

CHEESE BITS



W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume XLIII

September 2001

Number 9

PREZ SEZ

Wow this summer is over. It seems like yesterday we were at the club picnic. If you missed it, you missed a good time. Thanks go out to Al and Carol Sheppard, it was good to see so many people come out. Ron Allen W3OR gets the award for traveling the greatest distance.

Last month I failed to thank Gary Hitchner, WA2OMY, for hosting the white elephant sale. It was also a great time: "Thanks Gary!"

If you didn't notice we had a donation box out at the picnic and I listed some surplus equipment for sale on the Reflector. Why? Well we had our annual audit preformed by Chris, N3PLM, Rick, K1DS, and Dave, W3KM, they did a great job. It was a very detailed report. Like everything else our expenses have gone up. The board has been working very hard to cut costs. One way we can all help is to (if you have a computer) is to received Cheesebits via Email. If you want a printed copy you can print it yourself. The board will be looking at other ways to make sure we run in the black. For this reason we all really need to help with the Hamarama and the Conference. This is our main fundraiser and its not the good old days of the drive-in with big profits. Come to the meeting in September for more info and volunteer.

I hope you guys who worked the UHF contest did well. I'm gearing up for the September contest and of course January. From what I hear Bill Olsen, K1DY and Dave Orleans, K1WHS are gearing up for quite an impressive September effort.

At the September meeting we will welcome Pete Putman, KT2B. You may remember Pete operating contests QRP portable or remember his articles in 73. Pete is working as a consultant to the High Definition TV industry and he will give us a demonstration and talk on HDTV.

Well, listen for weak ones. 73 Brian.

MID-ATLANTIC STATES VHF CONFERENCE
SATURDAY, OCTOBER 13
HAMARAMA 2001- SUNDAY, OCTOBER 14TH
Check pages 3 & 4 and visit the Packrat website
www.ij.net/packrats for details

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

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Deadline for articles and swap-shop is the monthly meeting date. Non-commercial swap-shop items free of charge.

Pack Rat Web Site: <http://www.ij.net/packrats>

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ 7258 Walnut Avenue, Pennsauken, NJ 08110
(856) 665-8488 bobw2sj@prodigy.net

EDITOR:

Rick Rosen, K1DS 206 Kimberton Drive Blue Bell, PA 19422
(610)-270-8884 rick1ds@hotmail.com

CLUB TREASURER:

Dave Mascaro, W3KM 1603 Mink Road Ottsville, PA 18942
(215)-795-2648 dmascaro@gi.com

AWARDS CHAIRMAN:

Bob Fox, W3GXB
(346-869-8610) W3GXB@juno.com

TRUSTEE OF CLUB CALL - W3CCX

Ron Whitsel, W3RJW
(215) 355-5730 W3RJW@aol.com

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA

OFFICERS: 2000-01

PRESIDENT: N3EXA Brian Taylor n3exa@enter.net

VICE PRES: WA3RLT Ben Kelsall

CORRESP. SEC: WA3EHD Jim Antonacci,
Antonacci@worldnet.att.net

REC. SEC: WA3AQA Walt Zumbach,
wzumbach@bellatlantic.net

TREASURER: W3KM Dave Mascaro, dmascaro@gi.com

DIRECTORS:

K1JT (2 Yrs) Joe Taylor joe@puppsr1.princeton.edu

WA3NUF (2 yr) Phil Miguelez

WA3GFZ (1 Yr) Paul Sokoloff dogface@HOME.COM

K1DS (1 Yr) Rick Rosen rick1ds@hotmail.com

COMMITTEE CHAIRMEN

June Contest: N3ITT 610-547-5490

HAMARAMA: W3KJ 215-256-1464

VHF Conference: KB3XG 610-584-2489

PACKRAT BEACONS - W3CCX/B

FM29jw Philadelphia, PA

50.080 144.284 222.065 432.295 903.071 1296.251 MHz

2304.037 3456.220 5763.190 10,368.140 MHz (as of 3/1/01)

MONDAY NIGHT NETS

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:30 PM	50.150 MHz	WA3EHD/K3EOD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ/N3EXA
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW
9:30 PM	1296.100 MHz	WA3NUF
10:00 PM	903.100 MHz	N3AOG

THURSDAY NIGHT NETS (1st & 4th of the month)

9:30 PM 2304.100 MHz W3KJ, & go to 3.4G & up after

Editor's Column

New technology, as we have all probably experienced, can be frustrating. When I decided to purchase a home and the option of cable installation allowed me to have outlets all over the place, I chose to have seven installed while the walls were open. Thinking that any place that we thought of having a television set, and possibly even cable modem access led us to pay the few extra bucks before the walls were plastered and painted. Last year I watched as they buried the fiber-optic cables throughout the neighborhood, then installed the modem nodes, and finally, last month started advertising high-speed cable-modem access in my neighborhood.

I called and got the introductory price special for three months, along with the shipment of a self-installation kit and a cable-modem. A week later the parts and instructions arrived by UPS, and I found a free quiet evening the following week to install it. After wiring it up, adding the software, and trying to gain access, I was met with the "Failure to access site" message, and started the laborious process (at least for me) of tracking down the problems. Since the instructions were full of troubleshooting tips, I figured that it would be easy, but three hours later, I dialed the company help line, only to be put through a series of choices, and then on hold, but within ten minutes or so, there was a helpful voice. After some preliminary checks of my subscription and configurations, they "located" and were able to "see" my computer. They couldn't figure out my problem, told me the server was down anyway and to try the next morning, and if it still had trouble to get a technician to visit and complete the installation.

The technician came today, and the first thing he discovered is that when you have 7 cable outlets, they are driven by a 10db amp and splitters, and the cable modem signal needs a more direct path to the modem, especial for sending, as it can't send info back through the amp—so first fix is a direct route of the cable service to the modem, splitting off the rest to the amp and six-splitter. Now the modem gets the cable signal, but the PC-link from the modem to the PC is not working, and despite a series of new cabling, a trial of an ethernet to USB connection, and another call to tech support, it appears we're still out-of-luck. And the server is down again. Three hours later, including one hour of hold on the phone for authorization to swap the modem, we are still on dial-up at 28.8. (PS: success 2d later w/new modem)

So how is radio? The UHF contest was some fun, as all the gear worked, as I roved the two usual grids. I missed the first weekend of the 10GHz bash, as I was in Baltimore assisting my son and his family get their new house ready for move-in. I did buy some optical parts while on a visit to my mom in Florida a few weeks ago, but that project will have to wait until after the Sept VHF QSO Party. I did have quite a night trying to find Brian's house for the Board meeting, but the hospitality, shack tour, board spirit, and home-made ice cream treat was sure worth the trip!

