

432 AND ABOVE EME NEWS OCTOBER 2014 VOL 42 #9

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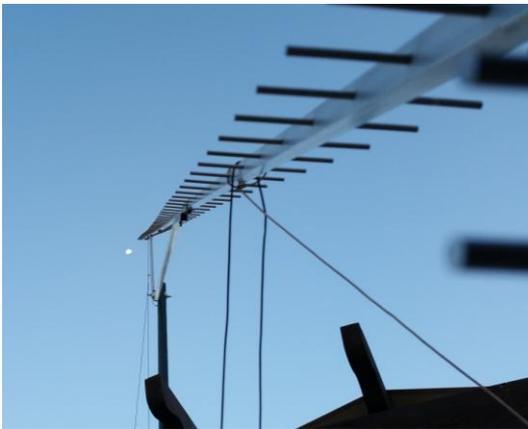
CONDITIONS: EME2014 was great success. See my report in this newsletter (NL) for more details. Praise for the conference and its organizers was universal. Bravo to Guy (F2CT), Corine and the rest of the team! The next conference will be in Venice in 2 years and organized by an ARI team. What a difference a month can make! EME wise the Moon has to be warm with RF. **The DUBUS Digi EME Contest was on 16/17 Aug** with the 70 cm CW activity time period (ATP) the same weekend. And if this was not enough, **this weekend was also the 6 cm microwave EME activity weekend (AW)**. All had a good turnout. HK1H brought a new DXCC to 23 cm on 16 and 30 Aug. 5B/PE1L added another 23 cm DXCC on 12/13 Sept. **The ARI CW EME Contest was this**

same weekend. 20 Sept and 21 Sept were the 3 cm and 9 cm microwave AWs respectively. F5SE will also put commemorative call TM1GM on 1296 EME – see Franck's report. Coming up is a 70 thru 13 cm dxpedition to Sardinia on 26-28 Sept – see ISO/DL6NUD's report in this NL, an XX/DL1YMK mystery dxpedition from 5 Oct to 11 Oct on 6 and 3 cm EME, and the Z21EME dxpedition to Zimbabwe on 1 to 8 Nov – see details in the Aug NL. **This dxpedition over laps the MAIN EVENT, the first of the ARRL's EME Contest weekend for the microwave bands, 13 cm up on 12/12 Oct!** Because of all the contest activity there will be no ATP until Dec. The two 50 to 1296 ARRL EME Contest weekends are on 8/9 Nov and 6/7 Dec.



There was a big turnout for EME2014 with JA, VK, W/K, VE, SA and most of EU represented

5B/PE1L: Rene pe1l@cqdx.nl and his team (PA3FPQ and SP4K) pulled off another outstanding EME dxpedition; this time to Cyprus (KM64ux). 23 cm operation was on the Moon pass starting Friday 12 Sept to Saturday 13 Sept. They used the same system as in the past, a single a 67 el yagi and 100 W. They did add a preamp. For this system they had an amazingly good signal and made 27 QSOs on 23 cm!



5B/PE1L's 67 el yagi used on 1296 to make 27 QSOs

DK3WG: Jurg dk3wg@web.de was QRV on 70 cm in Aug – I worked using JT65B W8PAT (2 x 9 wl yagis and 100 W), W2PU, WQ5S, XE2AT, SP1JNY and EB5GP.

DL7APV: Bernd dl7apv@gmx.de writes that he has not been as active on EME as in the past because he is involved with a new business – I have opened a restaurant with a friend that keeps me busy with problems like testing new vine and other well tasting products. It is *really hard work!* But in reality it is keeping Astrid and me very busy. We sell lots of vegetables and fruit from our own garden including juice and jam – see <http://www.bauernscheune-kremmen.de/>! Despite all this, I did get some new stations into the log on 432. I added in July RZ1AWT and in Aug IV3DXW, W2PU, VK5APN, VK5APN/8 and XE2AT.

EI2FG: John johnhearn@eircom.net sends the following overview of his recent EME activity – I started on 23 cm EME this year with the encouragement of HB9CRQ who was keen to complete DXCC on 23 cm and was missing EI. On 23 April I made my first contact with HB9Q using our VHF Field Day setup of 200 W into 4 x 35 el Tonna yagis and an LNA with about a 1 dB NF. I was most surprised when UA3PTW called me after I had worked Dan. Our EI9E club has over the last few years activated rare squares on the west coast of EI during the Perseids meteor shower in Aug. This year's outing was to County Kerry (IO41tu). Seeing the success of GS3PYE/p with a single antenna earlier in the year, we decided to take along with us a simple system with a single Wimo 67 el yagi for 1296. The Wimo yagi is very easy to assemble. We also took an AzEI rotator and we manually tracked the moon. K2UYH kindly arranged some skeds for us, **and we were absolutely delighted to work on 10 Aug OK1KIR, G4CCH, I1NDP, IK3COJ and DL6SH, on 11 Aug DK0SF, K2UYH, HB9Q, DF3RU, OK1KIR again, G4CCH again, and PY2BS, and on 12 Aug OK1DFC and UA3PTW.** For us this was a resounding success and the icing on the cake for our dxpedition. On the last night we changed the LNA to a lower noise one, but ran out of daylight, and while we did to get the antenna back up, we lost the

orientation and we were not able to make our last JT65 sked with OZ4MM - sorry Stig! We did not feel that we would have been able to copy anyone's CW signals and did not try any of the CW skeds. We also operated on MS on 6, 4 and 2 m and some EME on 2 m after our success on 1296. Next year we plan to travel to IO44 for our annual Perseids outing. Work has already started on planning the EME antenna system. We expect the EME operation to complement the MS operation. We will certainly take 23 cm EME again and we are discussing a dish. We already have a 3 m solid dish, but it is not easy to handle. We would like to improve to the level where we can also make CW contacts. Since we came home, I have been working 23 cm from home in IO61ax and I have worked G4CCH, PA3FXB, PA3CQE, LZ1DX, DC9UP, DF3RU, UA4HTS and I1NDP, all on JT65C. One evening I was not far off being able to copy G4CCH's CW so that is another aim for me to improve the system to be able to complete CW contacts. I used a TS2000X as I found my LT230S transverter was drifting enough to make it quite difficult to decode. An OCXO has arrived for installation in to the transverter and I should have a better signal again before too long. The TS2000X's more stable signal definitely makes me easier to decode. It seems to me that the decoding gain due to the better frequency stability is greater than the loss of output power due to the transceiver's limited 10 W output. Before I attended the Cambridge EME conference my 23 cm gear had only one annual outing for VHF Field Day at the beginning of July. I was thinking I had too much tied up in equipment that was only used once a year. And at that conference encouragement came from all quarters. "Get on the air" they all said, particularly G3LTF, W5LUA, N4PZ, WB2BYP and of course OK1DFC, who needed EI on 70 cm, which we gave him for DXCC. So, thanks to all for that encouragement; we've made a start and it's only onward and upward from here.

