

CHEESE BITS



W3CCX

CLUB MEMORIAL CALL

SCANNED TO PDF BY BERT, K3IUV, 2013



ARRL
Affiliated
Club

VOLUME XXXX

April 1998

Number 4

THE PREZ SEZ

Last month's home-brew night was once again an interesting and informative meeting. It's always reassuring to see that the art of homebrewing is still alive and being practiced by many radio amateurs. Homebrewing today of course is not what homebrewing used to be. Scratch building, just like scratch baking, is pretty much a thing of the past. Most homebrewing today comes out of a box. I guess it's mostly due to the change in technology. With solid state electronics it's not as easy to just take components and wire them up to perform some electronic function. The degree of sophistication, PC boards and surface mount components, of today's equipment precludes even kit building for some equipment. Back in the sixties, when single side band was becoming popular, if you wanted to be on SSB it was possible to even build your own SSB transmitter. There were McCoy Silver and Golden Guardian sideband filters and 7360 tube type balanced modulators. It was possible to actually construct a basic SSB transmitter, in your basement, that would get you on the bands with your Hammarlund HQ-170 or your 'Halli-scratchers' SX-28 Super Sky rider.

Today, the projects are different but never-the-less it is important that you at least try, on occasion, to build something on your own. It's like anything else, the more you put into something the more you will get out. I think part of the apathy of Hams today to get on the air, is the rapid dissipation of interest in the hobby because they are not really involved in the hobby. It's just too easy to get on the air! We all know the excitement of bringing a new rig home and putting it on the air for the first time. It might even get us on the air for a few days, weeks or whatever. But it fades fast. Some are well off enough to do this more often than others, but is this what we all became amateurs for? I think homebrewing gets you more involved with the hobby. It keeps your interest longer. Why don't you give it a try?

Ladies Night is the club's annual banquet and awards night. It's really a great opportunity to get out for an evening, have a great meal, a few 'cokes' and maybe even, heaven forbid, a dance with the YL! The Pack Rat of the Year, The Mario Fontanna Technical Achievement Award and HomeBrew night prizes will be given out. It's the club only really social activity of the year so it wouldn't kill you to get out for one night, would it? The date is Saturday, May 9, 1998.

The April 16th General Membership Meeting is ARRL Night. We are privileged to have ARRL Lab Supervisor W1RF1, Ed Hare, as the guest speaker direct from league headquarters. Ed is the main man at the league on the new RF exposure requirements with which every amateur radio station has to be in compliance as of 1 January 1998. Ed gave a fine talk at the VHF conference last October and will once again share his knowledge and insight into RF

Continued on page 3

MEETINGS

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

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

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ
 7258 Walnut Avenue
 Pennsauken, NJ 08110
 (609) 665-8488

EDITOR:

Harry Brown, W3HT
 3012 Potshop Road
 Norristown, PA 19403
 (610) 584-4846
hbrown@vf.lmms.lmco.com
hbrown@voicenet.com

CLUB TREASURER:

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

AWARDS CHAIRMAN:

Bob Fox, W3GXB
 (610) 346-8698

TRUSTEE OF CLUB CALL - W3CCX

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

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA FN20LE

OFFICERS: 1997-1998

PRESIDENT: W3RJW Ron Whitsel, W3RJW@aol.com
 VICE PRES: WA3EHD Jim Antonacci, antonacc@pacsbm.org
 REC. SECR: WA3AQA Walt Zumbach, wzumbach@bellatlantic.net
 TREASURER: W3KM Dave Mascaro, dmascaro@gic.gi.com
 COR. SECR: KB3XG Dick Comly, n3ang@compuserve.com
 DIRECTORS: W2SJ (2 Yrs) Bob Fischer, fn37a@prodigy.com
 AA3GN (2 Yrs) Joe Landis, landis@nael.com
 N3ITT (1 YR) Al Sheppard
 N3EXA (1 YR) Brian Taylor

MONDAY NIGHT NETS

TIME	FREQ.	NET CONTROL
7:30 PM	50.150 MHz	K3EOD/WA3EHD
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	WA3NUT/AA2UK
10:00 PM	903.100 MHz	N3AOG