I do need more technical and activity contributors to make this a well-rounded publication. Please do your part to share information, ideas and articles with me. I have had several email exchanges with other radio newsletter editors, and have seen their products and we've shared publishing and circulation tips. PDF seems the way that many are going, and we're in the trend. Many of you have not yet sent me your email addresses to get this colorful publication. So now you have plenty to send me: an article, a digital picture, and your email address to receive Cheese Bits by PDF.

73, Rick, K1DS rick1ds@hotmail.com

Hamarama - 2001

30th Annual Pack Rat Flea Market

Sunday, October 14, 2001 — Rain or Shine

Gates Open: Buyers at 0700 Sellers at 0600

Middletown Grange Fair Grounds

Penns Park Road, Wrightstown, PA

Food, Beverages & Facilities on Site

No Overnight Parking

Admission \$6.00 Non-Ham XYL's & Children under 13 Free

Sellers Add: \$10.00 per Car Space Outdoor

or \$15.00 per Indoor 8 Foot Table

Advanced Reservation Available for Indoor Tables ONLY

For More Information or Indoor Table Reservation:

Joe Keer, W3KJ packrats_w3ccx@yahoo.com

Or Packrats website: <http://www.ij.net/packrats>

Grande Gift Certificate Door Prize Special Vendor Only Cash Prize Buyer Prize Drawings
Talk In on 146.52 Mhz Simplex and 224.58 Mhz Pack Rat Repeater-see next page for directions

Radio Action September 2001

SUN	MON	TUE	WED	THU	FRI	SAT
				See changes for Microwave nets dates and times on page 2		1
2	3 Monday night nets-check page 2 for freq and times	4	5	6 "Lick & Stick" Hamarama mail nite at QTH of WA3DRC	7	8 Sept VHF starts 1900 UTC
9 Sept VHF thru 0300 9/10	10 Monday night nets-check page 2 for freq and times	11	12	13 Bd of Dir mtg @ QTH of N3PLM 8 PM	14	15 10 gHz & up wknd
16 10 gHz & up wknd	17 2m Fall Sprint 7-11 PM local see p7 for detail	18	19	Thurs-Sept 20-Club Meeting Southampton Free Library 8PM Demonstration and talk on HDTV By Pete Putman, KT2B		22
23	24 Monday night nets-check page 2 for freq and times	25 222 Fall Sprint 7-11 PM local see p7 for detail	26			29
30			Oct 3 432 Fall Sprint 7-11PM	27 See changes for Microwave nets dates and times on page 2		

Hamarama Weekend 2001 Mid-Atlantic States VHF Conference

Saturday, October 13, 2001, 8am to 5pm
Radisson, North East
2400 Old Lincoln Hwy. & US Rt. 1
Trevoese, PA 19503-6894

Hotel Reservations (215) 638-8300

Room rates \$89 + 8% tax

Notice: Deadline for block room rate is September 21, 2001

Mention Block Code "Pack Rats" for special room rate.

List of speakers as of July 30th:

W3EP

K1JT

K6LEW

W3ZZ

KB3XG

Stay tuned to the web site for updates

Hospitality Suite at the Hotel Friday and Saturday nights. Test equipment and RF consultants will be operating a Tech Center on Saturday afternoon in an adjoining room.

Breakfast (\$10) and Lunch (\$15) available Saturday at the Hotel. Saturday evening banquet with lots of good door prizes.

Banquet cost \$30. Menu to be announced.

Admission at the door @ \$25 each

Advance Registration @ \$20 each

Advance Banquet @ \$30 each

Registration does not include Hamarama. Hamarama tickets available at the door.

Write your name, call, mailing address, and email address on a piece of paper and mail to:

Mt. Airy VHF Radio Club

P.O. Box 682

Hatboro, PA 19040

You will be notified via email upon receiving your payment. Please include a SASE if you would like your receipt mailed to you.

For more information: JohnKB3XG@aol.com

John Sortor, KB3XG (610) 505-6940 www.ij.net/packrats

Directions to VHF Conference Saturday:

1) From the North on I-95: South on I-95 to Rt. 1 south (Philadelphia). Turn right at first traffic light onto Old Lincoln Highway. Radisson will be on your left.

2) From the North via Northeast Extension of PA turnpike: south on NE extension, then east on PA turnpike to exit 28. South on Rt. 1 to first traffic light. Turn right at first traffic light onto Old

Lincoln Highway. Radisson will be on your left.

3) From the Northeast: Follow New Jersey turnpike to exit #6, PA turnpike (Rt. 276). Take 276 west to exit 28 (Philadelphia). After toll, Rt. 1 south to first traffic light. Turn right onto Old Lincoln Highway. Radisson will be on your left.

4) From the South and Philadelphia International Airport (I-95): north on I-95 to Woodhaven Road exit (Rt. 63). From Woodhaven, exit onto

Rt. 1 north (Morrisville). Stay in right lane. After 3rd light, turn right onto access road (sign reads "All Turns - Old Lincoln Highway") Turn left at stop sign, cross over Rt. 1, Radisson will be on your left.

5) From the Southeast: Cross Delaware River via Walt Whitman, Benjamin Franklin, or Betsy Ross Bridge. Follow I-95 north to Woodhaven Road exit (Rt. 63). See directions from south and Philadelphia International Airport.

6) From the West: East on PA turnpike (276) to exit 28 (Philadelphia). South on Rt. 1 to first traffic light. Turn right onto Old Lincoln Highway. Radisson will be on your left.

