

CHEESE BITS



W3CCX

CLUB MEMORIAL CALL

SCANNED TO PDF BY BERT, K3IUV, 2013

ARRL
Affiliated
Club



VOLUME XLI

November 1999

Number 11

The PREZ SEZ

Well, the weather is changing and the cool air was blowing this morning, and it is starting to feel like we are moving on towards winter. A little more Indian Summer would help towards completion of those outside Fall projects. I have been doing more Ham related projects than household chores. (I have to get moving on the latter.) I have been thinking about the January contest for a while now. Unlike some of you veterans of the yearly January war, this will only be my third contest as a "Rat", and it took a while to put a better station together. I can already see that there will always be something that can be improved, or something that need repair. Get out there now and do the outside work.

Along the same (weather) lines, I am not sure if there was good propagation or it's just the leaves off the trees, but the 1296 signals this Monday past were way up. With some of the warm weather cycling through keep an ear to the radio speakers on the higher bands. You may be surprised! I know Joe, KU3T hit a good opening on 432 a couple weeks ago. 1296 was in good condition too, I hear. I think most of us were snoozing! (me included).

It is time to make sure your eligibility status is good for helping with the club competition in the upcoming January contest. If you still need to get to a meeting or two, please plan ahead. I think we just made the required 51 logs to enter the unlimited category last year. That also means that everyone should try to get on for at least some of the contest, and then submit a log.

Ed, 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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Southampton, PA

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PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA FN20LE

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	N3EXA	(1 Yr) Brian Taylor
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	N3XEM	(2 Yrs) Bob Minch, raminch@bellatlantic.net

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 10,368.170 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:	NK8Q	610-847-2285
VHF CONFERENCE:	KB3XG	610-584-2489



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CALENDAR OF COMING EVENTS - NOVEMBER 1999

- 1 Only 82 days until the 2000 January Sweepstakes.
- 2 Election Day
- 6-8 ARRL November CW Sweepstakes. See Oct. QST, page 88 for rules.
- 8 Predicted peak of the Taurids meteor shower at 0124 UTC.
- 8 Check into the 6 Meter Net on 50.150 MHz at 7:30 PM EST.
- 8 Check into the 903 MHz Net on 903.100 MHz at 10:00 PM EST.
- 9 Check into the 2 Meter Net on 144.150 MHz at 8:00 PM EST.
- 9 Check into the 1296 MHz Net on 1296.100 MHz at 10:00 PM EST.
- 11 Veterans Day
- 11 Fall All-Band VHF Sprint sponsored by the Rochester VHF Group. 7 PM to 12 AM local time. All bands from 50 MHz thru 2304 MHz. See Nov. QST, page 93 for rules.
- 11 Packrat board of directors meeting at the QTH of Ernie, W3KKN. Call 215-659-3485 for directions. All interested parties invited.
- 15 Check into the 220 MHz Net on 222.125 MHz or 224.58/R at 8:30 PM EST.
- 18 Predicted peak of the Leonids meteor shower around 0148 UTC although there are a wide range of estimates.
- 18 Regular meeting of the Mt. Airy VHF Radio Club at the Southampton Free Library on Street Rd. in Southampton, Pa. All VHFers are encouraged to come and enjoy the evening with us. John, KB3XG will be the featured speaker on "Hints and Kinks: Home Brew Construction Techniques". You need not be a member. Do you need to attend this meeting to qualify for club contest minimum attendance? Come anyway and bring a friend.
- 19-22 ARRL November Phone Sweepstakes. See October QST, page 88 for rules.
- 22 Check into the 432 MHz Net on 432.110 MHz at 9:00 PM EST.
- 22 Check into the 903 MHz Net on 903.100 MHz at 10:00 PM EST.
- 25 Thanksgiving
- 25 LEAP INTO THE MICROWAVES with the Packrats! 903 and above. 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.
- 27-28 ARRL International EME Competition - 2nd weekend. See Sept. QST, page 114 for the rules.
- 28-29 CQ World-Wide DX Contest - CW. See October QST, page 108 for rules.

Calendar of Coming Events - December 1999

- DEC
- 3-5 ARRL 160 Meter Contest See page 104 of the November issue of QST for the rules.
- 6 Check into the 2 Meter Net on 144.150 MHz at 8:00 PM EST.
- 6 Check into the 1296 MHz Net on 1296.100 MHz at 10:00 PM EST.
- 9 Packrat board of directors meeting at the QTH of will be at the QTH of Joe Landis, AA3GN. All interested parties invited. Meeting starts at 8:00 P.M. Call 215-721-4286 for directions.
- 14 Predicted peak of the Geminids meteor shower around 0440 UTC.
- 11-12 ARRL 10 Meter Contest. 1800 UTC Saturday until 0200 UTC Sunday. See page 105 of the November issue of QST for the rules.
- 3 Hanukkah begins at sunset.
- 13 Check into the 220 MHz Net on 222.125 MHz or 224.58/R at 8:30 PM EST.
- 13 Check into the 432 MHz Net on 432.110 MHz at 9:00 PM EST.
- 15 Regular meeting of the Mt. Airy VHF Radio Club at the Southampton Free Library on Street Rd. in Southampton, Pa. Have you qualified to submit a contest log for the January contest for the club by attending the minimum of 2 meetings? Come anyway!
- Jan. 2000
- 22-24 THE CONTEST. Everyone's help in getting at least 51 logs submitted this year is necessary to qualify the club for the Unlimited Class in the club competition. See this issue of Cheesebits or consult your contest package for the rules. See the Dec. 1999 issue of QST, page 101 for the rules.

