temperature in there would have been between -5 and -10 C range for the entire weekend. I couldn't have stood these temperatures for more than half an hour at a time, maybe even less. But this whole winter has been abnormally mild here, and the weekend before the contest, the thermometer started to stay a few degrees above freezing even at night. It stayed that way day after day, so on Wednesday I decided to give the contest a go and checked out the rig, which hadn't been powered up since the ARRL microwave weekend in Sept. There were any number of broken control cables and the LDF4-50 run from behind the dish out to the feed was full of water; SWR 3:1, and had to be changed. All my earlier operations with my 3.8 m dish that does not have a working AZ indicator - I've had to rush out to check the pointing visually, rush back in, acquire some strong station and keep tracking by ear for as long as possible, which has normally been some 15 minutes at a time. During the winter I put together a quick and dirty readout using a single turn 10 kohm pot and a quad opamp set up to give me 0.1 volt per degree, read out on a DVM. I spent Thursday installing it on the dish. It worked surprisingly well - linear to within a couple of degrees over 90-270 deg, and during the contest I didn't need to rush out even once to look for the Moon! On Saturday morning, a warm front came in from the west with very strong winds that took out all power twice in quick succession (trees falling over the HT lines). This caused me to think. I realized that my TR sequencer was not failsafe if a power outage should happen while transmitting, so before I went on the air I put battery backup on it! I can't really judge the conditions since it has been so long since I was last on 13 cm, but I found most signals to be rather weak, as expected close to apogee. On Sunday night I noticed a strange phenomenon. At 1920 I called CQ on 2304.100. I had enormous echoes for a while and worked WA9FWD and SV3AAF in quick succession. Then heard K2UYH on, also very strong and called him. Al came back to somebody else and then started working stations in pileup fashion. But after a few minutes, his signal strength started to drop. It got weaker by the minute, his signal also became fluttery as if strong libration fading had set in. I tuned the band and soon every signal I could find sounded the same way - even SP6OPN was so weak as to be almost unreadable! At this point it was about 2045 and had got much colder. I had started to shiver from the cold, so I gave up. Wonder what caused this - you wouldn't normally expect conditions on 13 cm to change this fast. I am thinking that maybe the temperature drop caused a tropospheric inversion layer to form that somehow scattered the signals. Did anyone else notice something like this, now or in the past? I worked on 2320 OK1CA, OK1KIR, SP6OPN, G3LTF, SP7DCS for an initial #47, PA3DZL, ES5PC, OH2DG, HB9Q, IK3COJ #48, UA4HTS #49 and on 2304 WA9FWD and SV3AAF for 13 QSOs. I also worked OK1KKD, who would have been another initial, but I called him OK2KKD, so can't count that one as a valid QSO; I will have to sked them to get the initial. Heard were SM6CKU, SV1BTR, F5JWF and PA0BAT. I heard others working OH1LRY and ON5RR. CWNR were HB9SV, HB9BCD, G4CCH, DL7YC and K2UYH. While the rig worked OK all the way to the headphones, the old body is beginning to cause trouble. I have suffered from mild tinnitus at about 6 kHz in my right ear for 20 years, but it has picked up lately and now I noticed for the first time that it interfered with the RX noise, causing sonic IM when trying to read signals right at the threshold. Is anyone out there having the same problem?

SP7DCS: Chris sp7dcs@wp.pl sends both his 70 cm and 13 cm DUBUS Contests results -- On 70 cm I was only able to make 13 QSOs, which is much worse than last year. Activity seems to be going down. QSO'd on 8 Feb were VK3UM, OK1CA, UA3PTW, SP6JLW, JA6AHB, SM6FHZ, DF3RU, LZ1DX, NC1I, N4GJV, I1NDP, DL9KR and VE6TA. My rig was a 6 m dish and 700 W with rotatable dual dipole feed. The good news is that I managed to put a 13 cm station together. With the help of Maciek (SP7MC), we made 31 QSOs with most of them initials. Moon tracking seems to be much more difficult than on 23 cm. Moreover, we have some problems with temperature stability in our rig. In the evening when it was getting colder, our RX was loosing sensitivity. As a result my first NA window was lost as the RX went deaf on both 2320 and 2304. Fortunately it worked well the second day and I was able to work some NA stations. We also tried to RX on JA sub-band, but nothing was heard. I am not sure if the 2424 rig is working properly at the moment. 13 cm contacts were 8 March OK1CA, OK1KIR, ES5PC, OH2DG, PA3DZL, SP6OPN, UA3PTW, IK3COJ, ON5RR, SM6CKU, PA0BAT, OK1KKD, UA4HTS, G3LTF, SM3BYA, OH1LRY and DL1YMK/A, and on 9 March HB9Q, VK3NX, HB9SV, G4CCH, S59DCD, SV3AAF, DL7YC, SP7JSG, YO2BCT, F5JWF, PA3CQE, K2UYH, WA6PY and VE6TA for 31 contacts. The rig was my 6 m dish and 100 W. 13 cm is a great band with good activity and a lot of challenges.