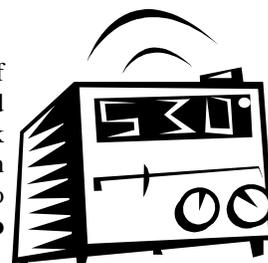
Directions to Hamarama Sunday:

From Points South: Take I-95 North to the Route 132 (Street Rd.) Exit. **Route 132 West 8.7 Miles** to Route 232 (2 nd Street Pike) in Southampton, PA. Go North on Rt. 232 (Right-hand turn). Stay on Rt. 232 North for **7.1 Miles** to **Penns Park Rd** (Penns Park Tavern on corner). Make a right turn on Penns Park Road. Hamfest is **0.6 Miles** on right.

From the PA Turnpike (East or West) use **Exit #28** (Philadelphia Exit). After exiting the tollbooths take the ramp to the right and follow signs to **Route #1 south**. As soon as you get to the top of the ramp make right hand turn to **Route 132 West**. **Route 132 West 5.0 Miles** to Route 232 (2nd Street Pike) in Southampton, PA. Go North on Rt. 232 (Right-hand turn). Stay on Rt. 232 North for **7.1 Miles** to **Penns Park Rd** (Penns Park Tavern on corner). Make a right turn on Penns Park Road. Hamfest is **0.6 Miles** on right.

From Points North: Take I-95 South from New Jersey. After crossing the Delaware River, take the **Route 332 West** (Newtown) Exit. **West On 332 for 4.2 Miles** where from the left lane make a left hand turn to **stay on 332 West**. **Continue on 332 west** for another **3.5 miles** to **Route 232** in Richboro Pa. (7.7 miles total from I-95). Make right hand turn on **Route 232 North 3.7 Miles** to Penns Park Road (Penns Park Tavern on corner). Make a right turn on Penns Park Road. Hamfest is **0.6 Miles** on right.

Using 413 South: 1.0 miles South of the intersection of Route 232 and Route 413 (Texaco Gas Station) look for Wrightstown Country Store on right and make right hand turn on to **Penns Park Road**. Only **0.2 Miles** to **Hamfest** on left.



UHF Contest Reports

I was on for a few hours during the UHF Contest. 29 QSOs and 18 grids = 2700 pts. Propagation was good Sunday morning when I worked N3EMF (FM19) on 2304 SSB. Activity seemed low at the times I was on. **W3KM**

Operating on bands CD9EFGH, **N3NGE**, Len managed a score of over 38K, including some of the longer haul grids of FM06, FM08 and FN43. Not only does Len have a beefy signal on all of those bands, but a great elevated location and tower set-up.

I started out in the rover at the club picnic and arrived at the peak of the crowd and eats. It was a great event, and the XYL even had a fun time too, thanks to all the families who made it and were so friendly. Hosts Al and Carol were at their best, and the food was delicious. The barbeque brisket was a special treat. While showing off the rover to WA3AQA, made a few quick QSOs and shut down real quickly due to approaching storms. Logged four laser QSOs while there, and chatted until the rain let up and drove home, letting the XYL off and heading up to FN20jf by The Home Depot in Montgomeryville. Immediately heard WA3UGP on Camelback, but we could only work on 4 bands. Having set up the dishes for 5 & 10g, I called CQ on 222 and raised N3NGE and ran all the bands with him with great sigs, including SSB on 5g. The higher bands had that watery sounding quality, and sure enough, another downpour. The police pulled up behind me in the parking lot, but did not approach. I took down the dishes as the rains started and there was lightning in the distance. I turned off all the radios during the peak of the storm that evening, and got back on an hour later. The police by this time had moved across the street to the convenience store and seemed to have cornered a suspicious car and person. I struggled to make more contacts, running into K1TEO & K1WHS (with W2PED at the mike) but was unable to hear much on 9 or E after the rains, and only completed on C & D. Sunday AM I dropped down to my usual spot in FM29hx and filled half a page of contacts, including all the bands again with N3NGE. Final score was 7.9K with 79 QSOs and 30 mults. **K1DS/Rover**

Joe, **AA3GN**, put in an effort and had bands CD9EFG running, worked through the bands with many of the packrats and others. Additional packrat activity included **WA3NUF**, **W2SJ**, **W3KJ** and **K2SMN**. Apologies to anyone else I might have missed mentioning.

From the Internet

From: K2MLB@aol.com To: k3eod@juno.com
Good Morning Al:

You and other club members spend a lot of time and effort as Net Control Operators each and every week for the club and you and the Pack Rats been good radio friends. The Pack Rats have always been a wonderful group of guys and done so much to add to my VHF/UHF enjoyment. I use your beacons all the time to judge band conditions and equipment performance and that's a great service to all hams.

It's also nice to get on monday nights and say hello and see that things still work. If it wasn't for the nets and working your members in contests, I probably would never have gone higher than 432. Anyway, thanks again. .

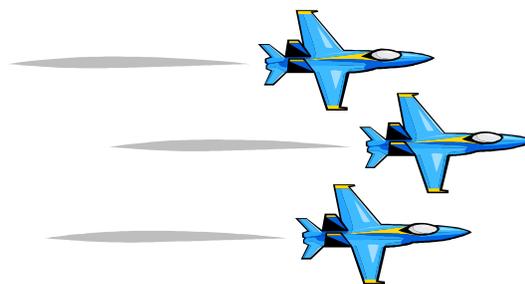
Best regards, Frank K2MLB

Pack Rat Picnic Wet And Wild!

Guess that's the best way to describe this years picnic! Thanks to all who came out and made this years picnic a success! From all indications everyone had a great time. The food was great ,the turnout was good , and we even had a few hours of good weather! Unfortunately just as we were getting into high gear the thunderstorms forced the party indoors where we continued till the power went out. We had hoped the thunderstorm and the power outage would be of short duration but such was not the case , anyway the food was still hot , the beer was still cold , and the bar was still open so a number of us hung out inside and continued the festivities! The one good thing I guess is that we didn't have the picnic the weekend after when we usually do ,as the weather was much worse , with rain the entire weekend! Again , thanks to those who came out and made a great day despite the weather. Special thanks to those who put donations in the box for the club to hold this event , as many of us are aware the club does not have much money to spare , so for now club activities need to break even. I'm happy to say that the picnic broke even , with even a few dollars to kick back to the treasury!

LOOKING FORWARD TO NEXT YEAR'S PICNIC !!!

