## 432 AND ABOVE EME NEWS SEPTEMBER 2007 VOL 35 #9

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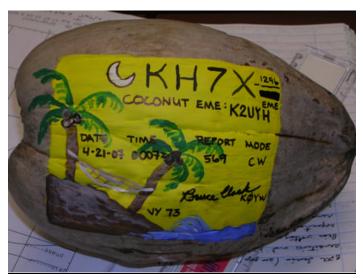
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CONDITIONS: Aug was far from quiet. Besides the D44TD dxpedition on 70 cm, there was a surprise on 1296. K0ALL with the help of VE4MA put ND on 1296 EME. They plan to be on again in Sept as discussed in their report. The big news, however, is WA5WCP plan to put WY, UT and ID on 1296 EME – see below. Sept will certainly be a very busy month! There are 2 activity weekends (AWs on 1/2 Sept and 29/30 Sept) and the ARRL's Microwave EME Contest on 29/30 Sept. The 70 cm CW Activity Time Periods (ATP) will be on 1 Sept 2100 to 2300 and 2 Sept 0600 to 0800.

1296 DXPEDITION TO WYOMING, IDAHO AND UTAH: WA5WCP is making plans to go out west on 23 and 13 cm (time permitting) EME. Paul will be operational in Wyoming, Idaho and Utah. With Paul's very busy work schedule, which often takes him out of town a week at a time on short notice plus the fact that he has been trying to coordinate this "vacation" effort with family activities, he has arrived at the following timeline as to how this event will unfold: 26/28 Aug - Travel, 29/30 Aug - Operation in WY at DM51, 30/31 Aug Travel, 1/2 Sept - Operation in UT at DN30to [?], 3 Sept - Travel, 4/5 Sept - Operation in at location in ID at DN43bq, and 6 Sept - Leave for home. All dates are Zulu. Operation will start when moon is at about 10 degs elevation with random activity for the first 2 hours then skeds. The travel time between Utah and Idaho may only be 5 hours but the trip from Idaho to Wyoming could be significantly longer, so this will affect the final schedule. For those that still need or think they need schedules they can be worked in later on the first day and on the second day. As time is limited, 2304 will become a few hours of random activity probably on the second day. Random operating frequency will be 1296.020 and skeds on .040. Paul will have daily e-mail and telephone contact so schedules and re-skeds can be done daily. Paul will also have 20 m and 75 m capability. [K1RQG is coordinating skeds. E-mail Joe k1rgg@aol.com with your requests].



KH7Z – Bruce, K0YW knows how to QSL in style!

**D44TD:** Frank DL8YHRFRANK@aol.com reports on the 70 cm part of his dxpedition to Cape Verde Island (HK86) — With the help of Norbert, DL8LAQ, we did very well on 2 m EME (> 200 QSOs) and also set a new 2 m tropo world record (IARU 1) of more than 4000 km with G4LOH. On 432 we did copy very loud K2UYH, OZ4MM, DL9KR, HB9Q, DK3WG and PA3CSG, but worked just DL9KR on CW, and HB9Q and PA3CSG on JT65B. We had around 150 W at the dipoles of 2 x 9 wl DK7ZB yagis. I really think the main problem was very fast Faraday and one way conditions.

**DK3WG:** Jurgen <u>dk3wg@online.de</u> remains active on both 2 m and 70 cm EME – On 432 during July/Aug he QSO'd on JT65B EB5EEO, OH4LA and VK4CDI to reach initial #427\*. He also had a near miss on CW with UT5JCW.

