432 AND ABOVE EME NEWS
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VERY BEST SEASONS GREETINGS FOR A WONDERFUL NEW YEAR FROM ALL ON 70 CM & UP EME TO ALL

CONDITIONS: 2015 is about to end after a year of remarkable accomplishments. The first 1296 DXCCs were completed and a plethora exciting UHF and microwave dxpeditions. We have much to be thankful for and celebrate. The reports were filled with messages of greetings and thanks that I have not included, but want to echo here for everyone. 2016 will offer more and new opportunities for accomplishment. Despite the controversy over the new ARRL EME Contest rules, there was plenty of activity and generally good propagation during the last weekend of the contest. However, the weather (WX) was terrible for many EU stations and this ruined the contest for some. I also found that at times a near 90 deg difference between TX and RX pol existed on 432. Because of the rules, I suspect the number of logs submitted will be down – see comments at the end of this newsletter (NL). On 432, DL7APV reports his best score ever with 111 QSOs. He is closely followed by OH2PO with 106x38, who made no use of any loggers. On 1296 W6YX has the highest reported score with 113x 51 - never before done by a North American west coast station; it seems likely that there are EU stations with higher scores but nothing even close has been received. A big disappointment was the loss of HK0/DL2NUD's equipment. It never arrived and consequently no QSOs were made. The DL1RPL's dxpeditions to FH and FR produced excellent signals and many contacts on 432. Also BD4SY came on 23 cm in Nov from China with a big signal. KB7Q/KH6 will be active on 70 cm from HI in only a few weeks. See the reports on all these dxpeditions in this NL. Also coming up is the popular EME SSB Funtests on Saturday 16 Jan for 432 and Sunday 17 Jan for 1296. See the following rules. The next weekend is the 2016 DUBUS 144/432 EME CW Contest (23/24 Jan). The last weekend of Jan is the ARRL's Jan VHF/UHF Contest that will have stations looking for EME contacts, which count in this contest. The DUBUS 13 cm CW EME Contest is not far off on 13/14 Feb.

OH2PO 16 m dish with 10 m base scored 106x38 on 432

23/70 CM EME SSB FUNTEST RULES: These events are intended to be fun. You do not need to transmit on SSB to participate. CW to SSB and vice verse exchanges are encouraged and count for points. (Only one QSO between stations is allowed, i.e., you cannot work a station SSB to SSB and SSB to CW for extra points). The 70 cm contest is from 0000 Saturday 16 Jan to 2359 16 Jan. The 23 cm contest is from 0000 Sunday 17 Jan to 2359 17 Jan. These are two separate contests. Everyone one should have one Moon pass. Scoring is contact points x number of two letter Grid Sectors (IO, JM, FN, EM ...) worked. SSB to SSB contacts count as 2 points. SSB to CW (or CW to SSB) count as 1 point. The exchange is your Sector (IO, JM, etc.). Only the 2 sector letters need to be sent and copied by EME. The exchange of signal reports and/or 4 character grids is optional and not required. Operation may be by single or multiple operators from one location. No distinction for scoring will be made. Assisted operation is not encouraged. All skeds/operational announcements should be made prior to the start of the contest. Logs should be sent to the 432 and Up EME NL by email to alkatz@tcnj.edu ASAP after the end of the contests. (All logs for contest awards should have been received within the month following the contest). The top scoring station on each band will receive an attractively framed certificate that will be presented at the next International EME Conference (Venice 2016).

AE7OV: Gary gklust@hotmail.com is now up to 5 QSOs on 432 EME – With only 40 W at 4 x 14 el HB rear mounted yagis, I have worked with JT65B UA3PTW, NC1I, DL7APV, DK3WG and HB9Q. I am working on increasing my power to 500 W, and also interested in skeds.

BD4SY: Zhu BD4SY@126.COM showed up on 23 cm this month with an excellent signal. He is located Changshu City, China (PM01jp) and has been QRV on 2 m EME for some time. On 1296 he is running a 3 m dish with OK1DFC septum feed, 250 W PA and DDK 0.3 dB NF LNA and should be workable by many stations on both JT and CW. He was active during the last weekend of the ARRL contest.

DK3WG: Jurg dk3wg@web.de sends news on his Nov activity – I added initials on 432 using JT65B with DK4RC for mixed initial #700*, K3GNC, DD0NM, N0IRS, FH/DL1RPL for DXCC 123*, EB2FJN, DK1KW, RA9LR, FR/DL1RPL and MX0CNS. I worked 1296 using CW DL0SHF, OZ4MM, DF3RU and OE5JFL, and with JT65C W3HMS, KN0WS, VE4SA, YO2LEL and VE4MA/K7.

DL7APV: Bernd dl7apv@gmx.de did truly outstanding ly on 70 cm during the ARRL contest -- This year I made 111 QSOs on 432, my personnel record. I did not count the multipliers, but I am very satisfied with the number. Activity was excellent on JT, but on the other side, sadly poor on CW. I listened often on CW, but only made15 QSOs on CW. Condx during the last part of the contest were excellent on Saturday, but only average on Sunday with more and deeper QSB. Initials were FR/DL1RPL, K7MAC, EA7AW, E77T, SM7SJR and IZ5TEP for his first 432 EME contact. I missed the last moonrise due to too high winds. The antenna repairs seem to be holding well. Sun noise is normal and SWR still prefect. I have doubled my SSPA, so that it can run with lower power on each side and consequently at a much lower temperature. I hope this will extend the lifetime, as they are old and were used 24/7 before. I don´t like to run equipment at 100%.

DL9KR: Jan Bruinier@t-online.de writes on his 70 cm status -- Most of the following initials are based on skeds made on the HB9Q logger. I see nothing wrong in using a logger for skeds; the sked principle is the same

as in the "old days," but ad hoc, granting the partner's presence and offering the chance for quick feedback. It's nice that "JT people" are willing to try CW; they seem to enjoy it, too! Naturally, a random QSO with previously unknown calls remains the optimum challenge. Since my last report in the June NL, I worked G6HKS for CW initial #964, PE1LWT #965, PE1RDP #966, RN6MA #967, K9MRI #968, K4MSG #969, SM7SJR, WA4NJP, HV0A #970 and CW DXCC 133 - FB job, I1NDP, ON4AOI #971, W7MEM, TO2EME #972 in an advanced sked for my 80th birthday present and CW DXCC 134, PJ7L/PE1L #973 and CW DXCC 135 - big thanks to PE1L and his group; then during 1 hour of calling CQ in the ARRL contest WA4NJP and I2FHW; and later K3GNC #974, UT5DL, FH/DL1RPL #975 and CW DXCC 136 with FB signal, DJ4TC #976, FR/DL1RPL #977 with also FB signal, YL3AG and DL1SUZ #978. I follow the SHF/EHF activities with admiration but don't feel like joining in.

F5SE/p: Franck's kozton@free.fr reports on his activity in the final leg of the ARRL contest -- I ended with a score of 84x35, which is down from last year (87x44). All QSOs were on CW. As during my first weekend, I tried to be active whenever the Moon was available at my QTH. Activity was high, but most of the stations heard were already worked. Only 13 QSO's were made this time with only one new station, SP2HMR (549/559) for #188. A correction to my last report worked is that I missed listing my old friend, DK3WG, as an initial for #185. The following stations were CWNR'd EA8DBM (549), G4BAO (539), JA6XED (549), PE1CHQ (549), IZ1BPN (569), UA3XCR (?319) and XE1XA (559). My technical problems on tropo are now solved, and I am back to working on my new kilowatt SSPA. Unfortunately I don't expect to have it operational for the SSB FUN contest, but hopefully for spring 2016.

F6DRO: Dom dominique.dehays@enac.fr reports on his recent 3 cm operation – On 22 Nov, I QSO'd G3WDG on JT but we could have worked on CW then F1PYR and LX1DB, both easily on CW. I missed a QSO with IK5JWD because I probably did not have my Doppler set correctly. I need to go to digital correction. He heard me but I was not able to find him. In the past JT worked so long as my partner was able to compensate the Doppler. Earlier in Nov, I worked VK3NX CW, EA3HMJ on JT who was using only 1.8 m dish and 10 W, G3WDG and F1PYR. I am running from JN03tj a 1.2 cm dish with 45 W. I'm very interested in sked partners and am often available on HB9Q. I am working on a second RX for 10,450 and I hope to be able to work JAs by the Dec perigee. I also have some projects to increase my antenna size and power but time is a problem.

F6ETI: Philippe f6eti@wanadoo.fr is now QRV on 1296 CW with a 3 m dish, 100 W and 0.6 dB NF LNA -- I am really pleased with my QSOs. The signals have not all been strong. I still have some way to go. I am using an old F1ANH preamp that I used in 2001. I will soon replace it with DDK VLNA. On the TX side, I plan to be at 400~500 W in a few month. I worked on 1296 random CW on 30 Oct F5SE/p, on 31 Oct F5SE/p again, on 1 Nov RA3EC, PI9CAM, I1NDP, SP6JLW, OK2DL, SM4IVE, OE5JFL and G3LTF, on 21 Nov K2UYH, on 22 Nov G4CCH, 24 Nov SM4IVE, on 25 Nov DF3RU, 28 Nov DLØSHF, DL3EBJ, DF3RU, VK3UM and IZ1BPN, and on 29 Nov OK1CS. I always hear the ON0EME beacon well.