SWAP SHOP:

(send all ads to the editor)

FOR SALE: CALLSIGN HISTORY. Name and address of each holder since 1912. Cost \$15 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.

W3HFY's Estate Sale. The following items from Hal, W3HFY's shack are being offered for sale by Hal's daughter-in-law, Lynn Grace. See the August issue of Cheesebits. Most items listed are still available. The price on each item is negotiable. Lynn's phone number is 610-258-0231.

FOR SALE: VHF Commander II amp 3cx800 final. \$1150, Yaesu FT736R with 1296 module. \$1275. Ron Allen W3OR, PO Box 73, Bethel, De. 19931-0073 or call 302-875-1100.

TID BITS

Contest Rules. Check the November 99 issue of QST for the overall contest rules covering all ARRL contests in 2000. Page 101 has general rules covering all ARRL contests and page 106 covers all 50 MHz and above rules. The general rules requires logging of modes (PH, CW or FM (this is really confusing)) even though there is no requirements for this information in the vhf contests since there are no categories for modes. What can you do with the HF guys make up the rules (minor editors comment)?

Nov. QST. Check the article by Ev Tupis, W2EV on page 46 of the Nov. 99 issue of QST on "An Automated Meteor-Scatter Station". Also Wes, W7ZOI has an article on "A Tracking Signal Generator for Use with a Spectrum Analyzer" on page 50.

The Nov/Dec issue of QEX has several good articles for vhf and above. Harke, PA0HRK writes about "A Noise/Gain Meter". It provides real time noise figure and gain display of the preamp you're tweaking. It's not a HP 8970 but it fits a ham budget. John, KD6OZH writes about "A Stable, Low-Noise Crystal Oscillator for Microwave and Millimeter-Wave Transverters". Mark, K5AM continues his series on HB Transceivers with "A High-Performance Homebrew Transceiver, Part 3".

AA3GN moved. New address effective 10/31/99 is 16 Fairhill School Rd. Hatfield, PA, 19440, FN20ih (40.31406N, 75.29070W) 215-721-4286.

New DX, Sat, 30 Oct 1999. Just a note to remind well equipped terrestrial stations to give the EME contest this weekend a try. On 2 meters I worked Japan this morning with my one yagi (no elevation), and on random (no sked). Was really a thrill and if I can do it, so can you! 73 and good DX, Russ K2TXB

New phone number for **Al Boblitt, K3EOD.** (856) 690-1787.

V3IPC Beacon I spoke with V3IPC on 10m on Sunday. His first QSO in 2 weeks. He has been sick and kinda out of it. But, he picked up the beacon packages on Friday, 29 Oct. and promises to get it on very soon. I hope we will see some spots on the clusters from somewhere!! -Herb, W3BO

Club Directory. Please check the Pack Rat directory for correct information; phone area codes, added bands etc. Send me your updated information (if any) so I can print the directory soon. Tnx. W3KM, **Dave Mascaro, 215-323-2166, dmascaro@gi.com**

WORKERS AT HAMARAMA 99 N3DG WA3DRC N2DEQ N3EVV N3EXA W3GAD AA3GN K3GNC W3GXB NE3I KB3JB W3KM K3MFI N3NGE N3OZO K3PHY N3PLM NK8Q W3RJW WA3RLT W2SJ W2SK W3SYN AA2UK WB2VLA N3XEM
Total = 26

6 Meter report from 11-9-99 to 11-11-99, worked:HP3XUG, T15KD, T15BX, EH8BYR, CN8UN, EH8BPX. Heard following beacons:HC8GR/B 50.034, 7Q7SLX/B 50.002. 73 Ron W3OR

50 MHz DX Bulletin This mail to inform You that the latest edition of the OZ50MHz DX Bulletin #99-045 is now uploaded at my website, at the address; <http://www.qsl.net/oz6om/>. Please have in mind that the OZ50MHz DX Bulletin normally is uploaded late Saturday evening (UT time). Feel free to comment or bring up suggestion in the guestbook at the page - thanks in advance ... vy 73 de OZ6OM / OZ7M "Matt"

REPORTERS Still NEEDED

I would like a volunteer or maybe several to do more reporting on what is happening within the club. How about reporting more in Cheesebits of what you are doing? This means letting all know of the new antennas, rigs, all sorts of new equipment being installed that can be shared among the members. I sometimes find out some of this from seeing postings on the various reflectors and on the air but I miss most of it. I would guess that much of it does not get to all of our members.

So, how about it? Send your latest station upgrades (equipment built, or acquired or even license upgrades) to me or volunteer to collect it. Put it on the reflector or if you'd like, send it to me to put in Cheesebits. I'm sure that along the way of getting something working you've discovered one or more paths to stay away from. How about sharing this with your fellow rats?

Cheesebits is always looking for technical articles (just little bits or big projects). 73, Harry, W3IIT

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)

November 1999

Send to: SUBSCRIPTION/ADVERTISING MANAGER:

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

JANUARY 2000 VHF SWEEPSTAKES

Hello Fellow Rats, In case you have not heard, the January VHF contest is quickly approaching! Although we are not organized as a contest club, both this contest and the June effort are a good part of what we do. We've all put a lot of work into building our stations and here is the chance to push them to their limits and enjoy the activity.

This contest will be an exciting one. There are rumors of more local microwave rover activity, and another strong multi-op or two. Lots of guys have been busy adding bands and making improvements. With a little luck, the NE guys will have good weather and no excuses will be made! Nothing like a little friendly rivalry to keep it fun. Of course that means more activity for us here. We just need to capitalize on it.