G3LTF: Peter g3ltf@btinternet.com writes on his Aug operation -- Not too much to report this month; I seem to have developed the knack of missing the activity weekends. Last month I forgot to mention my QSO on 3400 on 8 July with WW2R for initial #8. My 9 cm initial total is now up to #10. On 432 MHz I made two initials, UT5JCW for #402 on 4 Aug - Serg has a fine signal from 4 x 11 el yagis, and on 5 Aug with SV3AAF #403 with excellent conditions of low Faraday and low libration. On 1296 on 4 Aug I worked G4CCH, SM5LE, IW2FZR, SP6JLW and AL7RT. I heard RD3DA calling CQ (559), but was unable to get a reply from him, I don't understand why. On 9 Aug I worked AL7RT and on the 13th VK4AFL. His new dish mount means his window into Europe is significantly longer, but signals were low on this QSO as the sun was close to the moon. On 2320 on 4 Aug I had a nice QSO with PA0BAT for initial #46. On 7 Aug I ran a test on 3456 with WB2BYP. I was getting good echoes, but John couldn't hear me. I shall miss the 1296 WA5WCP's NW states dxpedition. Some of those states I still need for 432 WAS! After my success on 9 cm with my HB dish, I am building a similar 6 cm system with the idea of illuminating the central 4 m (0.5 f/d).

G4RGK: Dave g4rgk@btinternet.com reports on his Aug activity. I was active during the DUBUS 432 ATP, but only found K2UYH and SM2CEW QRV. On 23 cm I QSO'd using digital mode SM5LE, G4CCH, SM5LE, PA3DZL and GW3XYW. The only station worked on 23 cm CW was SM2CEW. I still have serious tree blockage in the NA window.

**I5YDI:** Luigi patriota L@libero.it is a brand new station on 70 cm EME. He just completed his antennas and has not yet even tried a sked. He has 4 x 22 el K1FO HB yagis and 3CX800 PA and MGF 1302 preamp and is interested in proving his new system. He is available for 70 cm CW skeds.



KOALL (Ron - R) & VE4MA (Barry - L) in front of 12' dish

**K0ALL:** Ron assisted by Barry, VE4MA ve4ma@shaw.ca put ND on 1296 EME in Aug — We have been working for several months to equip a 23 cm EME station at Ron K0ALL's QTH in North Dakota (EN16lm). A short notice business trip to ND provided an opportunity to activate K0ALL "early". Unfortunately the 2 x 7289 OZ9CR PA was not ready. I shipped ahead the circular waveguide Super VE4MA feed to K0ALL and it arrived on Tuesday 31 July. Ron has acquired an IC1271 and already had an SSB transverter, but none of this had been integrated into a station. Late in the afternoon of 2 Aug I packed my portable 23 cm station and a single 7289 amplifier and power supply for ND. Early in the afternoon on 3 Aug we started assembling the station around a mobile 12' trailer mounted dish. The dish was originally used for 4 GHz satellite

video conferencing. It is a 0.4 f/D dish that is split in 2 pieces and which folds together like a clam shell for transport. The elevation is adjusted by a winch cable mechanism. The azimuth at low to medium elevation is done by rotation about a centre support pipe and for major changes by moving the trailer. When we set up late on 3 Aug, we missed being able to check sun noise or to align a bore sight tube. On Saturday 4 Aug we were only briefly able to see the moon and managed to QSO W5LUA (O/M) at 1424. We had no elevation indicators and later acquired an inclinometer and installed a bore site tube and were able to check sun noise (~ 12-13 dB on the S meter). I had forgotten my moon noise meter at home along with my digital inclinometer. We had trouble with the mechanical stability of the mounting of the feedhorn, which resulted in the feedhorn not retaining bore site with changing angles, but was corrected with some tightening and readjustment of the feedborn position. On the morning of 5 Aug we still had heavy low clouds and drizzle. There was absolutely no sign of the moon optically. We reused the knowledge (from my 1982 432 EME expedition to KOALL) that the building and streets are oriented E/W and N/S, a digital protractor and extensive use of beaconing by W5LUA, K5JL and K0YW to determine the azimuth setting. The feedback on the pointing was not good as we had to listen to signals across the parking lot. The log of stations worked later on 5 Aug was at 1232 K5JL (579/559), 1238 K2UYH (569/O), 1310 K0YW (569/559), 1341 VE6TA (559/O), 1500 W5LUA (559/O) and 1532 WA6PY (559/O). We also heard G4CCH FB just prior to his moonset. Sorry to Europe and others. Next month we should be active on the 8 Sept weekend, and hopefully with a little more power than the 100 W. [K1RQG is accepting sked requests for this weekend. He notes that they are limited Elevations > 20 degs].