F6ETI's 3 m dish and 1296 feed

FH/DL1RPL & FR/DL1RPL: Peter (DL1RPL) peter@dl1rpl.de had very successful dxpeditions on 70 cm to both Mayotte Island (LH27) and to Reunion Island (LG79). At Mayotte he QSO on 22 Nov at 1336 UT6UG and 1344 JA6AHB, 1358 OK1DFC, 1402 UA3PTW, 1420 HB9Q, 1438 DK3WG, 1448 OK1KIR, 1452 DF3RU, 1500 OZ4MM, 1522 UX5UL, 1528 DL7APV, 1532 UT5DL, 1536 LZ1DX. 1540 PA3CSG, 1544 JE1TNL, 1548 UX0FF, 1552 YL2GD, 1620 G4RGK, 1636 DL5FN, 1656 PE1LWT, 1702 HA1YA, 1714 ES5PC, 1718 DL8GP, 1748 PA2V, 1812 DK4RC, 1820 UR7DWW, 1824 G4FUF, 1855 DL9KR (559 on CW), 1904 G4EZP, 1930 PY2BS, 2104 DJ4TC, 2118 OH6UW, 2126 K3MF, 2132 S51ZO and 2146 WA4NJP, and on 24 Nov at 1630 SM4IVE (539 CW), 2256 K2UYH and 2310 I1NDP. At Reunion he QSO'd on 27 Nov at 1746 DL7APV, 1800 UA3PTW, 1804 UT6UG, 1810 UT5DL, 1816 UX5UL, 1820 HB9Q, 1826 OK1KIR, 1836 UR7DWW, 1904 DK4RC, 1908 OZ4MM, 1928 JE1TNL, 1934 DK3WG, 1950 DL9KR (539 CW), 2008 DL5FN, 2026 DL8GP, 2040 I1NDP, 2048 DF3RU, 2058 DJ4TC, 2308 G4FUF, 2314 G6HKS and 2324 G4EZP, and 28 Nov in contest at 0002 DL7APV, 0012 UA3PTW, 0016 NC1I, 0026 DL7UDA, 0030 OH2PO, 0040 PY2BS and 0050 G4RGK.

G3LTF: Peter g3ltf@btinternet.com sends his Nov report -- I started on 23 Nov chasing FH/DL1RPL on 432. He was on JT, but as I knew he'd worked DL9KR, I called him on the side on CW. He had a nice signal, equivalent to (539), but I could not get his attention. I later had a nice CW QSO with K3MF. On 24 Nov I was on 6 cm and worked OZ1LPR for initial #56 and DXCC 27 followed by F1PYR. During the contest weekend, the WX was just awful. In common with many others in NW Europe, the weekend was disrupted by very strong winds, gusting here to >45 mph. It was fairly calm at the start and I worked on 70 cm CW G4RGK, I2FHW, OH2PO, UA3PTW and DL7APV. I CWNR DF3RU. Then nothing, so after 40 minutes I went to bed and got up at 0430. I worked WA6PY (single yagi), K2UYH, NC1I and OK1POI. I then called CQ for another hour (to 0700) with no response. The wind then increased and we had gale force winds all day and into the night. The next day, Sunday, I saw there was a drop in the wind forecast for 0500-0800, so I switched to 23 cm and was able to work OK2ULQ, DF3RU, S59DCD, SM4IVE, OZ4MM, W4AF, LZ2US, IK3COJ, VE6BGT, W1AIM and VE4MA/K7. At 0800, the strong wind really set in again for the rest of the day. I had to resort to the HB9Q logger to get hold of VE4MA/K7, but every other contact was fully random. I could have easily got Barry's attention, if he had been calling CQ. My total overall was 62 on 23 cm, well down on prior years due to less operating hours. I had only 9 on 432. I shall not be entering this year because I believe the latest change to rule 6.3 (allowing assistance) takes the technical challenge of EME in completely the wrong direction by encouraging the use of a side channel to enable contacts and discouraging CQ calling and random operation. I made an interesting QSO on 70 cm with NC1I. He is a big signal and I read his CW callsign off the SDR waterfall (horizontal) at the end of his JT call, so I called nearby on CW and he replied using the CW keyboard in JT65 and we had a quick, efficient QSO, (569/559).

G4BAO: John john@g4bao.com comments on the ARRL contest -- I'm not a "night owl" but was on 1296 from about 2300 to 0100. I listened on CW without any assistance to see what my little system could hear, and had a nice CW QSO with SM4IVE for my CW initial #9. I called and called SP6JLW, but never got beyond "QRZ G4?." I heard a few weaker CW signals, but all below my threshold of copy. I also made a few CQs, but heard no replies. The activity gave me a chance to experiment with the filter and DSP settings of my TS2000. While I'm more than happy to do JT, I have to admit that I get a much bigger "buzz" from working CW EME with only a 1.9 m dish and 180 W. It's a real challenge. If you have a similar or better signal than the ON0EME beacon, please contact me for a CW sked.

G4RGK: Dave's zen70432@zen.co.uk contest operation was hampered by high winds -- The final leg of the EME contest was plagued by high winds, which kept me from operating my dish on 23 cm for the whole weekend. I was able to operate 70 cm because my array was built from very strong steel. But even it was at times unable to cope with the 70 MPH winds. Just a few stations were worked on 432: G3LTF, NC1I, FR/DL1RPL, DL7UDA, PA2CHR, PA3FXB, EB5EEO, VK3UM, UX0FF, UT5DL, DL8DAU, PE1RDP and SM7SJR for a total of 37x25 on 432, and 30x21 on 1296. I have some minor rebuilding to do as my dish lost part of its surface mesh in the storm.

HK0/DL2NUD: Hermann's dxpedition to Andres Island turned in to a disaster. All their equipment was lost during shipment. They had to return without any operation. I have not received any follow up information. I do

not know if the equipment is still lost, and if it was insured. I will try to find some answers to these questions for a future. Hermann and his team certainly deserve our support to get re-established.

JA4BLC: Yoshiro ja4blc@web-sanin.co.jp reports on his Nov operation -- I worked on 4 Nov on 5760 JA6CZD (559/559) and JA8ERE (579/559). Mikio has replaced his 3 m TVRO dish with a solid 4 m dish, and is getting great success. On 21 Nov, I worked JA6CZD (569/569), JA8ERE (579/569) and JA1WQF (559/559). On 23 Nov, I worked added JA1WQF (559/559), OZ1LPR (559/559) for initial #35 and HB9SV (559/549) #36. My QSO with Enrico was the 6th band we have contacted on by EME (2 m to 3 cm except for 9 cm). Before the contest I replaced the TH328 in my 23 cm PA with a NOS TH308. The TH328 had been causing thermal drift for ten years. TH308 produces steady output power (700-800 W at TX). During the ARRL contest weekend in my EU window on Saturday, I had a failure of my EL actuator that caused me to stop operation. After the moon set, I cured was able to fix the trouble and be QRV on Sunday. I worked JH1KRC, K2UYH (dup), N4PZ, JA6AHB(dup), KL6M(dup), SM4IVE, F5JWF, UA3PTW and I5YDI (dup). My final score is 42x22 on 1296, 8x6 on 2304 and 6x5 on 10 G for a total 56x33 or 184,800 points.

JH1KRC: Mike jh1krc@syd.odn.ne.jp enjoyed 1296 CW during the ARRL EME Contest – I had only one QSO in the first weekend because of an antenna tracking problem, but enjoyed relatively nice activity except from NA in the second weekend. During the contest, I worked K2UYH, W6YX, WA9FWD for an initial QSO (#), JR4AEP, JA6AHB, JA4BLC, VK5MC (#), N4PZ, DL0SHF, SP6JLW, IZ1BPN, HB9Q, SM3AKW (#), DL3EBJ, F5SE/P, RA3EC (#), IK1QZ (#), 9A5AA (#), SM4IVE (#) - I am pretty sure this was an initial, OE5JFL, KL6UW (#), KL6M, JA4LJB, OK1CS, LZ1DX (#), UA3PTW, SM3AKW (dup), SP7DCS, DF3RU and I5MPK for a total of 28 QSOs and 8 initials. Heard were LA9NEA, OK1KIR, JA6XED and RA3EC. My station is TVRO 4.4 m dish with OM6AA round septum feed with choke ring, OE5JFL/HB9DRI controller, DL3EBL 327 cavity giving 500 W at feed, HB9BBD LNA with a SMA relay and IC970D transceiver with JE1BMJ Smoothing Filter/1 kHz LC LPF.

K1DS: Rick R rick1ds@hotmail.com sends the following contest report – The ARRL Contest was on the weekend associated with our Thanksgiving holiday. We had family here for the weekend, so my time was limited. I was to get my portable 432 EME station setup for the weekend. The WX was very nice on Friday, so I moved the trailer out of the garage, got a pair of 9 wl yagis on the crossbar in vertical polarity and raised the short tower section. I forgot to install the elevation sensor, so I had to lowered the array again, placed the sensor in position and went to raise it back, using my electric winch. Unfortunately the coax snagged on the corner of the trailer, and before I knew it, the matching balun was pulled off one antenna, and both coax splitter cables were stretched. Fortunately I have another pair of antennas and splitter cables. I used a 4-antenna array last year. I was able to get the 2 antennas back up. I had little time left to make the 3-relay arrangement for my cavity LNA and 500 W amp, so I simply used my 150 W SSPA with its built-in preamp. At 0200, the moon was over the trees, but I heard no one. I called CQ on CW several times with no response. I saw a few JT traces and thought I'd try that mode. I tried JT, but there was no output. I finally realized that I had muted the output of the computer, and when I fixed that, I was able to putout a signal. I got a response from OH2PO with my first JT CQ and we completed my first 432 MHz JT QSO… And that was the extent of my weekend operation, as I heard no-one else and rain the next day precluded further operation. This was almost the same result on 423 as last year, when OH2PO was the only station I worked on CW.