TM1GM: Franck (F5SE) kozton@free.fr sends news of a special commemorative EME event -- In remembrance of the beginning of WW1 in 1914, many French stations will be active using a special callsign granted to each department involved in the Big War. In the department Marne (#51), the special event callsign TM1GM will be used by operators throughout the department, mostly on HF. It happens that the location where I am operating from (Fort Chenay, JN19XH) was a former military fort involved during the war. So we decided to install some HF station on the spot. It was also decided to operate TM1GM "off the Moon" using my equipment. TM1GM will be operating on EME on Saturday 27 Sept from 1300 to 1730, Sunday 28 Sept 1300 to 1800, Monday 29 Sept 1300 to 1900, Tuesday 30 Oct 1400 to 2000 and Monday 1 Oct 1530 to 2000. The freq will be 1296.030 ± Doppler. I will be on CW only (SSB if signals are good enough). NO digital modes. PSE QSL via F6AJM. For more info see the web site <http://www.tm1418.fr/>, which has an English page (click on "F5VMB" to access this page. F5VMB is ex-G4YLQ).

G3LTF: Peter's pkb100@btinternet.com report for Aug/Sept -- I was active on three bands this month with initials on all of them. I'm afraid the 6 cm AW was a bit of a non-event here due to the windy weather, but I did have one QSO on 16 Aug with SM6FHZ. I was also active on 13 cm, looking for OK1DFC's activity from SP. On 13 cm on 16 Aug, I worked OK1KKD on CW and SSB and OK/DL6SH on SSB from the same station. Also worked were SM2CEW and G4BAO. On 17 Aug I worked on 13 cm, SP/OK1DFC for initial #119, SV3AAF, G4BAO, OZ5G, ES5PC and PA0BAT, and heard HB9Q, PY2BS and PE1LWT, and later on 23 cm ON5TA and DC9UP for initial #388 (all on CW). I came up on 6 cm during the EME conference and worked TM16EME on 3 days on SSB and CW. On 24 Aug I added on 6 cm IK3COJ for initial #51. On 8/9 Sept I was on 23 cm and found excellent perigee conditions. I worked on CW on 8 Sept SP6ITF, IK5VLS, G4CCH, EA1RJ #389, and on 9 Sept I5YDI, LZ1DX, PA3CQE and OZ60L for a random SSB QSO having seen him testing on SSB on the SDR! During the 9 CM AW on 21 Sept I had a problem to start with in having a critical switch in the wrong position in the LO chain, but when that was sorted out, I worked PY2BS, OH2DG, OZ60L, PA0BAT, SM6PGP, DL1YMK, K2UYH, and VE6TA. Reports given ranged from (449) to (579) and both PY2BS and DL1YMK were copied on SSB although a bit auroral sounding due to the liberation. Thanks to all for the contacts and to those who mailed me their Sun and moonnoise measurements, which I am collecting.

G4BAO: John john@g4bao.com was QRV on 13 cm for the MW AW on 16 Aug -- I found good activity and added 2 initials and 2 DXCCs on CW. QSO'd were SM4IVE and OZ4MM.

HB0??: Carsten (DM1CG) CG@ade-vertrieb.de and Frank (DL8YHR) are planning to put Lichtenstein (HBO - JN47sd) back on 70 cm EME after many years. They will be QRV on 1/2 Nov (first weekend) with legal

power and 1 or possibly 2 x 12 el XP DF7KF yagis. Plans are to TX circular and listen on both pols.

HK1H: Máximo (EA1DDO) ea1ddo@hotmail.com has put HK on 1296 EME for the first time as he did a in 2006 on 432 (although not the first 70 cm from Columbia, which was HK1TL in 1976) -- My station consists of a horn antenna using WD5AGO's design. It is made of wood and aluminium foil and around 2 m long and 800 cm wide at the mouth. I drive it with square circular polarized septum feed and a 250 W single transistor SSPA (kit from G0RUZ). On RX I am using G4DDK VLNA with a 0.3 NF and 37 dB gain. I plan to write an article for DUBUS about my experiences. The target was to test the horn antenna and be able to put HK on 1296 EME; this mission was accomplished. On my first try on 16 Aug, the RX protection relay failed and I had to manually switch the preamp to a dummy load every period. Despite this problem, I was able to QSO G4CCH, HB9Q, PY2BS and P19CAM on JT65C. I tried again on 30 Aug and added OK1KIR and K2UYH. I have created a simple video with details on the horn antenna and EME system -- see http://hk1h.ea1ddo.es/HK1H_2014.html. Please, send your QSL card to MOHAO.



HK1H 0.8 m on a side horn used on 1296 EME

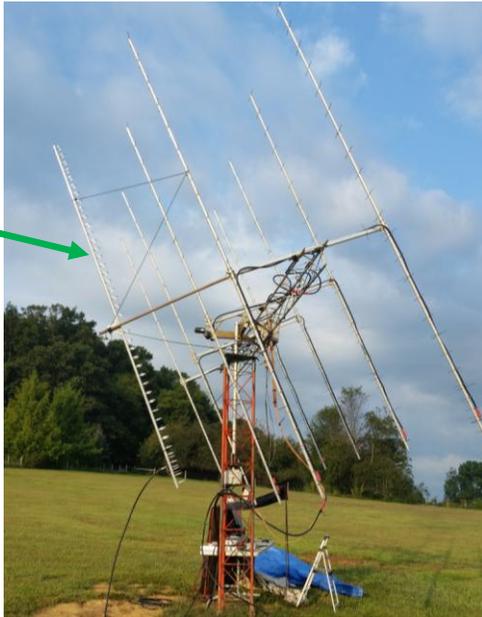
IK3COJ: Aldo ik3coj@gmail.com is now QRV on 5760 as well as 1296 -- After a first attempt in April on 6 cm with only 8 W during which I made 2 QSOs (DL7YC for initial #1 and TM8PB #2), I decided to increase my power. I now have a 20 W TWT at the feed of my dish. To accomplish this, I had to make an extension cable that can carry 3 kV as the TWT's power supply was too heavy to put at the focus. I was able to contact on 19 Aug PA0BAT and 24 Aug SM6FHZ, G3LTF, OK1KIR and TM16EME. It's definitely more difficult pointing the dish on 6 cm, especially when the Moon is not visible. 20 W is not high power, so I am looking for a bigger PA, but in the meantime am content to make QSOs. On 1296, I added EI9E and 5B/PE1L for DXCC 67, both on JT65C.

IS0/DL2NUD and /DJ4TC: Herman and Peter will be on from Sardinia (JM48lx) for an exclusive UHF/microwave EME dxpedition! Operation is planned for 432 on 26 Sept, for 1296 on 27 Sept and for 2300 on 28 Sept. They will use single yagis on all bands with 300 W on 70 cm, 150 W on 23 cm and 300 W on 13 cm. If the Internet is available, they will be on the HB9Q reflector. [ISO has been on 70 and 23 cm before but never QRV on 13 cm.]