**K2DH:** Dave <u>k2dh@frontiernet.net</u> should be QRV on 23 cm with his new dish by the time you read this. It is a 5 m solid dish, 0.4 f/d and is tracking under computer control using F1EHN's software and EA4TX's "ARSWIN" interface hardware/software. Dave is disappointed that he unfortunately will be on vacation during WA5WCP's western trip.



K2DH's new 5 m dish

KSJL: Jay k5jl@hughes.net worked on 23 cm EME during the Aug AW ZS6AXT, SP6JLW, SM5LE, N2UO and W7UPF among others. During the post AW he found activity low but did snag ZS6AXT and OZ6OL despite the close sun, and on 13 Aug gave VE3KRP his first 1296 EME contact. (Jay notes that that W0EYE and WA7DKS went to Wyoming in the 80's on 1296).

**KC4/W1MRQ:** Ernie w1mrq@rcn.com is at McMurdo Station, Antarctica and in the past has been active on 2 m EME, but now also has some capability on 432 – I easily worked on 11 Aug HB9Q on 432.077 JT65B with good signals between us. I was running 50 W from my FT-847 to 2 x 15 el yagis. I have accepted a position for 1 year on Ascension Island (ZD8 - II22sb) as a generator mechanic and plan to be on EME from there after I get settled in.

OK1DFC: Zdenek's ok1dfc@seznam.cz dish repairs are complete and his big signal is again echoing from the moon -- I was QRV during weekend of 4/5 Aug on 432. I found very poor activity. I was calling CQ for more than 2 hours and worked only SV1BTR (569/559), SP6JLW (559/559), UT5JCW (539/559) and UA3PTW (569/559). On Sunday morning I heard a CW QSO between D44TD and Jan DL9KR. Also heard were HB9Q, OZ4MM and K2UYH. But because I had to fly to NC on business, there was no time to try to work D44. I gave one short call, but they did not respond. I am interested in skeds. My dish with its new AZ and EL system is working well.

**OK3RM:** Zdenek z.hofbauer@centrum.cz has just about completed the rebuilding of his 432 array after windstorm damage -- I still need to repair my preamplifier (also damaged by the storm) and to complete the installation of a new GS35B 1 kW power amplifier. I expect to be QRV in Sept and will be looking for skeds.

ON4CO: Jan jan.jacops@skynet.be is setting up for 10 GHz EME with a trailer mounted dish - My first trailer is near completion - (yes, I am building more then one). On the second weekend of Sept, I will be participating in an open house weekend at our local observatory. I plan to demonstrate the tracking of celestial objects and amateur satellite operation using AO51. By this time I also should have full RX capability on 10 GHz EME. My dish, which is mounted on trailer #1 is a Prodelin 1.8 m f/d O.8. For TX I will use a YH1194 TWTA with about 20/22 W of power. I've build a 0.85 dB NF preamp - still need to measure. I presently lack a suitable T/R switching system, but hopefully only temporarily. The switching system is basically the only thing preventing me from trying for a 2-way. I am still not clear on whether to use linear or circular polarization on 10 GHz. I would appreciate advise on the matter. [Circular seems to be the preferred, but there appears to be some dissention from this view]. After 3 cm, my next band will be 13 cm with a bigger dish of course. [Jan asks if anyone has a correct e-mail address for WA7CJO. Apparently Jim address in directory does not work].