K4EME: Cowles candrus@mgwnet.com was visited by Murphy on both 70 and 23 cm in last leg of the contest -- On the first night, the WX was clear and the moon was visible. Everything was looking great, until I turned on the radio. When I did, I noticed a very high noise level. I turned the array around and the noise increased in the direction of my neighbor's house. I believe my neighbor's Plasma TV is the source or maybe their LED or CFL lighting. When their lights go off, I notice my noise problem is gone on 70 cm. I can't get on 1296 at moon rise due to tree blockage, so some of the EU window is lost. In spite of the noise, I was able to work DL7UDA, YL2GD, WA2FGK, NC1I, UX0FF, UT6UG and YL3CT on 70 CM. Around 0130, I had a slow decode on JT65B and after getting the new station's call entered and generated, JT was all ready transmitting CQ. Usually I just let the CQ field finish and let the program gracefully make the transition. I did not want to waste a whole transmission sequence, so I stopped CQing and changed fields and then restarted in mid stream. I forgot to lower the power before hitting the AUTO IS ON SWITCH. Usually I have no problem doing this even without lowering the power, but not this time. It glitched and the LNA and my ears on my larger horizontal array was history until I had time to change the LNA. Since the activity at the time seemed to be a little low, I decided to climb the tower and replace the LNA on the horizontal array. I was only gone for about 20 minutes. When I came back in, the screen was full of stations on the MAP65 display from the last 20 minutes from the small vertical array. I tried to track down and pounce on a couple of stations, but most got away. Around 0500, I notice the moon was high enough above the pine trees to switch to 23 cm and I worked DL0SHF on CW. DL0SHF was very loud and clear! I then worked FS6FX as a dup, and then VA7MM, OK1KIR and before moonset KL7UW. The next day, Saturday, after getting some sleep, I rebuilt the damaged preamp for a spare, while my wife went out shopping. When she came back home, she started complaining about not being able to get on Face Book because the Internet was down. I figured the local router had just locked up and needed a good reset and problem would be solved. I told her I would fix it after dinner, due to having to go under the house in the crawl space where our service provider had placed the router. I reset the router and still no Internet. I then did some troubleshooting and found out the router was working fine, it was a service provider issue. Anyway we had lost out Internet connection, which is how I time sync all the computers. Talk about "bad timing", HI, HI... On top of that, the noise problem on 432 was back! I tried to use WWV and set the computer's time manually, but I had even a higher noise level on HF. I finally found a cell phone app that gave the correct time. I found that my main computer would gain about 2 seconds an hour and other one running MAP65, would lose 1 second an hour. I would have to constantly make corrections every 30 minutes or so. Also due to the loss of Internet, everything except for off the air (UHF) TV was lost. Since my Wife could not use her computer with Face Book, she was forced to watch UHF TV. We discovered that during my JT transmissions on 70 cm, due to the close proximity of the TV antenna and my EME array, the TV preamp was overloaded causing the TV to freeze for each 1 minute interval. I finally had to lower my power level to around 300 W to keep peace in the house. At around 0348 I finally made my first contact of the evening on 70 cm with G4FUF. I shortly after, switched back to 23 cm. It was raining and overcast, so my tracking camera was useless. I re-adjusted the arc on the polar mount to reflect the ~1 deg lower moon zenith angle from the night before and while doing a sweep found the ON0EME beacon. I went to 1296.070 and CQed. I worked NC1I, VE4SA, OK1YK, UA3PTW and UT5DL. Within a few minutes after moonset on Sunday morning, you guest it, the Internet was back on, and the high noise problem was gone! In spite of Murphy, I personally had the highest number of contacts so far, 54, in the past 16 years doing the contest. There seemed to be more activity on 70 cm this year than the last couple of years, however, this may be due to my running MAP65 on 70 cm and being able to see the band better than before. 23 cm was great fun; however, I am still not set up for MAP65 on 1296. It is in my future plans! I still am very low on the learning curve especially for 23 cm, so I hope to do better next year. If I did not work you on the second leg of the contest this year, it was not because I was not trying, I just had a lot of noise and technical issues that prevented me from doing so. I may have to put up with the noise issue on 70 cm, but if I get the trees cleared to the east of my dish I will be able to operate on 23 cm earlier and switch to 70 cm later on when the noise level drops. I have no control over losing Internet due to my service provider, so I purchased an USB GPS unit and downloaded some time sync software so I can time sync without the need of the Internet. I go years without losing preamps since I installed some good lockouts on my 70 cm system, but I guess it is not completely bullet proof. I learned from my 70 cm system and installed a sequencer on my 23 cm system and never had any issues. I am also going to build a 432 trap for the TV booster. After the contest on 5 Dec, I made my first CW contact with Alaska on 23 cm.

K6ICF: Don don.rea@verizon.net is QRV on 1296 EME -- Since my last report I have finished up construction and bench testing of my 23 cm system. I am a QRP station with only a single yagi. Everything seems to be working well with about 85 W at the antenna feed. On the evening of 20 Nov, on a pre-arranged sked, I made contact with K2UYH and completed my first QSO on JT65C. Things were slow getting started due to confusion at my end, but once I figured things out a bit, we completed the contact in 5 consecutive time slots. SNR's were about as expected, around -21 at both ends. Due to other commitments, I was not able to be QRV during the contest weekend, but I was able to easily work W6YX a few weeks later. I am interested in skeds, while still working to prefect my station.

KI6ICF's polar mounted 1296 yagi

KB7Q: Gene geneshea@gmail.com sends his progress report on plans to put KH6/KB7Q on 432 EME in Feb -- A borrowed 432 transceiver is in hand, the LDMOS amp is done and putting out an honest 500 W after replacing a shorted by-pass capacitor, and the GasFET pre-amp is mounted in the relay box. The 9 wl yagi I plan to use in Hi recently arrived, and was used on 18-20 Dec to put MT on 432 EME before I boxed it up and sent it off to Hawaii. I set the yagi up on the front long and tested the 432 gear. Over 3 days, in spite for having a tree just 5' off the end of the yagi, I worked 10 stations on JT65B and one on CW: DL5FN, K5DOG, HB9Q, UA3PTW, DL7APV, NC1I, DK3WG, DF3RU, K2UYH, DL9KR (CW) and UT6UG. So it was a decent test. The 500 W W6PQL amp was rock solid. [See following dxpedition announcement].

KB7Q/KH6: Gene geneshea@gmail.com is finalizing plans for his HI dxpedition on 432 [and 144] – 70 cm operation is planned for 12 Feb starting at 2015 and 14 Feb starting at 2145. More info can be found at http://kb7qqrid.blogspot.com. See last month's NL and Gene report in this NL on his home station test success.

KL7UW: Ed kl7uw@acsalaska.net sends news of his 1296 operation during the last part of the contest – On 28 Nov because of high noise on 2 m, I started with 1296 after spending an hour to troubleshoot inoperable PTT line to the dish. I found a wire that became unsoldered in a RCA plug and blew two fuses getting the wires reconnected, which slowed thing up. I was QRV at 0510. I tried working CW, but it took me half an hour to copy DL0SHF, who quit by the time I called him. I spent another half hour proving to myself that my CW skills needed some practice. I switched to JT65C at 0610 and QSO'd OK1KIR (15DB), LZ1DX (12DB), UA3PTW (12DB), KN0WS (17DB), EA8DBM (19DB) and K4EME (16DB). I was QRT at 0900. I was back on 23 cm on 29 Nov at 0600, but had angle encoder issues (again), which resulted in no contacts and only seeing HB9Q and later K2UYH (18DB) and KL6M (16DB) by chance after sighting the dish visually thru the clouds. Later in the day, I boresighted the Sun and found the dish off 2 degs in AZ and 3 degs in EL. So my total was 14 contacts on 1296.

KN0WS: Carl carlhasbargen@g.com final weekend of ARRL contest news -- The sky was clear and there was no wind. I was thus able to point my dish and nothing blew over! But the temperatures were as low as 12 degs F. A fuel line cracked on one of my generators. If not transmitting for more than 10 minutes, it would take another 10 minutes for my Beko PA to warm up. I used a pop-up ice-fishing tent over my table and a small propane heater, which brought the indoor temperature up to about 35 degs F. My long underwear, insulated coveralls and parka kept me warm except for my fingers. To prevent my previous frequency drift, I placed my radio into a $75 chicken egg incubator and it's styrofoam shipping box. That kept the radio at about 80 degs F. I completed 29 QSO's using JT65C on 23 cm with LZ1DX (13DB), SQ7D (18DB), UA3PTW (15DB), YL2GD (22DB), DF3RU (12), PA3FXB (19DB), RA3AUB (17DB), ES6FX (13DB), WA2FGK (18DB), NC1I (10DB), IK5VLS(15DB), HB9Q (7DB), SP5GDM(16 DB), OK1KIR (9DB), IK3COJ (17DB), I5YDI(21DB), DK3WG (24DB), W7MEM (30DB), PA2DW(21DB), KL7UW (27DB), K2UYH (11DB), VA7MM (17DB), WA3GFZ (21DB), JA6AHB (16DB), VK4CDI (24DB), EA8DBM (19DB), OK1YK(17DB), VE3KRP (22DB) and ES6RQ (20DB). Of these, 21 were initials. I also heard W3HMS (20DB), K4EME (21DB), SM7SJR (21DB) and ON5GS (23DB), and saw a signal from VE4MA (27DB). My ARRL contest QSO total ended at 11 on 432 and 33 on 1296. My dishes are now dismantled for the winter. I made 11 EME trips to my property in 2015, spending parts of 6 days on 432 and 9 days on 1296. Several trips were 6 hours excursions to try a sked with one other operator that failed. But thanks primarily to contests this year I increased my 432 initial count from #25 to #40 and my 1296 count from none to #34! Goals for 2016 include figuring out how to mount my HB 4.8 m dish for use on 23 cm. I want to work OK1TEH on 432, and ZS6JON, OK1DFC, G4CCH, K4EME, KD3UY and PY2BS on 1296. So if you guys read this, let me know about skeds! Of course I would love to hear from anyone else, as well. TNX to everyone who made this a fun and successful season.

