



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LI

October 2010

Number 10

PREZ

SEZ:

Welcome to October Fest season.

The weather has certainly offered up a mixed bag in the past few weeks. We have been blessed with the persistent and sometimes heavy rain during the week and blessed again with beautiful weekends for our Mid-Atlantic VHF Conference and HAMARAMA.

In checking the comments on the reflector about the conference; there is little to add to the efforts of K1DS, KB1JEY and W2PED for putting together a terrific conference. The facilities they selected were excellent, the catering service for meals and snacks was excellent and the program content and flow of the program were excellent. The inside vendor, test facilities and second program area worked well together. WA3GFZ did his usual superb job with the sound system. There were plenty of bits and pieces for the door prizes. K3JJZ certainly has a knack for getting folks off their wallets during the auctions.

There were lots of PACKRATS and some new faces to absorb all that knowledge. If you did not attend please resolve to join us for the next conference!

Mother Nature did not rain on our parade for HAMARAMA either. We had a good turnout of PACKRATS to keep the traffic flowing smoothly and we had a good turnout of vendors and buyers. I know some great gear changed hands during the day. Thanks to WA3DRC and KA3WXV for their efforts in organizing the day.

These two successful weekends helps reinforce what I said at the last meeting. PACKRATS are active and turn out to support the club be it the conference, HAMARAMA, contesting, or just helping other hams in need. We are an active group. We want members that are equally dedicated to helping one another for the Mount Airy VHF Radio Club to grow in quality and to maintain the success we have enjoyed over the past 50+ years.

While the major contests are over for 2010 we still have operating opportunities with the EME, and 10 GHz events, a continuing series of HF Contests where one can sharpen ones CW skills and there are still a few of the Fall Sprints remaining.

For the September contest, I spent most of my time trying to get some of the balky equipment working properly making adjustments in the audio so I could hear better with my damaged ear.

Pack Rats **CHEESE BITS** is a monthly publication of the **Mt. AIRY VHF RADIO CLUB, INC.** -Southampton, PA.

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PACKRAT BEACONS - W3CCX/B

FM29jw Philadelphia, PA
50.080 144.284 222.064 432.286 903.072 1296.245 MHz
2304.043 3456.207 5763.196 10,368.062 MHz (as of 1/08)

MONDAY NIGHT NETS

TIME	FREQUENCY	NET CONTROL
7:30 PM	50.145 MHz	K3EOD FM29II
8:00 PM	144.150 MHz	N3ITT FN20ki
8:30 PM	222.125 MHz	K3TUF FN10we
8:30 PM	224.58R MHz	W3GXB FN20jm
9:00 PM	432.110 MHz	WA3EHD FN20kd
9:30 PM	1296.100 MHz	K3TUF FN10we
10:00 PM	903.125 MHz	W2SJ FM29LW

Visit the Mt Airy VHF Radio Club at: www.packratvhf.com or www.w3ccx.com

I also discovered a few more items to repair. Now all I need is time!

Looking ahead, K3TUF has arranged some really good programs to lead us into the January contest. Next up is a panel discussion on EME, a tech night where you bring your gear in for testing, tweaking or minor repairs and WA3RLT's evaluation of the 2010 January Contest to mention just a few of the programs. As a reminder the meetings are held at the Benjamin Wilson Senior Center on Delmont Avenue just off Street Road in Warminster. We try to start all meetings at 7:30 PM or 19:30 hrs for the purists with a pre-meeting dutch treat dinner gathering starting at 6 pm. Remember – one of the key ingredients to a successful contest is getting plenty of rest. I am working on that starting now. I hope to see you all at the October meeting but in the meantime ...