73 Al N3ITT



Ops Needed at Air Show Sept 8-9

Amateur Radio operators are needed to assist the Warminster Amateur Radio Club staff this year's Program at the Willow Grove Joint Reserve Base. Steve Larson (WW3Y) and Mike Patton (W3MJP) are coordinating Amateur Radio Tactical EMS Communications staff at this year's show. There is a need for at least THIRTY RADIO OPERATORS PER DAY! Many of you have already signed on. IF you are interested, PLEASE contact Steve as soon as possible OR go to the following URL and complete an on-line volunteer form:

<http://www.k3dn.org/Airshow%20signup.htm>

This form can also be found at the Bucks County ARES website: <http://www.voicenet.com/~ikemay/areshome.htm>

In addition, we are seeking radio operators who are familiar with Montgomery County EMS Radio dispatchers and/or dispatch procedures to staff the MONTCO Office of Emergency Management Command Center which will be on location at the base this year. PLEASE pass this information on to other Amateur Radio Operators.

Also PLEASE note: Air Festival volunteers will be treated to an EXCLUSIVE BY INVITATION ONLY AIR PERFORMANCE ON FRIDAY, SEPTEMBER 7, 2001! You must be listed as an Air Festival/Open House volunteer on Steve's roster to receive this invitation! THANKS!

Steve Larson WW3Y steve.t.larson@home.com
and Mike Patton W3MJP ikemay@voicenet.com

WSJT Updates-Meteor Scatter

I am pleased to announce general availability of the third beta release of WSJT, a software package designed for amateur radio communication at VHF using the technique of high speed meteor scatter. The software can be downloaded from URL

<http://pulsar.princeton.edu/~joe/K1JT>.

It is free and available to anyone for amateur radio use. After the first round of on-the-air beta testing by a dedicated group of volunteers, a second beta release of WSJT was openly announced on July 7, 2001. That version has been downloaded successfully from the WSJT web site about 1000 times (and who knows how many other copies have proliferated?). The program is being widely used throughout North America and Europe; many thousands of QSOs must have been made with it over the past month on the 2 and 6 meter bands, under "dead band" conditions and without benefit of meteor showers. Typical paths for this type of communication are in the 500 to 1400 mile (800 to 2250 km) range. The third beta release of WSJT carries version number 0.93. I still consider it beta-level software because the most widely tested version, v0.92, still had some weak spots. Nearly all of the known problems have been addressed in version 0.93, although there are a long list of enhancements still to be added. The program will certainly continue to evolve as my time is available. WSJT is highly usable in its present form. Indeed, most people have found it both easy and fun to use -- a big step beyond high speed CW, and a *vast* step beyond SSB, for meteor scatter work. WSJT does not require any proficiency with Morse code.

OVERVIEW OF FEATURES

- Same hardware and operating system requirements as PSK32, WinMSDSP, and other ham software
- Operation similar to WinMSDSP, but more automatic
- Uses four-tone frequency-shift keying at 441 baud
- Makes highly effective use of SSB audio bandwidth
- Produces a clean transmitted spectrum
- Transmission speed 147 characters per second, or 8820 LPM
- Converts barely audible pings to solid copy on critical short messages
- No requirement for slow playback, copying by ear, or CoolEdit
- You don't need to be proficient in Morse code!

HARDWARE AND SOFTWARE REQUIREMENTS

- SSB station for one or more VHF bands
- Computer running Windows 95, 98 or ME. (Windows NT, 2000, and other versions of Windows may also work, but the present level of testing has been much less.)
- 75 MHz Pentium or faster CPU
- Monitor running at 800 x 600 or higher resolution
- At least 32 MB RAM
- At least 20 MB of free disk space
- Windows-compatible soundcard
- Station interface like those required for WinMSDSP, PSK31, Hellschreiber, etc. The DTR or RTS line of one COM port is used to key your transmitter's PTT line. Standard connections are required between your radio's audio output and the computer soundcard input, and vice-versa. If you would like to communicate with me about WSJT, please send email to k1jt@arrl.net.

UPGRADING FROM PREVIOUS VERSION(S)

If you are already a user of WSJT, please read the file UPDATE.TXT to see a detailed list of bug fixes and enhancements. Then upgrade your station to v0.93 as soon as possible. You will be glad you did! A new, expanded, and much improved manual is now available on the WSJT web site. Point your browser to <http://pulsar.princeton.edu/~joe/K1JT> and click on the file name WSJTHELP.HTM.

I strongly recommend that you download this file (use "Shift-click") to trigger a download) and keep online for handy display with your browser. You should also print it out so you will have a hard-copy manual. I want to acknowledge the great job done by Andy Flowers, K0SM, who fleshed out my earlier Help File and made numerous improvements and additions to the new manual.-- 73, Joe, K1JT

Current version: WSJT v0.93.2

New versions of WSJT will be released from time to time when bugs have been fixed or enhancements have been made. This file is the place to come to find out what is the latest version and how it differs from previous versions. Changes will be listed below in reverse chronological order.

Request for Bug Reports

Removing operational bugs from a complicated piece of software like WSJT is a painstaking and time consuming process, even for a professional programmer -- which I definitely am NOT. In the present case the process is made significantly more difficult by the fact that it is a real-time program -- meaning that it must respond quickly to external events, maintain time synchronization, etc., while running on an operating system environment not designed for such things and in fact not very good at them. The choice of the Windows operating system was obviously a poor compromise, in a way, but it's what most people have. I wanted WSJT to be widely adopted if its concepts were successful. Please do your part in assisting the development of WSJT by carefully documenting any problems you find. If you have made the program crash, try to reproduce the necessary conditions and send me the relevant details.

Two people (W8WN and myself) have been using WSJT and its immediate predecessors for about three months now. A few other hardy souls joined us about 5 weeks ago -- and the rest of the current WSJT world two weeks later. This software is anything but mature! It will continue to evolve, gaining both capability and convenience features; I also expect it to become more reliable. Make no mistake, however: WSJT already works very well. Nearly 1500 successful downloads of the program have taken place, and it is being used all over North America and in dozens of European countries. It is bringing many new people into the fun of meteor scatter communications, and many old hands are working new states, grid locators, and DXCC countries on the VHF bands without waiting for band openings. 73, Joe, K1JT
k1jt@arrl.net

The current version of WSJT is v0.93.2. Changes since 0.93.01 include the following:

1. A compiler-induced bug caused by unpredictable behavior after recording signals with very large amplitude excursions has been corrected. If your v0.93 or v0.93.01 program has been crashing after receipt of QRN from lightning, etc., please upgrade to 0.93.2.
2. Earlier program versions have permitted operator requests at any time to "Decode Again" or to decode a local section of a received record by clicking the mouse. Doing either of these things near the end of a transmission or reception period could cause the T/R switchover time to be missed. Version 0.93.2 therefore disables both the mouse-driven pick-a-pick feature and the Decode Again button during the final 5 seconds of a reception period, if the program is in Monitor or Auto mode.
3. It had been possible to crash the program by clicking "Cancel" in response to a prompt for a change in the COM port assignment (on initial startup without an .ini file present) or for a change in the UTC clock offset. These bugs have been fixed.