KN0S and his 6 m dish used on 432

N4PZ: Steve n4pz@live.com is now QRV on 13 and 23 cm – I have my 1296 and 2300 feeds mounted side by side and offset in my 4.9 m dish. I see no degradation with this arrangement on 23 cm. I have now fired up on 2304 and easily worked VE6TA for initial #1 and K2UYH the following night for #2. I still have some optimizing to do, but am QRV. I plan to operate only CW. BTW the grey boxes from Menards make great water tight units for preamps. Of course I drilled a drain hole just in case. I will be looking for 13 cm QSOs.

NC1I: Frank's frank@NC1I.COM Nov Report -- We missed the entire first weekend of the contest (432/1296) due to our VT dxpedition, but we were able to put in a pretty big effort for Nov. W1QA joined me for the entire weekend. For the most part Bob operated 1296, while I operated 432. We had some issues on 432. First, my polarity is still not working (hope to have it repaired by late Dec) and we had a high SWR that was fluctuating between 1.5 and 2. I suspect there is water somewhere in the system. We seemed to be hearing fairly well so it may be just in the TX line. Hopefully we can get that resolved in late Dec as well. Our 432 power was down to about 750 W. For the 2014 ARRL EME contest we operated only CW so for the 2015 contest, we decided to focus on

WSJT. Over the one weekend of operation we ended up with a total of 102 QSO's, 57 on 432 and 45 on 1296. This included 22 WSJT initials on 432 and 11 initials on 1296. After 2 years of operation on 1296, we have logged 609 QSOs with #204* mixed mode initials ({119} digital initials and #116 CW initials). Unfortunately I do not have an accurate count on 432. In pre-contest activity, on 1296 we worked on 7 Nov SP5GDM, PA3FXB and DC9UP, on 14 Nov KN0WS and KD3UY, on 24 Nov OE9GLV and G4BAO, on 25 Nov G4BAO (CW), OZ6OL (CW), W2LPL and S59DCD, and on 26 Nov WA2FGK, W3HMS, and KD3UY. All contacts were on JT65C unless noted otherwise. During the contest, on 1296, we worked on 28 Nov OK2DL, LZ1DX, WA3GFZ, I5YDI, PA3FXB, SP5GDM, UA3PTW, YL2GD, OE9GLV, N4QH, IK5VLS, DF3RU, W6YX, RA3AUB, KN0WS, ES6FX, LU1CGB, VE4SA, IK3COJ, W2LPL, WA2FGK, EA8DBM, VA7MM, PA2DW, K2UYH, JA6AHB, VE3KRP and VK4CDI, and on 29 Nov OK1YK, OK2ULQ, SM7SJR, ZS1LS, YO2LEL, YL2GD, YL3AEV, WA3RGQ, EA1RJ, HB9Q, K4EME, W7MEM, VE4MA, SV1CAL, ON4AOI, OK1KIR, and ON5GS – all on JT65C. ON4AOI (single 67 el yagi and 100 W) is the smallest station we have worked to date on 1296. We got our 432 station back up and running a few minutes after the start of the contest. As noted above we had a couple of issues with the 432 station, but still had good results. We worked on 70 cm in the contest on 28 Nov starting at 0015 FR/DL1RPL, OH2PO, DL7APV, UA3PTW, G4RGK, YL3CT, RA3LR, DK4RC, OK1TEH, K3GNC, DK1KW, OK2POI, UX0FF, K7MAC, K4EME, K5DOG, DL7UDA, W1PV, LU8ENU, W6YX, W4ZST, DD0NM, WA2FGK, S51ZO, WB2RVX, G3LTF (CW), PA0PLY, UT5DL, PA2CHR, EB5EEO, DL1RNW, YL2GD, PA3FXB, HB9Q, DF3RU, F6APE, DK5SO, DL8DAU, K2UYH and JH7PAV, and on 29 Nov UX0FF (dup), ES3RF, DL6KAI, E77T, K9MRI, UT6UG, YO6OBK, I1NDP, RW4HW, PE1RDP, N0IRS, OK2AQ, DF2VJ, OK2PMS, PA2V, DL5FN and LU8ENU.

OH2PO: Jukka (OH6DD) jukka.sirvio@luukku.com put Matti's (OH2PO) station again on 70 cm for the ARRL contest -- We had fun! Jyrki (OH2HYT) and Harri (OH2BGR) worked the digi-modes, while I made the CW QSOs, and Matti ensured that everything was running smoothly. In Finland the heavy winds luckily calmed down just before the contest and the weather was not an issue for our 15 m dish. Our new solid state PA (ex TV broadcast amp) also worked flawlessly. The new amp gave us a few extra watts (although not much), but more importantly the output power remained extremely steady due to water cooling, which worked perfectly. Our first weekend score ended up at 70x29 (50 on JT and 20 on CW) and after the second weekend our final score was 106x38 (80 on JT and 26 on CW). All QSOs were random, no loggers used. Worked on CW were on 31 Oct UA3PTW, OK1CA, I2FHW, SP7DCS, SP6JLW, SM3JQU, DL7APV, SM4IVE, VE6TA, W8TXT, SM7GVF, SM2CEW, F6HLC, DL6KAI, JA9BOH, G4RGK, JA0TJU and OH6UW, on 1 Nov OZ4MM and N8CQ, on 28 Nov G3LTF, WA6PY, VK3UM and JH4JLV, and on 29 Nov I1NDP (dup - worked on JT before), UT5DL (dup - worked on JT before) and JA9BOH (dup). On JT65B we worked on 31 Oct PE1ITR, PA0PLY, K4EME, LU8ENU, OH2DG, DF3RU, WA2FGK, W4ZST, W7MEM, PA2V, KN0WS, YL2GD, UT5DL, S51ZO, SM2A, UT6UG, W6YX, PA2CHR, HB9Q, F6APE, ON4AOI, OK1DFC, PI9CAM, JA6AHB and YO2BCT, on 1 Nov G6HKS, DL6KAI (dup - worked on CW before), DK1KW, G3LGR, RA9LR, G4EZP, PJ7/PE1L, K3GNC, K2UYH, K5DOG, I1NDP, WA4NJP, NR5M, OK2POI, UT5ST, W5LUA, R6CS, K7ULS, OH1LRY, ES5PC, JE1TNL, DF2VJ, DL5FN, DL8DAU, OK1TEH and F6CPI, on 28 Nov NC1I, FR/DL1RPL, DL7UDA, PY2BS, DK4RC, YL3CT, DK1KW (dup), ES3RF, UX0FF, K1DS, K5DOG (dup), OH6UW (dup - worked on CW before), DD0NM, W1PV, WB2RVX, K5QE, VE2JWH, G4FUF, DL1RNW, EB5EEO, DF2VJ (dup), PA3CSG, VK4EME, JH7PAV, F6APE (dup), DL8DAU (dup), OK2AQ, SM7SJR, PE1RDP and DL6KAI (dup), and on 29 Nov S51WX, SP1JNY, MX0CNS, E77T, W4ZST (dup), K3GNC (dup), K7MAC, K9MRI, YO6OBK, RW4HW and HG1W.

OK1KIR: Vlada and Tonda vladimir.masek@volny.cz report of their clubs Nov EME activity – On 70 cm we worked using JT65B on 20 Nov at 2005 LU7HI (21DB/14DB) for digital initial {#141}, 2021 DK4RC (19DB/16DB) {#142}, 2109 WA2FGK (19DB/12DB) and 2119 RW4HW (27DB/22DB) {#143}, on 22 Nov at 1446 FH/DL1RPL (18DB/18DB) {#144} and a new DXCC and LH field, 1506 US7GY (24DB/12DB) {#145}, 1520 HA1YA (9DB/O) {#146}, 1644 RA9LR (24DB/17DB) {#147}, 1656 UX0FF (15DB/20DB) and on 27 Nov at 1844 FR/DL1RPL (21DB/21DB) {#148}, 2001 DD0NM (27DB/21DB) {#149}, 2017 MX0CNS (29DB/18DB) {#150}, 2053 SM7GVF (16DB/O) {#151}, 2135 OK2AQ (29DB/26DB) {#152} and 2155 ES3RF (18DB/18DB) {#153}. On 23 cm we worked using CW on 27 Nov at 2347 EA8DBM (569/569) for initial #385 and a new CW DXCC and at 2354 BD4SY (569/539) #386 new CW DXCC, on 28 Nov at 0002 OK2DL (589/599), 0005 DL3EBJ (569/589), 0017 RA3EC (569/579), 0635 W4AF #387, 0640 WA6PY (569/579), 0644 WA2FGK (559/579), 0648 OE5JFL (569/579), 0653 LZ2US (569/569), 0656 OK1CS (569/579), 0702 S59DCD (559/559),1927 KL6M (579/579), 2004 JR4AEP (559/569), 21:03 RW0LDF (O/O) #388, 2302 YL2GD (559/559), 2306 SM3AKW (569/579), 2309 UA3PTW (579/589), 2312 9A5AA (559/579), 2315 F5JWF (569/599) and 2318 IK3COJ (569/579), and on 29 Nov at 0523 VE4MA/K7 (549/559) #389, and using JT65C on 18 Nov at 1615 I0NAA (18DB/9DB) for digital initial {#229} – at 1930 measured Moon noise at 1.0 dB, on 27 Nov at 2323 BD4SY (22DB/8DB) {#230} and 2331 ON4AOI (23DB/22DB) {#231}, on 28 Nov at 0453 KN0WS (12DB/O), 0559 ZS1LS (18DB/16DB) {#232} and JF field, 0536 VE4SA (9DB/O) {#233}, 0550 LZ1DX (6DB/5DB), 0613 KL7UW (15DB/15DB) {#234}, 0719 K4EME (9DB/11DB) {#235}, 0742 W7MEM (18DB/O), 0802 W6YX (5DB/4DB), 0806 K2UYH (6DB/4DB), 2037 VK5FA (23DB/13DB) {#236} and PF field, 2054 RW0LDF (18DB/12DB), 2132 G4EZP (21DB/16DB) {#237}, 2143 PA3FXB (9DB/7DB) and 2348 SQ7D (9DB/8DB), and on 29 Nov at 0001 OK1YK (8DB/9DB), 0014 OK2ULQ (11DB/9DB), 0515 VE4MA/K7 (14DB/12DB), 0537 W2LPL (15DB/O), 0550 VA7MM (8DB/10DB), 0631 NC1I (1DB/10DB) and 0717 SV1CAL (19DB/10DB). On 6 cm we worked using CW on 9 Nov9 at 1021 OZ1LPR (549/559) initial #82 and a new DXCC.