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp send the following news on his recent activity -- On 5760, I worked on 14 Aug JA6CZD (569/439), on 22 Aug TM16EME (579/559), and on 24 Aug SM6FHZ (569/O) for initial #27 and TM16EME (579/559). I QSO'd in the ARI contest on 15 Sept, on 2320/2424 ON5RR (559/559) for initial #63, and on 1296 UA4HTS, OK1CS, OZ60L, SP6ITF for an initial (#), I5MPK, JA1WQF, JA6AHB and I5YDI (#) for a score of 8x7 on 1296 and 1x1 on 13 cm.

K3MF: Wayne was active off the Moon in the ARRL's tropo contest on 6/7 Sept using 8 x 25 K1FO yagis and an 8938 PA at 1.2 kw. [I do yet not have Wayne's results. He recently made his first QSO on 23 cm EME using his tropo system.]

1296 yagi



K3MF's yagi for 23 cm EME was mounted on his 70 cm array

K4MSG: Paul Phbjr@aol.com sends his 432 "small-station" EME report - Despite a lot of non-ham activity and travel from Jan thru July, I still managed to upgrade my 432 EME station by adding a second Innov 18 el LFA yagi. A small rotor (U-100) handles azimuth, and elevation is adjusted manually as needed. The PA/preamp unit is normally installed right under the antenna. Installation and testing were completed in time for the **DUBUS 432 Digital EME Contest on 16/17 Aug. My contest results were 9x9 for a score of 81.** I was reasonably pleased with my score, especially considering my set-up is only 170 W to a 2 yagi array. A highlight was working UT5DL after several unsuccessful attempts prior to the antenna upgrade. I am looking forward to the ARRL EME Contest in Nov and Dec.



K4MSG's 2 x 18 el LFA yagi array

K5QE: Marshall k5qe@k5qe.com was also QRV off the Moon in the ARRL's Sept Tropo Contest. He reports doing his best ever on 432 during the contest. He made 14 QSOs, up from his previous high of 13. Marshall sends his thanks for the contacts.

K6ICF: Don don.rea@verizon.net sends the follow report on his reception of the 1296 EME Beacon -- I have been working for quite some time on a project related to EME. My objective was to build a fairly simple system to receive signals bouncing off the Moon from radio amateur stations. In early 2013, I started work on this project and in Oct was ready to give it a try. Basic choices I had made along the way were: Band - 23 cm, Antenna - 35 el M2 yagi (10' boom length and about 20

dBi gain), LNA - kit from G4DDK with NF of about 0.5 dB, location - cabin at Pine Cove, CA, Mount - yagi attached to my 10" telescope with the scope's drive doing the Moon tracking, and RX - ICOM IC R7000. I also had JT65C running on a laptop PC. In Oct I got it all set up and running at Pine Cove in one day of intense effort. Sun noise measurements looked reasonable - about the same as I at home. I then scanned around the ~ 100 kHz EME segment looking for anything that looked like an EME signal. There were a few unmodulated carriers, but nothing resembling a JT65 signal. These were probably just unintended radiators like WiFi LO's and such. After an hour or two, it was time to tear the system down and head home. No success. Since everything seemed to be working, I could think of only two possibilities: 1) my system was not sensitive enough to detect EME signal, or 2) there were no such signals present at that time. I set the whole project aside for a couple of months, pondering from time-to-time as to what my next move should be. I realized that the ON0EME EME Beacon located in Belgium, while not a JT65 signal, should be detectable visually on the JT65 waterfall display. This test would have many advantages over the hit-or-miss random signal approach I tried in Oct. The beacon TXs at all times when the moon is > 10 degs above the horizon in Belgium, thus I could be sure when the signal would be present. The TX frequency would be exactly known and I could predict the receive frequency very closely by applying corrections for predicted Doppler. An exact receiver dial setting could then be determined by combining the receive frequency with a known dial calibration offset. The receiver tuning error would be less than a few tens of a hertz. The modulation on the beacon consists of a pattern that lasts one minute and starts exactly on 00 sec. It consists of a slow CW code ID for 30 seconds followed by 20 sec of pure carrier followed by 10 sec of carrier off. This would create a pattern on the waterfall display that would be distinctive. I set out to convince myself that I should be able to see this signal. Earlier in the project, I did a lot of work in the lab to make sure that the back end of the system was working as expected. I was able to generate a simulated JT65 signal using SIMJT, a program that generates a base-band audio JT-65 signal plus noise at any desired SNR. I used this to drive the modulation input of my Fluke signal generator to provide the simulated signal at 23 cm. used to test the system. To simulate the ON0EME signal, I started with a pure carrier from the Fluke generator and mixed it with noise from my home-built noise source. I was able to accurately calibrate both components individually with the spectrum analyzer. A step attenuator on the signal side allowed me to set SNR to any desired level with pretty good overall accuracy. The simulated beacon signal was fed into the receive system and I determined that visual detection of the signal on the waterfall display would be possible down to about -29 dB (referenced to 2500 Hz bandwidth, as JT65 signals always are). The ON0EME beacon feeds about 400 W into the antenna feed a 12' dish. Using the VK3UM EME Performance Calculator, an excellent tool for predicting EME performance, I figured I should receive the beacon signal at about -24 dB SNR on the date and time in question. This should be well within my predicted detection threshold of -29. It looked like a go. The one remaining problem was timing. In order to do this test the Moon has to be well clear of obstructions at my end, while the beacon is transmitting in Belgium, a 9 hour time difference. I figured I would need at least an hour of overlap to safely have enough time to do the test. At my site in Pine Cove, the moon doesn't clear the trees until several hours after moonrise. This situation, coupled with the nine hour time difference results in there only being three or four days during a lunar cycle when there is an hour or more of overlap. Based on these and other considerations I choose Monday, 21 July 21 to try the test. Moonrise would be at 145 AM LT and I figured it would be well clear of the trees by around 5:30 AM. ON0EME would be shutting down at about 6:45 AM my time. The timing would work. I went up the day before and I got everything set up and running. I decided to leave everything powered up overnight because the lcom takes a couple of hours to completely stabilize. I set the alarm for 5:00. The Moon was already clearing the trees when I got up. At 5:11 the antenna was pointed and tracking started. At 5:31 the Moon was quite clear of the trees and I tweaked the pointing. The receiver tuning was then set according to predicted Doppler shift. At 5:40 the beacon signal was very obvious on the waterfall exactly where it was expected. With this success in hand, I'm now thinking about my next move. There is an EME contest in November and there will be a lot of stations on the air. This is probably my best opportunity to receive and decode live JT65 EME signals and hopefully complete my original objective. "What about transmit?", you ask. We'll see. [TNX the ON0EME group for forwarding this report.]