COMMITTEE CHAIRMEN

LADIES' NIGHT: N3AOG 215-443-9965
 JUNE CONTEST: N3ITT 610-847-5490
 HAMARAMA: N3EXA 215-257-6303
 VHF CONFERENCE: KB3XG 610-584-2489

PACK RAT BEACONS - W3CCX/B FM29JW

50.080 144.284 222.065 432.295 903.072 1296.251 MHz
 2304.037 3456.220 5760.200 10,368.200 MHz



THE AMERICAN RADIO RELAY LEAGUE

KAY C. CRAIGIE, WT3P
 DIRECTOR, ATLANTIC DIVISION

5 Faggs Manor Lane
 Paoli, PA 19301-1905
 (610) 993-8623

wt3p@arrl.org



THE AMERICAN RADIO RELAY LEAGUE

Bernie Fuller, N3EFN
 VICE DIRECTOR, ATLANTIC DIVISION

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

n3efn@arrl.org

STEVEN N. WHITE
 Attorney at Law

2217 PALOMINO DRIVE
 WARRINGTON, PA 18976

TEL: (215) 343-6902
 FAX: (215) 343-6903

(PREZ SEZ continued from page 1)

safety issues. His talk will center on RFI during contests, but I am sure he will answer any questions you may have of a more general nature. Kay Craigie, W13P, Atlantic Division Director will be present to bring us up to date on League happenings and to answer any question you may have on league activities. Tell your friends in other clubs, this is going to be a really good meeting.

73, Ron, W3RJW

CALENDAR OF COMING EVENTS - APRIL, 1998

- 3-4 **Southeastern VHF Society Technical Conference** will be held at the Atlanta Marriott Northwest between Atlanta and Marietta. For details visit their web page at: <http://www.akorn.net/~acbc/svhs/>
- 4 **Daylight Savings** Time begins.
- 5 **27th Annual Homecomp '98**, sponsored by the Delaware Valley Radio Assn. will be held at the Tall Cedars of Lebanon Picnic Grove on Sawmill Road in Trenton, NJ. TI on 146.67R
- 9 **Packrat Board of Directors Meeting** at the QTH of Bill, K3ESJ, at 8 P.M. All interested parties invited. Call 215-822-0121, for directions.
- 12 Physicist John Thompson demonstrated his discovery of a body smaller than the atom, a negative charged he called a corpuscle now known as an electron in 1897.
- 13 **ARRL 144 MHz Spring Sprint** (Monday evening) starting at 7-11 PM local time. See April QST, page 102 for rules or the April 1998 issue of CQ VHF. Results will be published in the NCL.
- 16 Packrat Meeting (**Annual ARRL Night**) at the Southampton Free Library at 8:00 PM. Bring and/or invite your on the air VHF buddies. All VHFers invited. The speaker will be Ed Hare, W1RFL from ARRL headquarters.
- 18-19 **Trenton Computer Festival** at Mercer County Community College, just north of Trenton NJ. This is the longest running computerfest in the world. Several sessions on amateur radio including no-code license cram sessions and exams as well as a separate packet radio conference. VE exams all day Saturday.
- 22 **Lyrids meteor shower** at 1000 UTC.
- 22 **ARRL Spring 222 MHz Sprint** (Tuesday evening) 7-11 local time. See April QST, 102 for rules.
- 23 **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 Italian engineer and inventor Guglielmo Marconi, inventor of the wireless telegraph and Nobel Prize winner was born in 1874.
- 26 The **Pen-Del Hamfest** will be held at the NUR Temple, 198 DuPont highway (Rte 13 near US 40 split), Newcastle DE. Talk-in on 224.220 and 147.225+.
- 29 **ARRL Spring 432 MHz Sprint** (Wednesday evening) 7-11 local time. See April QST, page 102 for rules.

WTMPR (WORKED THE MOST PACK RATS) AWARD

de Bob, W2SJ

The Winner of the WTMPR's this years January 1998 VHF Sweepstakes goes to WA2TEO, Jeff Klein with a total of 169 Pack Rat QSO's.