SM2CEW: Peter sm2cew@telia.com reports on his Aug activity -- I had hoped to work D44 on 432 CW, but when listening to the sked between DL9KR and D44TD I heard nothing. After that people started calling on doodle [JT], so I gave up. Congrats to Jan DL9KR who is now very close to achieving DXCC on 432 CW EME, an outstanding achievement! Activity during the Aug 432 ATP (western window) was not too good, but I worked DL7APV, F3VS, K2UYH and G4RGK. As usual the polarization was not aligned and echoes were down from normal at my QTH. On 1296 I've had some problems with my water cooling for my 7289 driver amp, and sure enough on 5 Aug after working F2TU, G4CCH and SP6JLW, the pump gave up completely. As I had no replacement at hand, I had to stop operating. I was expecting to hear signals from K0ALL, but nothing was heard during the period I was on the band. Later after fitting a new pump, on 11 Aug I was again QRV and worked SP6JLW, G4RGK, ZS6AXT, SM5LE, LA9NEA and HB9BBD - all on CW. I have changed the way I attach feeds to my dish to enable me to fit a 13 cm horn and SSPA assembly. I have added an actuator so that I can easily adjust the feed position. Early tests to find the best position for my 23 cm W2IMU feedhorn have been rather conclusive and repeatable, but I want to do some more testing before I report the results. I will also include similar tests of my new 13 cm feedhorn. More pictures of the feed mount with the actuator can be found http://www.sm2cew.com/pictures /dish feed/dish feed.html. The pictures were taken with the dish in the parked position.



SM2CEW's adjustable feed -see actuator at right.

SM5LE: Sven SM5LE@telia.com reports on his recent 1296 moon activity -- I have been busy working with choke ring for my feed and a new cavity LNA. I have been improving my measuring techniques and learning to know Mr. Kelvin, etc. As a result of my efforts I have achieved some improvements; a "part of dB here and a part of dB there". I am now close to the theoretical sun noise for 2.2 m dish with 8 dB. Also high QRV time gives results! I am now up to initial #73 and counting... I am now convinced that I can work CW with 3 m dishes as it has now happened several times. Much depends on my improved CW skill here. I have not been able to have a SSB QSO yet. My SSPA does not like SSB. Its non-linearity is nearly "on/off". Maybe some self oscillation too that I am looking into. I have just bought a 1296 converter for my spare RX, So; for the first time I am able to hear my own transmitted signal! That's the dilemma of transceivers; one can not listen to the transmitted signal. That's a BIG disadvantage of modern expensive transceivers. I am having a great time on 23 cm EME; all EME people are so kind and helpful. Keep the soldering iron hot and make new and repeated QSOs... That will keep you happy.

SV3AAF: Petros sv3aaf@yahoo.com was QRV during the ATP and sends news of his Aug activity -- Not much activity to report for the last 70 cm ATP event. I worked SV1BTR (439/429) and K2UYH (O/O). UA3PTW and DL7APV were also heard calling CQ. At my location the moon was under horizon during the first ATP slot and only usable for about 50 min during the second slot. I worked K2UYH right at my moonset. The moon was already touching a nearby hill.

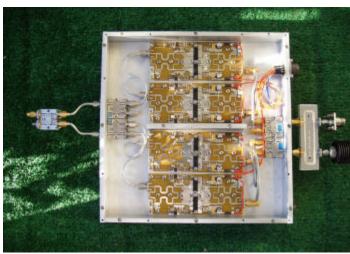
<u>VE1ALQ:</u> Darrell <u>ve1alq@nbnet.nb.ca</u> is just about back in the EME business - All is coming along well here now that the WX appears to have settled down. My new dish is mounted and EL control system in place. I am changing my Scalar Ring to the Super VE4MA on 23 cm. I should be QRV soon on 23, 13, 9, 6 and 3 cm EME – all with circular polarized feed.

<u>VE6TA:</u> Grant <u>ve6ta@telusplanet.net</u> was on 13 cm during the Aug AW. He heard W5LUA and PA0BAT. He worked F2TU on CW and SSB, and IW2FZR. Grant is also finishing up work on his 10 GHz EME system.

**VETTIL:** Scott sthed475@telus.net is a new station to 70 cm EME, but has experience on 2 m EME. Presently he has only a 16 el (~4 WL) yagi and 100 W with a preamp and elevation. In the near future he plans to expand to 4 x 14 el yagis and about 500 W. On 432 he has QSO'd only HB9Q and K2UYH using JT65B, and is available for skeds.