OZ4MM: Stig vestergaard@os.dk updates us on his Nov activity -- I had planned to be quite active during the last leg of the EME contest, but high wind during the weekend only let me be on for short periods of a few hours. Nevertheless, it did have some fun. There was no 432 activity because of the limited time. I spent the few hours I could on 1296, and ended with a total of 45 stations on CW. Initials were made with LU1CGB, WA2FGK, VE4MA/K7 and SP2HMR. The weekend prior to the contest weekend, I had got hardware fault on the dish azimuth drive. The problem occurred just after working FH/DL1RPL on 432. I let the dish track automatic, as I had other things to do in the shack. Then later I found the signals had disappeared and found a readout fault. In daylight the next day, I found a weld had broken at a support that keeps the azimuth chain guide on place. After some welding and strengthen of the hardware, I was ready again and worked DL1RPL in FR with nice signals on JT, beside DD0NM and DL7FF.

OZ6LPR: Peter oz1lpr@mail.dk is now QRV on both 6 and 3 cm – On 5760, I have easily worked 15 initials in 14 days! I have heard my echo even with 3 W and worked IZ2DJP, who was using 10 W circular. I am still using a linear feed, but plan to switch in the future. I am planning to switch feeds back to 3 cm soon.

RW0LDF: Serge rw0ldf@mail.ru in Asiatic Russia let's us know that he was put out of business by a September storm – My 1.8 m dish was destroyed. I have since mounted a new 2.1 m aluminum dish, which seems to be work well. [It is as evidenced in this month's contest reports – see the pictures at end of the last NL].

PA2V: Peter peter@pa2v.com wrote on his contest experiences -- WX was terrible here and kept me off for most of the moon pass. There was very good conditions on moonrise. I worked on JT JE1TNL and VK4EME with loud echoes, and RA9LR for a new DXCC. Then wind start blowing hard -- up to 8 Beaufort. It looked to be a
bit scary to elevate my antennas higher. I decided to stop and come back when the Moon was at a lower angle. Sunday morning conditions were less than ideal. I heard K4EME very loud but he did not seem to hear the EU stations. EU-EU was good and I worked DK4RC for a new one. All by all the weekend was not too bad with 4 initials and a new DXCC. I heard and saw F6APE and PE1RDP. It seems that quite a few hams have reinvented 432 EME and have come back to 70 cm. We have new stations showing up every month.

SM4IVE: Lars sm4ive@telia.com did not operate the ARRL Contest but was on to make some QSOs -- Because the rules change, I decided not to participate in the contest. However, I was on during the contest weekends for short periods to work some initials. Logged initials on 1296 CW were on 31 Oct at 0858 K6JEY (549/559), on 1 Nov at 0637 WB2BYP (569/569), 0650 F6ETI (529/589), 0715 SP2HMR (529/559), 07:20 LU1CGB (529/559) and 1011 K9KFR (559/589), on 28 Nov at 2209 EA8DBM (559/569), 2307 UA3XC (O/O) - very weak and 2330 G4BAO (529/549), and on 29 Nov W7MEM (O/O) – weak, 2004 ES6RQ (549/559) and 2012 SM7GEP (529/559). There were so many more stations that would have easily worked but unfortunately they weren't using the noble art of CW.

VA7MM: Mark va7mm@rac.ca reports on his and Toby's (VE7CNF) ARRL contest results – We were on 1296 for both legs of the contest, multi-operator and all mode. We concluded the contest with our highest score in 13 years of participation in the event with a score of 65x40 (28 CW and 37 digital) for 260,000 points. Our previous best was last year with 182,700. We continue to make more digital contacts as a percentage of our total contacts with digital making up 57% of our contacts this year. We're also finding initial contacts are increasingly smaller stations running digital modes and the majority of our contest multipliers are digital mode contacts. Conclusion: EME is going digital! We're running an OZ9CR cavity amplifier that produces about 200 W at the feed of our 3 m dish. On receive we have 0.33 dB NF preamp with about 35 dB total gain in three stages. We're planning to operate next in the 1296 MHz SSB contest in Jan and are otherwise available for skeds by e-mail.

UA3PTW: Dmitry ua3ptw@inbox.ru in Nov using JT65B on 432 added QSOs with DK1KW, PJ7/PE1L, PD7RKZ, N0IRS, RW4HW, FH/DL1RPL, UX4IJ, FR/DL1RPL, W4ZST, PA3FXB, DK5SO and E77T. He was also active on 1296 and added initials there using JT65C with KN0WS, BD4SY, ON4AOI, SP9AF and K4EME. [TNX to DK3WG for forwarding this report].

UA9YLU: Victor ua9ylu@mail.ru worked on 1296 in Nov using CW initials with N0OY, KL7UW and LA9NEA, and on JT65C KD3UY, OE9GLV, WA2FGK, K5DOG, BD4SY, ON4AOI and VE4MA/K7. [TNX to DK3WG for forwarding this report].

VE3KRP: Fast Eddie eddie@tbaytel.net sends his Nov report – I am enjoying unusually mild temperatures and no snow here; it can stay this way until spring. I was active on 23 cm and worked on 21 Nov N4PZ (CW) and G4BAO (JT) for a digital initial {#}, and during the contest using JT65C on 28 Nov ES6FX DUP, I5YDI, W3HMS, K2UYH, NC1I and JA6AHB, and 29 Nov OK1YK, LU1CGB, DF3RU DUP, KN0WS, VA7MM, VE4SA {#} and BD4SY{#JT} and a new DXCC – very nice surprise to work China. [On another topic, Eddie is pleased to announce that the International Astronomical Union (IAU) exo-world (newly discovered planets) naming committee has declared one of his proposed names the winner for the star 14 Andromedae, which was named Veritate and the one known planet in orbit around it, Spe. The link for more Info is http://earthsky.org/space/public-vote-renames-14-stars-31-exoplanets?utm_sou.

VE4MA & VE4MA/K7: Barry ve4ma@shaw.ca reports on his fall activity -- My operating schedule changed due to the hospitalization of my 90 year old mother. I operated the first Oct/Nov ARRL contest weekend from VE4 land and the final one from Arizona as VE4MA/K7. Unfortunately for my JT QSOs on the second weekend, I did not configure JT correctly to show the /K7. On 26 Oct, I had the pleasure of a 23 cm QSO with XE1XA after more than 25+ years since our last QSO on 70 cm. For the first weekend, I had completed the transfer of my 3 m dish to a new mount, but had not calibrated the hour angle, so I was continually peaking signals... Sometimes not very well, so my signal may have been down. The new dish location allows a JA/VK window; something I have not had in 25 years! I worked 18 stations on CW and 14 on JT. I arrived in Arizona on 25 Nov 25 and for the final weekend operated with the same 5' offset dish and ~250 W at the feed as in previous years. I tried to maximize CW contacts the first night and worked 11, but had many CWNRs. Getaways include K2UYH, LZ2US and OK1YK. On the first and second nights I did work 12 JT contacts with many get a ways due to my window closing. I know there has been a lot of controversy about the use of the Internet, but spotting yourself as many did, clearly helped get additional QSOs. Those with MAP 65 did not need that apparently. I will be back in VE4 land for the DUBUS 144/432 contest, and will probably operate on 432 with my 10' dish and 400 W. When I return to AZ for Feb and March, I will concentrate on 3.4 and 5.7 GHZ, but will be on for DUBUS 1296 in March.

VE4MO: Kirk marat@mymts.net is now QRV on 23 cm. He has had 2 1296 QSOs. Kirk is using 4x 45 el loop yagis with a WA2ODO preamp and a W6PQL PA (in the shack) giving him ~100 W at the feed. During the contest he worked HB9Q and OK2DL and heard K2UYH, NC1I and 2 others very well. He was having preamp oscillation problems (not sequenced) that plagued him during the short 2 hours he was on. He worked hard to get it all running for the second night and was too tired to continue further. His antennas are motorized on the tower and will be looking for more QSOs on the HB9Q reflector and email. [TNX to VE4MA for forwarding this report].

VE6BGT: Skip ve6bgt@gmail.com had good time in the ending leg of the ARRL contest. I usually am weak on the receive side of things, but was able to borrow a TS2000 and now know what a good DSP receiver is like. I normally use a TS711 and a external Timewave DSP box, which helps a lot but nothing like the TS2000. So even with my late European window, I worked RA3EC, WA6PY, I5MPK, OE5JFL, F5SE/P, OK1CS, 9A5AA, W6YX, OZ4MM, G3LTF, OK2DL, SM4IVE and SP6JLW.