KB2FCV: James james1787@aol.com is working on 23 cm EME -- I am working on getting a 10' TVRO dish on the air primarily for 23 and 13 cm

EME. I plan on pouring concrete in the spring and could be receiving and possibly transmitting by the summer. I'm currently working on the AZ/EL control. I have an older water-cooled 2 x 7289 amp for TX, but am looking for an SSPA. A new daughter has been keeping me very busy, but my plans for EME are still on track.

KJ7OG: Steve eagle572@comcast.net (DM42mh) sends an update on his progress toward 70 cm EME -- I have replaced a blown LDMOS MRF5600H power transistor in my W6PQL 70 cm SSPA and repackaged it into a better cabinet. With an idling current about 0.7 amps, Pout is 400 W. Soon my existing 70 cm LNA/relay assembly will be mast-mounted with a pair of M² 432-12 rear mount yagis with Az-EI and manual rotation on a short tower.

KL7UW: Ed kl7uw@acsalaska.net sends his 1296 EME status -- My wait for the welder is over. The dish is repaired. I am now in the process of re-calibrating my azimuth encoder so that I can accurately track the Moon. I am also making a minor upgrade to the dish mount for my amps. I have a 4.9 m dish, W2IMU feed, G4DDK VLNA and 50 W PA at the dish. [Ed recently worked UA3PTW on 1296.]

N4GJV: Ron badl79@yahoo.com fills us in on his recent 432 EME operation -- I found conditions to be good during the Aug 70 cm CW ATP and I logged QSOs with G4RKG, OZ4MM, SM2CEW and K2UYH. Frequent thunderstorms were a problem during the **ARI's CW Contest weekend on the 13/14 Sept**. When I was able to be QRV, I spent some of the available operating time on 2 m EME. Perhaps this caused me to miss much of the 70 cm activity. **CW QSOs were logged with I2FHW, LZ1DX and SM2CEW.** Got-aways include K2UYH and UT5DL.

OK1KIR: Vlada and Tonda vladimir.masek@volny.cz send their club's report for Aug and early Sept -- We worked on 70 cm during DUBUS JT Contest on 17 Aug at 0056 VK5APN/8 (25DB/25DB) for digital initial #113; and PG field, 0106 OK2POI (18DB/14DB), 0110 UT5DL (11DB/10DB), 0117 UA3PTW (4DB/6DB), 0124 YL2GD (16DB/O), 0130 SP1JNY (22DB/O) and 0741 XE2AT (27DB/29DB) #114; and DL field; on 23 cm on 10 Aug at 1951 YL2GD (8DB/8DB) on JT65C, 2029 DG5CST (559/589), 2135 SP6ITF (559/579) and 2135 EI9E (22DB/O) #182; with LP feed, on 11 Aug at 2153 DC9UP (11DB/5DB) JT65C #183; 2204 EI9E (27DB/24DB) JT65C with CP feed, 2259 EA3UM (7DB/4DB) JT65C #184; 2359 PA2CHR (28DB/24DB) JT65C #185; when testing equipment for Z21 expedition, on 12 Aug at 0416 I5MPK (569/579), on 30 Aug at 1555 PA3CQE (10DB/8DB) JT65C, 1651 HK1H (18DB/16DB) JT65C #186; first HK-OK on 23 cm QSO and FJ field, and on 12 Sept at 2004 5B/PE1L (22DB/O) #187; and new DXCC; on 13 cm on 17 Aug at 0449 SP/OK5EME (569/579) for initial #140 and 0520 SP/OK5EME (9DB/O) #20; then tested the new proposed JA band 2400 and found free of interference(!); on 6 cm on 23 Aug at 0725 UN6PD (M/O) for initial #75 (unfortunately new SSPA with Chinese TIM does not produce expected pwr increase) and 0816 TM16EME (569/559), and on 24 Aug at 1435 G4CCH (O/579), 1454 IK3COJ (O/O) #76 and 1548 VE6TA (O/O) #77 and DO field, 1611 G4CCH (17DB/16DB) JT4F #9; and heard by G4BAO (16DB) with 1.9 m dish; on 3 cm on 15 Aug at 2358 VK7MO (15DB/14DB) on JT4F for digital initial #38; from PF87, on 16 Aug at 0006 VK5BWR (16DB/15DB) JT4F, on 18 Aug at 0044 VK7MO (14DB/15DB) JT4F #39; and new PG70 field, on 19 Aug at 0126 VK7MO (14DB/15 DB) JT4F #40; PG64 and 0459 SQ7DQX (11DB/25DB) #41; with WSJT 9.02, then repeated at 0559 SQ7DQX (12DB/12DB) with WSJT 9.7, on 20 Aug at 0310 VK7MO (13DB/12DB) JT4F #42; from PG66, on 22 Aug at 0526 VK7MO (14DB/13DB) JT4F #43; from new PH70 field, on 23 Aug at 0602 VK7MO (15DB/14DB) JT4F #44; from PH90, on 24 Aug VK7MO (14DB/14DB) JT4F #45; from new QG09 field, on 25 Aug at 0658 VK7MO (16DB/13DB) JT4F #46; from new QH00 field, on 26 Aug at 0626 VK7MO (15DB/16DB) JT4F #47; from QG19, on 27 Aug at 0842 VK7MO (14DB/13DB) JT4F #48; from QG17, on 28 Aug at 0916 VK7MO (15DB/13DB) JT4F #49; from QG26, on 29 Aug at 1044 VK7MO (16DB/17DB) JT4F #50; from QG25, on 29 Aug at 1125 SQ7DQX (O/O) JT4F for initial #85, on 30 Aug at 1114 VK7MO (16DB/15DB) JT4F #51; from QG34, 1155 UA4HTS (559/569) #86 and LO field, 1208 UA4HTS (13DB/11DB) JT4F #52; from LO43, on 31 Aug at 1134 VK7MO (16DB/14DB) JT4F #53; from QG33, on 2 Sept at 1440 VK7MO (16DB/17DB) JT4F #54; from QG30 and 1454 G3WDG (12DB/12DB) JT4F - magnificent 100 W signal from new water cooled SSPA; and on 1.25 cm on 11 Aug at 1944 VK7MO (16DB/16DB) JT4F #12; from new PF84 field, on 14 Aug at 2154 VK7MO (16DB/18DB) JT4F #13; from PF95, on 15 Aug at 2140 VK7MO (18DB/18DB) JT4F #14; from PF87 and at 2148 VK5BWR (18DB/20DB) JT4F, on 16 Aug at