LISTEN FOR THE WEAK ONES
73 de W3GAD

Editors Column

After last January's contest there was a lot of very constructive feedback on the Packrat Reflector on what can be done to improve scores in the future. I took to heart one point that was repeated several times: "Have a dominant signal on your primary band". Accordingly I went out and bought a used, homebrew 2 meter amp (600 watts with 2 parallel 4CX250's). After a bit of time whipping it into shape (it had some small problems that could not be ignored), it came time to hook it up to my (homebrew) 2 meter transverter. That is when the chickens came home to roost. The amp has an input SWR of 2:1, something that can be easily adjusted. But I have been ignoring an intermittent problem with my transverter (the output stage sometimes oscillates on frequency and the keyline transistor squegs). The amp has made this problem critical. I've got the transverter torn apart. Stay tuned for what happens next!

In the meantime enjoy this months Cheese Bits!
73, Lenny W2BVH

Photos from the Mid-Atlantic VHF Conference

The Packrats once again hosted the **Mid-Atlantic States VHF Conference**. It was held this year at the Quality Inn Conference Center in Montgomeryville, PA, on the weekend of September 25th. It was quite a success with around 45 attendees. In addition to a full slate of well organized presentations the conference had: an informal **demonstration of EME** by K2UYH; a superb array of instrumentation with helpful engineers from **Rohde & Schwarz** to test any and all VHF+ devices brought in by attendees; a **Beginner's Session** for those interested in getting started in VHF+ ham operation; a very well stocked **door prize** layout (every attendee had a shot at 3 door prizes); a fine array of **microwave components** for sale by Jeff, K3DUA and a small but nice **tailgate** session in the parking lot. Special thanks to **Downeast Microwave** for several generous door prize gift certificates. Many thanks go to the organizers and setup team for once again producing a fine event. Additional feedback on the conference will be found at the end of this article.

Thanks to EI, K3JJZ for the pix!! --W2BVH



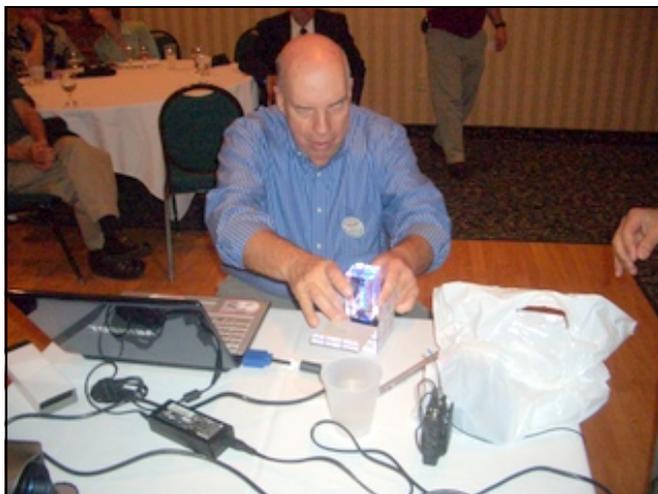
Your Conference Hosts



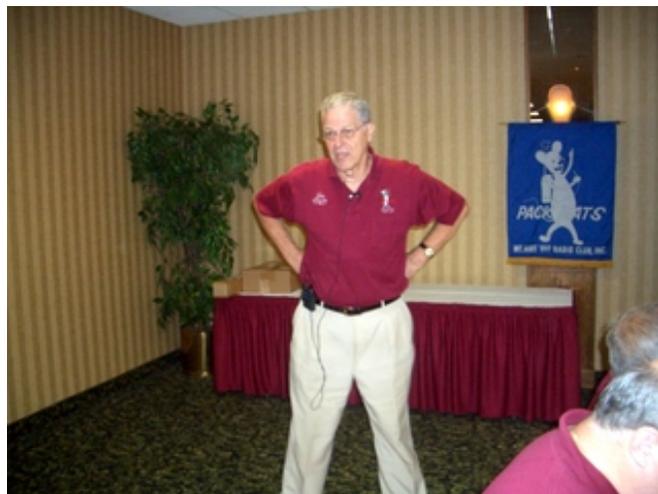
Fine service and food was delivered by the Quality Inn Staff



Special award to Mickie W1MKY (a mini Morse key) for exemplary persistence in completing a very weak and long distance rain scatter QSO on 10 GHz. Presenter : Bob W2SJ with Dale AF1T (OM)..