If you can't operate your own station for whatever reason, find someone to multi-op with. But if you can operate your own, by all means do so. Remember - we need 51 logs to compete in the unlimited multi class.

If you haven't already done so, think about what kind of changes may improve your station. Then implement those changes and test with real on the air operating. Think about the outdoor work first, and do it while we still have decent weather. Temperatures are falling fast. Now is the time to realize those antenna, tower and feedline plans instead of when it's 10 degrees and the wind is whipping the snow around your frozen fingers. Help is available now - just ask. But keep in mind that the closer it is to January, the harder it will be to get people together. Those cold winter nights should be spent indoors, and testing and using that new gear.

Also think a bit about contest strategy. As K3ZO stressed in the message forwarded by W3IIT a few months back, have a plan. At the December meeting, some of our members - some of the top VHF ops and contesters anywhere - will talk a bit about contest strategy. They will offer good suggestions that will help any op to improve their score. I will say one thing now: the most critical (and easiest) thing you can do now, that will help you in January, is to be active. Work stations, learn who's there, and their and your own stations capabilities. Ask them if they're going to be active in Jan. Talk up the contest, the club, the nets.

We have a few more meetings before contest weekend. If you haven't yet attended the two that are required for you to submit a log with the club, come on out. We have a nice slate of programs scheduled, and who knows - you may even find something that will help you add or improve a band. 73, Joe - AA3GN

NEW FOR '99

by Gary, WAIYHO FN42it

Each summer I try and come up with antenna improvements I can make during what has become an (almost) annual fall antenna party. As the years have progressed, improvements have gotten harder to come by. This year I came up with a small project targeted at a band I've been spending some time on lately, 1296. My brother Steve, WB3KRW, and I have been running weekly skeds on 1296 for a couple of years. While we haven't been very scientific about keeping records, we have been developing a good feel for the band. We started off having about a 50 -70% success rate. Steve added another 10-12dB on transmit and that moved my hearing his signals to almost 100%. But he still misses me sometimes. And there are still a lot of Packrats that I haven't worked on 1296. The only thing to do was to add more antenna.

Up on the tower I had an H-frame with a pair of 45 element 1296 loopers on one side and a pair of 33 element 903 loopers on the other. I decided to put four 1296 loopers on the H-frame and mount the pair of 903 loops side by side below the 1296 H frame. The space on the mast was tight but it looked doable.

It was time to order some supplies. A timely e-mail from Bob, W2SJ, offering a used 4x 1296 power divider for sale started off the acquisitions. A quick call to Steve at Down East and a pair of loopers and a 903 stacking frame were on the way. Another call to Cable-Xperts brought me some flexible 9913 style coax for new phasing lines. A final call to RF Parts for some long barrel N connectors, UG-21B, for those phasing lines and I was set.

When my chief tower installer and maintainer (WB3KRW) suddenly became available one extended September weekend, the project was underway. The first evening's job was to build the two new 1296 loopers. We almost forgot not to assemble the driven elements until we had the old loopers on the ground to get them all phased correctly. 88 loops later, the new loops were ready to go. The next day the hard work started. The old H-frame had to come down. Thankfully, it was the bottom item on the mast so nothing was in the way. First down was the pair of 903 loops. Then the pair of 1296 loops. Now it was time for some rebuilding.

First job on the ground was to inspect the old 1296 loops. They had been in use for many years. While properly aged, they appeared fine. The old phasing lines were removed. They had been sealed with RTV and the connections under the RTV were like new. Next step was to assemble the driven elements on the new antennas in alignment with those on the old pair. Remember that the bottom loop is mounted "upside down" but that the driven elements all need to be aligned on the same side.

The 903 loopers were taken off the 903 vertical stacking bar. That stacking bar was cut down and drilled to match the one from the 1296 side. That evening, new 1296 phasing lines were cut and connectors put on. The 903 phasing lines looked OK so they were left alone. Now all was ready for re-assembly.

NEW FOR '99 CONTD.

The next morning it was time to put everything back up on the tower. First the 1296 loopers were reassembled in pairs to the vertical stacking bars and the new phasing lines were attached to the antennas and sealed. These days I have been using self vulcanizing rubber tape instead of RTV. The 1296 power divider was attached and sealed to one of the pairs of loopers. A few less connections to work on up on the tower.

The new 903 stacking frame was assembled on the ground just to see if everything fit. And it did. But this also caused us to realize something. The 903 loops had been stacked one above the other on the old H-frame. Now they would be side by side. One of the driven elements needed to be rotated to get the phasing right. We almost missed this. This would have been a real Duhhh!!

Now it was time for the tower guy to get back to work. First up the tower (after the tower guy) was the first pair of the 1296 loops to be mounted to the spacer bars that had been left up on the mast. Next up was the second pair of 1296 loops with the power divider attached. The two phasing lines from the first pair and the rotor loop were connected to the power divider and those connections were sealed. Then the H-frame was pushed up as far up the mast as it could while keeping the tower guy safely belted to the tower. The antennas were carefully aligned with the other antennas on the tower and tightened down.

Then the new 903 stacking frame was pulled up to the top and installed on the mast just above the top of the tower tube. First one then the other 903 looper was pulled up the tower and attached to the frame. The second looper had the power divider attached to its phasing line. The first looper's phasing line and the rotor loop was attached to the power divider and sealed. The antennas were aligned and everything snugged down.