W2LPL: Les llistwa@gmail.com writes for the NL -- I was active on and off during the ARRL Contest on 1296 JT65C and worked 17 stations with my little pistol (2.1 m) dish. At least 5 additional stations were heard, but they just didnt hear me. As usual because of blockage from trees and my house, my visibility of the moon was limited to only few hours each day. I recently replaced the relay at the feed and picked up another 1 dB or more on RX. I hope to add a choke ring to my feed and see if it will help. Map-65 has really made a difference in spotting stations and working them, especially when I was confused on the Doppler settings when using WSJT. It is amazing what a Funcube Dongle can do.

W6BB: Michael (DG1CMZ/W6) mwz@berkeley.edu writes that the Berkeley ARC is working on a 23 cm EME station that will be used for student training and motivation apart from general EME operation by the members. I only recently joined the faculty at Berkeley and am hoping to spur the project along as I have an EME background from being close friends with DG5CST and DK4RC, both of whom are active EMEers. We have a 4.5 m dish, a Flex 6000 radio and a decent budget. A site outside of Berkeley and further away from city noise has also been sourced. We will first focus on the mechanical mounting of the dish with the necessary precision to operate EME. In parallel we will be gathering the necessary equipment in addition to the dish and the Flex. I believe we have a feed, but haven't checked it out yet. I am looking for suggestions for equipment, particularly for the PA. Any feedback and advice is welcome.

W6YX: Gary (AD6FP) ad6fp@lbachs.com report on their final contest weekend effort -- After several comments about having bad ears on 432 the first contest weekend, we put some effort into upgrading the station with a better LNA. We were able to reduce our NF from ~1.5 dB down to 0.5 dB. Despite this we seemed to not hear any better than the first weekend. After several hours of operating, we decided to try a AD6IW preamp that Goran brought along at the spur of the moment. The improvement was dramatic even though the NF difference of the preamps was minimal. What Goran didn't tell us until later was that his last minute LNA addition had a 144 MHz notch filter on the input that provided some 30 dB of 2 m rejection, evidently the 2 m EME station and other local 2 m sources were de-sensing the 432 EME station. Our final tally on 432 was 41x24, all JT QSOs. We look forward to making the 432 station CW capable next year and further improving our score. On 1296 there were no last minute changes to the station or repairs needed. Activity seemed to us to be lower than the first weekend but still quite robust. Our focus on 1296 was CW operation, but we did monitor the JT mode with MAP65 and opportunistically switch modes when a new station was seen. At the end of the weekend our final tally was 64 CW QSOs and 49 JT QSOs for a total of 113x51, by far our best result to date in the ARRL contest on 1296.

WB2BYP: John storyavenue@hotmail.com was away in Sydney, NSW during the last ARRL contest weekend and consequently not QRV -- I did work 31 contacts on 23 cm the first weekend all random CW.

XE1XA: Max general.manager@corix.us sends a 1296 EME activity update -- Since my last report in Oct, I had two long trips outside Mexico, and thus only able to be active from time to time. Stations QSO'd since then were OZ4MM (579/569), PA3FXB (539/559), VE6TA (569/569), N6OVP (539/549), RA3AUB (559/579), VE4MA (539/O), W6YX (569/569), PA2DW (549/559), W7MEM (M/O), K2UYH (569/569), PA3CSG (559/559), OE5JFL (579/579), W6YX (579/579), OK2DL (569/569), DL3EBJ (559/569), EA8DBM (559/559), W1GHZ (O/.O) - operating at W1AIM, G4BAO (M/M) - very satisfactory considering his small station, OK1YK (559/579), S59DCD (559/579), PA0BAT (569/569) and DK3WG (569/559). Since the end of Oct, I have added a W1GHZ scalar ring to my square septum horn feed. CS/G noise dropped by about 1 dB, giving proof of a reduction in side and back lobes. Sun noise increased by about 1.25 dB. According to Paul these improvements are about what I should expect from the change. I'm very satisfied with the results. [The ring has a diameter of 2 lambda, a depth of 0.375 lambda, and is positioned about 0.175 lambda behind the lip of the horn. It was built from one piece of aluminum with fingerstock making contact with the

square feeder, so that I slide and remove it in a few minutes to make comparative measurements. Max's dish f/d is 0.39].

XE1XA's rectangular 1296 septum horn feed with added scalar ring – see details above

ZS1LS: Allan allan@rfdesign.co.za is now on 1296 -- I come from a 2 m EME background, and have been collecting parts for 23 cm EME for a number of years. It has now finally come together. I recently obtained a small 2 m dish and was able to install it while my XYL was on vacation. I need to get her and the neighbors used to it.
My current setup is this dish (0.4 f/d) with OK1DFC septum feed, Pro.Sis.Tel Az/El rotator, Kuhne 100 W PA (~ 80 W at feed), G4DDK LNA with isolation relay and video camera for alignment. I was surprised to easily recognize the ONOEME beacon at first attempt. My first QSO was on 21 Nov with ES5PC (17DB) using JT65C followed by I1NDP, DC9UP and PA3CQE. During the next QSO my PA arced over internally. In my excitement I forgot that I needed to pay more attention to the cooling of the amplifier, but I managed to make some emergency repairs on the Friday before the contest and dragged 95 W out of it for the EME weekend. I worked YL2GD, HB9Q, OK1KIR, SP5GDM, LZ1DX, PA3FXB, NC1I, K2UYH, DF3RU, OK1KIR, OK2Dl and RA3AUB all on JT65C. I could have worked more, but was not able to be active for both moon passes. Some stations are definitely strong enough for CW. Now I need to do a proper repair to the PA as well as start looking at Sun noise to optimize the system. At this point the setup is performing beyond my expectations. I was anticipating RX signals to be much weaker. I look forward to working many more stations on 23 cm.

K2UYH: I alkatz@tcnj.edu had another fun weekend during the final part of the EME contest. I was joined by NE2U for part of the first pass and W2HRO for most of the second pass. Paul is a local 2 m EME operator and this was his first experience with EME on a higher band. Although he had not used CW in years, he was amazed a how easy it was to pick out calls. We started (28 Nov) on 1296 and worked at 0242 S59DCD (569/579) CW, 0248 DL0SHF (589/569) CW, 255 I5YDI (13DB/10DB) JT65C, 0302 LA9NEA (599/579) CW, 0323 YL2GD (12DB/O) JT65C and 0333 SM3AKW (569/569) CW, then switched to 432 at 0414 WA2FGK (O/O) CW, 0452 WA6PY (559/O) CW and 0510 G3LTF (559/559) CW, then back on 1296 at 0535 OE5JFL (589/589) CW, 0548 WA6PY (569/579) CW, 0552 9A5AA (559/569) CW, 0557 LZ2US (579/569) CW, 0610 VE6TA (569/579) CW, 0615 W4AF (569/569) CW, 0635 VE4SA (13DB/8DB) JT65C, 0646 IK3COJ (559/569) CW, 0743 KN0WS (O/16DB) JT65C, 0753 NC1I (2DB/6DB) JT65C and 0808 OK1KIR (6DB/4DB) JT65C, back on 432 at 0856 NC1I (9DB/O) JT65B, then I took a short break and came back on 1296 at 1127 JA6AHB (7DB/O) JT65C and 1149 VE3KRP (7DB/10DB) JT65C, then switched to 432 again at 1222 VK3UM (569/569) CW, and finally on 1296 at 1352 VK4CDI (6DB/13DB) JT65 at moonset. The next day (29 Nov) we started on 1296 at 0240 YO2LEL (16DB/13DB) JT65C for mixed initial #523*, 0300 SM7SJR (0/14DB) JT65C, 0307 ZS1LS (16DB/23DB) JT65C #524*, 0320 EA8DBA (O/11DB) JT65C, 0350 EA1RJ (13DB/20DB) JT65C, 0415 SP2HMR (559/559) CW for initial #366 and #525*, 0423 IK1MTZ (559/559) CW and 0441 YL3AEV (12DB/8DB) #526*, on 432 at 0549 SM7GVF (19DB/O) JT65B, 0551 OK1TEH (26DB/O) JT65B, 0610 DL8DAU (17DB/O) JT65B and 0636 UX0FF (12DB/O) JT65B. At this point the 432 VSWR went crazy; an element actually had broken off the dual dipole feed. We could not find it. It took us about an hour to figure out what had happened in the dark and fix it. We were back in operation, still on 432, to work 0900 F6HLC (559/549) CW initial #736 and mixed initial #904* and 0914 EB5EEO (16DB/O) JT65B, then switched to 1296 at 0931 KL6M (569/569) CW, back on 432 at 1031 W1PV (15DB/O) JT65B and 1301 JH7PAV (18DB/25DB) JT65B #905*, and finally on 1296 at 1320 BD4SY (21DB/9DB) JT65C #527* and DXCC 108*. This last QSO was a very nice surprise ending for the contest. We had a overall score on 432 of 42x27 and on 1296 91x62, very slightly better than last year (40x28 and 91x43) when we were using the K1JT call. Before the contest, I QSO'd on 8 Nov on 23 cm at 1306 G4BAO (15DB/12DB) JT65C #519* and 1325 W4AF (579/559) CW, on 21 Nov on 70 cm at 0223 N0IRS (21DB/O) JT65B and on 1296 0310 K6ICF (22DB/22DB) #520* and Don's first EME QSO, 2250 G4BAO (559/549) CW #364, 2305 PA2DW (559/559) CW, 2318 F6ETI (559/589) CW #365 #521*, 2334 N4PZ (569/579) CW and 2345 OE9GLV (13DB/9DB) JT65C #522, on 22 Nov on 432 partial 2138 FH/DL1RPL (24DB/-) JT65B – they lost moon, but came on 25 Nov at 2258 FH/DL1RPL (23DB/23DB) JT65B #903* and DXCC 125* and 2355 G6HKS (25DB/17DB) JT65B. After the contest I was on 5760 on 1 Dec to work at 0155 OZ1LRP (559/539) CW for initial #39 and DXCC 20. I have many projects in process for 2016. I am finally remounting my solid dish for use on 6, 3 and the higher cm bands. The mount, which has been dormant for more than 10 years, needs to be totally rebuilt. I removed the fine mesh from my big dish. It just did not provide the improvement I expected on 6 and 3 cm. I will still use the dish on these bands until I get the solid dish re-mounted and in operation. I am also working on increasing my power on 13 cm up. I want to get a lighter PA for 3 cm to make it easier to switch feeds. I plan to be QRV for the SSB contests, but will miss the the DUBUS 432 CW Contest as I need to be away on business that weekend. Possibly I can get someone to operate my station while I am gone. I will try to be on to give out some QSO's during the ARRL VHF Contest.