VK4AFL: Trevor tbenton@bigpond.net.au would like to see more activity during the VK/Asian window during the AWs — I called CQ on 1296 for about 2 hours over the Aug AW to both North America and Europe, but no stations were heard. I am gearing up for 13 cm. I have ordered a Kuhne Electronics xvtr and a WD5AGO preamp is on its way. I will be using an Ericsson SSPA and a round waveguide/septum feed on my existing 3.7 m dish. I expect to be operational within about 8 weeks.

W2DRZ: Tom w2drz@madbbs.com is working with Goran (AD6IW) goran@ad6iw.com on making available high power 1296 SSPAs to the EME community. The SSPA they are developing will be capable of > 300 W and using 2 Infineon devices. Two could be combined to double the power. The size of amp is 10" x 10" x 2.1" and is being tested with a 28 V, 26 A switching PSU. It has been tested with a 5 to 1 SWR without problems, but the transistors die when overdriven



AD6IW/W2DRZ 300 W 1296 PA

WA6PY: Paul pchomins@san.rr.com writes about his moon recent activity – I QSO'd on 5/6 Aug on 1296 SP6JLW, F2TU, ON5RR, K2UYH, K0ALL and SM5LE, and on 11 Aug on 10 GHz a short QSO with IQ4DF before a sked with I4BER. Goliardo was a very nice and easy QSO. Later I heard a SSB QSO between IQ4DF and I4BER. IQ4DF was very easy copy on SSB, while Goliardo was more difficult copy, but a QSO would have been possible.

WW2R: Dave <a href="ww2r eme@g4fre.com">ww2r eme@g4fre.com</a> concentrated on 9 and 13 cm EME in July/Aug — On 8 July I finally worked on 9 cm G3LTF for initial #1 with a 45 W PA. I was QRV for the 2nd 9 cm activity weekend. On 14 July I heard VK3NX, and on 15 July heard W5LUA (7 dBn) and VE4MA (8 dBn) on sked but they couldn't detect me. On sked with G4NNS we could detect each other on Spectran but not loud enough for QSO. I also CWNR N9JIM (5 dBn) at Jamesburg dish. Just as I thought I wasn't going to work anyone I worked LX1DB #2 on a CW sked just before he lost the moon. I took the feed off of the dish and tweaked it. It had reasonable circularity when measured at W5LUA's. I'm looking for more 9 cm skeds. I switched to 13 cm and on 4 Aug worked VK7MO for initial #14\* on JT65C (-19DB) on 2301.965. I also copied his CW signal even with the dish pointing through the garden fence, but he couldn't hear me. On 11 Aug I worked LX1DB for #15\* on a CW sked (559/559).

ZS6AXT: Ivo zs6axt@telkomsa.net was active during the Aug AW on 1296 -- On Saturday 11 Aug I worked 5 stations on 23 cm with good signals and on Sunday 4 more with K5JL worked twice. I am not sure what was causing it, but signals and my echoes were up and down; maybe the sun was too close to the moon. Occasionally my echoes were up to (579)! My measured sun noise was 16 dB, which is surprising with my slightly crippled receiving end. I hope to get some help and repair my 13 cm preamp for the Microwave EME Contest in Sept. If anybody wants to talk to me, I am now on Skype and Echolink.

K2UYH: I a.katz@ieee.org did not find his a great month for EME. I tried twice on 70 cm with D44TD without success. Frank could copy me FB, but I never detected him. I did work K0ALL in ND and several other stations on 1296. Back on 432, I also QSO'd VE7TIL in CN89lg on JT. Scott was using a single 16 el (4 WL) yagi and 100 W. Why I could work Scott and not D44TD, who was using 2 yagis and 200 W is frustrating, but I guess this is what makes EME fun - hi. My log was as follows: QSO'd on 4 Aug 4 on 1296 at 0840 DK3SE (15DB/18DB) on JT65C and later on 432 at 0950 DK3SE (449/O) for CW initial #697 as we had previously worked on JT and 1020 EB5EEO (22DB/29DB) on JT65B for mixed initial #737\*, on 5 Aug on 432 at 0645 nil D44TD on JT65B, 0715 UT5JCW (549/O) for CW #698 and #738\*, then on 1296 at 0750 partial SM5LE (449/?) – I stopped because of TX glitch and lost Sven, 0805 WA6PY (569/569), 0836 partial SV1OE (449/-) – disappeared, 0845 SP6JLW (559/559), 0854 ON5RR (559/569) - good to have Marc back on with FB signal, 0905 F2TU (56/55) on SSB, then back to 70 cm for the ATP at 0925 G4RGK (559/559), 0935 SM2CEW (559/559), 0957 SV3AAF (O/O) for CW #699 and #739\*, back to 1296 at 1225 G4CCH (569/569) and 1235 K0ALL (O/O) ND state for #267 and #267\*, on 6 Aug on 432 at 0630 nil D44TD again, and on 11 Aug on 23 cm at 1300 RD3DA (-11DB/O) on JT65C and (559/579) on CW for #268, and on 70 cm at 1330 VE7TIL (26DB/22DB) on JT65B #740\* and 1432 SP6JLW (559/569). My QSLing is embarrassing behind, but now have some card and should be caught by the time of the next NL.