The rotor loops were redressed with all of the others and the job was done. Here's a picture of the new installation. Starting from the top, a pair of FO-25's on 432 with a FO-16 on 222 in between. Below that is an H-frame of 2304 loopers. Then the new 1296 H-frame. Finally the pair of 903 loops. On the very top is a triband Comet vertical used for the WA1YHO 224.56 repeater. The tower is 60 feet of Rohn 25 with a 24 foot, 1/4" wall mast. The rotor is down in the tower, which leaves about 15' of mast for all of the antennas. The boxes on the tower house the 1296 and 2304 preamps and T/R relays. 1296 and 2304 use 7/8ths hardline on the transmit side. All of the other bands use 9913.

The installation looked good but did it work? We needed a "tough contact" to test things. A quick phone call to W3RJW and a sked was arranged. The liaison signals on 2M were not real strong which is sometimes, but not always, a bad omen for microwave propagation. I heard Ron's 1296 signals immediately. Swinging the rotor back and forth showed that the four looper pattern was indeed sharp. When Ron turned it over I quickly sent my call and report. When Ron came back to me he was even stronger than before. I think things were working!

So did the two additional antennas make a difference? My early opinion, based on the ongoing weekly schedules with WB3KRW is that I hear the difference. Time and the next contest will tell the tale.

"AMATEUR RADIO'S OTHER 'MAGIC BAND' - 10 GHz"

by Joe Keer KU3T

As most of us are probably aware, the 6 meter band has been dubbed the "Magic Band" because of the "magical" nature of the propagation conditions which can be observed there from time to time. At one moment, the band is completely quiet except for the background noise, perhaps a local ragchew or two are underway, the local beacon is doing its thing. Then, quite suddenly, signals enhanced by meteor bursts or sporadic-E arise out of the hiss and within moments, 6 meters sounds like any one of ham radio's HF bands with strong signals arriving at your receiver from various parts of North America and, during solar cycle peaks, Europe and other parts of the world. Even hams with the most modest of power and antennas are able to work incredible DX when conditions are good on 6 meters.

Well, Amateur Radio has another allocation of precious spectrum space which has a different sort of "magic" all its own. I am talking about the huge chunk of electromagnetic real estate spanning 10.0 GHz to 10.5 GHz, also known as the 3cm band. Although the maximum distances one can work on 3cm are quite a bit shorter than those on six, the band offers a number of propagation avenues that can lead to a lot of fun QSOs. Some of these are tropospheric ducting, rain or snow scatter, EME or moon-bounce, and line of sight. Many still believe that LOS is the only way for two stations to communicate at 10.0 GHz or our other microwave bands. The microwave veterans can tell you that that is far from the case. Checkout Paul W1GHZ's (URL <http://www.tiac.net/users/wade/>) and Tom WA1MBA's (URL <http://www.wa1mba.org/>) excellent web sites for information about microwaves and 10 GHz propagation, equipment and techniques. You can follow their links to many other sources to find out the best ways to get started on the microwave bands. To alert operators to band openings, Del K1UHF is starting a telephone calling list for all permanent home stations

I am just starting out on this band and still have a lot to learn, but so far, I have had a lot of fun. My best DX was working Matt KB1VC on Mt. Washington in NH from the home QTH in FN20. We contacted during the ARRL 10 GHz and Up Cumulative Contest over a distance of 557 km, which is over 346 miles. I was running just about a quarter of a watt to an 18" parabolic dish at 35 feet above ground. Contacts like that are good on 144 MHz, great on 432 MHz and 1296, but it was a real "eye-opener" for me that it can be done with a very modest station on 10 GHz!

Chris, WB2VVV was out roving for the contest and I was able to work him in Cape May, NJ FM28mx.

Across the two contest weekends, I worked a total of 9 stations in about as many grids. There are many stations active up and down the East Coast and more are working on it. So, consider this interesting band for January and future contests as well as everyday operations.

DIGITAL VOICE KEYS IN VHF LOG AND GEN LOG

By Davc, W3KM http://www.qsl.net/w3km/vhf_dvk.htm

Use your Sound card software to record your messages in .wav file format. The output of your sound card is connected to the transceiver's Mic input with one of the interfaces above, for example. Or the audio can be acoustically coupled to the Mic for a quick test. CQ messages and 'report' messages can be sent with F-keys. The PTT line is also controlled.

Create alpha.wav and number.wav files to call stations in your own voice. You can also create syllable.wav files, which make the call signs sound smoother. The number of files you make is only limited by your hard-drive space.

USING A HEATHKIT HD-15 PHONE PATCH AS A DVK INTERFACE

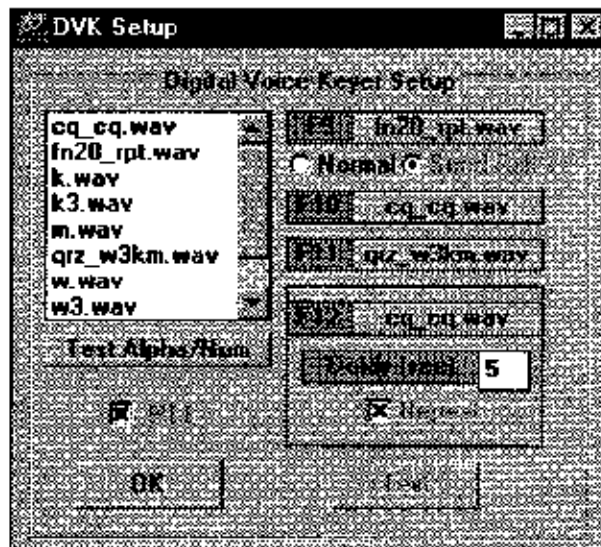
Basically the sound card audio is fed into the line input of the patch unit. The mic audio is taken from one of the outputs. Since the HD-15 has both 600-ohm and Hi-Z outputs, it will work with new radios and older types alike. So far, I have tried this interface on the Kenwood TS-180S, Icom IC-451A, IC-751 and Yaesu FT-221 radios. In order to use the interface with the station mic and logging software, you will want to add some impedance matching to the sound card output and switching of the audio and PTT line. If you don't mind modifying the HD-15, you can put everything inside the box.

