

CHEESE BITS



W3CCX

CLUB MEMORIAL CALL

SCANNED TO PDF BY BERT, K3IUV, 2013



ARRL
Affiliated
Club

VOLUME XLII

August 2000

Number 8

The PREZ SEZ

Well, I am still having to avoid some new treasures sitting right at the entry to my garage! The new "white elephant" acquisitions are staged for later storage and they are a reminder of that fine evening! There was a good turnout for the event, and hopefully all the fine stuff acquired will some how help put more signal on the air. For a change there was no precipitation on the event either.

Our next outdoor event is coming up fast! The annual (revised and re-energized) picnic will again be held at Al, N3ITT's QTH. This was a well attended event last year, and hopefully everyone has this penned onto their social calendars! Bring your swimmyies! Maybe I can get the GTO inspected for the ride up to Al's, and indulge another hobby!

The radio stuff seems to be unconnected and unplugged too much lately. I wonder what the MTBF of the AC outlets and connectors is? I routinely disconnect the N connectors, but the AC surge strips almost never. Since we are stuck in this thunderstorm cycle though, that has changed. I was on late the other night, getting great pings from EM35 on HSMS. A thunderstorm kicked up during all this, but the pings were getting more frequent. I kept at for a bit, but the strikes were getting closer too! The kids finally came into the room telling me I was going to die if I stayed connected to the wiring. I guess that convinced me to shut down. Let's hope for some good summer weather, enough water already, and a bit of tropo!

For those of you that actually read this column, note the lack of 10 gig transverter progress! How many more weeks until last minute panic sets in to get it working for January? Maybe we should start a pool? Odds for a Dec/Jan completion are looking good!

I hope to see you all at the picnic, and have some fun!

73, WA3DRC

MEETINGS

Third Thursday each month at 8:00 PM
Southampton Free Library
947 E. Street Road
Southampton, PA 18966

Pack Rats **CHEESE BITS** is a monthly publication of the
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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
(609) 665-8488
bobw2sj@prodigy.net

EDITOR:

Harry Brown, W3IIT
3012 Potshop Road
Norristown, PA 19403
(610) 584-4846
hbrown@voicenet.com

CLUB TREASURER:

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

AWARDS CHAIRMAN:

Bob Fox, W3GXB
(610) 346-8698
w3gxb@juno.com

TRUSTEE OF CLUB CALL - W3CCX

Ron Whitsel, W3RJW
w3rjw@aol.com w3rjw@arri.net
(215) 355-5730

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA FN20LE

OFFICERS: 2000-2001

PRESIDENT:	WA3DRC	Ed Finn, ed_finn@vlsi.com
VICE PRES:	WA3EHD	Jim Antonacci, jantonacci@worldnet.att.net
REC. SECR:	WA3AQA	Walt Zumbach, wzumbach@bellatlantic.net
TREASURER:	W3KM	Dave Mascaro, dmascaro@gi.com
COR. SECR:	AA3GN	Joe Landis, landisj@nad.com
DIRECTORS:	W3RJW	(2 Yrs) Ron Whitsel, w3rjw@aol.com
	K1DS	(2 Yrs) Rick Rosen, rick1ds@juno.com
	N3ITT	(1 Yr) Al Sheppard, alitt@cpix.net
	N3PLM	(1 Yr) Chris Getman, getmanc@nad.com

PACK RAT BEACONS - W3CCX/B

FM29JW Philadelphia, PA
50.080 144.284 222.065 432.295 903.072 MHz
1296.251 2304.037 3456.220 5760.190 10,368.152 MHz

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/WA3DRC
9:30 PM	1296.100 MHz	WA3NUF
10:00 PM	903.100 MHz	N3AOG

COMMITTEE CHAIRMEN

LADIES' NIGHT:	N3AOG	215-443-9965
JUNE CONTEST:	N3ITT	610-847-5490
HAMARAMA:	W3KJ	215-256-1464
VHF CONFERENCE:	KB3XG	610-584-2489



THE AMERICAN RADIO RELAY LEAGUE



KAY C. CRAIGE, WT3P
Vice President, ARRL

5 Faggs Manor Lane
Paoli, PA 19301-1905
610-993-9623

wt3p@arri.org

THE AMERICAN RADIO RELAY LEAGUE



BERNIE FULLER, N3EFN
Director, Atlantic Division

17668 Price Road
Saegertown, PA 16433
814-763-1529

n3efn@arri.org

PACKRATS PICNIC!!!!

de Al, N3ITT

The Packrats picnic is coming!! If you are looking for a club event that is PURE FUN, don't miss this one!! As most of you know last years picnic was well attended and certainly enjoyed by all. This year I hope to make it even better! The grounds have much improved, with grass and landscaping replacing the dirt and mud of last year, so the place looks much better. There will again be horseshoes, and I will have a set up for badminton this year, and of course swimming. There will be a large canopy and the sun room for shade, and air conditioned areas in the house. The club will, as always provide hot dogs, hamburgers, and of course, the all important beverages! To complete the meal, I'm requesting everyone to bring a covered dish of their choice, I will make some suggestions here, but you can bring anything, just let me know what it is so we don't get too many duplicates. You also may want to bring a lawn chair or two, and some unblock. Everything else will be here for a super time!!

Where? QTH of AL, N3ITT. 77 Foellner Lane, Ottsville, PA 18942. Call 610-847-5490 for directions.

Date/Time? Arrive abt. 12 noon, food will be out abt. 1:30 2:00PM on Sat. Aug.12, with Sun. Aug.13 as the rain date. So make plans now to come on up and party down on the farm, you'll be glad you did!!!