NETNEWS BY G4RGK: VE3KRP made his first 23 cm EME contact with K5JL and is was listening on moon for more contacts, but nil heard thus far. His sun noise is still only a bit over 10 dB. K9SLQ reports that he has moved his web page to www.k9slq.com and has a new email address k9slq@sbcglobal.net. N2UO worked during the Aug AW on 1296 ZS6AXT, G4CCH, W7BBM and K5JL. K5SO is making good progress converting a TV translator for 1296 EME. Output is now at 940 W. Joe will be converting to DIN connectors. <u>UT5JCW</u> is looking for 70 cm EME CW skeds. He has 4 x 28 el M2 9 wl yagis with full elevation, GS35B 1 kW PA and a clear horizon. Contact Serge at ut5jcw@usa.com. SV1BTR feels he has made progress improving his system and is interested in 432 CW skeds with serious stations. Contact Jimmy jimmyv@hol.gr. KL6M only news for Aug is a partial with VK7MO on 13 cm. Mike heard Rx very well, Rex could not hear him. Rex has a 2.3 m and 100 W on 2300. DL9KR reports he is now at 96 for DXCC and initial #860 with D44TD QSO on 70 cm. **SM4IVE** reports little progress on his new dish. He is presently not QRV on 432. PA3CSG Has now received all cards for 70 cm WAS - congratulations to Geert. WD5AGO reports that he has increased his moon window by 5 degs giving him a much better shot to the JAs.

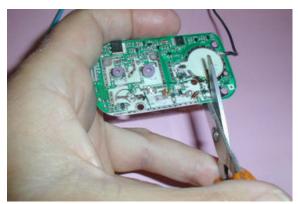
**FOR SALE: VE3AX** is moving to DN09 and must sell immediately his 28' Kennedy dish, which is in great shape except for slight mesh damage at one corner of one of the centre pieces (easy repair). He has mounting brackets 6" x 6" 1/2" steel for attaching to a backframe and all SS 3/4" hardware for the dish. Peter also has a huge azimuth gear drive - 2-1/4" output shaft to a 4:1 100 series chain drive, hydraulic elevation parts (cylinder/pump with limit switches and