Dinner speaker Wayne Overbeck, N6NB inspecting his thank you gift, a Lucite 50th anniversary 3D Packrat



Presenter Joe Taylor, K1JT conducting an informal survey of opinion on changes to VHF / UHF contest rules.



Presenter John D'Ausilio W1RT made a fascinating and amusing presentation of the hard work it takes to assemble an easy to use Rover setup



Door prizes were useful and plentiful



Presenter Mike Sapp, WA3TTS explains some of the fine points of using a slotted line to determine matching impedance



The courteous and helpful staff from **Rohde & Schwarz** helped one and all find noise figure, gain, bandwidth, conversion gain, input match, does it work? etc., etc., etc.

Conference Feedback

Kudo's to the group who planned and executed the conference. I think the venue was outstanding and everything was pulled off without a hitch.

The **food was outstanding** and was available as needed throughout the day. The speaker lineup ended up working out just fine and it was a nice change to have the **tailgating**.

Greg Bonaguide as usual brought the **finest of test equipment**.

Of course the highlight of the night was the **great spread of door prizes**, only couldn't help but notice that Bird has dropped from a wattmeter to a shirt.

Many involved, thanks to all. -- **Phil K3TUF**

Phil's comments say it all. If you were there, you know how good a job the committee did in putting it all together. If you weren't there, you missed a chance to hear some excellent speakers, and to share the camaraderie of notable hams in the vhf/uhf community. **Plan now to make it next year!** -- **Bert, K3IUU**

I enjoyed the conference and my guest enjoyed the dinner and the speaker as well. Thanks to all who made it such a success.

-- **Griff NE3I**

Now this is the way a conference should be run: all in one spot, great speakers, food, and friendship. Thank you all who put forth the effort to put it on. Hope next year we see more of our friends from the south and the northern group. -- **Ed WA3BZT**

It was an outstanding conference, better than those of recent years in all respects. Thanks to a professional group of workers.

-- **Drex W3ICC**

... Conference Feedback cont'd

Great to see everyone at this weekend's conference. Excellent decision to combine all activities in a single hotel property. The two rooms supported all activities with some elbow room to hold side conversations.

Seeing N6NB present took me back to when I first met him at a Packrats meeting in the early 80's. -- **Steve W1SMS**

It takes a lot of work by many individuals to pull it off, but I thought the event went very well. The facilities, food, and staff were perfect for our needs. I regret the need to drop my talk, but since W1RT's talk went a little longer, it all worked out fine. *[Expect to see a written version of Paul's presentation in an upcoming issue of Cheese Bits --W2BVH]*

It was great to see a strong turnout of Packrat members, and good to see so many familiar, and a few new faces. I introduced myself to a fellow with a 0 call and found out he was from Ohio. **This was his first VHF conference, he drove 8 hrs to attend** and said he was having a blast! Let's plan on being back in Montgomeryville next year!

-- **Paul W2PED**

Really enjoyed this one. One of the best I've been to. Everything seemed to run seamless from start to finish! Great speakers, great food, great hospitality, great door prizes, great group! TNX. AGN!! -- **AI N3ITT**

Although I have had a great time at all of our conferences, this one was especially nice. The accommodations were first class. Thanks to Rick, Michael, Paul, Phil, the prize procurers and all others involved. Thanks to all of our speakers. -- **Paul WA3GFZ**

It was nice to see everyone. The program was interesting, the food was excellent, and the facility was very accommodating.