Audio from the sound card (8-ohm) is fed through an impedance matching transformer into the line input (600-ohm). This interface allows the audio level to be monitored on the VU meter and the TX mic gain can be adjusted using the front panel control. The sound card volume can be adjusted to match the station mic level when the 'Trans gain' control is mid range. The sensitivity of the VU meter can be increased if necessary by reducing R1 (3600-ohm), which is connected between S1-A to S2-4. The VU meter allows you to set all your wave files to the same level. After recording your files, play each one into the DVK interface and reset the volume of each accordingly.

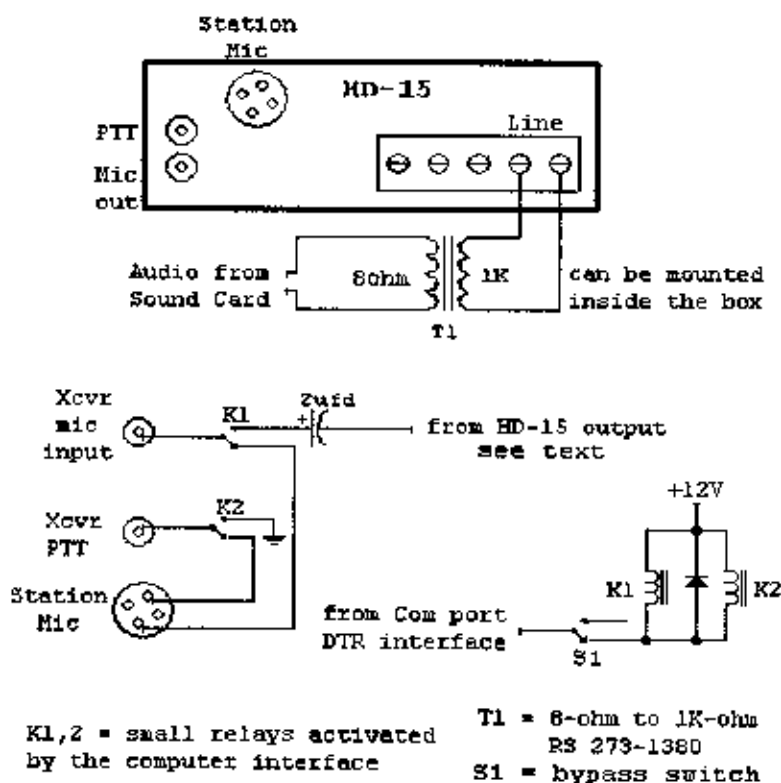
A small control relay switches the audio between the station mic and the DVK. The newer radios power the mic (8V) from the front panel connector. Unfortunately this power source is current limited to a few ma, so you can't 'steal' the voltage to drive a relay for example. Just the same, don't forget the 2uFd dc blocking capacitor. Use the 600-ohm audio for new radios and the Hi-Z audio for older radios using a high impedance microphone. Needless to say, shielded audio cables are used for all mic connections. I used one of the RCA phono jacks for the mic output to the radio.

Another small control relay switches the PTT line. The control line from the pc interface (ground on TX) can be connected at the SPKR terminal for example. The wire going to this terminal can be removed. A bypass switch of some kind should be wired into this line to act as a PTT bypass, if the wrong F-key is pressed for example. Connection to the radio's PTT line can be made via the other RCA phono jack. I used a single DPDT relay to switch both the audio and the PTT line.

I connected to the 8-ohm speaker output of my sound card since the level of the line output was not high enough to drive the DVK interface. There is more than enough audio available. If you want to add an 8-ohm audio attenuator to make the volume adjustment less sensitive, attach a T-pad at the line terminals going into the 8-ohm/1K-ohm transformer. 10dB T-pad: 2 x 4.3-ohm series resistors and a 5.6-ohm shunt resistor to ground. 20dB T-pad: 2 x 6.8-ohm series resistors and the shunt resistor is 1.5-ohms.



Phone Patch DVK Interface
8/99 W3KM



RESULTS: FALL 1999 SIX METER SPRINTS

Here are the results. Many more operated but were too shy to send in their logs. Thanks for those that did.

<u>Call</u>	<u>Grid</u>	<u>Category</u>	<u>Contacts</u>	<u>Grids</u>	<u>Score</u>
W8ZH	EN91	SO	41	18	738
AF4HX	EM96	SO	43	15	645
K4KAZ	EM74	SO	20	10	200
W4ATL	EM73	SO	18	9	162
KB9JIF	EN62	SO	18	9	162
W4DEX	EM95	SO	14	10	140
K4SZ	EM84	SO	16	8	128
W4KXY	EM84	SO	14	7	98
W1PM	FN41	SO	14	7	98
K4PTT	EM84	SO	10	6	60
AJ4Y	EL97	SO	12	5	60
AG4GQ	EM84	SO	10	4	40
N8XA	EM79	SO	8	5	40
K1QM	FN42	SO	9	5	45
N8NQS	EN72	SO	7	5	35
K4PET	EM84	SO	2	2	28
N3II	FM19	SO	9	2	18
W2PED	FN20	SO	4	4	16
W2FCA	FN22	SO	5	3	15
WA8RJF	EN91	SO	4	3	12
N3EMF	FN32	SO	3	2	6
K8KFJ	EM98	SO	2	2	4
K5OGF	EM86	SO	2	2	4
N2GKM	FN30/31	R	6	4	24

Some of the comments received:

My first Fall 6 Meter Sprint. To sum it up in three words: No, No, Yes. No Propagation, No Participation, Yes...LOTS of fun.