SP7DCS' 6 m dish with 13 cm feed showing

T88QX: Bodo (DF8DX) df8dx@gmx.de will be QRV from Palau (PJ77fi) on 23 cm EME in April -- I will be in Palau on vacation and will take 23 cm EME equipment (100 W and 59 el yagi). Operating times will be Tuesday 8 April 1330-1530 for EU, and Wednesday 9 April 0500-0630 (for NA) and 1400-1600 (for EU). If needed I will be on again on Thursday 10 April 0530-0630 (for NA) and 1530-1700 (for EU). My TX Freq will be 1296.090 and I will RX on my own echo freq. I will TX first on JT65C. I will probably not be online while operating, but will check my email regularly.

UA3PTW: Dmitry ua3ptw@inbox.ru made new QSOs on 70 cm in March with RU1AA, W1AW/5 and WQ5S on JT65B, and on 23 cm CW with HB9Q and F1PYR, and on JT65C with G4CBW. Dimtry is now QRV on 13 cm with

his 5.8 m dish and 130 W at the feed. [I do not yet have his contest report, but I know he worked many stations. Thanks to DK3WG for forwarding this report.]

UA4AQL: Alex ua4aql@inbox.ru made initials on JT65B on 432 in March with W1AW/5 and W1AW/4.

UA9YLU: Rakov [need email] is a new station on 1296 EME. He worked HB9BBD (559/559) on CW and G4RGK, UA4AAV, YO8RHI and DJ9YW on JT65C recently. [Thanks DK3WG for forwarding this report.]

VE3KRP: Eddie eddie@tbaytel.net has had a very difficult time. He was hospitalized with a mass infection and had his left leg amputated below the knee. [These hard to treat infections seem to becoming much more common. K2SMN recently had a Staph infection with similar devastating results.] -- I was not active in Feb due to surgery and a stay in hospital. I am now recovering at home and active again on EME. I worked on 2 March RK22AA, on 3 March YO8RHI for an initial (#), ES6FX (#) and LU8ENU, on 5 March I1NDP, G4CCH, PA3FXB and PA2DW, on 6 March UA4LCF (#), on 7 March UA9YLU, IW5BHY, IK5QLO, LU8ENU, N4PZ on CW, K5DOG, W3HMS and NC1I, on 8 March RN3A, DG5CST (#), RD3DA, GM4PMK and G4DZU (#), on 9 March PA3FXB, I1NDP, IK5VLS, W3HMS, K5DOG, LU8ENU and W4OP on CW, on 10 March G3LTF on CW, on 11 March ZS5Y (#), and on 14 March NC1I. All QSOs were on JT65C unless indicated as CW. It has been a bit difficult doing work in the shack, but with the help of ham friends it has been a lot easier. I am doing well and hopefully will start physio for a prosthesis in a few weeks.

VE4MA/7: Barry ve4ma@shaw.ca is now QRV on 902 EME from his AZ winter QTH -- On17 Feb I completed what I believe is the first 900 MHz EME QSO from Arizona. The CW contact was with VE6TA near Edmonton. Grant was using his 18' dish and 250 W. I had 500 W out with my little 5' offset dish. Signals were predictably weak but steady. There is quite a bit of Wireless QRM, but it is minimized by operating near 902.0. I am waiting for W5LUA, PY2BS and possibly K2UYH to get ready to run. I will be operating portable in AZ until early April. I have been trying to resolve a problem with my 5.7 GHz system. I have been hearing very well with 125 W into the 5' offset dish, but have been having no RX inspite of 9.75 dB of Sun noise. The problem was found to be TWT noise; the tube was not shutting off completely. But I now have transverter trouble. My focus has been on 33 cm. I had an unfortunate failure of my first 425 W PA, and have replaced it with a bigger unit that will deliver 900 W in short duty cycle, but was running it conservatively at 520 W out for my QSO. I also upgraded the LO to a PLL. I did not bring the right bands here to align with contests/activity and next fall I plan to bring 2.3 GHz, 1296 and 3400 (I have had it here for 2 winters but still not QRV) and possibly 10 and 24 GHz.