NET/REFLECTOR NEWS: **DK7LJ** reports the 10 GHz beacon was off the air for repair of a damaged AZ drive motor, but is now back in operation. **DK1KW** in JN58re is now QRV on 70 cm with a single 12 el yagi and 250 W. **VK3UM** was on 23 and 70 cm only on Saturday of the ARRL contest. **K3GNC** is active on 70 cm with 2 x 18 el yagis and 250 W. Jerome has also made his first 23 cm EME QSO with UA3PTW and later HB9Q on the horizon. **E77T** is on 432 EME from Bosnia Herzegovina with a 23 el yagis and 100 W. **IZ5TEP** in JN53 is very new to 70 cm EME and has a 20 el yagi and 200 W. **FR5DN**, Reunion Island is interested in 1296. He has a 3.55 m (0.36 f/d) TVRO dish on the ground and is looking for comments on how best to illuminate it. Contact Phil at fr5dn@izi.re. **RA9LR** is now QRV on 70 cm EME from Asiatic Russia. **JA6XED** was active in the last leg of the ARRL contest and worked 11 stations on 1296 CW. **MX0CNS** is on 70 cm EME with an array of 4 x 12 hybrid yagis and has added a small brick PA. Tom is looking skeds on HB9Q. **OK2AQ** is QRV on 432 with an 8 wl yagi and 50 W. **RA3AJT** reports copying the ON0EME beacon with a single 50 el yagi and LNA. Alexander could not copy the CW ID. **SM7GEP** was QRV on 23 cm in the contest with a 2 m dish and linear pol. **W2HRO** is testing EME on 432 with a single 40 el CP yagi and 50 W at the feed. (He can run linear too). **OE9GLV** has a 3 m dish and 150 W on 1296 EME. **DD0NM** is on 70 cm with a single 26 el yagis and 70 W.

FOR SALE: **OH2DG** has for sale an IONICA 3.4 GHz SSPA with 5 mW in for 15 W out. It requires -9 V at 60 mA continuous and 13.6 V at 6 A for TX operation. He also has a TWTA for 6 cm, type TH3671 tested. If interested contact Eino at e-mail metsamakieino@gmail.com.

EME 25 YEARS AGO BY PETE, G3LTF: From the 432 and Above News Dec 1990. Reports of the sucessful CU8EME expedition by F6HKA. A record 48 stations reported to the NL after the high activity of the contest weekend. In the contest SM4IVE was top on 70 cm with 141x40, even though he had to run "QRP" for a while, OE5JFL came top on 23 cm with 33x20. Jurgen, Y22ME (aka DK3WG) reported on a new 16 x 27 el array. WB5LUA announced the first 13 cm activity weekend for 30 Dec (!) with 11 stations listed in skeds.
EME 35 YEARS AGO BY PETE, G3LTF: From the 432 EME News Dec 1980. SK2GJ was active with a 32 m dish on 23 cm, sensibly working split frequency. The Arecibo dish was active for 45 minute in a break in their schedule and worked 25 stations on 70 cm. F5SE got married and reported that the French ban on 1296 operation would soon be lifted. There were 28 stations reporting to the NL and OZ9CR listed 22 stations that had been supplied with 6 tube ring amplifiers. (3 of the calls are still

active including DL9KR!) Charlie, G3WDG, listed the equation for calculating Doppler shift. There were nearly 90 skeds listed for 70 cm and 20 for 23 cm.

FINAL: This month has was another busy one and thus this NL is a few days later than I had planned. I have more material, but it will have to wait until next time. I have included a new feature by G3LTF on EME 25 and 35 years ago.

I have included DL7APV's 2016 MOON Calendar with the DUBUS, ARRL and ARI EME Contest weekends, as well as F5SE's very helpful 2016 Moon Charts.

EME2016 in Venice on 19-21 Aug 2016 is now 8 months away! The web site is still under construction but gathering a list of those planning to attend- see http://www.eme2016.org/. It is time for you to start planning if you have not done so already, Have you decided what you can present? You do not want to miss this one!

In case you have not seen them already, the 2015 DUBUS/REF EME Contest results can be found at www.dubus.org/eme.htm. The dates for the 2016 contest are in DL7APV's Moon Calandar.

I could fill pages with comments on the new ARRL Contest rules. As I wrote last month, the change came as a complete surprise. I know many have indicated they will not submit logs this year because of the. Here are some thought from G3LTF: He writes the contest rules should allow points for contacting the same station on CW and JT. But I fear that if rule 6.3 stays as it is, then that will mean even more logger use as people co-ordinate the two QSOs, whereas what we need are more CQs. Remember how after years of encouragement, we eventually got small stations to call CQ rather than just work the biggies and the improvement in QSOs that resulted from that? The new 6.3 is just wiping out all that effort.

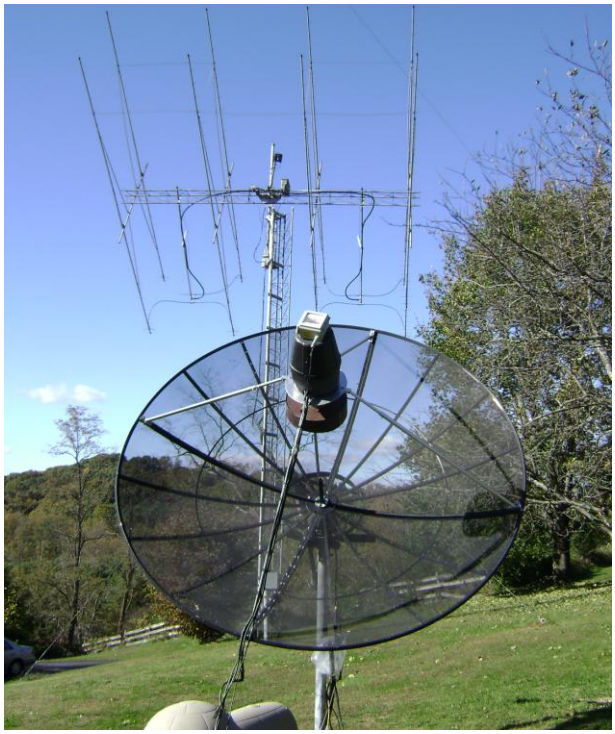
K1DS (Rick) asks that you send him interesting pictures of your operation in the ARRL EME Contest so that he can try to incorporate them into the QST article he will be writing on the contest results. He needs high resolution pictures. Comments and reports are very welcome too. He will also review your reports in the EME NL. Rick notes that the ARRL accepts (and prefers) Cabrillo logs for the EME contest. From their web site: Contest results should be submitted in Cabrillo file format. Send to: EMEContest@arrl.org. He believes summary sheets can also be sent electronically in notepad format to the same address.

VK3UM suggests you check his website for the latest updates as he have made cosmetic color changes to his software commensurate with Windows 7 and 10. Doug says beware of Windows 10 as he has found many common programs do not run on it at present, and winding back from 10 to 7 is not as you would hope.

The Ocean – Monmouth Amateur Radio Club is Celebrating the 70 Anniversary of Project Diana: It was on 10 Jan 1946 that the First successful Radar Echo Location of the Moon (also referred to as EME or Earth – Moon - Earth) took place. And it is widely regarded as the first shot fired in what was to become known as the Space Race. They plan to have their Club Facility open for visitors and will be on the HF bands. As it stands now, there is a very good chance that they will also be doing an EME transmission on Sunday the 10th. They are now in the process of installing the needed equipment in the TLM-18 Space Sentry Antenna [60' dish], which is located at their facility. [See N2MO HISTORIC OPEN HOUSE in Jan 2015 NL]. They will be posting more information on QRC.com and Eham.com as we get closer to the actual date.
Correction: The Stanford club call is W6YX and their reports are by AD6FP; both were incorrect in the last NL.

It is now 44 years of NLs! I am always looking for suggestions on how the NL can be improved, and for volunteers to help with the editing/material. TNX to W2WD and W6SZ for their terrific help; it is gratefully acknowledged! From all who have contributed to this NL: Our wishes for the very best health, happiness, prosperity and lots of fun in 2016 – and off the Moon! 73, Al – K2UYH (& Sal)

PS: I will be looking for your echoes in the SSB contests.