NB: the minor revision level, that is, the "2" in v0.93.2, is now encoded so as to show on the splash screen and the "About WSJT" screen.

A number of fellows who have never operated HSMS (or even MS) previously have asked a number of questions about procedures, the best time of day, sporadics vs showers, etc. There's a short list of available papers, articles, programs, etc on the HSMS Hot News page at http://www.qsl.net/w8wn/hscw/papers/hot_news.html If you don't have a background working MS, it's suggested that you take a look at some of them. 73, Shelby, W8WN

Fall VHF/UHF Sprints

The Southeastern VHF Society is again sponsoring the Fall VHF/UHF Sprints for 2001.

Sprint Rules:

1. Object: To work as many amateur stations in as many 2 X 1 degree grid squares as possible, using authorized amateur frequencies on the 50, 144, 222, 432MHz and Microwave (902 Mhz and above) bands during the contest periods.
2. Contest Period:
 - 2.1 The 144 Mhz Sprint will be from 7 PM to 11 PM local time on Monday September 17, 2001.
 - 2.2 The 222 Mhz Sprint will be from 7 PM to 11 PM local time on Tuesday September 25, 2001.
 - 2.3 The 432 Mhz Sprint will be from 7 PM to 11 PM local time on Wednesday October 3, 2001.
 - 2.4 The Microwave (902 Mhz and above) Sprint will be from 6 AM to 1 PM local time on Saturday October 13, 2001. Choose any 5 hours, in one hour increments, to operate, and clearly indicate in log which hours were operated. The Microwave Sprint is one Sprint and certificates will be awarded for highest total score (i.e. total number of contacts on all bands 902 and above, times total of all multipliers, recounted separately on each band.)
 - 2.5 The 50 Mhz Sprint will be from 1200Z until 1900Z on Saturday October 20, 2001. Choose any 5 hours, in one hour increments, to operate and clearly indicate in log which hours were operated.
3. Exchange: Grid-square locator. Signal report optional.
4. Scoring:
 - 4.1 QSO Points: One point for each complete QSO.
 - 4.2 Multiplier: The total number of grid squares worked. Each 2 X 1 degree grid square worked counts as one multiplier.
 - 4.3 Final Score: Multiply QSO points by multipliers. Each sprint is scored separately.
 - 4.4 *Rovers score in accordance with original rover rules, i.e. multipliers begin again in each new grid activated.*
5. Reporting: Logs must be submitted no later than four weeks of the closing date of the each event. Only submitted logs are eligible for awards. Logs must be in ARRL format (log sheets and summary sheet as used for ARRL VHF contests) to be accepted, and must show current address to be eligible for awards. Electronic submissions in ARRL acceptable electronic format may be mailed on diskette or e-mailed with log file as an ATTACHMENT only (Not in the body of e-mail). Log checkers and submission addresses will be posted later. Volunteers are requested. Contact K4SZ. k4sz@alltel.net
6. Certificates for top three non-Rover finishers in each sprint and top three Rovers in each sprint if sufficient Rover competition is shown.
7. Use of telephone, packet or internet methods to coordinate contacts is acceptable, so long as complete exchange of call signs and grids is accomplished on the relevant amateur radio band.

First WSJT HSMS 2m QSO to Cuba

Oscar, CO2OJ (EL83TD), and myself are happy (thrilled) to claim the first USA/CUBA HSMS contact, and the NA dx record for WSJT. The distance is 1233 miles or 1984 km. The previous WSJT dx record was 1221 miles (1966 km)

from WC4N in EM17JP to K2TXB (FM29PT). The contact was made from 0400 to 0523z on 7/28/2001 at 144.105 Mhz using the WSJT FSK mode. Only 'possible' weak pings were heard from Oscar for the first 55 minutes of the sked. Then I received a 1280 millisecond 8 db 'burn' with full calls and reports!, followed 6 seconds later by a 100 ms ping containing my call and reports.

The sked was supposed to end at 0500, but I kept going and at 0510 I got a nice 80 ms rrr ping which was 6 db above the noise. 73's were received from Oscar at 0523z. In previous contacts on this evening I had observed that meteors were not running very well, pings being few and far between. I suspect that Oscar will be very workable for a lot of stations in this country when conditions are better. Oscar runs 100 watts to a 9 element beam. Have at him fellows! 73, Russ K2TXB (FM29PT)

PS: Oscar cannot access the internet when he is operating so you will have to set up a sked via email (as I did). His email address is: frcuba@ip.etecsa.cu

It is reported that these DXCC entities are now available on 144 MHz MS using FSK441 (running WSJT) - DL, G, GW, GM, GI, I, IS0, IT9, HA, LX, PA0, ON, LA, SM, OH, OH0, ES, LY, UA3, UT, SV, HB9, HB0, EA, EA6, EA9(!), YU, S5, 9A, T9, T77(!), F, TK, OK, OM, SP, OE, TA(!), OY(!), EI, CT, OZ, 9H1, LZ Plus W and VE.

After less than one month since the first Beta release of WSJT, Europe is reported to have over 500 operators ready to give out their grid (and there are many more on HSCW MS who have not yet downloaded WSJT). It's said that the Europeans are running 24 hours per day - not just in the morning hours - with great success.