Possible covered dishes: Macaroni salads, Potato salads, Cole Slaw, Tossed salad, Fruit salad, Deviled eggs, Pasta salads, Cucumber salad, Button Mushroom salad, Bean salad, Desserts, or your special dish!! 73 CU at the Picnic!!

CALENDAR OF COMING EVENTS - AUGUST 2000

- 5-6 **2000 ARRL UHF Contest**. See July QST, page 92 for the rules. Second weekend is 18-19 September.
- 10 Packrat **Board of Directors Meeting** at the QTH of Joe, AA3GN. Call 215-721-4286 for directions.
- 12 **Perseids Meteor Shower** predicted peak between 0500 and 1000 UTC per Joe, N5CL with a tertiary peak around 1900 UTC on 12 August.
- 12 **Westminster, MD Hamfest**, Reese Fireman's Carnival Grounds, Rt. 140 and Bethel Rds. Carroll County ARC, POB 2211 Westminster, MD 21158, Talk-In 145.410- Contact Joe N3YIM 410-848-3946
- 13 **Jersey Shore Amateur Radio Society Hamfest**. Bayville, NJ, Bayville Fire House, Route 9, POB 295, Toms River, NJ 08754-0295, Talk-In 146.910- pl 127.3, Contact Bob WX2NJ or JSARSFEST@aol.com
- 12/13 The August meeting of the Packrats will be the **Packrats Family Picnic** with all Packrats, friends, wives, kids, etc. invited. The picnic will be held at the QTH of Al, N3ITT (see map in this issue of Cheesebits), near Ottsville, Pa. Bring a covered dish to share. The rats are providing hot dogs and hamburgers. Start time is noonish. Bring your swimmies. Rain date is on the 13th.
- 19-20 First weekend of the **ARRL 10 GHz And Up Contest**. See page 93 of the July QST for rules. Second weekend is 16-17 September.
- 20 **Gloucester County ARC Hamfest** at the 4-H Fairgrounds Rt.77, 2 miles south of Rt.45/Rt.536 in Mullica Hill, NJ, VE Sessions. Talk-in on 147.78/.18, 223.06/224.66 and 146.52.
- 24 **LEAP INTO THE MICROWAVES** with the Packrats! 903 and above. Starting on the 4th Thursday of the month and continuing every 4th Thursday of the month operate from 8 to 10 PM local time on any band 903 MHz and above. For coordination on those difficult long haul contacts 144.260 MHz is the suggested liaison frequency. So here's your chance to fix what broke in the contest and work all those stations you missed.
- 25-27 The **26th Annual Eastern VHF/UHF/SHF Conference** will be held at the Radisson Hotel in Enfield, CT. Reservations can be made by calling (860) 741-2211. Any questions please call Bruce N2LIV at (631) 293-9600 (w) or (631) 265-1015 (h) or e-mail at bdwood@erols.com.
- Sept.
- 29-30 **Microwave Update 2000** at the Holiday Inn Select, Bucks County, 4700 Street Road, Treose, PA 19053. See more details in this issue of Cheesebits. See further announcement info in this issue of Cheesebits.
- Oct.
- 1 **HAMARAMA 2000** will be held at the Middletown Grange Fairgrounds in Wrightstown, Pa. TI on 146.52 MHz.

CHEESEBITS SUBSCRIPTIONS

Cheesebits subscriptions are available to everyone interested in activities and information from the VHF through the microwave frequencies. Subscriptions are for 1 year of 12 issues. For a subscription, send the following information:

Name: _____ Call: _____

Street Address: _____

Town: _____ State: _____ ZIP: _____

Subscription Rate: \$10.00 per year (USA), \$12.00 (Canada), \$15.00 (Worldwide)

August 2000

Send to: SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ, 7258 Walnut Avenue, Pennsauken, NJ 08110

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PERSEIDS METEOR SHOWER

Since we always are asked, the IMO predicts the peak of this year's Perseids meteor shower for about 1000 UTC on Aug 12. The earlier secondary peak is expected to be very small to non-existent. The later tertiary peak was seen only in 1997. (Full moon on Aug 16, so not a good year for visual observers).

A little more info at http://www.qsl.net/w8wn/hscw/papers/hot_news.html and a little info on some of the other showers currently in progress in the table near the end of the page. For still more, go to the bottom of the page and follow the links to the IMO, AMS, and other meteor Web sites.

Looks like there will be a number of 222 MHz HSCW skeds this year, maybe some on 432. Please post your results. For the peak time, SSB on exactly 144.200 usually gives more QRM than QSO's. Maybe a 2 or 3 kHz spread up & down from there???

(Leonids? Predictions confusing for this year, and even more confusing for next few years now. Some info linked from the above page; some found in two places on the Archived News page; links to several of the researchers summaries and/or their home pages from there; but latest information I've seen disagrees with nearly everything. Sorry, but I don't know any more than that! Hopefully some more information later this year, but probably not much). 73, Shelby, W8WN

ARLB030 ARRL asks for primary status at 2400-2402 MHz

The ARRL has asked the FCC to elevate the domestic status of Amateur and Amateur-Satellite services from secondary to primary in the band 2400 to 2402 MHz. The League filed a Petition for Rule Making with the FCC on July 17.

Amateurs already are primary at 2390 to 2400 and from 2402 to 2417 MHz. The ARRL says it's necessary to secure the intervening spectrum slice "to provide some assurances of future occupancy of the band segments for the next generation of amateur satellites," including Phase 3D.