After the nice openings to South America the last few days was hoping for better propagation. I was also hoping to work a few more of the "locals" if the band was not open. I know there are more than 12 active 6m ops in Central and South Florida. Thanks to the folks that did give me a call. 73 Paul AJ4Y EL97bx

Xmitter died. Where were all the east coast big time radio guys? Paul, W8ZH

Any reason to get on the air is good! This is my first "Fall Sprint". Am looking forward to the two meter Sprint Monday! My thanks to those who are keeping the Sprint tradition alive. Dave Bostedor Jr. N8NQS

Wowee, but at least I was on and am glad to see fall activity, Frank, W2FCA

Where was everyone. With the listing in QST I thought there would be a lot more activity, even if there was not a 6m opening. Oh Well. I'll be working the 2m contest Monday night. Joel K1QM, Concord, MA

Just did not hear many stations in the Sprint from my particular location. I know there were others who did much better. My congrats to them. I felt it important for me to make some QSOs to show our participation in the Sprint (and our continued use of VHF frequencies). My thanks to all who picked up the sponsorship of the various Sprints after having been dropped by the ARRL. applaud you as does many other VHF/UHF enthusiasts. Garic C. Halstead (K8KFJ)

Participation was very disappointing. I Roved in three grids but only succeeded in making contacts while in two of them. I almost didn't activate the second grid to obtain Rover status. Norm, N2GKM

73, Harry, W3IIT

10 GHZ LOGGING PROGRAM FOR PALM PILOT

I found a bug in the 10 GHz logging program for the Palm Pilot; the GMT time offset got lost on restart. fixed in version 0.3. Also added a version for multiband logging, which I used in the UHF contest. no more logsheets blowing away! It was also handy to have BD on the mountaintop - when I realized my aiming wasn't right, I calculated the bearing to Mt. Monadnock, visible in the distance, and calibrated to that. Finally, after some questions about taps on the reflector, I've added a page for metalworking resources to the 10 GHz home page. See www.w1ghz.cx for all of above. 73, Paul, W1GHZ

MS OPERATING PROCEDURES

73 de KS0F

An earlier post about meteors was I believe intended to drum up some interest in new folks and currently non weak signal types. It has gotten rather confusing over the last couple days with several different actual types of meteor runs explained in great detail. I am afraid this has all had a counter effect on the intent of the original posting. After hundreds of meteor runs in the last few years I have determined that the consensus of operators is rather firm and rather simple. This is for N. American voice meteor runs. Two stations A and B. A starts his sequence with W6XYZ K1ABC W6XYZ K1ABC etc till the end of this sequence 15 seconds later. He may BREAK half way in the middle for a couple seconds.

B starts his the same way K1ABC W6XYZ K1ABC W6XYZ etc. with possible break in the middle

The first station that receives full calls whether intact or pieced together then shifts to including S2's in his call. As if station A was the first to receive calls he would then run his 15 second segment with W6XYZ

K1ABC S2 S2 S2 W6XYZ K1ABC S2 S2 S2 till the end of segment.

Station B would continue his calls until he hears full calls also at which time he would also start including S2s in his calls like station A.

The first station to then receive S2 would shift his transmission to Roger S2 Roger S2 for the duration of his segment with possible break or breaks in the middle.

The first station to then hear Roger S2 would then shift his transmission to Roger Roger Roger Roger for the duration of this segment with possible break or breaks in the middle.

When a station receives Roger Roger the contact is complete. At this point comes a lot of individual opinion about what to do. Often if an H.F. freq is used for liaison or the phone numbers are exchanged or some other means is given contact will be made to confirm that rogers were received otherwise the receiving station will go to Roger 73 Roger 73.

PLEASE READ THIS CAREFULLY

IT IS NOT ALWAYS APPARENT THAT A CONTACT IS COMPLETED DUE TO TIME RUNNING OUT OR WHAT EVER. THE FIRST TIME A STATION RECEIVES ROGER ROGER THE QSO IS DONE. BUT THE STATION SENDING ROGER ROGER KEEPS SENDING UNTIL HE KNOWS THE OTHER STATION HAS RECEIVED ROGER ROGER.

HE KNOWS THIS BY ROGER 73, BY A PHONE CALL, BY A QSO ON A LIASON FREQ, EMAIL OR WHATEVER. THE ATTEMPT TO USE THE PHONE OR HF OR EMAIL OR WHATEVER IS ONLY A COURTESY. TO TRY TO KEEP HIM FROM SENDING ROGER ROGER FOR THE DURATION OF THE TIME SCHEDULED WHEN NOT NECESSARY AND TO CONFIRM THAT A Q IS GOOD.