2212 VK7MO (18DB/18DB) JT4F #15; from PF88, on 17 Aug at 2252 VK7MO (17DB/17DB) JT4F #16; from new PG70 field, on 18 Aug at 2334 VK7MO (17DB/14DB) JT4F #17; from PG64, on 20 Aug at 0102 VK7MO (18DB/18DB) JT4F #18; from PG66, on 22 Aug at 0428 VK7MO (16DB/14DB) JT4F #19; from new PH70 field, on 23 Aug at 0350 VK7MO (19DB/18DB) JT4F #20; from PH90, on 24 Aug at 0454 VK7MO (18DB/17DB) JT4F #21; from new QG09 field, on 25 Aug at 0610 VK7MO (18DB/19DB) JT4F #22; from new QH00 field, on 27 Aug at 0804 VK7MO (18DB/16DB) JT4F #23; from QG17, on 28 Aug at 0832 VK7MO (19DB/17DB) JT4F #24; from QG26, on 29 Aug at 1011 VK7MO (18DB/17DB) JT4F #25; from QG25, on 30 Aug at 1046 VK7MO (20DB/17DB) JT4F #26; from QG34, on 4 Sept at 1554 VK7MO (16DB/17DB) JT4F #27; from QF48, and on 5 Sept at 1648 VK7MO (16DB/17DB) JT4F #28; from QF46 and 1652 VK2JDS (15DB/15DB). The great tour of Rex through Australia's mainland (more than 10,000 km!) verified the possibility of JT4F(G) portable EME operation on 10/24G with reasonable dish size of 80 cm on 10 GHz and 1.1 m on 24 GHz (both prime focus with loose long "shepherds hook" feeds) even with high frequency spreading and very low elevations at antipodal QSOs! Only rain and heavy clouds were found as unbeatable enemies! The rf power of 50 W at 10 GHz and 20 W at 24 GHz from SSPAs and DB6NT LNAs were used at VK7MO's side. The opposite communicating party needs similar equipment, but a bigger dish of size about 3 m (or even less if all loses at RX and TX are kept at a minimum and at the current "state-of-art"). Some more details about Moon and sky background noise ratios measured at the each test can be found on OK1KIR web site. Furthermore Rex plans to write a tour summary for an article in DUBUS Magazine and to place the reports of each particular test (day by day) on VK3HZ's web site.

ON5RR: Marc and his co-operator Michel (ON7EH) moonbouncer@skynet.be are back on EME with a 6 m dish as they started out with more than 20 years ago. They are at a new location that Marc recently moved to, and are QRV on 23, 13 and 6 cm. They are interested in skeds and can be reached via email. During the ARRL Microwave EME Contest, they plan to concentrate on 13 cm EME.



ON5RR and ON7EH in front of their 6 m dish used for EME

PA0EHG: Hans h.v.alphen@planet.nl reports on his demonstration of small antenna EME at EME2014 -- I enjoyed the conference very much; it was nice to meet many EME enthusiasts and very stimulating for new plans. My compliments to the organizers of this very fine event. I was quite surprised by the huge turnout for my live demo of 3 cm EME reception using only a 50 cm dish. I was very happy that it worked instantly. If not, I would have had a big problem, Hi! I want to send a very special TNX to DK7LJ for all the work he has been doing on DL0SHF 3 cm Beacon. Per is very cooperative and always willing to TX high power on request. My presentation and demo received much attention, but in fact all credits should go to Per by putting on air the beacon, which makes my experiments possible. Besides the reception of the beacon in high power mode during the conference, I have also received DL0SHF on low power with a detectable signal in Spectravue and CW sometimes - just audible but no CW copy. In JT I have good decodes without any problems.



PA0EHG with 0.5 m used to demo 10 GHz EME

PA2V: Peter p.gouweleeuw2@kpnplanet.nl is now QRV on 70 cm with a bigger array -- During July and Aug I was very busy completing the final installation of my new 4 x LFA yagis. I worked to make my phasing cables as equal as possible. All 4 cables (Ecoflex 15) are within 3 degs (measured) and have a cable loss of 0.3 dB. My HB combiner is within 2 degrees per port. I cannot get it any better. I saw that temperature changes phase as well. All yagis have a return loss > 33 dB. I had a 4 week holiday in Aug and planned to put the antennas, but all I could do was watching the rain falling. We had a very wet Aug. (We Dutch know how to handle water, but this Aug saw up to 30 cm water in some areas). The first week of Sept, duty called and I start to work again. Also nice sunny WX and I start to build up the array during the evening. In 3 evenings it was together and the performance tests could start. The tropo beacons were much louder. 5.5 dB of more gain is a huge difference. I measured Sun noise and saw 0.5 dB less than I could get according the VK3UM calculator. The main reason is that I still have my LNA in the shack. The Ecoflex15 run is 9 m. I also live in an urban area and this might cause a higher noise floor. This is what have been worked the last months. With the single yagi, I QSO'd in July SM4IVE (549/O) for mixed initial #39* and LZ1DX (24DB/O) JT65B, and in Aug KN0WS (27DB/O) JT65B #40*, EA5CJ (26DB/24DB) JT65B, K3MF (24DB/O) JT65B #41* and I5CTE (22DB/O) JT65B. With the 4 yagis I worked on 6 Sept LZ1DX (19DB/O) JT65B, on 8 Sept EB5GP (26DB/O) JT65B #42* and DF3RU (12DB/21DB) JT65B, on 10 Sept VK3UM (449/549) #43*, on 13 Sept NC1I (11DB/12DB) JT65B, VA3ELE (26DB/O) CW (?) #44*, UA3PTW (17DB/O) JT65B and EA5CJ (24DB/O) JT65B, and on 14 Sept K4EME (21DB/O) JT65B, K5QE (22DB/O) JT65B, K3MF (21DB/O) JT65B, W2SZ (23DB/O) JT65B #45*, **SM2CEW (339/549) #46***, W7MEM (23DB/O) CW (?) #47* and W8PAT (28DB/O) JT65B #48*. **Conditions during the ARI contest weekend on 13/14 Sept were heavily affected by Aurora and it was nearly impossible to hear or work EU stations.** NA gave quite good results but very deep QSB for long periods. The next step is to get the preamp and antenna relay at the antenna.

RN4AT: Yuri contest@pisem.net (LN29la) is now QRV on 1296 with a 2 m dish and 150 W. He made his first QSOs on JT65C with RD3A, YL2GD, IK3COJ, G4CCH, UA3PTW, RA3AUB and I5YDI. [TNX DK3WG for forwarding this report.]

SM4IVE: Lars sm4ive@telia.com writes that he attended the Weinheim EME gathering with SM7GVf -- We had a real nice time meeting some of the dinosaurs, DJ3JJ, DL6SH, DL1YMK & Monika, ON7UN, ON5TA, ON4BCB, HB9BBD, DJ8FR and PA2DW. On 18 Sept I visited SM4DHN and gave him a helping hand with his dish. Lars was installing combined

feeds for 3, 6 and 9 cm all on one focus ring. Plans for the 2015 Swedish EME meeting in May are moving along well.