Besides the numerous DXpeditions in Europe, WILP/MM goes back to the Gulf in a few days and plans to have HSCW and FSK441 (watch the Hot News page, and see the Aug QST, p. 89); and WZ8D plans to leave tomorrow for some rare VE grids just north of Michigan, and planning to have WSJT running by then (watch for John's announcement tonight or tomorrow). This is the time of year to pick up those rare grids in the 600-1400 mile (960-2250 km), and there are already several reception reports well over the "maximum possible" MS distance! W8WN

Club surplus equipment for sale

2m H-FRAME BRACKETS,FRAMES AND MASTS \$50.
3-2m 5EL. END MOUNT YAGI W/CABLE PIGTAIL \$45 ea
2-223MHZ 8EL. END MOUNT K1FO YAGI W/PIGTAIL
\$45. EACH [85 NEW DOWNEAST]

1-440 YAGI ARRAY OF 4 6EL.END MOUNT,PHASING
HARNESS AND MAST [CUSHCRAFT] \$100.COMPOSITE
SURPLUS CLUB EQUIPMENT ALL PROCEEDS TO PACK-
RATS contact n3exa@enter.net

The Mechanic and the Doctor

A mechanic was removing a cylinder head from the motor of a Harley, when he spotted a world-famous heart surgeon in his shop. The heart surgeon was waiting for the service manager to come take a look at his bike. The mechanic shouted across the garage, "Hey Doc can I ask you a question?" The famous surgeon, a bit surprised, walked over to the mechanic working on the motorcycle. The mechanic straightened up, wiped his hands on a rag and asked, "So Doc, look at this engine. I also can open hearts, take valves out, fix'em, put in new parts and when I finish this will work just like a new one. So how come I get a pittance and you get the really big money, when you and I are doing basically the same work?"The surgeon paused, smiled and leaned over, and whispered to the mechanic.....

"Try doing it with the engine running!"

Amateurs Complete First 24-GHz Earth-Moon-Earth QSO

NEWINGTON, CT (via the ARRL web site), Aug 20, 2001-- Here's another one for the Amateur Radio record books. On Saturday, August 18, hams in Texas and Manitoba completed the first 24-GHz Earth-Moon-Earth (EME) QSO. The contact followed by several months the first documented echoes from the moon on 24 GHz.

Noted microwave enthusiast Al Ward, W5LUA, of Allen, Texas (EM13), says his QSO with Barry Malowanchuk, VE4MA, in Winnipeg, Manitoba (EN19), was a result of several years of effort in trying to optimize antenna gain and receiver sensitivity, and to obtain adequate power to make the roughly half-million mile path to the moon and back. "Signals were weak but easily copied at both ends," Ward said. The August 18 QSO took place at 1417 UTC on 24,192 MHz. Malowanchuk said the two exchanged "M" reports. "Signals were quite good with slightly less than the normal buzz experienced at 10 GHz," he said. The weather at VE4MA was reported to be clear and cool while W5LUA was reporting cloudy, warm and humid conditions--the clouds and the moon's proximity to the sun making optical tracking impossible.

After many failed attempts, Ward succeeded last March in hearing 24 GHz EME echoes and documenting them for the first time. He had predicted then that an EME QSO on 24 GHz would succeed. Such accomplishments on 24 GHz are particularly significant because water-vapor absorption of signals peaks at around 24 GHz. VE4MA used a 2.8-meter offset-fed dish with a 1.6 dB noise figure low noise amplifier. Power is obtained from a Varian travelling wave tube amplifier producing 70 W (he reports 2 dB of loss in the waveguide to the feed horn). W5LUA has a 3-meter prime focus dish and a 1.75 dB noise figure low noise amplifier. His Thompson TWT amp produces 80 W at the dish feed horn. A fixture in the VHF-UHF and microwave standings, Ward was the recipient of the 2000 ARRL Microwave Development Award.

Ward says that Jim Vogler, WA7CJO, in Arizona, and Lars Karlsson, AA6IW, in California, are nearing completion of their 24-GHz EME stations, and he expects QSOs with those stations soon. "Other stations in Europe such as CT1DMK and G3WDG are known to be capable of receiving EME signals," he said. "Additional 24-GHz EME tests are being scheduled for September."

QST's "The World Above 50 MHz" Editor Emil Pocock, W3EP, was among those offering words of congratulation to W5LUA and VE4MA on their accomplishment. "I know it was a long, hard road," he said.

Additional details are on the North Texas Microwave Society Web site. <http://www.ntms.org/>

TID BITS

Free software to log the 10GHz and up Contest is available at: http://www.qsl.net/w3km/gen_log.htm Dave, W3KM

New 903 Beacon

From FN74os on 903.300. This would be an excellent test of microwave propagation to the north.



Al Ward, W5LUA, and his dish.



Barry Malowanchuk, VE4MA, and his 24-GHz dish.



VE4MA at the helm in his well-equipped station.



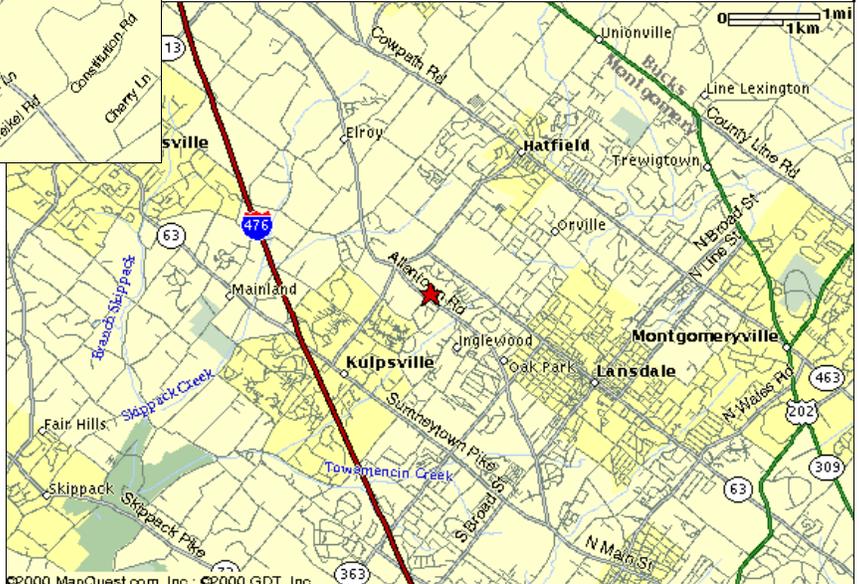
Board of Directors Meeting Thurs, Sept 13, 8PM

Adjacent are maps to the QTH of Chris Getman, N3PLM at :
413 MILITIA DR
LANSDALE PA 19446
 This is the place to be on Thursday, September 13th, at 8PM
 for the Board of Director's Meeting. Board meetings are open
 and may be attended by any club members.