-- **Joe AA3GN**

NE3I September VHF Contest Ops Report

It has been at least several years since I entered the September VHF Contest. Activity seemed to me to be down. Perhaps that is the norm for this particular QSO party. With the exception of hearing one station briefly from Florida, I observed no openings on 6 Meters. While light rain or front enhanced propagation may have helped with a few close but ordinarily difficult grids, my course of action was to tune around and pounce on new stations that appeared briefly before retreating back into the fog of battle. My antennas were the new 2 element Hex Beam at about 26 feet for 6 Meters. The **Hex Beam** performed well and proved to be an improvement to station capabilities. The small **Create** log periodic handled duties on 2, 222, 432 and 1296 from 25 feet. The log periodic's performance appears to be equivalent to about that of a 3 element yagi although **reports on 222 are significantly stronger**. Both antennas are at least 6 feet below the roof line of my house and that of my neighbor's. Presumably, this has some attenuating effect on the transmitted and received signal from 270 degrees through 90 degrees. A break between the houses offers perhaps a 10-15 degree roof line "opening" to the Northeast. My transmitter power was 50 watts on 6, 90 watts on 2, 45 watts on 222 and 432 and 10 watts on 1296. Despite these **deed restricted limitations**, I was able to work neighboring grids in all compass directions including FN00 and FN11 each, on 6 through 1296. Noting again the apparently low activity, many grids seemed to be represented by only one or two stations. **Where was everyone from FM29?** I heard and worked only 4 stations in FM29 missing, this easy grid on 222 and possibly on 1296. There seemed to be a **dearth of Packrats to work**. Nonetheless, I was able to put a total of **100 Qs and 46 grids in the log**.

Hopefully, improved conditions and more activity in future contests will enable better results. My break down follows:

6 Meters 35 Qs 12 grids? 35 points
2 Meters 33 Qs 13 grids? 33 points
222 13 Qs 9 grids? 26 points
432 14 Qs 9 grids? 28 points
1296 5 Qs 3 grids? 15 points

Total Grids (Multipliers) 46
Total Score?? 6,202

73, Griff NE3I

Making Hay While the Sun Shines

From the Microwave Reflector, by Herb K2LNS

I went out to the shack at 7:30 am to work the 10 ghz contest, but found the 2 meter band open to the SW... Here is my morning of ham radio

144 MHz worked
K4TO-EM77 N4VC-EM66 K5OMC-EM44
K5YPV-EM54 N4LI-EM55
WA4HFN-EM55 WD4JHD-EM55
K4QF-EM64 W9WI/4-EM66 W8FR-EM54
K5MQ-EM31 KE4NYH-EM65
W4HLR-EM56 KX4R-EM73
Furthest contact was with K5MQ EM31
1802 km

222 MHz worked
K5YPV-EM54 1361 km
K4QF-EM64 W8FR-EM54
Mississippi is state number 29

432 acted up during the VHF contest and was apart for repairs

1296 Mhz worked
K5YPV-EM54 1361 km New state #21 on
1296 Mississippi

10,368 MHz worked

K8TQK-EM89 673 km I also worked Bob on 1296 - 2304 - 5760

NA4N-FM08 Virginia State number 12

Other notables were K1LPS on Mt Washington only running 300 mw 505 km.

N1JFU - W1FKF - W1EX on Mt. Equinox, VT 5 x 9 on SSB. Also VE3ZV North of Toronto FN14 on SSB. Note: The VE2FUT beacon on 144.279 FN35 was very loud all morning.

That's it from Bear Creek Pa FN21bf
73, Herb K2LNS, Station mgr for the [WA2FGK](#) station

September Meeting Pix



Ron W3RJW gave a fine presentation on tower safety issues. (Plus a few well thought out pet peeves on operating).



.. and picked up his 3rd Place Single Op Award

Mini - Circuits Splitter

There were about 25 or 30 "goodie bags" on the door prize table at the Mid-Atlantic VHF conference that had a mix of Mini-Circuits parts in them (along with some nice insulator pads).

One of the big items in the goodie bag was a Mini-Circuits ZMSC-2375. This part is not documented at the Mini-Circuits web site (though there is a ZSC-2375 buried in there).