SM6CKU: Ben ben@sm6cku.se is now QRV on 10 GHz using circular polarization -- Geometry is the same at 3 cm as on the other bands. Normally 45 deg / 3 dB to the east coast of the US and approaching 90 deg to the west of that. With the increasing activity from different parts of the world simultaneously gives circular polarization an advantage. 6 cm is circular, why not 3 cm EME activity? In 1990 I went to the EME Conference in Trenton, NJ with a very nice 10 GHz copy of the W2IMU horn for 3 cm, and everybody was impressed. There were not many stations on the band at that time and most of them were linear. Except my good friend SM4DHN, who made his own version and has been circular since then. The same issue came up in Prague in 2002 and it was decided that use of circular pol was recommended. 24 years and not much has changed. Today there are several good designs of feedhorns for CP, and mine is one of SM6FHZ's. I also think there are CP horns available commercially. Anyway, I have worked OK1CA, OH2DG, SM4DHN and DL0SHF on 3 cm. I also heard UA4HTS several times. I measured 16 dB of Sun noise and 2.3 dB of Moon noise with my 4 m dish. Power output to the CP horn is 15-18 W through a very short cable.



PA2V's new 4 x LFA yagi array

SM6FHZ: Ingolf ingolf.fhz@gmail.com submits the following info on his most recent 6 cm activities -- During my summer vacation, I finally found the time to optimize the feed position on 6 cm using solar noise. I gained a considerable performance improvement from this exercise. The feed was ~ 40 mm too far out and my Moon noise went from ~ 0.8 dB to 1.3 to 1.6+ depending on Moon distance and phase. I still do not have a clear opinion on how much the Moon phase affects Moon noise on 6 cm. I do see a clear peak at full moon. This improvement has paid off well in 6 cm QSOs. I worked on 18 July S59DCD for initial #31 on sked for the first S5-SM 6 cm QSO, on 19 July K2UYH #32 on sked and S59DCD on random and heard IZ2DJP calling K2UYH, but did not find him later, on 16 Aug JA6CZD, JA8ERE #33, PA0BAT, IZ2DJP #34 (3 m dish and 10 W), SM6PGP, SV3AAF and G3LTF, on 24 Aug JA4BLC #35, TM16EME on both CW and SSB (armchair cpy) and IK3COJ #36, on 6 Sept UN6PD #37 (1.6 m dish and ~50 W) for the first UN-SM 6 cm QSO, PA0BAT on SSB (very clear signal and good copy) and F1PYR #38, and on 14 Sept in the ARI contest DL7YC, SP6GWN, DL7YC on SSB, IZ2DJP, VE6TA #39 and LX1DB. The conditions on 6 Sept were outstanding with close to perigee path loss and very low libration. The echoes on 6 cm sounded like 23 cm, with almost no Doppler spread at all, making SSB signals very enjoyable to listen to. I am glad that a few stations could work in spite of the low declination and enjoy these conditions. My 6 cm rig is a solid 5.5 m dish with a SM6FHZ septum feed and GaN PA giving 100 W at the feed. I plan to be active on 6 cm during the ARRL EME contest microwave leg, if the WX does not stop activity (rain and excessive winds). I hope to see you all then.

SP/OK5EME: Zdenek (OK1DFC) ok1dfc@seznam.cz was QRV during the Microwave and EME meeting in Poland on 15/17 Aug but had problems with WX -- On Saturday the WX was not cooperative. I did try some operation on 13 cm without success. Earlier I also ran some tests on 10 GHz, but the results were not brilliant. With my 3.2 m mesh dish ground noise was only 3 dB and Sun noise 6 dB. So definitely 6x6 mm

mesh is not suitable for use on 10 GHz. For ZA, I will need to find a transportable solid dish. On Sunday I re-installed my 13 cm system and was able to make a few QSOs before I had to leave.

SQ7DQX/SN7D: Matt [sq7dqx\(x\)poczta.onet.pl](mailto:sq7dqx(x)poczta.onet.pl) sent the following corrections to his report in the last NL -- I used 3.6 m dish [not .25 cm!] with of 2.5 m of WR90 waveguide. I now have reduced the waveguide length to just 25 cm of flexible WR90. This change and others (more stable mount for feeds and modules) allow me to hear Moon noise strong enough to track with only the noise level. It is ~ 1.7 dB; not good as it should be from 3.6 m dish, but it is a TV-SAT mesh dish with significant lower efficiency than a solid one. Unfortunately there was no activity on 10 GHz when I was QRV. On 19 Aug I did make my first 3 cm QSO with OK1KIR (12DB/15DB). After some software problems (update of WSJT was needed, hi) we completed a contact using the JT4G and JT4F modes. Signals from OK1KIR were audible all the time, so a CW QSO should be possible. There was a big spread of around 200 Hz, but this did not disturb the JT mode. Besides my 3.6 m f/d 0.36 mesh dish with PE1RKL linear feed, we used a DB6NT WR90 preamp and a DL2AM 17 W SSPA. We also had a 10 MHz Rubidium standard. Our rotator had an accuracy/step of 0.5 degs; tracking was by Moon noise, which was ~1.6 dB. I would like to express my thanks to OK1KIR for their patience, to G3WDG for his help with our waveguide switch, and to SP6GWN and SP6JLW for their advice.

T12AEB: Armando reports on 23 cm SSB EME -- I was active on 1296 on 29 Aug and heard HB9Q with a very strong signal as usual. Dan asked me to try SSB. I was thrilled to hear for the very first time EME SSB! Unfortunately Dan did copy me well enough for a QSO. I checked my ant position against the beacon, and found it was off by 1 to 2 dB. After correcting my tracking, Dan copied me R3-4 and we completed an FB QSO. Its amazing to have a SSB contact without the help of digital decoders; just merely SSB signals. For me its the LNA/feeder efficiency that we have now days, plus the circular polarization - an RX achievement!

UA3PTW: Dmitry ua3ptw@inbox.ru made initial QSOs on 70 cm in Aug on JT65B with VK5APN, W6YX, W2PU, W8PAT, IV3DXW, DF2VJ, VK5APN/8, EA1PVC, MX0CNS, XE2AT, EB5GP, G8VYK and I5PLK. On 1296 he worked initials on JT65C with PA2CHR, RN4AT, DC9UP, E19E, KL7UW and HK1H. [TNX DK3WG for forwarding this report.]

VE6TA: Grant ve6ta@xplornet.com was mainly active on 6 cm recently -- On 24 Aug, I worked TM16EME (559/559) and OK1KIR #12 (O/O). On 14 Sept, I was on again and after missing my schedule with SM6FHZ, managed to catch him on random for initial #13 on 6 cm. I also heard INGOLF work LX1DB both with huge signals and little to no spreading of reflected signals. [Grant was also QRV for the 3400 AW].

W3XS: Bill (X-K3EAV) billw3xs@gmail.com dropped us a note that he is not presently active off the Moon -- We are cruising on a sailboat in the Caribbean. I may be able to become QRV sometime in the future.