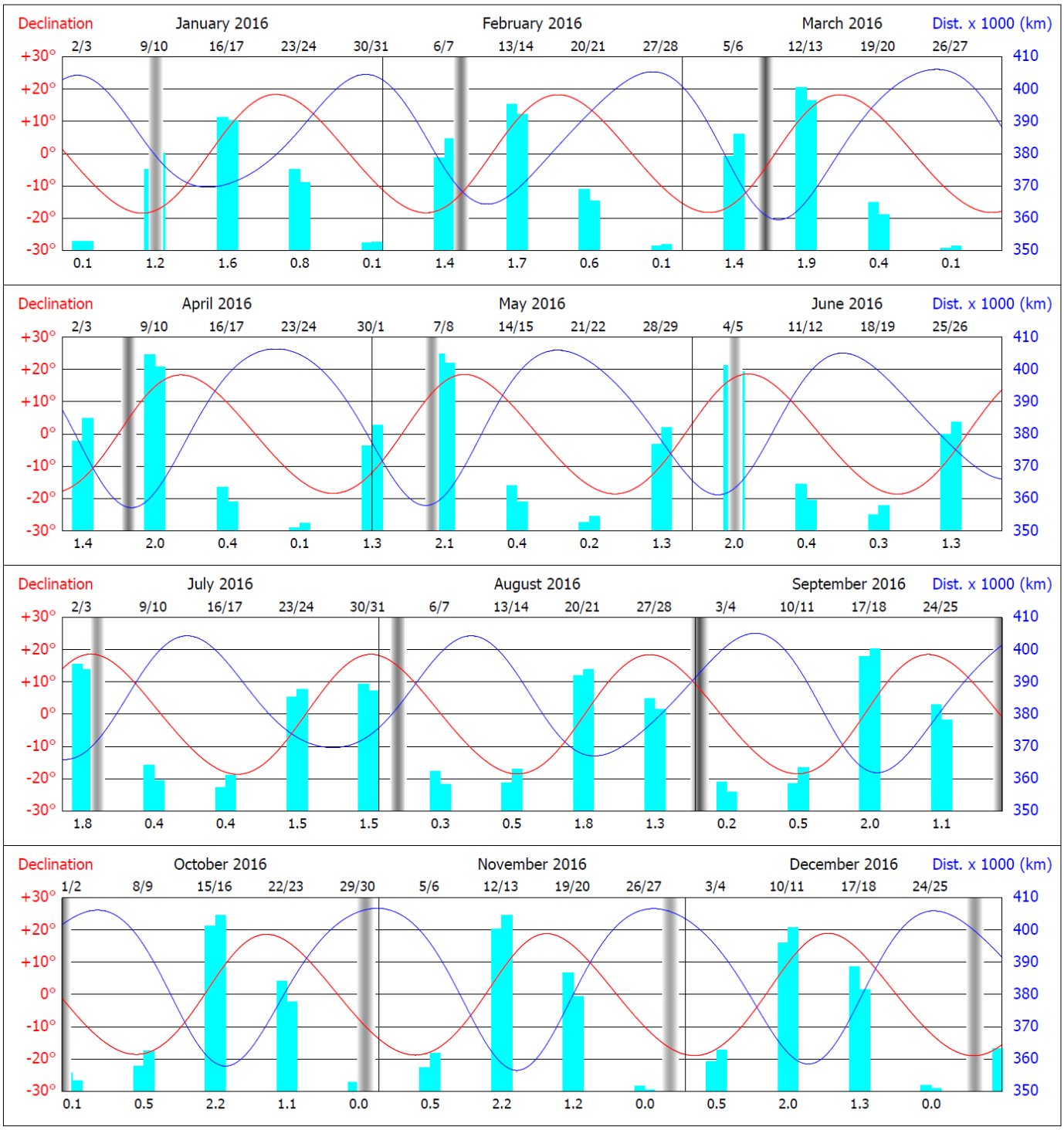
K4EME's 432 array and 1296 dish

F6ETI toasts VK3UM for his FB software

Lunar Weekend Calendar 2016 by DL7APV

Sat/ Sun	Dec	Loss	Sun Offset	Temp 432	lib	contest dates & meetings	Comm.
Jan 02/03	-6,6	-2,2	82	30	-		Day (PM)
Jan 09/10	-18,2	-1,3	0	70	++		Sun noise
Jan 16/17	+6,8	0,7	-90	30	-	SSB Fun contest 432/1296	Day (AM)
Jan 23/24	+15,2	-1,2	179	20	++	DUBUS 144/432 CW	Night
Jan 30 /31	-8,7	-2,1	102	30	-	ARRL VHF/UHF Tropo Contest	Day (PM)
Feb 06/07	-17,2	-1,1	33	40	+		Day (PM)
Feb 13/14	+9,6	-0,6	-58	30	-	DUBUS 13 cm CW	Day (AM)
Feb 20/21	+13,4	-1,5	-148	15	+		Night
Feb 27 /28	-10,9	-2,1	137	30	-		Night
Mar 05/06	-16,0	-1,0	38	30	+	Eu VHF/UHF Tropo	Day (PM)
Mar 12/13	+11,9	-0,5	-55	30	-	DUBUS 23 cm CW	Day (AM)
Mar 19/20	+11,3	-1,7	-144	20	+/-		Night
Mar 26/27	-13,0	-2,1	141	35	-	Summertime starts in eu	Night
Apr 02/03	-14,5	-1,0	58	30	+		Day (PM)
Apr 09/10	+13,8	-0,4	-36	30	-	ARI EME Contest - Spring Leg - part 1	Day (AM)
Apr 16/17	+8,9	-1,8	-126	20	-	DUBUS 9 cm CW	Night
Apr 23/24	-15,1	-2,1	160	40	-		Night
May 00 /01	-12,7	-1,0	76	30	+		Day (PM)
May 07/08	+15,3	-0,3	-17	35	-	EU VHF/UHF Tropo & DUBUS 3 cm CW	Day (AM)
May 14/15	+6,5	-1,9	-107	20	-		Day (AM)
May 21/22	-16,8	-2,0	178	40	-	Dayton Hamvention	Night
May 28 /29	-10,3	-1,0	94	25	+/-		Day (PM)
June 04/05	+16,5	-0,4	2	40	-	EU 23 & up Tropo	Sun noise
June 11/12	+4,2	-1,9	-88	20	-	ARRL VHF Tropo	Day (AM)
June 18/19	-18,0	-1,9	-163	50	-		Night
June 25/26	-7,6	-0,9	111	25	+/-	Ham Radio (DL)	Day (PM)
July 02/03	+17,3	-0,6	20	45	-	DUBUS 6 cm CW & EU VHF/UHF Tropo	Day (PM)
July 09/10	+1,9	-2,0	-68	20	-		Day (AM)
July 16/17	-18,8	-1,8	-144	100	-	CQ WW VHF	Night
July 23/24	-4,5	-0,6	129	25	-		Day (PM)
July 30/31	+17,7	-0,8	37	45	-		Day (PM)
Aug 06/07	-0,4	-2,1	-48	30	-	ARRL UHF Tropo & ES-Tropo ??	Day (AM)
Aug 13/14	-19,1	-1,8	-125	180	-		Night
Aug 20/21	-1,4	-0,4	146	25	-	**EME conference Venice** & LY-Tropo	Night
Aug 27/28	+17,5	-1,0	54	35	-		Day (PM)
Sept 03/04	-3,0	-2,2	-28	30	-	EU VHF Tropo	
Sept 10/11	-19,2	-1,8	-106	180	-	ARRL VHF Tropo & Weinheim (DL)	Day (AM)
Sept 17/18	+1,6	-0,1	165	25	-		Night
Sept 24/25	+16,9	-1,1	71	25	+/-	**ARRL 2.3 GHz and up** (ARI Cont. Part 2)	Day (PM)
Oct 01/02	-5,6	-2,3	-9	30	-	Eu UHF Tropo	Sun close
Oct 08/09	-19,0	-1,9	-87	100	-		Day (AM)
Oct 15/16	+4,3	+0,1	-175	25	-		Night
Oct 22/23	+15,7	-1,1	88	20	+/-	**ARRL I 50-1296 MHz**	Day (PM)
Oct 30/31	-8,2	-2,4	10	30	-	Wintertime starts in eu	Sun close
Nov 05/06	-18,4	-2,0	-68	50	-	Eu VHF CW Tropo	Day (AM)
Nov 12/13	+6,7	+0,1	-155	30	-		Night
Nov 19/20	+14,4	-1,0	106	15	+/-	**ARRL II 50-1296 MHz**	Day (PM)
Nov 26/27	-10,7	-2,4	29	35	-		Day (PM)
Dec 03/04	-17,4	-2,0	-51	35	-		Day (AM)
Dec 10/11	+9,0	-0,1	-136	30	-		Night
Dec 17/18	+12,9	-0,8	125	20	+/-		Day (PM)
Dec 24/25	-12,8	-2,4	49	35	-		Day (PM)

Moon Ephemeris Overview for the Year 2016, by Franck F5SE



- Vertical blue bars show the overall "quality" of each week-end for EME. The higher the bar, the "better" the week-end.
- Figures below bars show expected signal improvement, in dB, referred to apogee path loss, for Sundays at 00:00 UTC.
- Full scale span: 2.4 dB. Scale step: 0.4 dB per division. 0 dB level = Band path loss figure at apogee, as quoted below:
- 144 MHz: 252.8 dB, 432 MHz: 262.3 dB, 1296 MHz: 271.8 dB, 2.3 GHz: 276.9 dB, 3.5 GHz: 280.4 dB, 5.7 GHz: 284.8 dB,
- 10.4 GHz: 289.9 dB, 24 GHz: 297.2 dB, 47 GHz: 303.0 dB. Data computed for an apogee around 406500 km.
- To get the week-end path loss on a given band, subtract to band apogee figure the value printed under the week-end bar.
- The shading pattern below shows how close the Sun is to the Moon, at any time - the darker, the closer.
- Shading is only visible around New Moon date, appearing as a vertical gray bar.