"It is urgent to protect the 2400-2402 MHz band due to the extensive reliance by the Amateur-Satellite Service on the future development of satellite uplinks and downlinks in that segment in particular," the League said.

Hams have shared their other 2.4 GHz spectrum on a secondary basis with government users. The League said it wants an allocation that's not subject to reallocation or use by "an incompatible sharing partner." The City of Los Angeles recently was granted an experimental license to operate a TV downlink system in the 2402-2448 MHz band. The ARRL has protested that grant as well as a similar application from Los Angeles County.

TID BITS

VUCC Award Checking: If you want QSL cards checked for your initial VUCC Award or an update, contact Harry, W3IIT at 610-584-4846 or hbrown@voicenet.com.

The August issue of Cheesebits shows the results of the **January 2000 VHF Sweepstakes**. The Packrats again placed first in the **Unlimited Category with 2,759,047 points** with 57 entries. Four Packrats were in the top 10 in the Single Op Low Power category, Two in top 10 Single Op High Power, Four in the top 10 MultiOp Category and One in the top 10 Rover category. Packrats Rick, K1DS and Leon, N1XKT are shown roving on page 106. Many Packrats were in the top 10 categories in QSO's per band and Grids per band - especially in the microwave bands. The same issue shows Harry, K3AX, up to 250 grids on 6M and Joe, K1JT listed in the 222 MHz standings with 10 grids.

March 1970 Cheesebits: Applications for membership: **WA3NFV**, Dan Mitten, **K3DMA**, John Taylor. Visitor: **K3ZSG** (now Bill Murphy, **W0RSJ**).

April 1970 Cheesebits: New Student member: **WA3NFV**, Dan Mitten. New Regular member, Harry, **WA3NGK**.

May 1970 Cheesebits: Visitor: Ron, **WA3AXV**.

9A4GL's latest version of **WinMSDSP 2000** is now available. More, with links, on the Hot News page at http://www.qsl.net/w8wn/hscw/papers/hot_news.html. 73, Shelby, W8WN, w8wn@amsat.org

The August 432 and Above EME newsletter by Al Katz, K2UYH is at: <http://www.nitehawk.com/rasmit/em70cm.html>.

2304 Net, FYI, we're still doing this. Check-ins have been pretty light, but usually we have at least 1 or 2. Last night N3XEM. See you next Monday on 2304.100-105 after the 903 net - around 10:15PM. Tune around - we drift a little! Coordinate on 223.5 or 224.58-. 73, Joe - AA3GN, FN20ih

SWAP SHOP:

(send all ads to the editor)

FOR SALE: CALLSIGN HISTORY. Name and address of each holder since 1912. Cost \$20 plus SASE for printed CERTIFICATE. Wanted CallBooks before 1970 and QST's before 1940 will buy or trade. Also looking for 1x2 Ham Radio License Plates for my collection. Ron Allen W3OR, PO Box 73, Bethel, De. 19931-0073 or call 302-875-1100.

ANNOUNCING MICROWAVE UPDATE 2000

By John Sortor, KB3XG

Microwave Update 2000 will be held on 29 through 30 September 2000 at the Holiday Inn Select, Bucks County just north of Philadelphia, PA.

This year, Microwave Update will be hosted by the Mt. Airy VHF Radio Club, Inc. ("The Pack Rats"). The Holiday Inn Select, Bucks County will be providing accommodations for the event. This is a 215 room full service hotel with a restaurant, lounge, indoor pool, fitness room, etc. It is centrally located between the Bucks County countryside and historic Philadelphia. We will have full use of the conference center Friday and Saturday. Two smaller meeting rooms will be available for the evening flea market(s).

Call for Papers: Anyone wishing to present and/or submit papers equipment design, construction, and propagation at frequencies above 900 MHz for inclusion in the printed copy of the proceedings should contact John Sortor, Conference Chairman at JohnKB3XG@aol.com. The deadline for papers is Monday, August 7, 2000.

For those of you that are unfamiliar, the Pack Rats are a group of VHF and Above enthusiast's with a 44 year history. The club was started by a small group from Philadelphia with the sole purpose of promoting VHF activity. The club has sponsored one of the area's best hamfest (Hamarama) for the past 28 years and has hosted the Mid Atlantic States VHF Conference since 1975. The Packrats provide beacons on 10 VHF/Microwave bands from 50 MHz through 10 GHz and are active in all VHF contests.

Room rates will be in the low to mid \$80's. There is no additional charge for double occupancy. We have blocked out 100 rooms under the key code "Microwave Update" which will be held for us until September 7th. This might sound like a lot of rooms but don't wait until the last minute to make your reservation. This is a busy area.

Holiday Inn Select, Bucks County

4700 Street Road

Treose, PA 19053

(215) 364-2000

(800) HOLIDAY

www.basshotels.com/holiday-inn

In addition to ham activities we are tentatively planning some extra curricular activities for stranded ham family members. Most attractions can be reached in less than 1 hour. A list of activities will be included with the registration package to see who might be interested in what.

Atlantic City Casino bus trips

Franklin Mills Outlet Mall

Liberty Bell & Old Philadelphia

NJ State Aquarium

Philadelphia Park Race Track

Sesame Place

Valley Forge National Park

Of course it wouldn't be Microwave Update without the surplus tour. There are more new and surplus houses within a 50 mile radius around the Holiday Inn than you will be able to visit in one day. I said new equipment because Down East Microwave Factory Tours will be on the list. There will be evening flea markets at the hotel and don't forget Hamarama on Sunday. Please add flashlights to your packing list. The doors to the Pack Rat hamfest (Hamarama) open Sunday at 8 am but Hamarama has always been known for the "Flashlight Shoppers."