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)

April 1998 Send to: SUBSCRIPTION/ADVERTISING MANAGER:

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

- April 1998 Packrats Cheesebits Pg. 3-

JUNE CONTEST UPDATE -TEAM PACKRAT

By AI, N3FTT, June 1998 Contest Chairman

Spring is in the air! Now with winter gone and the January contest well behind us, it's time to get serious about the June Contest. At this time, I'm glad to report that about 20 operators have signed up to make the trip to the mountain. Just like the January contest, maximum participation is vital to the success of this event. However this contest is a different kind of animal, one that we've yet to defeat. The January contest challenges the performance of our stations and our ability as operators but in June we must prove our ability to act as a TEAM!

This means that all operators must make a constant effort to make sure that every station they work on their band has worked or will try to work W3CCX on every band they have. If you work a station in a rare grid, or you suspect they may not be in the contest for the duration, try to get them to "move up the bands". Don't be too lazy to pick up the intercom and arrange the contact with the next band up. Don't assume they'll "catch 'em later".

This concept of team work also extends to Packrats who can't make it to the site. There is no reason why every able-bodied member with an operating station can't turn on that power switch and work W3CCX. Try to work the club station early in the contest - don't wait till Sunday evening to start. Certainly those of us with many bands, or in rarer grids should make an extra effort to work W3CCX. Those going up to the site may try to have a member who lives nearby activate their home station. Some of you may want to try roving. Anyone with other ideas, please contact me.

Following is a list of team captains. Note that many of them have done this job for several, some many years. Also notice that slot for microwaves is yet unspoken for. Phil, WA3NUF, and Dave, W3KM, have done this most difficult job for as long as I've been with the club (8 years) and I guess before that and would like (and deserve) a change.

If you think you would like to setup the microwave bands (903 thru 10 GHz), please contact me ASAP. Hopefully, I can convince Phil and Dave to do it "one more time" or at least help whoever takes these bands. The club also has some equipment (mostly antennas, towers, rotators, dishes and feeds).

Well, that's about it for now, please again try to make plans to help the effort this June, only if we all work together can we again move up in the standings.

Hope to CU on the bands!

BAND CAPTAINS - ARRL 1998 JUNE VHF CONTEST

50 MHz	Bob, W2SJ and Gary, WA1YHO
144 MHz	Paul, WB3JYO
222 MHz	Len, N3NGE and Brian, N3EXA
432 MHz	Ron, W3RJW
Microwave	?????????????

TID BITS

Joe, KU3T, is now on 432 EME. Joe wants to let everyone know he is QRV on 70 cm EME with 4 x FO25 yagis and 700 watts (single 3CX800A) PA. He had his 1st complete QSO with JASOVU at moonset on 2 March. Since then he has worked K1FO, OH2PO and NC1I in the DUBUS Contest.

The April 432 EME Newsletter by K2UYH. The 432 MHz and Above EME Newsletter for April is at: <http://www.nitehawk.com/rasmit/cm70cm.html>

Aurora '98 will be held Saturday, April 18th, in Brooklyn Park, MN, a suburb of Minneapolis. The 15th annual event will feature antenna gain and noise figure measurements, technical talks and a flea market. Complete information is available on the NIRS web page. Northern Lights Radio Society web page: <http://www.tc.unm.edu/nlhome/m374/husby002/> See you at Aurora '98 - April 18, 1998

Central States VHF Society Conference will be at Kansas City in July 1998. <http://www.csvhfs.org/>

New PACKRATS: Christian Getman, N3PLM, 413 Militia Drive, Lansdale, PA 19446, 215-368-1005. Chris is currently on 6M, 2M and 440 FM and is a Tech+. Robert Minch, N3XEM, 242 Prince Wm Way, Challont, PA 18914, 215-822-0779. Chris is on 6M, 2M and 222 MHz and has a tech license.

2-METER STANDINGS The initial draft of the ARRL 144-MHz standings has been compiled and is available now on the Web at: <http://www.arrl.org/announce/standings/98/144.html>. Please e-mail any corrections or revisions to me by 1700 UTC, April 9th. The final version will be published at the same URL and in the June issue of QST (in the "World Above 50 MHz" column). 73 . . . Steve Ford, WB8IMY QST Managing Editor, vhf-list@arrl.org

1998 HOMEBREW NIGHT

The 1998 Homebrew Night held at the March meeting was a great way to share the expertise of the club members. In addition to the variety of projects, the guys showed that results can be obtained without a machine shop and an EE degree (but they help). The projects showed expertise and a showed us sources of information and future help when we attempt to make our version - "just like theirs did except.....". The projects presented were:

John, KB3XG and Paul, WB3JYO: Two complete 24 GHz narrow band Transverters including antennas built for on the tower mounting. Brick LO at 11 GHz into a X2 doubler on the TX Upconverter and the RCV Downconverter. Two stage LNA on the RCV board. Three stages of amplifier on the TX Board. Were able to use \$5.00 PHEMPTS TX and RCV boards were HB designs on 10 mil boards with etched via holes, 900 MHz IF, test point for monitoring the LO frequency and the VCO voltage of the LO to determine lock remotely. 0 dBm out of the TX board into a 100 mw MMIC amp.

Len, N3NGE, HB 432 MHz Transverter. Mitsubishi brick amp in the output for 30 watts output. KK7B Transverter boards with many mods including ovenized LO, MRF559 for higher power off of the board, TOKO helical filters added to supplement the existing hair pin filters, ERA MMIC amps in the LO chain to high level mixers. 3rd Order Intercept of +38 dBm. Many unique packaging techniques to provide access.

Bob, W3GXB, 2 Meter Power Amp. 4CX250B, strip line design, 5-8 watts in for 330 watts out. Flapper tuned plate line tuning, plate, grid, and antenna tuning from the front panel. Fully metered, built-in screen and bias supply and +12 and +24 VDC supplies for relays.

Jim, WA3EHD, Switch Box for interlocking his TS850 Transceiver to VHF/ transverters to insure proper sequencing. Audible alarms to indicate problems and disabling of TX relay to eliminate possibility of damaging the transverters.

Mark, W2UR. Tower Mounted 10 GHz Transverter/Antenna. Made from a box of parts from AA2UK just before the January contest. 100 mw output using N1BWT boards, 1 mw drive required and 432 MHz IF.

Ron, W3RJW. A collection of Power Dividers using waveguide and standard tubing for the housing plus a discourse on how to make dividers that work and things to avoid in the construction that are not always obvious. See the Pack Rat web page for Ron's article on the use of standard lengths of waveguide for the outer shield of power dividers. Also hints on making power dividers for the microwave bands that take advantage of the fact that power dividers work at all odd harmonics of their fundamental electrical lengths. This helps to eliminate the need to use very small quarterwave length lines by going to 3/4 wave lines for example.

Joe, KU3T. 432 Power Divider

Dave, W3KM. Switch box to switch his transceiver's microphone to/from his computer's sound card and keying to 3 transverters to take advantage of the DVK and CW keyer features of the new windows version of his VHF Log program.

And the winners were: **MOST AMBITIOUS:** John, KB3XG and Paul, WB3JYO for their 24 GHz Transverters

BEST CONSTRUCTION: Len, N3NGE for his 432 MHz Transverter

MOST UNIQUE: Bob, W3GXB for his 2 Meter Amplifier

BEST TWO DAY PROJECT: Mark, W2UR for his Tower Mounted 10 GHz Transverter/Antenna

THE AM6155 / 6154 WWW REPOSITORY

via the VHF Reflector, by JASON, N1RWY, baack@maine.edu

A few months ago I started thinking about a web site dedicated to the AM6155 / AM6154 amplifier. Well..... I have looked high and low on the web for more information, and I now think I have most of it on this www site.

(However, this is ham in NY who has picture of his shack with an AM6155 sitting in the lower left corner... but for the life of me I can't remember the URL to get back there...) I would be happy to include photos from other AM6155/54 users as well.(I have more pictures of the mods, and the PS, fan, etc. they should be up shortly). Tell me what you all think. So with out further Ado.... Take a peek at the AM6155/64 amplifier repository! The largest web presence dedicated to the AM61xx series of VHF+ amplifiers.

** Email links, photos, mods, and links to other pages on the www. **

<http://www.umecut.maine.edu/~baack/AM6155/>

ARL025: VANITY FEE TO DROP DRASTICALLY

The fee to obtain an Amateur Radio vanity call sign would drop drastically under the FCC's proposed fiscal year 1998 fee schedule. If adopted, the new fee will be \$12.90 for the ten-year term, payable at the time of application for a new, renewal or reinstated license. The new fee is contained in an FCC Notice of Proposed Rulemaking, MD Docket 98-36, Assessment and Collection of Regulatory Fees for Fiscal Year 1998, released March 25.