relays/oil reservoir) and bearings. He has 2 1296 feeds available (W2IMU and VE4MA types) and a Rohn 84x tower section to mount it on. The dish is located 50 miles west of Buffalo NY near Cayuga ON. (There is no problem getting it back into the US). Peter is asking \$CDN4000 for everything. Contact him at tel 905-772-8938 or ve3ax@sympatico.ca. W1QC has to sell his EME station. The rig is a K2AH 4 tube cavity amp with DEMI transverters from 28 to 1296. The dish is 16' with a K2AH feedhorn and a WD5AGO preamp. The cavity PA needs new tubes and perhaps an adjustment to make it play at the 500 W. The dish also comes with a tripod, elevation jackscrew and azimuth rotator. Hardline is also included as is a Bird inline wattmeter and dummy load. Pictures can be seen at website www.mueller1.com Contact Wayne at wayne@mueller1.com or tel 603-505-5694. He needs to sell relatively quickly. **VE1ALQ** has available a 100:1 (approx. 110 lbs) very heavy duty gear box plus 2 HP 0 to 90 VDC motor to drive it along with the DART controller. Anyone interested please contact Darrell at velalq@nbnet.nb.ca. WD5AGO is producing low noise amplifiers for the EME community. On 23 cm he ~0.3 NF with 35 dB gain LNAs and on 13 cm ~0.5 NF with 30 dB gain LNAs available (after new anodized housing arrives) for \$US175. He also is making up a run of ten Silver plated 5.7 GHz CP Septum Feeds in round waveguide using N connectors (M on RX and F on TX) for \$150 - not including the scalar ring. Contact Tommy at wd5ago@hotmail.com. IØJXX is producing a 150 W 1296 SSPA, model 150MOD1296, using LDMOS PTF141501E Infineon transistors for 400 Euros plus shipping. See www.i0jxx.it. Contact Sandro at i0jxx@i0jxx.it or i0jxx@libero.it. N7AM's (Jack Riggs - SK) family is still looking for a good home for Jack's 30' aluminum mesh dish. Since originally posted last April there has been some interest, but no takers as yet. They have someone nearby who has offered to take it down for its salvage value (there is a lot of aluminum up there!) but would rather it went to a ham that could actually use it. If no one takes it soon it will have to go for scrap. It uses a prop-pitch motor for azimuth rotation and a hydraulic system for elevation. These components would be included with the antenna and mount but there is no tracking electronics/computer/software available with it. There is a set of pictures of it in the photo gallery at: <a href="http://www.kkn.net/~tree/gallery/n7am">http://www.kkn.net/~tree/gallery/n7am</a>. If you are interested, please contact Jack's son-in-law, Ben Pedersen at (360) 377-2259 to discuss and make arrangements. HB9BBD has for sale a professional Plisch Cavity in 19" rack with TH3x8. Pick-up only no shipping. Contact Dominique at dfaessler at bluewin.ch. VE3KRP is looking for a 10 GHz circulator and a 10 GHz isolator with SMA connectors at a cheap price. W9IIX is looking for 36V @ 3A and 12V @ 10A for his new for dish drive.

**TECHNICAL:** SM5LE sends the following ideas on how easily to make an LNA for 1296 EME - see Sven's report for the proof: Here is quick look at how I did my 1296 cavity LNA. The gain is 20 dB and the NF < 0.3 dB.



1) I brought an LNB at the nearest radio/TV shop, the LNB with the very best NF. The label on the box said NF 0.2 dB. The cost was about 20 EU.



2) I cut out the FET from the board.



3) I made a 3x3x4 cm cavity.



4) I soldered the cut out LNB to the cavity... And "hocus-pocus" a < 0.3 dB NF LNA was born. It performed better than FHX35LG and other FET LNAs I have tried. This maybe because there is a selected FET in the LNB. For more details see: http://web.telia.com/~u14901546/home\_page\_no\_3.htm

**FINAL:** Looking at the For Sale section, I cannot recall a time when there were so many opportunities to obtain big dishes complete with mounts and in some cases whole stations. I would hope that there would be a club or group out there interested in taking over N7AM's dish. It would truly be a sin for this antenna to go to waste.

- ? Those wanting QSLs for Michael, DL1YMK's recent dxpedition should get your cards preferably with SASEs to him within the next 4 weeks. After this period he will only QSL via the bureau.
- ? Besides all the other EME related events taking place in Sept, there is also the ARRL's Sept VHF Contest on 8/9 Sept. This contact attracts many large club stations and EME is a valid mode for contest QSOs. The moon will be close the sun, but have enough separation for EME. Expect stations on the moon looking for contest contacts. The exchange is the 4 character grid square (for example FN20).
- ? Tnx for all the reports, please keep them coming and the technical stuff too! I shall be looking for you off the moon during the 70 cm ATP, AWs and of course the Microwave EME Contest. 73, Al K2UYH.



D44TD 144/432 array - The 2 m and 70 cm yagis appear to have been mounted perpendicular, but on the same booms.