Noise Figure testing will be provided as well as an equipment tune-up clinic.

Advance Registration is \$40.00 with forms available at the web site below. Send registration to Microwave Update, PO Box 682, Hatboro, PA 19040. Hamarama and Dinner tickets will be available at the door.

For more information contact JohnKB3XG@aol.com and visit the Packrats web page for the latest news on Microwave Update 2000 at http://www.ij.net/packrats/MUD_2000/mud.html

More TID BITS

July/August issue of QEX has articles by Paul, WD7S, "A No-Bandswitch, Dual-Band VHF Desktop Amplifier, It uses dual 3CX800A7s operating in push-pull on 2M and in parallel on 6M. 50 to 60 watts in with 1500 watts out. Complete with all electrical information including parts list.

Microwave-Update 2000 UPDATE

Microwave Update is rapidly approaching so if you haven't made plans to attend yet, now is the time. You can download a reservation form www.ij.net/packrats

MAKE HOTEL RESERVATIONS NOW!

The CUTOFF DATE for the group rate is AUGUST 31st. Mention "Microwave Update" to get the group discount. Phone # for the Holiday Inn is: (215) 364-2000

LAST CALL FOR PAPERS:

If you plan on presenting a paper at Update 2000, please contact JohnKB3XG@aol.com ASAP. Update normally publishes an impressive volume of articles. Your contribution will be greatly appreciated.

SPEAKER LIST: (so far)

- 1) AJ3K "Using Sonnet EM Analysis Software"
- 2) K1WHS "to be announced"
- 3) K2UHY "Polarization Effect of EME"
- 4) K3BPP "Antenna Optimization with the use of Genetic Algorithms"
- 5) K3QII "24 GHz Surplus Rigs"
- 6) K5LLL "13 cm Quick and Easy"
- 7) KB2VSQ "Restoring a HP 8410 Network Analyzer"
- 8) N2CEI "to be announced"
- 9) N4MW "A Portable 10/24 GHz Transverter"
- 10) W1GHZ "to be announced"
- 11) W5KQJ "Laser & Multiband Microwave Transceiver"
- 12) W5LUA/w0eom "to be announced"
- 13) WA1MBA "Why Do Amateurs Like Microwaves?"
- 14) WA2AAU "Will This Rover Site Make the Path?"
- 15) WA5VJB "PC Board Log Periodic Arrays"
- 16) WA8WZG "Dish Construction & Mounting Techniques"

SURPLUS LIST: (so far)

- 1) Fred Chassey
- 2) Dillsburg Aeroplane Works
- 3) Fazzio's
- 4) Fertiks
- 5) Hanifins
- 6) Kentronix
- 7) LB Metals
- 8) Surplus Al
- 9) The Surplus Shed
- 10) SSB Electronics
- 11) N2CEI Hamfest & Party

This sounds like fun. Steve will have a tent, food, and beer, not to mention some prime microwave goodies in his back yard on Thursday. Other "vendors" that will be hauling microwave junk to Steve's place are: K1FO, WA8WZG, W5ZN, WA8RJF, W0RSJ, WB2ONA, K1WHS, W5LUA, W1GHZ, N1DPM, and waiting on others.

If anyone knows of any other "GOOD" surplus spots in the area, please contact JohnKB3XG@aol.com

ANTENNA MEASUREMENT PARTY:

The microwave and dish antenna measurement party which usually occurs on Sunday morning of the Microwave Update weekend will be held at the same location as the Pack Rat hamfest. Paul, W1GHZ has agreed to conduct the tests using DEM test equipment. Please contact W1GHZ wade@tiac.net or JohnKB3XG@aol.com if you plan to bring something to be tested.

PRIVATE HAMFESTS:

There will be a private hamfest on both Friday and Saturday nights at the Holiday Inn in Trevoze. The Microwave Update crowd attracts the premium hamfest vendors who are there to sell you those hard to find microwave widgets. Note: You MUST be registered to for Microwave Update to be admitted.

METEOR SCATTER BY HIGH SPEED CW

de Joe, K1JT

Several times recently I've mentioned working 2 meter meteor scatter using high speed CW. So of course, as a punishment, Harry bugged me to write something about it for Cheese Bits.

HSMS (high speed meteor scatter) is a propagation mode you can use at any time. With the right equipment you can make 2m QSOs in the 600-1400 mile range, any day of the year. You definitely do NOT need to wait for a meteor shower! As with other meteor scatter communication modes, this one involves reflection by meteor trails at ionospheric altitudes 80-120 km. However, unlike the SSB (or normal-speed CW) QSOs that you can make using "overdense" bursts during a shower, HSMS makes effective use of the very short, fraction-of-a-second pings reflected by the underdense trails of sporadic meteors. At a keying speed of 6000 letters per minute -- that's 100 letters per second, or 1200 words per minute -- even a half-second ping is long enough to contain your call, the other guy's call, and his grid locator or signal report, repeated several times over! You can generally expect a few such pings every 10-20 minutes from a decently equipped station within your distance range. That's enough to let you complete a QSO in well under an hour.