The current vanity call sign fee is \$50.00 for the ten-year term. The FCC says it has no plans to refund the difference between the current fee and the new fee for applicants who submit applications before implementation of the FY 1998 fee schedule. The FCC has calculated the new fee based on an expected 10,000 applicants during FY 1998. The FCC says it will announce the effective date for the new fee either in the Report and Order that terminates the fee schedule rulemaking proposal or by a public notice.

10368 MHz BEACON ON TOP OF THE WORLD TRADE CENTER

de Del KD1DU

Larry, NY2US just put a 10368.210 + - ?? beacon on top of the World Trade Center, FN20xr. I am copying it 50 over 9. It is up and running but a little unstable, squittering but usable. It should be pretty wide coverage at 2200 ft. above average terrain on the coast! I believe it is running about 80 mw into a 6 slot antenna. Send reports to Larry I am sure he will appreciate it he worked hard on it!

SWAP SHOP:

(send all ads to the editor)

FOR SALE: Parabolic 1296 RCV Converter, 2M IF, \$40.00, Hamtronix 432/435 Tx Converter, 28 MHz IF, 25 watts out, \$80.00, 903 MHz VCXO controlled CW transmitter (Hamtronix 450 TX board with a Varactor Doubler, 4 watts out, \$50.00, Class C 903 MHz mimic amp, 10 watts out, 12 volts, \$35.00. Contact Rick, K1DS at 215-793-9306.

FOR SALE: Yaesu FT1726R with 6,2,432 modules, owners/tech manual, box, mint condition, \$900. Kenwood TS940S/AT General Coverage All Mode Transceiver with automatic antenna tuner, CW filter, AM filter, voice synthesizer, manuals, box, mint at \$1300. Autek QF-1 Q Multiplier/Audio Filter \$50. **WANT:** Alpha or Titan High Power HF Amplifier. Contact: Dennis N3DG at 215-938-8820

FOR SALE: HyGain 66DX 6 element, 6 meter yagi, 24 foot boom, ask \$125. Kenwood TS440S/AT Transceiver with automatic antenna tuner, manuals, excellent condition, \$675. Contact: Alex N3DGO 610-525-3400.

LOOKING FOR A TOWER. I am looking for a second tower to put up at my new QTH in South Jersey. I would like to get one that cranks up from 30 feet to 40 / 50 feet. Fold-over or tilt preferred. If you have a tower, or know of someone who does, please contact me at: K3EOD@JUNO.COM. I would like to get back on the air, and run the 6 Meter net again. Thanks, Al, K3EOD

ANTENNA PARTY HELP WANTED

Hello fellow Packrats and friends. Now that the snow is off the ground, and we all have recuperated from the January contest, and the hamfest season is upon us, I am in need of help with the removal of my antenna system and 40 foot tower at my old house in Philadelphia.

I am looking to have an antenna party on Saturday, April 18th with a rain date of Sunday the 19th. If the entire is a washout, then I will reschedule the work the following weekend, April 25th or 26th. If you can give me a hand, please let me know by e-mail at : K3EOD@JUNO.COM or call me collect at (609) 690-1787. I will also be monitoring the Vineland repeater 146.655 from 7:00 to 10:00 PM daily. Hopefully all the antennas will be transported intact, along with the new fold-over tower to my new QTH in Vineland, New Jersey. Sometime this summer I hope to have a tower raising party in Vineland and be able to return my duties as the 6 Meter net control station. If you can help, please let me know as soon as possible so that I can have an adequate crew on hand and make the necessary arrangements. If you know of anyone else who would like to help, please have them contact me. Thanks and best of 73. Al, K3EOD.

GREAT INTERNET TIME APP

from the CQ-Contest Reflector de: Randy, K5ZD

Looking for an easy way to synchronize your PC before the contest starts? Check out <http://www.arachnoid.com/abouttime/index.html> to get a copy of About Time 4.1. Not only is this product incredibly simple, it's basically free! The author has a most interesting policy called "careware". Check it out.

Ed note. Check out <http://tycho.usno.navy.mil/what.html> for time service at the US Naval Observatory. In addition to the time, they have clocks for each time zone and via "Real Audio" they provide the time in voice.