VE6TA: Grant ve6ta@xplornet.com updates his EME activity – On 17 Feb VE4MA/W7 and I worked on 902 EME. Barry was using his 5' offset dish and 500 W, while I was using my 18' dish and 250 W. Barry is initial #3 for me and I am sure the first Arizona to VE QSO on 902. I was also active in the DUBUS 2.3 GHz contest and made 20 QSOs. I worked W5LUA, JA4BLC, SP6OPN, ES5PC, OK1CA, OH2DG, UA4HTS for an initial (#), PA0BAT, SM6CKU (#), G3LTF, OK1KIR, WA6PY, UA3PTW (#), S59DCD, K2UYH, WA9FWD, K5GW, VK3NX, SP7DCS and G4CCH. I CWNR OH1LRY, G4BAO and JA8ERE. I plan to be on 5760 for the next leg of the DUBUS contest, WX allowing.

VK3UM: Doug tikaluna@bigpond.com reports on his Plasma Bubble tests – I'm pretty disappointed. I could not simulate the effect I experienced on 31 Jan. The Sun/Moon headings were very close to those previously with the Sun about 3 degs closer. I vainly tried from 3 to 12 degs elevation and the echoes were quite strong and clean. The libration on Spectran showed consistently about 2 Hz spread, which corresponded to our predictions. TX horizontal to RX horizontal right at rise slowly changed to TX vertical to equal H and V on RX. Little could be detected with TX H, RX H and nil with TX H, RX V at about 10 degs - pretty normal. The only explanation, if indeed one can hang ones hat on, relates to the position of the TEC hot spot as it was a lot further east then it was on 31 Jan - (260 against 210 degs). This could account for the fact I would not have been firing through it, if indeed this is the explanation for my previous findings. Oh to have recorded it last time. I have some great audio and visual recordings today! I am still pretty well convinced it does exist (the effect) and I still need to do the sums (get someone to do it as it's beyond me!) on the previous event to prove the bubble was within my beam width at the time. Getting assistance from others will be difficult given the required conditions that I believe would be necessary to prove its existence. It would be a great project for a young enthusiast programmer with considerable spherical trig ability.

W1AW/1: Bob (W1QA) EME@W1QA.COM reports that the W1AW/1 Centennial EME operation from MA in support of the ARRL's 100th anniversary will be from NC1I on 70 and 23 cm EME. We are authorized to be QRV from 9 April through 15 April. (During the same period, W1AW/1 on HF will be hosted by K1TTT.) I plan on going over to the NC1I station after work on 10 April (~ 2200) and staying through Sunday 13 April. I will be joined by W1VE, who will assist us with the operating efforts. While I expect the majority of our efforts will be on the weekend, please look for W1AW/1 anytime we have the Moon during the activity week. To minimize interference between the 70 and 23 cm stations when operating both bands simultaneously, NC1I will transmit on the even minute sequences. Thanks in advance for taking the time to work us! More information on the special W1AW portable operations can be found at http://www.arrl.org/centennial-qso-party.

WA6PY: Paul pchominski@maxlinear.com reports on his recent 13 cm activity -- In the 13 cm EU/DUBUS Contest I QSO'd OK1CA, HB9SV, SV3AAF, OK1KIR, OK1KKD, G3LTF, UA3PTW, ES5PC, SP6OPN, VE6TA, W5LUA and SP7DCS for a total of 12 contacts. I heard more stations on 2320, but could not get their attention. Later I received reports from a few stations operating in the 2320 band that they called me without success. After the contest I QSO'd DL7YC (579/549) - beacon quality signal. I plan to be QRV on 6 cm in the April leg of the EU EME Contest.