HSMS is NOT a mode that requires an EME-quality station. I have a 160 W brick feeding a single 12 dBd yagi at 44 feet. I started messing around with HSMS last February, and in a few weeks I had worked six new states (FL GA IA IL KY MN) and eight new grids (EL95 EM57 EM73 EM77 EM84 EN13 EN34 FL23), all at distances 650 to 1250 miles. Between February and June I ran skeds several times each week with W8WN, in EM77. We usually completed a QSO in 15 minutes or less, including 27 of 28 attempts on 2 meters and 8 of 8 on 6 meters. (On the one occasion we failed to complete, both Shelby and I had to leave early.) My list of stations worked is mostly limited by present activity levels: not that many VHFers have yet figured out that this is a great mode, although more are getting on all the time.

Copying CW at 4000 to 10000 LPM requires slowing it down to a rate you'll find comfortable. That means using slow-down factors between about 30 and 150. The easiest way to accomplish this, and also to key your rig at the necessary speeds, is to use a program called "WinMSDSP 2000" running under Win95 or Win98 on a computer with a sound card. This excellent program was written by Tihomir Heidelberg, 9A4GL; it's stable, easy to use, and you can download it from the web. To make it run for more than 15 minutes at a stretch, you need to register your copy by sending the author \$20. He will then email you a registration key.

WinMSDSP uses the computer's sound card to record your received audio. It lets you play back the received pings at a rate you can copy, and while you're doing that it generates a keyed audio tone (most people use 2000 Hz) that contains your transmitted message. Obviously, your sound card needs to have stereo output. (Nearly all of them do.) You listen on the right channel, and send the left channel to the radio's mike input. You should set up the radio as though it's sending and receiving normal SSB. Your emitted signal will be pure CW, although the high-speed keying sidebands make the occupied bandwidth more like that of SSB.

The necessary interface between your rig and the computer includes:

1. Radio speaker out to sound-card audio in.
2. Sound-card audio out (left stereo channel) to radio audio in.
3. Sound-card audio out (right stereo channel) to headphones.
4. Computer COM port RTS or DTR to radio PTT control.

It's best to include audio isolation transformers in the two lines between radio and sound card, so that their "common" connections do not create ground loops and introduce hum. The method of switching the radio's PTT line with the COM port is the same as that used by various contest logging programs, including W3KM's VHFLog. Moreover, the interface between radio and sound card is essentially identical to that required for PSK31. A commercial interface called the RigBlaster does the job very nicely, if you don't want to roll your own. It's made by West Mountain Radio (N1ZZ and K1UHF), and has been advertised recently in QST.

Requirements for a valid HSMS QSO are the same as for any other mode. You need to exchange both call signs, some other information such as a grid locator or signal report, and confirmations of same. By convention, HSMS QSOs proceed in a structured manner, using alternating TX and RX periods of one minute each way, the western-most station transmitting in the even minutes. A QSO proceeds along the following lines:

1. Send both calls. (for example, W8WN K1JT W8WN K1JT ...)
2. When you have copied both calls, send both calls and signal report. (W8WN K1JT 27 W8WN K1JT 27 ...)
3. When you have copied both calls and signal report, send signal report and Roger. (R27 R27 R27 R27 ...)
4. When you have copied signal report and Roger, send multiple Rogers. (RRR RRR RRR RRR ...)
5. When you have copied multiple Rogers, send 73s. (73 73 73 ...)

The QSO is complete when both stations have copied RRRs. The 73s are not really necessary, but they provide a useful way to inform the other guy that you're done, and he can quit sending.

Signal reports are conventionally sent as two digits, with the following meanings:

First Digit (burst duration) Second Digit (strength)

- | | |
|-----------------------------------|---------------------|
| 1 - Weak ping, no info (not sent) | |
| 2 - up to 5 sec | 6 - up to S3 |
| 3 - 5 to 15 sec | 7 - S4 to S5 |
| 4 - 15 - 60 sec | 8 - S6 to S7 |
| 5 - more than 60 sec | 9 - S8 and stronger |

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METEOR SCATTER BY HIGH SPEED CW, de Joe, K1JT Contd.

A typical signal report is 26 or 27. Bursts longer than 5 seconds are quite rare, except during intense meteor showers. With HSMS they're almost a nuisance, anyway; you get all the communication you need through the much more plentiful underdense bursts.

WinMSDSP lets you play back received pings during your own TX minute. As a consequence, one station or the other is always transmitting. Note that since you are sending a keyed 2 kHz audio tone on a suppressed carrier, your emitted ("CW zero beat") frequency will be the radio's dial frequency plus 2 kHz. Therefore, if you have agreed on a sked frequency of, say, 144.110 MHz, be sure set your radio on 144.108, using upper sideband. Skeds are a big help, indeed almost a necessity, for making HSMS QSOs. You can usually make a sked on the fly by using the real-time web page at <http://dxworld.com/hsms.html>. As a newbie, you find that many people want to work you. They will also be very helpful in getting you started.

There's a very informative HSMS email reflector at hsms@qth.net, which is another good way to request skeds and get help. Other valuable web addresses for HSMS information, including downloading of the WinMSDSP program itself, include:

www.qsl.net/w8wn/hscw/hscw.html

www.nitehawk.com/rasmit/ws1_15.html

www.homestead.com/wb5apd

Russ, K2TXB, has been using HSMS much longer than me and Ed, WA3DRC, has recently joined the gang. I'm sure that any of us will be happy to help others -- Pack Rats and beyond -- who want to give this mode a try.

More TID BITS

ARLB032 ARRL Board announces award winners. In other action, the ARRL Board of Directors named Al Ward, W5LUA, of Allen, Texas, as the recipient of the ARRL Microwave Development Award.