NORTH AMERICAN HSMS CONTEST RULES

de Bob, N7STU, n7stu@psnw.com, Jim McMasters LM23wk, KM5PO/KD5BUR & Others

I would like to present the NA HSMS contest. This was a joint effort of K0GU, K0OU, and N7STU after K0GU's initial contest inquiry last year. The Western States Weak Signal Society has agreed to sponsor the awards for this event. The contest period was chosen to coincide with the rise of the Eta Aquarids meteor shower. We hope all active HSCW stations will participate, and encourage ANYONE even slightly interested in HSCW to join in. We have even created a Meteor Scatter Listener (MSL) class so that those that aren't transmit ready yet, or wish to listen first to see if they are interested, can give it a try. We are confident that most listeners will be hooked, just like those currently active. The rules and log sheets are not yet on my website as I am having problems with FTP. I will get them up ASAP. We missed the magazine deadlines with this, so please spread the word.

Purpose: To promote the development of skilled HSMS operators in North America.

Contest Period: 0000z, 2 May 1998 to 2400z 3 May 1998

Objective: Work as many North American stations as possible via meteor scatter during the contest period, using HSCW on the 2m amateur radio band. HSCW for the purpose of this contest is any speed no less than 495 LPM (99 WPM).

Contest Operation: Only random QSOs count for contest credit. The use of the letter system for CQing is REQUIRED, i.e. CQF, CQX. Report is your four digit grid square. Use of skeds, spotting assistance or nets (operating arrangements involving other individuals, DX-alerting nets, Packet Cluster, etc.) is not permitted. The area around 144.100 is considered the HSCW calling zone. The use of the area around 144.200 for HSCW CQ's is poor operating technique.

Multiplier (all classes): The sum of each unique four digit grid square worked.

Classes: Single Operator (Limited and Unlimited) and Meteor Scatter Listener (MSL). A station may only enter in ONE class.

Single Operator Limited: any station with less than or equal to 5 kW ERP. **Single Operator Unlimited:** any station with greater than 5 KW ERP. **MSL Class (Meteor Scatter Listener):** This class is for stations that are not yet transmit capable, but wish to listen in.

Single Operator Scoring: Each two-way QSO = 2 points. A station may only be worked once during the contest period unless the station worked has changed grid squares. A separate log is required for each grid activated. **MSL Scoring:** Each complete pair of calls copied = 1 point, each complete CQ transmission copied (must log the CQ letter used) = 1/2 point, each completed QSO logged = 2 points (you only need to hear one side of the QSO). To log a completed contact you must hear both calls, report, rogers. Only the highest scoring combination for each callsign (or callsign pair), i.e. CQX N7STU, K0GU N7STU, K0OU K0GU, etc. will be counted for points.

Awards: Certificates will be awarded to the top ten overall and to the highest scoring station in each USA/VE call district and each North American DXCC country for the following categories; Limited and Unlimited. In the event of a tie, the station with the highest number of unique stations worked wins. Certificates will be awarded to the ten highest scoring MSLs. Participants can only enter in one class for contest credit.

Reporting: For SO stations, the following information must be contained on the summary sheet which must accompany the log; Callsign used, Grid Square(s), Maximum ERP used, Name, Address, and Email Address (if available). Log info must contain the following data: Callsign of station worked, starting/ending times/dates of contact, Frequency, Reports. To assist in judging the MSL class please try to log all CQ periods (including the CQ letter used). MSL logs should contain all information copied during claimed period, along with the frequency and the time/date that the information was received.

Miscellaneous rules: The decision of the awards committee are final. All logs must be postmarked or email dated no later than May 25th. Email logs must be sent in ASCII format to: hscw@contesting.com. Postal mail logs may be mailed to:

Jay Kesterson K0GU
6200 NE Frontage Road
Wellington, CO 80549

Sample blank log page/summary sheets are available from www.qsl.net/n7stu/hscw.html or a reasonable facsimile may be used. A copy of the rules and sample log/summary sheet can be obtained by sending an SASE to K0GU. Please enclose an SASE if you would like to receive a printed copy of the results via postal mail.