"Lick and Stick" Mailing the HAMARAMA Materials Team Night Thursday, Sept 6th

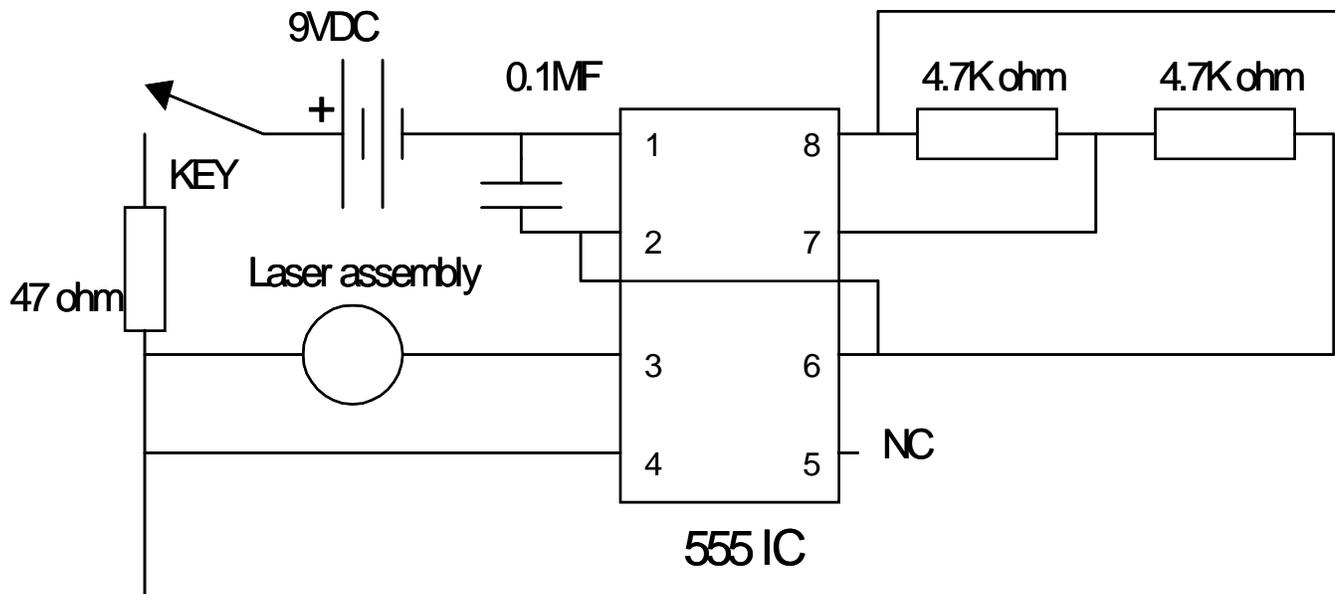
At the home of WA3DRC, try to get there before 8PM so
 that all can be finished early. Ed promises some refreshing
 liquids! (Sri, Map not included)

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Build a LASER Communicator at the November Club Meeting

At the last Board of Directors meeting, several members expressed interest in having a project night at the November meeting. Headed by Ben Kelsall, our V.P. & Activites Chairperson, we will have a group project to assemble and complete laser communicators for all who desire, for the cost of the parts. Laser light pens cost approx \$20, the total cost of the rest of the components for the transmitter are less than \$10. The receiver cell and amp are \$20. Total rig cost=\$50. If you want to "get on" this band for experimenting and contesting, please let Ben know, or send an email to me at rick1ds@hotmail.com. Bring a check in advance to the Sept or Oct. Club meetings to insure purchase of the parts for your LASER Communicator. If there is a club member who has an overflowing parts box and can supply the parts for minimal or no cost, the offer will gladly be pursued.



10 GHz White Boxes

This is a Microwave link terminal built by MA/COM called a RAPAC, operating @ 10.5-10.6 GHz. This particular unit is called a subscriber terminal because it was at the user end. This unit is easily modifiable for Ham Radio use at 10.368 GHz. The transmitter output power is between 100-200 mW. The receiver NF is 11 dB as there is no preamp. Unit is well filtered and has excellent filters in side, easily adjustable. RF source is phase locked and crystal controlled. The Waveguide output is WR-90. I have a copy of a conversion article by GP3HO that is straight forward. This is a simple & high quality method to get on 10 GHz Ham Band. NOTE: \$5.00 packing, 48lb. shipping weight. I will sell direct to hams for 100.00 ea. and 190.00 for a set (shipping extra). Jeff Kruth WA3ZKR Kmec@aol.com



I unpacked this new from the box. This was made by MA/COM for their RAPAC system and consists of a two foot dish antenna with a button hook feed, pole mount, brackets, clamps and all hardware. This dish has about 33 dB of gain, the button hook terminates in WR-90 four hole flange waveguide, has a Kapton weather window and is beautifully made. This dish is very sturdy and will not warp or twist in the wind. Kmec@aol.com

A lot of folks don't know these units and antennas, but they are VERY high quality, much better than the average ham could build with reasonable resources available, and easy to make work. IF you have been thinking about 10 GHz, but have limited funds and experience, these are very do-able, both from a budget and microwave homebrew ability standpoint. I have taken the two conversion articles and using them as a starting point, have developed a third approach, which (I feel) is the easiest and best all around conversion. IF there are any hardy souls out there who want to try one of these out, get in touch as I still have a quantity of these left. I will sell the white box for 100.00 plus shipping, and the antenna for the same. I am out of crystals, but am looking into more, if I can get a quantity buy together (need up-front money, as I don't need any extra crystals myself). I will keep interested people informed about crystals. ONE reasonable vendor is Classic Frequency Control, Everett Stockton, a nice guy. He has made a bunch of TO-5 crystals for me, and they run about 23.00-27.00 with shipping. I will be coming to the NEWS conference and will bring a small number of these with me. I prefer to ship them as I can only carry so many. (Dish antennas are bulky).