Free Demo Versions of EZNEC and ELNEC: Roy Lewallen, W7EL, the author of the popular antenna modeling programs ELNEC and EZNEC has posted free demo copies of the latest Windows based EZNEC program, and a demo copy of the older DOS based ELNEC program. These demos can be downloaded from <http://www.eznec.com/>. The demo programs are limited in the number of model segments that can be implemented, but should be sufficient for modeling small yagis, quads, dipoles, vertical, and two element phased vertical arrays. Also of note is that there is no time-out function on these demos, although there are other functional restrictions. The programs offer a nice intro into the world of antenna modeling at a can't lose price.

Some worthy links per Joe, AA3GN. A little retro grade radio humor at GEARVAKf: <http://w3.gwis.com/~joelr/vent.htm>, TRAP: <http://w3.gwis.com/~joelr/gearpix.htm> (No transistors or other pussy stuff for Leonard. He is strictly a man who wants to see 275v on the plates, and a big-ass filament transformer too.) The handy Hertz to Cycles conversion chart is a classic.

John / NS1Z has written a procedure for to provide a step-by-step guide to converting the **Heath SB-220/221** amplifiers over to 6 meter only operation. There are pictures (such as they are) included to clarify the procedure. If this should interest you, please go to www.agate.net/~ns1z/sb220.html.

FALL SPRINTS

The Fall Sprints will again be sponsored this year by the Southeastern VHF Society.

Dates and times are as follows:

The 144 MHz Sprint will be from 7 PM until 11 PM local time on Monday, Sept. 18.

The 222 MHz Sprint will be from 7 PM until 11 PM local time on Tuesday, Sept. 26.

The 432 MHz Sprint will be from 7 PM until 11 PM local time on Wednesday, Oct. 4.

The 902 MHz and above Sprint will be on Saturday, Oct 14, from 6 AM to 1 PM local time, choose any 5 hours, in one hour or more increments, to operate.

The 50 MHz Sprint will be on Saturday, Oct. 21, from 1200Z until 1900Z, choose any 5 hours, in one hour or more increments, to operate.

The morning time for the 50 MHz Sprint was chosen to better enable meteor scatter contacts, and possibly catch some F2.

Complete rules will be posted soon.

Thanks and 73, Steve, K4RF, Activities Manager, Southeastern VHF Society

VE3CRU - SK

Hans Peters, VE3CRU, passed away Saturday after a long but courageous battle with cancer. Hans was an avid EME'er, and stood at 48 states worked on 432 MHz. He was also a key figure in the VE3ONT Algonquin EME expeditions in 1992-95 and graciously provided the 432 MHz equipment for that adventure. He was the first person to make a QSO from the big dish.

More notably, Hans is remembered for his contribution to the 220 MHz ops in North America. After establishing a Microwave Modules distributorship in Toronto in the late '70's, Hans recognized the need for a 220 MHz transverter similar to the MMT 144-28 and MMT 432-28 which were so popular at the time. Microwave Modules was reluctant to provide transverters for a band that was not available in England so Hans started modifying the 144-28's to 220 MHz and selling them. After some time he was finally able to convince MM to provide bare boards for the 220 MHz program - it was easier than converting them!

I understand there are several hundred of Hans 220 MHz "MMT 220-28's" out there - I only sold mine last year after upgrading. It served me well and I hope there will be many others in service for years to come. I ask you to remember the fellow who made it so easy for us to get on that band. Good VHF DX'ing Hans! Peter Shilton VE3AX