THE CONTENT OF A QSO IS DRIVEN BY AWARDS RULES THAT REQUIRE FULL CALLSIGNS AND ONE OTHER PIECE OF INFO. THE ABOVE SEQUENCE DOES THAT PLUS ONE WITH ROGER S2 AND ROGER ROGER IT HAS PROVIDED FULL CALLSIGNS AND TWO (2) ADDITIONAL PIECES OF INFO. S2 (SIGNAL REPORT) AND ROGER S2 (QSL, OK CONFIRM ETC.) BV8BB HOLDING FORTH ON 40CW RUNNING A PILEUP IS CALLED BY STATESIDE STATIONS WITH THEIR CALLS ONLY. HE ANSWERS A GIVEN CALL. THAT CALL SENDS 599 73. BV8BB SENDS 73 UP (OR WHATEVER). THE STATESIDE STATION HAS NEVER SENT THE CALL OF THE STATION HE IS WORKING. 99 PLUS PERCENT OF ENDORSEMENTS OF DXCC CERTIFICATES IN THE WORLD ARE ACHIEVED THIS WAY. TECHNICALLY A QSO WAS NEVER COMPLETE. THE NON DX STATION NEVER SENT THE DX STATIONS CALL!

To keep the Meteor guy honest with a basic valid contact gameplane is great and I fully agree. But to get so off the wall cryptic about what is a contact is ridiculous. It just ain't that hard guys!

S2. Back in the days of yore it was set up to use S1 S2 and S3 as the report format which indicated the length of the burn. Everyone has migrated to using S2 as the report just as 599 on HF DX.

Meteors are not only productive but can be FUN. If they are not fun for you, you will do something else. One of the beauties of ham radio, lots of neat stuff to do and HAVE FUN with.

We laymen who have searched for meteor shower catalogs of worth that include obscure showers call days when none of the 10 or 12 most known meteor showers are in occurrence random days. Sure a given day may have 3 showers going. Like so many other things that get synthesized down if it ain't major its random for the sake of brevity. Same as the 6AM local time. We all know this changes from day to day and month to month but again we are talking about a synthesized value. 6AM is one of those. For us laymen radio ops, "ping jockeys" or whatever we are at least smart enough to know that peaks and percents are guesses at best and daily operations prove that without a shadow of a doubt. Some of the most beautiful intense meteor burns (one after another) came hours after the peak of a major shower. Most had packed up their tents and shut down because they had worked through the peak. But what came made the peak look sick. I will never forget that day because I stayed.

Gonna be pretty hard to entice a new guy into meteor runs if you make it so hard to understand and sound so academic and complicated.

MS OPERATING PROCEDURES CONTD.

Meteors are Fun

Meteors are Productive

You can run meteors everyday with a decent percentage of possible production. Early morning local just after grayline is a good bet for "randoms"

Ham radio meteor scatter is not Military or Government or Commercial meteor scatter. Please remember that.

High speed cw meteor scatter sounds wonderful but I think a bit of a tune up on the procedures and some constants will have to be in place before I get hot on it.

Now you or your library may not agree with the above but I assure its just like Bruce Horasby says: "That's just the way it is"

Note per Russ, K2TXB: Try <http://www.uksmg.org/deadband.htm> for an excellent primer on MS operating procedures.

MICROWAVE UPDATE REPORT FROM W2PED

KB3XG and myself attended Microwave Update in Dallas last weekend. The weekend started with a surplus tour on Thursday. It was more a less a self-guided tour. Maps were available and guys carpooled in small groups to the 3 or 4 surplus locations. I missed the tour but John was able to check out the goodies.

Thursday night Down East sponsored a first class hospitality suite. Since just about everyone stayed at the hotel, there were lots of guys there for free beer. A good place to BS and meet the face behind the callsign.

Talks started Friday morning at 0830 and went to 1700. Talks, on average are a little shorter than what we're used to. Some talks are only a half hour, so things seems to move pretty well. There are plenty of breaks interspersed with the talks, so it rarely gets boring. During several morning and afternoon breaks a 15 minute auction is held. Guys bring surplus items to donate to the cause. The proceeds go to defray costs for Update expenses, and to provide seed money for the next year's event.

Concurrent with the talks a tech session is held including noise figure measurements and network analyzer capabilities to 47 GHz. Over 100 LNA's were measured.

Friday night there was an informal hamfest in the hotel meeting room. Attendees can set up a table and sell microwave junk. It's kind of neat - just about everything for sale is of interest. There were some nice items available.

Saturday morning the talks continue, and Saturday evening there was "Texas Style barbecue" banquet. Joel Harrison, W5ZN gave a real humorous 20 minute presentation, followed by the prize drawing. There were enough prizes so that everyone got at least one prize.

Sunday morning there was an informal antenna measuring setup in the back parking lot of the hotel. Both gain and rough pattern measurements were available 900 MHz and up. Most of what I saw being tested were feed horns or dishes.

By the way, both John and I brought our XYL's. There were plenty of activities for the ladies - self guided tours of local landmarks and shopping, etc. Naomi had a good time checking out a couple of museums, Celeste got a tour of the set of the TV soap "Dallas." I think about 15-20 wives came for the event. It should be pretty easy to put together a first class list of ladies activities for next year.

There was quite a bit of interest in Update 2000. Guys are looking forward to meeting all the Pack Rats next year. I think they're really looking forward to our fleamarket on Sunday, too. 73, Paul, W2PED.

MSDSP for Windows is Released

In response to popular demand, there is now a version of MSDSP for Windows. The product "WinMSDSP 2000" has just been released by the author, 9A4GL, who first introduced MSDSP in 1997 as a DOS application. MSDSP supports high speed CW operations used in Meteor Scatter communications. Speeds up to 20,000 LPM are fully supported by the software. The realities of modern radios may limit maximum speeds to lesser rates. The new application includes a CW-decode feature which will be of interest to amateurs not proficient in fast CW.