K2UYH: I a.katz@ieee.org had more cold WX and snow in March but was able to be QRV for a little over a week in the beginning of March and participate in the 13 cm contest. Unfortunately I had a problem with my 13 cm system. Although I was reading output power and seeing Moon noise, I could not find my echoes. At first I thought the problem was my transverter breaking up due to the cold WX. After a number of tests and substitutions, I concluded the problem was in my SSPA. I put back into service my old 80 W 13 cm SSPA, and my echoes were finally back! By this time we had missed our first VK/JA window and much of our Saturday EU window. We (K2TXB, K2YY and NE2U) QSO'd on 8 March at 2251 OK1KIR (579/569), 2258 SP6OPN (589/579), 2304 W5LUA (569/579), 2306 OK1CA (579/579), 2312 VE6TA (559/569), 2318G3LTF (569/569) XB, 2323 ES5PC (569/569), 2330 K5GW (569/579) and 2335 WA9FWD (559/559), and on 9 March at 0358 JA8ERE (559/449) XB, 0423 JA8AID (559/559) XB, 0500 JA4BLC (559/549) XB, 0533 partial VK3NX (559/539) XB – not complete, 1936 IK2RTI (559/579), 1945 partial SV1BTR (569/?) disappeared, 1952 UA3PTW (559/559) XB initial #69, 2000 SV3AAV (559/559), 2007 UA4HTS (559/559) XB initial #70, 2015 RK3WWF (579/589), 2024 IK3COJ (569/539) initial #71, 2032 G4CCH (589/589) XB, 2038 HB9SV (589/579), 2045 SP7DCS (559/599) initial #72, 2057 F5JWF (559/589), 2104 PA0BAT (569/569) XB and 2708 DL7YC (559/559) XB initial #73. We ended with 24 QSOs. All QSOs were made with a 9 cm preamp as my good 13 cm preamp was damaged during my attempts to fix the system. I also worked on 1 March on 432 at 1453 PA0PLY (13DB/22DB) on JT65B and 1519 WC7V (25DB/20DB) JT65B, and on 1296 at 2120 ZL1IP (17DB/10DB) JT65C and tried SSB but did not complete, on 2 March on 1296 at 1652 ES6FX (17DB/9DB) JT65C for mixed initial #459*, 1708 PA3FXB (12DB/5DB) JT65C, 1720 LU8ENU (19DB/O) JT65C and 1726 W3HMS (14DB/10DB) JT65C, and on 10 March on 1296 at 0415 N6OVP (559/559) for CW initial #347 and #460*. I am planning to be QRV for the 6 cm leg of the DUBUS EME Contest.

NETNEWS: **KL6M** reports progress on the new mount for his dish. He is hoping to have a crane visit in April. **UP0KEDR** is QRV on EME from Kazakhstan until 14 April to celebrate the 80th anniversary of the birth of Yuri Gagarin. EME op is UN9L. **W7MEM** was QRV as W1AW/7 from ID on EME from 5 to 11 March.

FOR SALE: **PA0PLY** is developing a 10 GHz LNA for sale to EMEers. Since there will be a minimum quantity required to keep the costs low, Jan would like to receive replies from guys who are seriously interested in purchasing this new pre-amplifier. The design goals are a price of about EU175, WR-90 non-grooved input, SMA female output and a NF of about 0.7 dB with a gain of 25 dB. Please email Jan at pa0ply@pa0ply.nl. **DF6NA** is looking for a WR-42 waveguide switch (18-26.5 GHz). 12 or 24 V would be ok. Email to df6na@df6na.de. **N8DJB** is looking for good 7289/3CX100's that accepts the screw-on type water jacket. Contact Craig at cats@amplex.net. **N4PZ** n4pz@live.com is looking for someone who has experience with using a Thompson TH-331 on 1296.

TECHNICAL: Andreas (DJ3JJ) reports that there is a very nice on line tool to calculate brachline couplers including the velocity factor of the wave inside the PCB substrate at http://post.queensu.ca/~saavedra/research/Applets/BranchlineDesignApp.html.

77 GHz JUPITER NOISE: The question of how can a 3 dB beamwidth be measured using only 0.0035 dB of Jupiter noise was raised by JH1KRC? Luiz (CT1DMK) answers -- The radiometer measures the total power, so the total power ratio pointing to Jupiter versus pointing away from Jupiter can be used. Let's use temperature instead of power, which in reality is equivalent but more convenient for addressing these matters. Tsa is system temperature including atmosphere, Tja is the Jupiter temperature as seen by the antenna. Y = (Tsa + Tja) / Tsa or Y = 1 + Tja/Tsa = 1.000806 = 0.0035 dB. When Jupiter is 3 dB down, as seen at the -3 dB antenna point: Y = 1 + (Tja/2) / Tsa = 1.000403 = 0.00175 dB. So the antenna's 3 dB point happens at the 0.00175 dB point each side of the peak. [SP6GWB notes that some historical information about the noise from Jupiter at 77.5 GHz can be found at http://adsabs.harvard.edu/full/1968SvA....11..561K.