The North East Weak Signal Group's June VHF QSO Party Totals

TNX, North East Weak Signal Group Web Page

Call	Grid	C L	Total Points	Band QSOs/Grids												
				6m	2m	222	432	903	1.2G	2.3G	3.4G	5.7G	10G	24G	LAS	
AA7A	DM43	H	131,068474/178	65/25	-	-	22/10	-	7/4	-	-	-	-	-	-	-
AC5TM	EL49	L	99,840500/190	8/4	2/1	-	-	-	-	-	-	-	-	-	-	-
AFIT	FN43	H	84,455187/50	116/23	44/15	49/15	20/9	20/7	7/4	1/1	-	6/3	-	-	-	-
K0MQS	EN31	H	15912	-	221/72	-	-	-	-	-	-	-	-	-	-	-
K1DS/R	FN20	R	735	2/1	3/2	3/2	3/2	2/1	2/1	1/1	-	1/1	-	-	-	1/1
K1LPS	FN34	S	21,384	81/36	71/20	30/13	26/12	-	-	-	-	-	-	-	-	-
K1TEO	FN31	H	370,728302/87	302/52	74/33	113/38	37/19	45/20	21/10	12/9	-	3/3	-	-	-	-
K1WHS	FN43	U	401,280585/133	254/36	61/24	128/31	29/11	36/13	12/6	10/6	4/3	-	1/1	-	-	-
K1WVX	FN31	S	4,370	35/16	24/10	13/6	9/4	-	4/2	-	-	-	-	-	-	-
K2SMN	FN20	H	92,056	100/36	173/37	45/25	73/31	14/8	21/10	2/1	-	-	-	-	-	-
K2UOP	FM09	H	95,284	190/67	103/29	39/24	53/23	14/10	17/12	1/1	-	-	-	-	-	-
K5AM	DM54	H	297,579	1020/260	19/12	5/5	5/4	-	-	-	-	-	-	-	-	-
K5DGU	EL18	S	70,811	411/163	8/6	-	-	-	-	-	-	-	-	-	-	-
K5LLL	EM10	U	195,489	496/198	77/22	16/9	32/17	7/5	9/6	8/4	-	-	-	-	-	-
K7XC	DN10	L	104720	394/178	53/28	-	13/13	-	1/1	-	-	-	-	-	-	-
K8GP	FM08	U	1,858180	808/179	655/86	202/62	307/63	84/37	99/40	40/25	23/15	15/10	29/11	2/1	10/1	-
K8LEE	EM79	H	55,752	404/138	-	-	-	-	-	-	-	-	-	-	-	-
K8MR	EN91	S	85,808	180/78	132/41	42/26	50/28	-	-	-	-	-	-	-	-	-
K8TQK	EM89	H	161,760	147/81	120/55	52/32	73/39	18/12	17/10	9/7	4/4	-	-	-	-	-
K9AKS	EN42	Q	39,932	109/69	54/26	23/15	37/20	-	5/4	-	-	-	-	-	-	-
K9PW	EN52	S	350,721	340/128	188/40	63/23	101/32	22/14	33/19	13/9	10/9	11/10	10/9	-	-	-
K9YR	EN52	S	29,440	94/41	82/25	26/12	46/14	-	-	-	-	-	-	-	-	-
KB0VUK	EN34	H	97,125	134/78	119/48	36/18	67/29	-	22/12	-	-	-	-	-	-	-
KE8FD	EM89	H	208,504	170/84	143/63	64/41	84/44	20/14	31/20	4/2	-	-	-	-	-	-
KU2A	FN42	H	66,105	138/47	67/19	46/16	54/16	16/5	24/7	6/4	4/3	-	-	-	-	-
N0KM	DM67	S	33,625	199/91	22/14	11/10	13/10	-	-	-	-	-	-	-	-	-
N0LL	EM09	H	154,224	454/176	59/35	22/19	23/19	-	3/3	-	-	-	-	-	-	-
N1MJD/R	ROVER	R	168,338	229/35	205/26	107/21	127/23	28/9	41/12	11/6	-	-	-	-	-	-
N1QVE	FN31	R	21,708	49/15	71/16	33/13	36/12	6/2	12/3	-	-	-	3/2	-	-	-
N3FTI	FN20	Q	29,058	117/35	76/16	22/14	26/12	4/3	7/5	3/2	-	-	-	-	-	-
N3II	FN00	L	136,183	221/78	178/45	64/33	93/35	-	-	-	-	-	-	-	-	-
N5NJ	EM13	S	124,836	540/187	38/14	-	14/5	-	-	-	-	-	-	-	-	-
N6DN/R	DM14	R	87,804	95/29	171/21	75/15	104/14	25/9	38/9	-	-	-	-	-	-	-
N6EQ	DM13	H	135,605	328/135	120/17	42/13	72/13	-	19/7	-	-	-	-	-	-	-
W0AH	DM78	H	135,248	488/171	38/19	16/8	22/10	-	10/6	-	-	-	-	-	-	-
W1AIM	FN34	H	37,323	147/67	50/19	32/16	29/15	-	-	-	-	-	-	-	-	-
W1GHZ	FN42	H	67,976	166/50	129/25	40/14	62/17	12/5	17/5	-	-	-	-	-	-	-
W1PM	FN41	S	54,383	169/57	62/18	33/17	44/16	10/5	14/6	-	-	-	-	-	-	-
W2ODH/R	DM04	L	605,143	735/208	392/43	178/35	207/33	-	-	-	-	-	-	-	-	-
W2SZ	FN32	U	1,661,600	785/126	555/61	176/39	292/40	99/24	119/28	87/22	76/23	64/20	58/9	19/7	2/1	-
W3CCX	FN21	U	754,364	749/123	451/61	131/40	197/43	37/15	45/17	25/11	12/5	6/4	6/4	2/2	8/1	-
W3SE	DM04	L	263,057	546/180	245/20	68/16	101/17	-	-	-	-	-	-	-	-	-
W3SZ	FN20	H	2,646	-	24/9	3/1	14/7	-	8/6	4/4	-	-	-	-	-	-
W4EUH	EM74	H	38,499	156/72	75/30	16/10	25/11	-	-	-	-	-	-	-	-	-
W4MYA	FM07	H	107,793	385/114	122/35	-	51/28	-	-	-	-	-	-	-	-	-
W4NH	EM85	U	212,344	558/184	167/40	18/11	30/14	3/3	2/2	-	-	-	-	-	-	-
W5KFT	EM00	L	490,194	1104/260	158/39	35/16	57/24	-	-	-	-	-	-	-	-	-
W5UWB	EL17	H	272,916	975/239	33/21	9/6	-	-	-	-	-	-	-	-	-	-
W7XU	EN13	L	403,560	677/242	155/66	48/34	67/38	-	-	-	-	-	-	-	-	-
W9JN	EN54	H	31,773	136/72	55/22	15/12	23/13	-	-	-	-	-	-	-	-	-
WA1HOG	FN42	S	32,109	129/37	74/17	20/4	51/13	9/3	15/3	-	-	-	-	-	-	-
WB2VVV	FN21	S	73,700	108/38	116/27	36/17	47/20	17/10	19/10	4/4	4/4	-	5/4	-	-	-
WB2WIH	EL96	H	253,176	992/215	36/8	11/3	23/5	-	-	-	-	-	-	-	-	-
WZ1V	FN31	H	3,150	34/15	8/5	13/8	11/7	-	-	-	-	-	-	-	-	-

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26th ANNUAL EASTERN VHF/UHF CONFERENCE

26th Annual Eastern VHF/UHF Conference will be held once again at the Radisson Hotel in Enfield, CT. on August 25, 26 & 27, 2000. Reservations can be made by calling (860) 741-2211. Mention the conference or the NEWS group for a nightly rate of \$85 for a single or double room. For early arrivals a hospitality suite will be held Friday night.