The application is a true 32-bit Windows application which employs the latest Microsoft DirectX technology to achieve high performance with virtually any sound card which Windows supports. WinMSDSP 2000 operates under both Windows 95 and Windows 98 and will operate under Windows NT as soon as contemporary DirectX support is available in NT which is scheduled for Windows 2000 Pro, now in Corporate Preview release.

You can download a demo version of the *shareware* from the author's site via <http://ham2.irb.hr/9a4gl/>

I have built a mirror site on my WWW server which may be more convenient at times when European Internet paths become congested Download the file "WinMSDSP2000_160699.exe" from: <http://www3.sk.sympatico.ca/freed/projects/9A4GL>

If you just want to preview the software features and specification, the manual is on line at:

<http://www3.sk.sympatico.ca/freed/projects/9A4GL/manual/>

I had the privilege to participate in the Alpha-test of this application and can vouch for its capability and fitness for the purpose. Try it. You will be amazed. 73 Doug VE5UP in DO61ov

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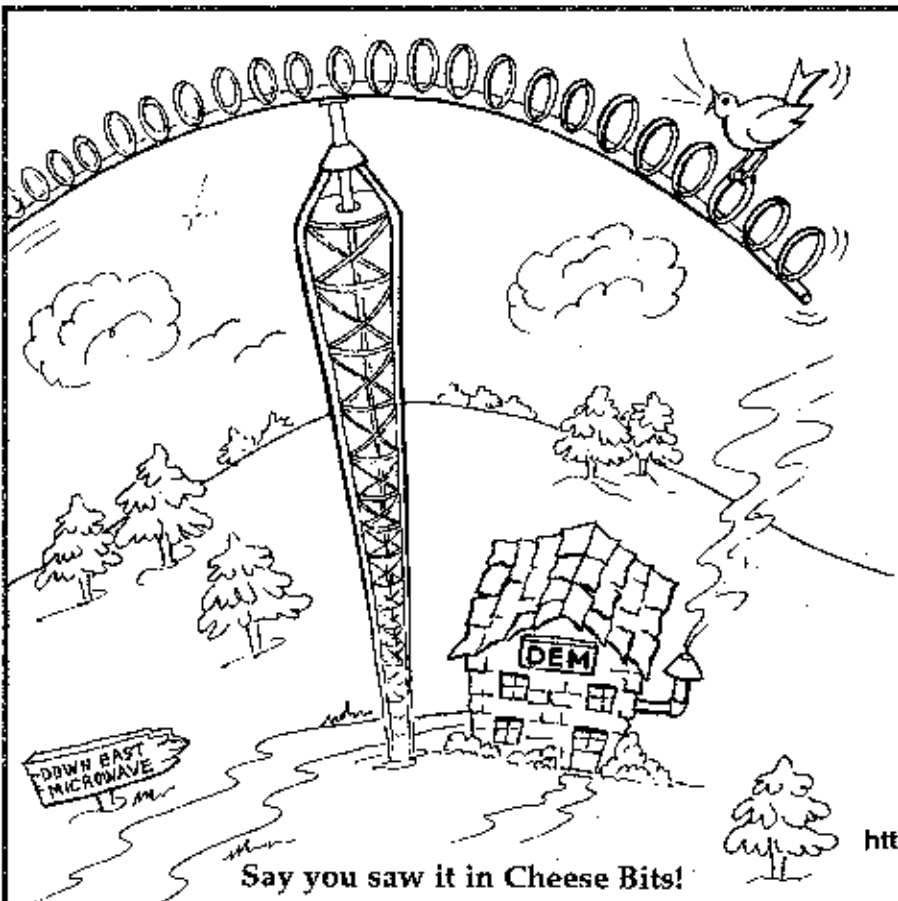
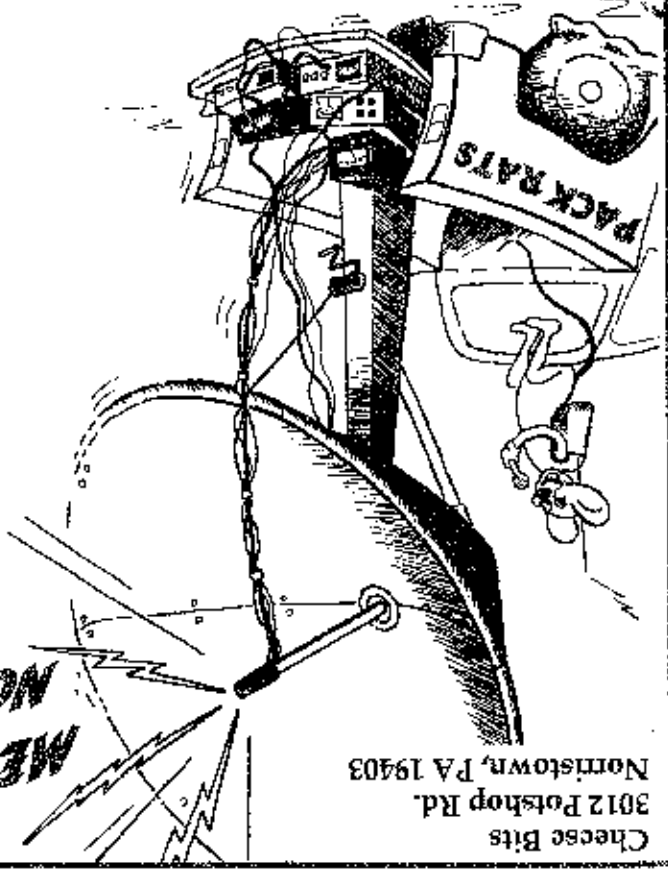
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