FINAL: There is lots of not so good news this month. Another big dish is down! The 10 m F6KHM dish in Brest was severely damaged during the winter storms that swept Brittany. The dish was dismantled on 8 March.

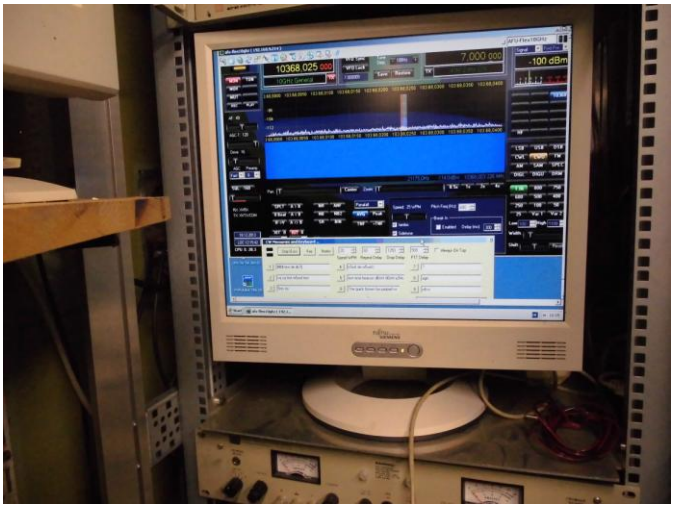
BIG DISH DOWN

I have also learned that F2TU's condition is very sad. Philippe has shown no improvement in recent months. He has minimal communications (no speech) and spends most of his time in bed.

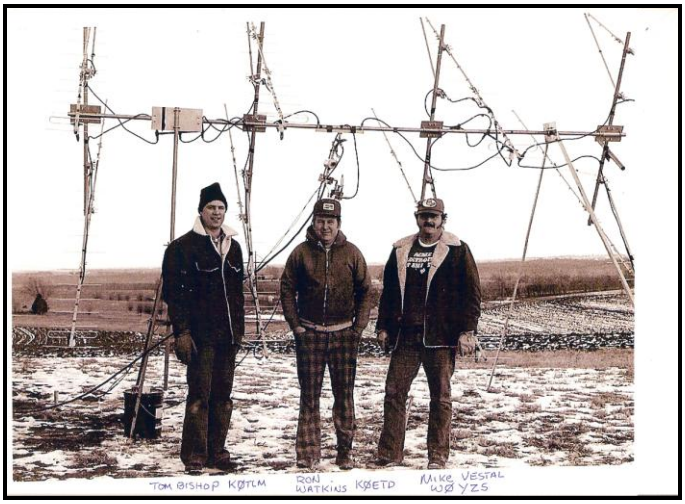
The results of WW ARI EME MARATHON 2013 are now posted at http://www.eme2008.org/ari-eme/WW%20ARI%20EME%20MARATHON%202013.pdf. And as noted at the start of this NL, the 9th ARI New Modes EME Contest is on 12/13 April. [TNX I5WBE for this info.]

Time is getting short to register for the 16th International EME conference, web site http://www.eme2014.fr, to be held at the Parc du Radôme, Pleumeur-Bodou, France. (The *Parc du Radôme*, located in North Brittany very close to the Channel coast, is renowned worldwide for hosting the first transatlantic TV broadcast in July 1962. Telecom Research and Industry have grown considerably in the Lannion-Trégor area - now a major high-tech site in France.) The conference will take place on Monday and Tuesday 25/26 Aug and culminate in the conference dinner on Tuesday evening. Before the conference, on Sunday 24 Aug is an optional tour including visits to the Museum of Telecommunications, the Planetarium de Bretagne, the Granit Rose coast as well as other gorgeous tourist spots. The deadline for registration and accommodations is 15 May! If you want to present a paper at the conference, you must submit your plans **immediately** as the formal deadline has already past!

The DL0SHF 10 GHz Beacon had some problems, but is back in regular operation on 10368.025 at 50 W and upon request at 500 W. The ON0EME 1296 beacon on 1296.000 continues to run strong.



DL0SHF DSP Display



Historic picture of the W0YZS team (K0TLM, K0ETD and W0YZS that received the first 432 WAS (all on CW)

HB9SV's antenna showing big 10 m dish and 10 GHz dish

That covers the news for this 29. There is something for everyone off the Moon this month. I shall be looking for you in 6 cm contest (and if 6 cm activity is slow during the 70 cm ATP). I also and hoping to be QRV for the ARI JT contest. PSE keep the info coming. 73, Al – K2UYH