Saturday will feature several speakers including:

Tom KB2AH - Stainless Steel Dishes.

Tom WA8WZG - Towers, Antennas and Feedline Construction.

Dick N3AOG & John KB3XG - The Packrats "W3CCX."

Paul W1GHZ - Waveguide Slot Ant & Electromagnetic Fields in Feed Ant.

Ken W1RRL & Don WB1FKF - 24 GHz Development.

Del K1UHF - Rigblaster application for HSMS and Contesting.

Also, our famous bandsessions, manufacturers displays and demonstrations, and a lab session will take place. Noise figure measurements through 10 GHz will be available. Saturday night will host our banquet, trivia quiz and door prize selections. Sunday we will hold a flea market lead by Mark K1MAP and antenna measurement sessions by Joe W1JR and Chris WB2VVV.

We expect a record breaking turnout this year so register early and make your hotel reservations. A mailing flyer will be sent out in early July. Any questions please call Bruce N2LIV at (631) 293-9600 (w) or (631) 265-1015 (h) or e-mail at bdwood@erols.com.

More TID BITS

New HB Amp pictures on the web. Check <http://www.angenent.org/W7IUV/amp-pix.htm>, a collection of amp images from VE7HBI including one with FOUR 4-1000'S, an 8877 amp by Dave, WT8R, and a 6 meter 8877 Amp by Dick, K5AND

Check SpaceWeather.com for info about the current solar weather conditions including sun spots, solar wind and meteor shower predictions. The weather on 4 August, 2000 showed current conditions: Solar Wind velocity: 569.6 km/s, density: 4.1 protons/cm³ as of 1936 UT, Sunspot Number: 137.

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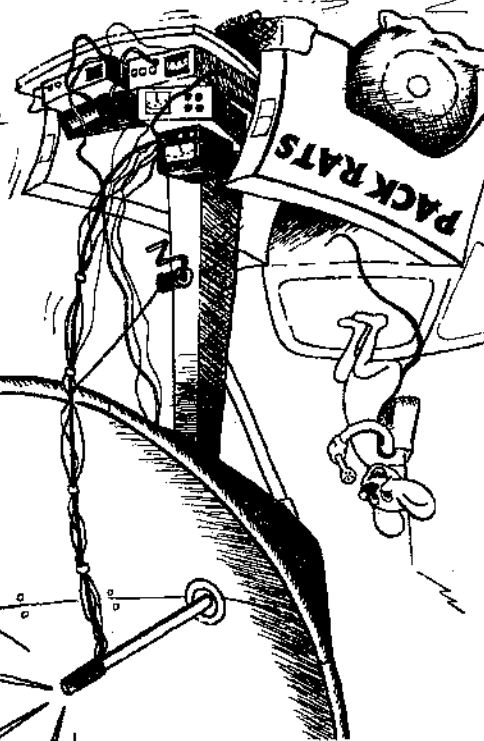
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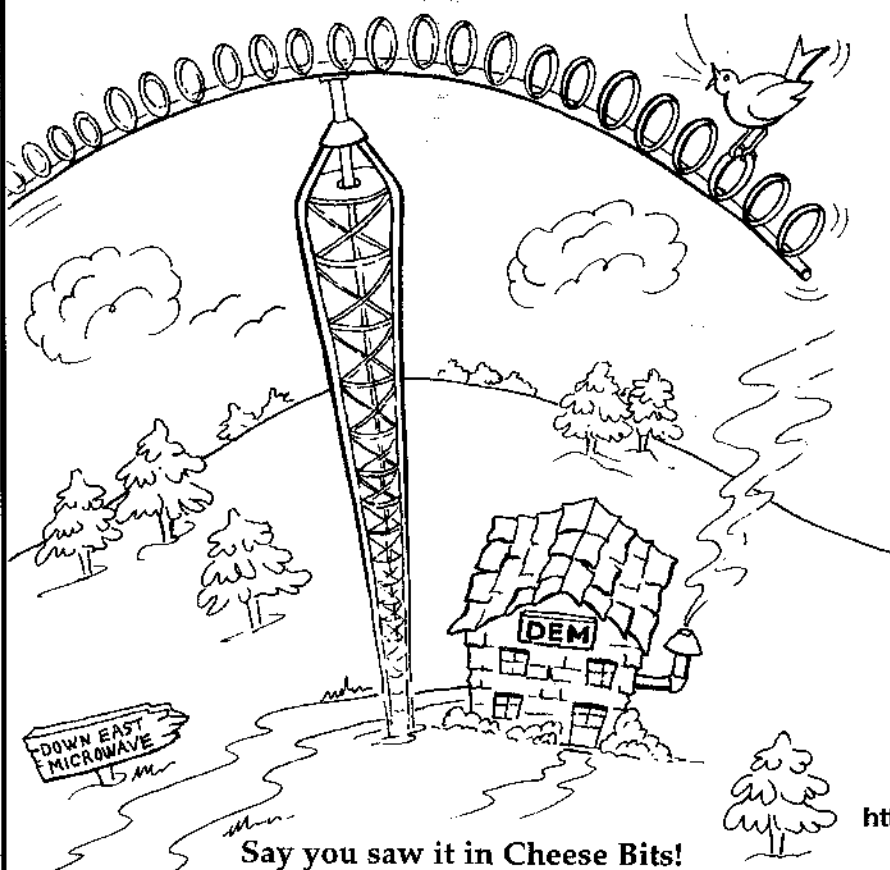
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