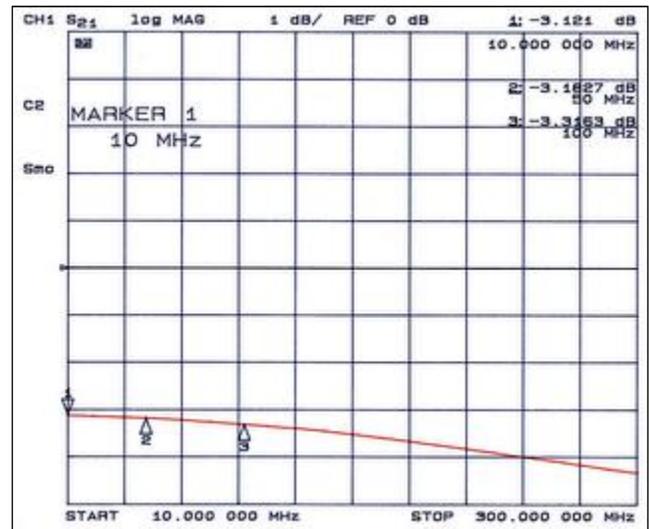
If you got one of these and would like to use it, here are some of the characteristics I was able to get from my part: It's a 2 way splitter with ports 1 and 2 each down no more than 3.3 dB at 100 MHz (see gain plot at right). Ports 1 and 2 have attenuations that match within a few hundredths of a db from 10 MHz to 300 MHz. The "S" (split) port has a VSWR as follows: 10MHz: 1.05, 50 MHz: 1.18, 100MHz 1.39; 150 MHz:1.68.

So it should be good for HF through 6 meters and for 2 meters if you don't have a critical application. Phase match ought to be pretty good even at 2 meters, (though I didn't measure it).

It evidently is a variant of the ZSC-2375 but with SMA connectors.

If you don't have a need for a vhf splitter, you still have a fine shielded box with 3 gold plated SMA connectors on it (we are Packrats aren't we?).

—Lenny W2BVH



Gain vs Frequency from port "s" to port "1" with port 2 terminated. "S" to "2" is identical. 0 dB gain reference it at the middle of the y axis and each box is 1 dB. Each x-axis box is 29 MHz. Markers are at 10, 50, 100 MHz.

The Wayback Machine

Gleaned from the pages of
Cheese Bits, September, 1960
(Vol. III Nr. 5a)

de K3IUUV

(author's comments in italics)

1. Hidden Transmitter hut was held September 17th. Alas, no one found it! The hidiers will try again!
2. Ed Kushner (W3HKZ, SK) described a new transistorized SSB transceiver, in development at Hallicrafters. Dubbed the FPM-200, it uses 41 transistors, 30 diodes, 20 crystals, and 3 tubes. The tubes include a 12BY7 driver, and a pair of 6146's as a PA. In pilot production now, due to be released at the end of the year. *(I don't recall if it was)*.
3. The SCM passed on a memo from the FCC, stating that the Army has requested use of 144.250 and 7 other frequencies from 10/17 to 11/12.
4. Hurricane Donna struck, taking down W3KKN's (SK) 6 and 2-meter beams and his tribander. W3HKZ (SK) lost his 6-meter beam. K3BPP, Walt, lost power for about 24 hours.
5. Philmont Radio Club reports that there is now a locker containing "Electro-Initiators" in the parking lot of the Franklin Institute. Mobile transmitting there is prohibited!
6. "Smel A. Rhat" reports excellent band conditions on 2-meters, with stations from Toronto to Indiana being heard regularly. He also notes that "the use of VFOs is increasing on 2-meters, and

some operators **DO** check their own frequencies after a CQ!"