Note: The radiant of the Eta Aquarids shower is projected to provide the best conditions during the contest (in North America) from approximately one hour before sunrise local time for approximately eight hours daily. This is the suggested best operating time during the weekend. Remember though, HSCW contacts can be completed at any time of the day.

Further Information about HSMS: The following Internet web sites contain a wealth of information about High-Speed-Meteor-Scatter. Please note that there are several minor operating practice differences between North America and European techniques; for example, in North America, the northern- or easternmost station normally transmits during the odd minutes (those minutes beginning with odd numbers: 1231Z, 1415Z; etc.). Also, North American sked speeds (and sometimes CQ speeds) tend to be somewhat higher than in Europe because most North American HSMSers are using computers to record and playback recorded reflections. Suggested HSMS operating practices are described in HSCW Procedures (v. 7), available at <http://www.nitehawk.com/rasmit/hscw-sop22.html>. Other information, including hardware modification tips, software, and HSMS articles may be found at these URLs:

http://www.nitehawk.com/rasmit/ws1_15.html

<http://www.ilkk.de/sites/gap>

<http://www.mint.net/~n1bng/>

<http://www.qsl.net/k0sm/>

<http://www.sci.fi/~oh5iy/>

<http://www.cannon.net/~mattmc/kb0vuk/hsms/hsms.html>

<http://www.qsl.net/n7stu/hscw.html>

You can download MS DSP at the 9A4GL site mentioned in the April 1998 issue of QST at <http://www.qsl.net/9a4gl/>

Contesters and DX hounds alike should investigate HSCW carefully. I believe it will play a very important role in U.S. VHF contesting beginning in June. I have already operated portable and easily worked 5 contacts on 144 MHz RANDOM METEOR (no shower) MS. These contacts were in the 700-900 mi. range. Details are at: <http://www.qsl.net/kd5bur/hscwem32.htm>

Please note that 6 meter HSCW is even easier. The Europeans have been using this mode for years and during serious DXpeditions they use a crew in order to maintain a QSO rate of up to 4 contacts per hour ALL THE TIME. Again, I stress that no meteor shower is necessary to have success.

RF SAFETY CALCULATOR

de Ron J. Whitsel, W3RJW

There have been many new things added to the Pack Rat WEB page <http://www.ij.net/packrats>, in the last couple of weeks.

Of particular interest is a link to an on-line RF safety calculator sponsored by the University of Texas. Make sure you look at how to calculate "average power" before plugging in numbers. Also this analysis assumes you are in the main beam of the antenna. Most cases, if you have a tower, this will not be true for yourself or neighbors, so your situation is greatly improved. Running some numbers thru this page will allow you to be in compliance with the FCC's "routine evaluation" requirements that went in to affect on 1 January 1998. By the way, I could not find anything in my shack and antenna farm that was even close to a problem more the 50 feet away and in direct line with the antennas (like maybe a really slow moving bird).

The higher the better to assure the health and safety of the neighborhood children.

RF EXPOSURE SOFTWARE ADDITIONS TO RON KLIMAS' WEB PAGE

de Ron WZ1V via the Weak Signal VHF Reflector

I've made available at <http://www.connix.com/~wz1v/vhf-soft.html>

Software recommended by Ed Hare W1RFI of the ARRL for evaluating FCC RF Exposure Regulations compliance:

- 1: An updated version of Wayne Overbecks' RFSAFETY.ZIP (now includes RFX.EXE). This will suffice for most people.
- 2: For those that really want more, pick up the 1.3M RFSAFE.ZIP archive. This collection includes the full NEC2S program (w/ antennas and docs), K6STT's NF (Near Field, w/ antennas), and the RFSAFETY software described above.

Additional information:

<http://www.arrl.org/news/rfsafety/> RF Exposure Regulations News

<http://www.arrl.org/catalog/6621/> RF Exposure and You

"RF Exposure and You" by Ed Hare W1RFI is available via the ARRL Bookstore. You can reach Ed Hare W1RFI at the ARRL Headquarters in Newington, CT or via Internet Email at ehare@arrl.org and talk to him at the April meeting of the Packrats.

These regulations now affect anyone renewing their license, and will eventually affect all new licensees (starting in the year 2000).