W6YX: John (K2YY) johnhill5000@gmail.com reports the Stanford Club participated in [the DUBUS 432 Digital EME Championship](#) -- As usual, we had a good time participating. This contest's laid back rules makes it part "contest" and part activity period; perfect for trying out new setups and teaching new operators. The DUBUS events also help us get the gears turning in preparation for the ARRL EME Contest, which we'll be participating in this fall on 3, 23, 70 and 200 cm. We temporarily setup 4 x 12 el vertically polarized and vertically stacked yagis and 175 W. This was a far from an optimum station, but proved to work better than expected. This was a real club effort with contributions from many people. We only operated for ~ 80% of our EU window both nights. We made 1 CW and [11 JT65 contacts including 8 EU stations plus K3MF and K2UYH in NA](#). Sorry to our JA and VK friends, but we'll make up for our Pacific absence during the ARRL EME contest this fall. 432 was surprisingly fun for EME operation. We hope to QSO with you all next during the ARRL contest.

WA3LBI: James wa3lbi@me.com reports that he is operational on 3 cm EME from FN20 using circular polarization -- I just started to measure Sun and Moon noise on 10 GHz to make sure my 2.4 m dish is keeping accurate tracking. I was able to see 9 dB of Sun noise. I have a PE1RKL feed, which is circular and has 2 WR75 connections. I have a Kuhne GHz Transverter with a GPSDO 10 MHz reference. I am having a tracking problem due to my elevation sensor, a MAB 25 digital shaft encoder connected to a gravity pendulum, which has bearings that are

sticking. I am using a OE5JFL/DRIACS controller. I hope to be QRV in Oct.

XX/DL1YMK: Michalel DL1YMK@aol.com writes that the M&M team has [Microwave Mystery EME dxpediton planned](#) -- We will use our small 1.8 m solid dish primarily on 10 GHz with about 35 W -- including the JA band. We will also be on 6 cm with 110 W. Last year from Jersey, we used the big stressed dish (4 m) very successfully to bring MJ also on 6 cm on the Moon, but according our calculations we have enough power to make the small dish work, but without audible own echoes. The bigger stations hopefully should be workable. As usual we intend to activate a DXCC, which has never been on 6 and 3 cm before. [We hope to send the first signal to the Moon on Sunday 5 Oct on 3 cm. We will stay on 10 GHz until 7 Oct \(including Tuesday\) and then switch to 6 cm for the rest of the time.](#) We will be QRV during the week until the ARRL contest. Unfortunately we can only be active during the first night of the contest because we have to leave on Sunday morning. Our last day of activity will be 11 Oct to moonset. We do not expect to have Internet access. You may send us an email as we will be regularly picking up foodstuff in civilization, where we can check emails. If we can get access at the site, we will let you know via the HB9Q reflector. There seems to be a lot of trees around the booked house, which could be a problem.

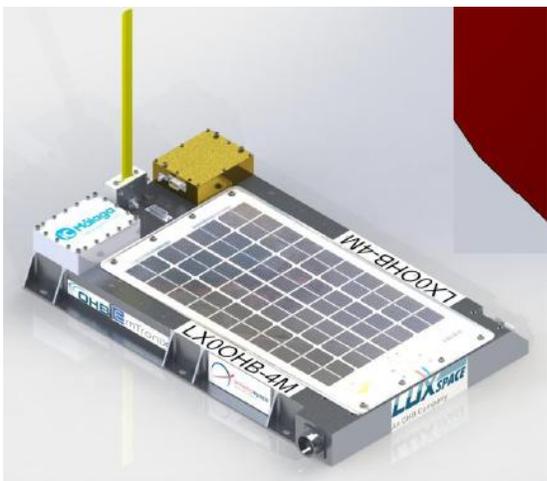
K2UYH: We (Sally and I) [a.katz\(x\)ieee.org](mailto:a.katz(x)ieee.org) had a great time at EME2015. The conference was very well done with an abundance of excellent food (breakfast, lunch and dinner plus breaks were included in the conference registration!), an outstanding technical program and plenty of time to socialize. We also appreciated the tours. A highlight of the conference was PA0EHG's reception of 3 cm EME signals with a 50 cm dish. The 6 cm signals from TM16EME were also very impressive. Prior to the conference we had a very enjoyable visit with F6CGJ and the "Brittany gang". Despite our travels, I was reasonably QRV off the Moon and QSO'd on 12 Aug on 1296 at 0504 PA2CHR (22DB/21DB) JT65C for mixed initial #477*, on 16 Aug on 2304 at 0634 OK1KKD (559/559) for CW initial #72, [in the DUBUS digi contest with JT65B on 432 at 0637 UA3PTW \(7DB/4DB\), 0707 UT5DL \(14DB/11DB\), 0714 K3MF \(14DB/10DB\), 0718 YL2GD \(11DB/O\), 0722 W6YX \(20DB/O\), 0726 G4RKG \(10DB/7DB\), 0751 DL3UDA \(9DB/O\) and 0754 K4MSG \(24DB/O\), on 17 Aug cont'd on 1296 with JT65C at 0656 UA4LCF \(20DB/10DB\) #478*](#), then on 432 EME for the CW ATP at 0740 SM2CEW (559/579), 0749 G4RKG (559/559), 0811 OZ4MM (579/569), 0829 SM/PA2DW (579/559) for CW initial #733 and 0858 N4GJV (559/569), then back to the digi contest on JT65B [0916 SP1JNY \(21DB/O\) mixed initial #873*, 0924 XE1XA \(23DB/O\), 0932 DL7APV \(9DB/4DB\), 0946 DF3RU \(15DB/6DB\), 0957 DL2ALF \(23DB/-\) lost, 1007 RU1AA \(26DB/O\) #874*, 1029 K5DOG \(20DB/17DB\) and 1043 DF3VJ \(25DB/-\) lost, on 30 Aug on 1296 at 1733 IK5EHI \(14DB/O\) JT65C, 1805 HK1H \(20DB/26DB\) #479* and DXCC 94](#) and 1831 EA3UM (10DB/6DB) JT65C -- after many years, on 432 at 1921 EA5CJ (14DB/13DB) JT65B, 1930 W8PAT (24DB/O) JT65B #875*, 1946 DF2VJ (15DB/16DB) JT65B #846* and 2000 KOKE (nil) JT65B, on 1 Sept on 1296 at 2008 DG5CST (559/569) and (55/55) SSB, [on 13 Sept \(with lin feed\) at 0546 5B/PE1L \(17DB/O\) JT65C #480* and DXCC 95, 0640 F6APE \(18DB/O\) JT65C #481*, 0708 SP6ITF \(559/559\) CW initial #361 and #482*, 0711 OK1CA \(579/579\), 0720 G4CCH \(579/589\), 0724 OK1CS \(559/569\), 0732 IK5VLS \(559/559\) and 0752 DJ2DY \(17DB/17DB\) JT65C, on 14 Sept on 1296 \(lin feed\) 0558 I5MPK \(569/559\), 0603 SP6DCS \(569/579\), 0624 I5QLO \(449/559\), 0636 DL6SH \(559/569\), 0643 UA4HTS \(559/579\), 0655 PE1LTW \(549/559\), 0705 DF3RU \(559/559\), 0710 IK3COJ \(559/569\) and 0730 EA3HMJ \(24DB/-\) JT65C partial, on 14 Sept on 432 EME \(20 dB noise at first\) at 0954 K5QE \(15DB/O\) in ARRL tropo contest, and on 18 Sept on 1296 \(lin feed\) at 1156 K3MF \(23DB/27DB\) JT65C #483* - small station EME demo. Wayne was using his tropo system consisting of a single 45 el loop yagi and 60 W. I will be operating with K1JT in the ARRL EME Contest. We plan to be QRV on 13, 9, 6 and 3 cm in the microwave part in Oct.](#)