7. Charlie, W3IBH (SK) gave a 2-meter report that he worked 13 states on 9/26, from Maine to Florida. *(Charlie considered himself The King of 2-meters. His usual Jan contest contribution was 10 grids, 300 contacts)*.
8. It was reported that Sam Harris from the Rhododendron VHF Swamp Society, (W1ZFJ) is now the VHF editor of QST, while Ed Tilton, W1HDQ is now on the Technical Staff. *(Sam was active at the Arecibo station, at a later date)*.
9. A sunsuit belonging to the Jr-OP of Bert, K3IUUV was found at the picnic. *(Too long ago for me to remember!)*
10. Two members (K3EQO and K3GQJ) were dropped from the membership because of delinquency in dues after receiving proper notice.

Ham Radio URL of the Month

This month we encourage you to check out the video at <http://www.break.com/index/climbing-a-1786-tall-tower>. This is a climber's eye view of a climb up a 1786 foot tall radio tower.

About the first 1000 feet are done in a bucket style elevator inside the tower frame, but the climb to the top is "free climbing" without tying off except for rest stops.

This should give even experienced tower jockeys pause. For the rest of us (your editor included) it can be viewed with a combination of awe and fear!!

ENJOY!

— Lenny W2BVH

Events

For inclusion, please direct event notices to the editor.

ARRL International EME Competition

Contest— Oct 2-3, and Oct 30-31, 2010. See <http://www.arrl.org/eme-contest> for details

ARRL January VHF Sweepstakes - Contest

Jan 22-24, 2011. Details to follow

June VHF QSO Party - Contest Jun 11-13, 2011 - Details to follow.

CQ WW VHF Contest - Jul 16-17, 2011. Details to follow.

August UHF Contest - Aug 6-7, 2011. Details to follow.

10 GHz and Up Contest (round 1) - Contest
Aug 20-21, 2011 Details to follow.

10 GHz and Up Contest (round 2) Contest
Sept 17-18, 2011. Details to follow.

International EME Competition (2.3 GHz +) - Contest Sept 24-25, 2011. Details to follow.

EME Contest, 50-1296 MHz (round 1) - Contest Oct 22-23, 2011. Details to follow.

EME Contest, 50-1296 MHz (round 2) - Contest Nov 19-20, 2011. Details to follow.

Strays... 10GHz+ Contest

I hope many of you had fun and adventures on the 2nd weekend. I hope you took pictures and are willing to relate your stories--either directly on the reflector or maybe more appropriately on the ARRL Soapbox. I'll take those and try to work them into an interesting 10G+ contest write-up.

Thanks, Bruce Richardson W9FZ

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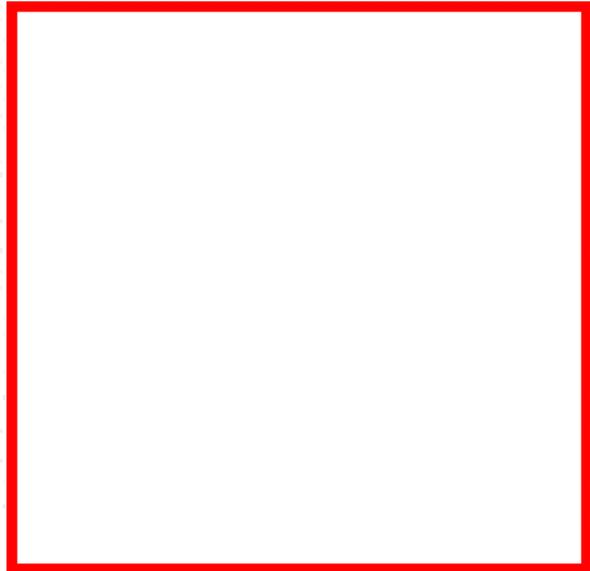
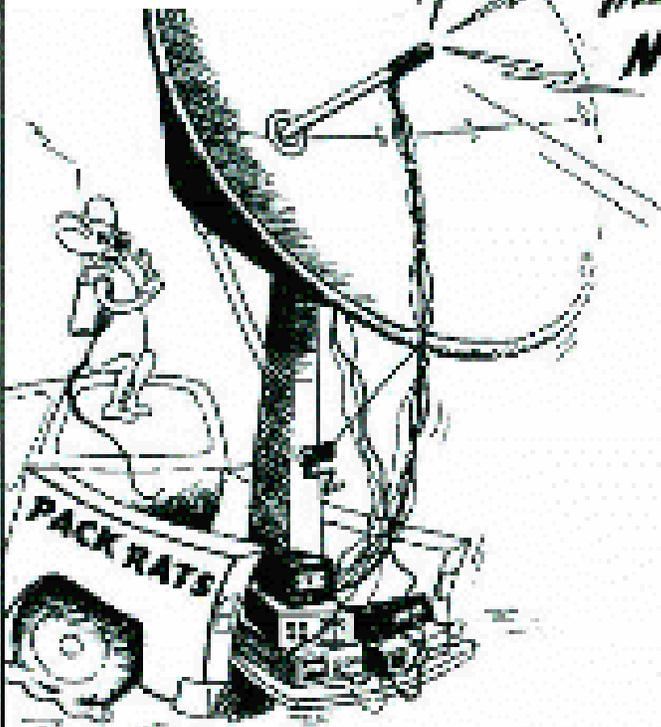
**Hours: Monday-Friday 9:30am-5:30pm Eastern
All major credit cards accepted**