<http://www.downeastmicrowave.com/index.html>

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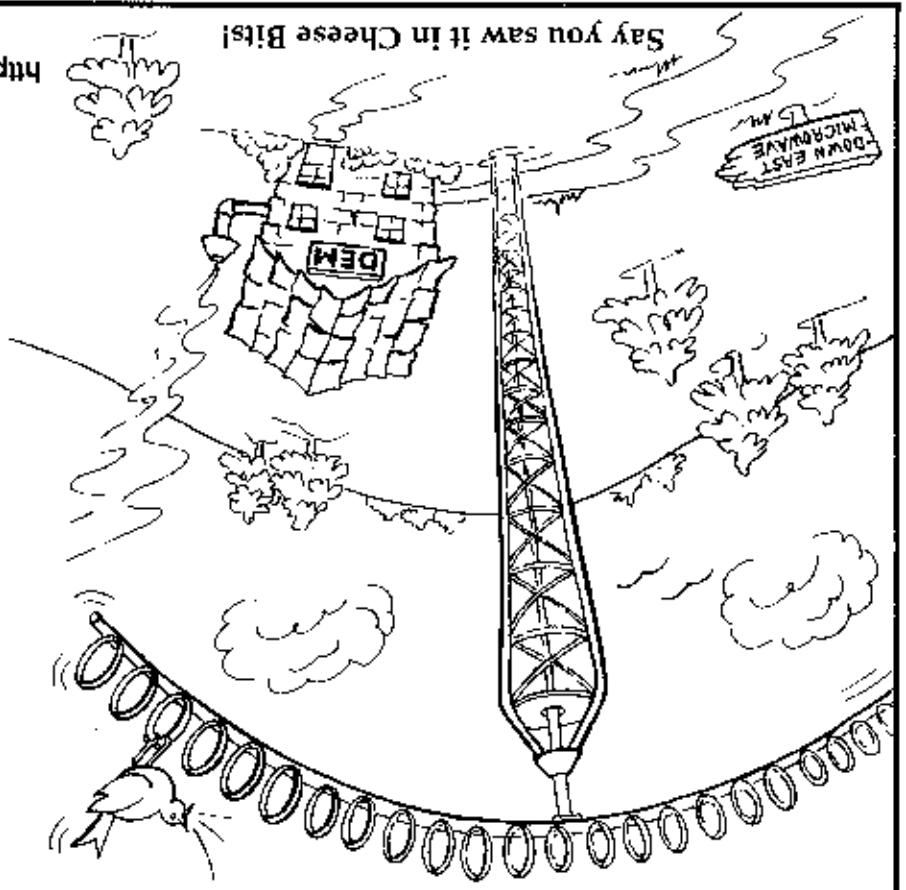
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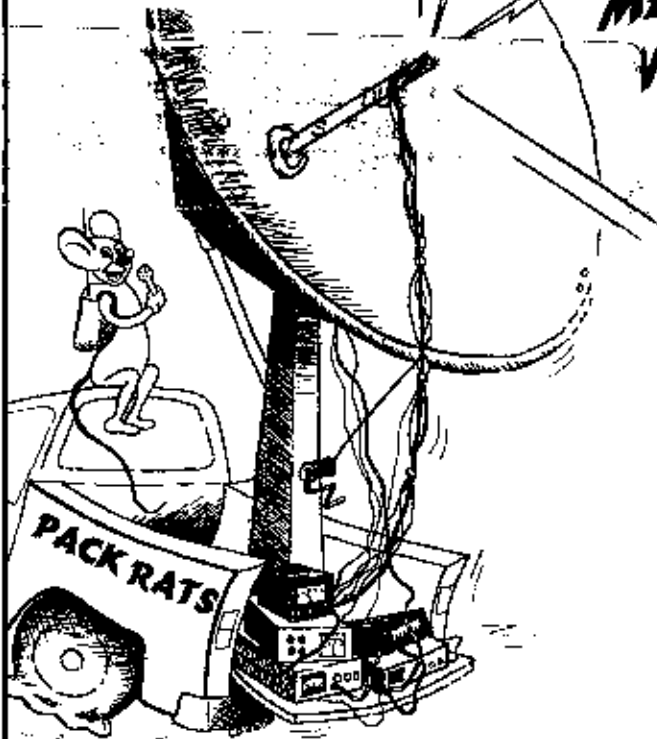
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