NETNEWS: **SM6DHN** announces that he gave on 19 Sept SM6CKU his initial 3 cm QSO. **N4PZ** reports he has 16 W on 10 GHz but Steve does not indicate his dish size. **AA6EG** is working on a 23 cm horn with a gain of ~20 dB for a project he is doing with Mexican university students and radio aficionados (hams) to get them their first taste of EME. Pat's email is aa6eg@hotmail.com. **UA0ALA** has been on 432 EME several times in the past month. Does anyone have info on him? **VK5APN** was active from multiple Australian grids on 432 EME in Aug/Sept.

FOR SALE: **W7GJ** has female 7/16-DIN connectors for 1-5/8" Heliac for sale. If interested contact Lance at w7gj@q.com.

FINAL: I am trying to keep up, but it takes much longer to produce the NL today than it did 40 or even 10 years ago. Part of the reason for this increase is the increase in the available information (Internet), but there is no question that there are also more EME contests, dxpeditions and related activities than in the past!

There is an upcoming opportunity to copy and interact with signals directly from the vicinity of the Moon (not echoes)! The M4 Lunar Orbiter will launch around 1930 on 23 Oct. The frequency is 145.980 with visibility first in the Pacific area, then in the America continent, and will drift westward. 4M should be visible in EU about 14 hours after its launch. The Moon flyby is planned for the evening of 27 Oct at around 2200 and should be visible mainly from the America continent. Europe will be able to receive only hours before, but not during the fly by itself. The flyby will manifest by a change in the Doppler, see <http://moon.luxspace.lu/> for more details. A nice operating procedure would be to keep the receiver frequency fixed so that the WSJT's DT can give strong clues of what the 4M trajectory will be after the flyby as there is a large dispersion. [The satellite is being produced by LuxSpace with many hams involved in its production. Ghislain, LX2RG is LuxSpace's Director of Engineering and is searching for committed stations on all continents that can leave their station receiving and tracking during the times the satellite is visible so as to maximize the continuity of the received telemetry and radiation experiment results. Hence, the proposal to have intercontinental teams. If you are interested in getting involved contact Ghislain at email ruy@luxspace.lu.



M4 Satellite

Don't forget Microwave Update (MUD) is coming up on 24/25 Oct in Rochester – see <http://www.microwaveupdate.org/>.

WEINHEIM - Andi (DJ3JJ) dj3jj@gmx.net reports that there was a very nice 3 hour EME meeting at Weinheim with a lot of info exchanged. Participants were HB9BBD, ON5TA, OZ1FF, PA2DW, SM4IVE, SM7GVF, DJ8FR, DK3UC, DL6SH, DL1YMK with Monica and DJ8ES, who discussed 9 cm transverters.

G4RGK reports that he has updated the initials lists and that they are posted at <http://www.zen70432.zen.co.uk/Initials/index.html>. [Dave also mentions that he had a great time at the EME Conference.]

Great video clips of EME2015 by SM6CKU can be found at <https://www.youtube.com/watch?v=Ak01bBHIFHE>, <https://www.youtube.com/watch?v=3JBnKEsw40c>, and <https://www.youtube.com/watch?v=-8ZPvaWnAk>.

EME antenna for 77 GHz – RW3BP's conference paper will be of interest to 10 GHz and up EMEers trying to get the most out of their antennas. Sergei's conference paper can be found at <http://www.vhfdx.ru/rw3bp/RW3BP.pdf>.

The latest version of VK3UM's EME Planner (V1.89) is now available. Doug has updated the ARRL DXCC data base and also included a fast find option for locations and prefixes. See <http://lists.moonbounce.info/listinfo/moon>.

Another big dish should be on EME soon! This one is the 60' dish at the site where the original Diana Moonbounce echoes were received back in

1946 in the Evens area of Fort Monmouth. It is now the InforAge Science Center <http://www.infoage.org>. The dish has been refurbished and is now fully steerable – see photo. It is just a matter of time before big echoes will be heard off the Moon!



INFOAGE 60' dish is now fully steerable and should be on the Moon soon.

EME Scouting Activity - PA0PLY pa0ply@pa0ply.nl sends news that the CAMRAS group (PI9CAM) 2 years ago organized a "Jamboree on the air" type of activity for Dutch scouting groups. They all were equipped with a 70 cm transceiver (20 -50 W), 7 m long HB yagi and a computer with JT. The Dwingeloo radio telescope acted as a kind of *EME repeater* using the WEDSDR of PI9CAM and the participating scouts could find each other and some were even QSO'd with PI9CAM. I designed a simple to construct yagi using PVC conduit and aluminum tubing. The building of the yagi and the aiming to the Moon are typical scouting activities. The operation of the station using WSJT was more a challenge for the assisting ham. At PI9CAM we copied and/or answered a total of 11 stations. The drawback was that only sending was active; the receiving part was through the reception of the live stream from Dwingeloo. This means that PI9CAM itself could not be worked live as they were streaming continuously. This activity will happen again on the 3rd weekend of Oct. The support of BIG Guns is desired in order to have some direct contact via the Moon. So here is my request to you. Can you be active and watch for small stations (without experience). The JOTA-JOTI weekend is 17/18/19 Oct. I have no clue yet how many stations will join this year. Info can be found on our CAMRAS website www.camras.nl under the menu item JOTA2011. The descriptions are still valid; however, the Moon will be in a different position. The event coordinator is Frans, PE1RX.



OK1CA, D6SH and OK1CS visiting the ON0EME Beacon after the conference

There is more, but I have run out of time. I will be at the Mid Atlantic VHF Conference this weekend trying increase microwave EME in the states with a talk on getting started on 1296 EME. Because of travel the next NL will not be until after the ARRL EME Microwave Contest on 11/12 Oct. I hope to see many of you off the Moon then operating as part of the K1JT team. 73, AI – K2UYH