Strays... Hamarama Cash Prize

The winner of the 2010 Hamarama \$100 cash prize was: Kevin Wye, KA3TNO. **Congratulations!**

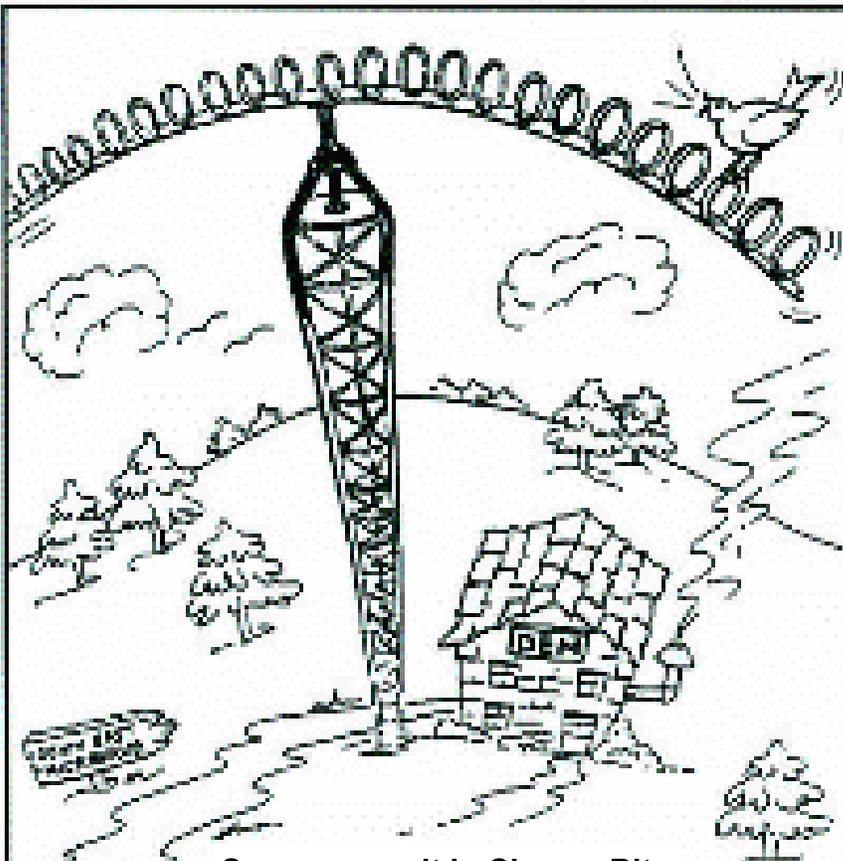
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