73, and HAVE FUN! Jeff Kruth WA3ZKR



Who was that climber making adjustments on the 432 array in June atop Camelback? W3CCX/3

Movin' Your Cheese (Buy-Sell)

For Sale: - 2 - Yaesu FT-100 w/ remote mount kit/ good condition \$600.00ea, Kenwood TR-751 Good condition dial lights out \$300.00, Yaesu G-450 Rotor/fair cond \$150.00, 1 - Telescopic motorized mast 42' in my rover \$1500.00 with custom made base and hand controller in excellent condition, SSB 1296 Mast mounted preamp \$125.00, 2304 SSB Mast mounted preamp \$125.00, No I am not going off the air, giving up roving and putting a large station on the air.

Wanted: Icom IC-746; Needed large 6 meter tube amplifier over 1000 watts for loan or purchase, 2 -12' or larger 2" aluminum masts thick wall, looking for 150' of 1.25" hardline Andrews or equiv., 150' of Andrews 7/8's hardline, 1296 module for FT-736, 7289 tubes, 8 conductor rotor cable 175' minimum 4 lengths, spare Red beacon lamps for tower lighting, a tower lighting alarm system for red light towers, an ATV transmitter so I can keep an eye on my remote location. Any of the 903 amps I gave away not in use w/ 3CX400U7's a 220mhz SSB mast mounted preamp. I can be reached on my cell# at 609-352-1789. 73 AA2UK

For Sale: Yaesu FT-847 HF/VHF/UHF transceiver with the following options: Collins 2.5Khz Mechanical SSB filter Collins 500Hz Mechanical CW filter FC-20 Automatic external F/50Mhz antenna tuner Price \$1200 plus shipping. If interested, contact me at one of the following: smdallas@mediaone.net stephen_dallas@hsgmed.com

For sale: 144 MHz amp , would prefer to have it picked up in the local area as packaging it up to send will be a problem? For sale 2x4CX250 144 MHz amp with manual. This is a beautifully built

amplifier with power supply. This unit is not a rack mounted unit, but an all aluminum, sealed three-chassis unit (desktop). The power supply unit has a Plate and voltage meter plus variac with on and off switch. It is wired for 120 VAC all Aluminum enclosure 1/8 " thick (not painted). Bias and screen supply has 2 grid current meters and 2 screen voltage meters plus four switches. Aluminum enclosure not painted Amplifier section is also built inside a aluminum chassis (not painted) with two 4CX250 tubes that will give 800 watts out CW with 15 watts drive. For more information refer to the 1969 ARRL handbook page 446 (might be in other editions). I am asking \$650.00 and prefer pick up in the Bear, Delaware area. Delivery is possible within 50 - 75 miles or I could meet at one of the upcoming hamfests. For more information e-mail me at: wa3bzt@wserv.com 73, Ed White, WA3BZT Delaware FM29ep

For sale: 1296 transverter- DEMI 1296 1 watt transverter. 144 IF, factory built. Includes home brew 18 watt amp, built with a DEMI module. \$325 2304 transverter-2304 1 watt transverter. Built from DEMI kits. 144 IF, complete with TR relay. PHEMT preamp. \$150 5760 transverter- Homebrew 10 watt out 144 IF. Complete with T/R relay. Works very well, but requires several voltages- -20 vdc (for PLL LO) -24 vdc for power amp, +28 for T/R relay, +12 vdc for low level xmit and rx stages. \$150 All items working fine, will consider offers. Shipping extra, but prefer pick-up. Call 609-654-4441 Before 9 pm, or during the day Sunday or Mondays. Or E-mail W2UR@aol.com Thanks, Mark W2UR

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Club Meeting Reminder-Thursday, September 20 at the Southampton Free Library, 8 PM

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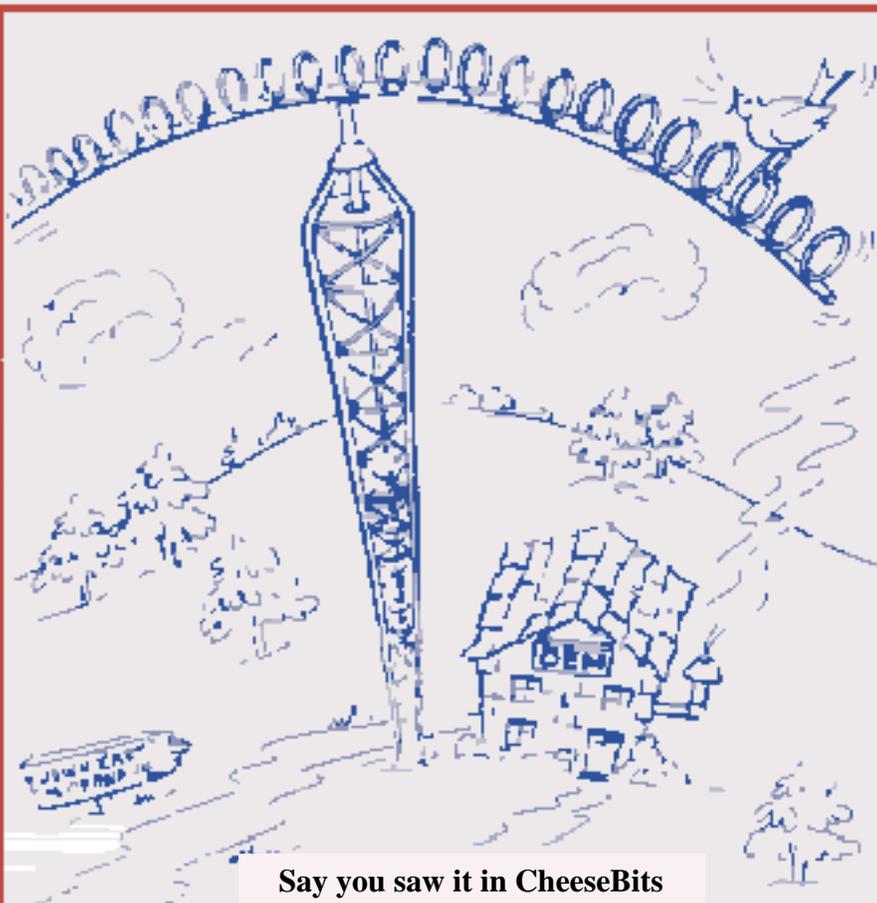
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