

PACK RATS'



MT. AIRY VHF RADIO CLUB, INC.

CHEESE BITS



CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PA. ARNS.
50.125, 144.50, 432.110, 1296.025 Mhz, W3CCX - Repeater 222.98/224.58 Mhz
Affiliated Club: AMERICAN RADIO RELAY LEAGUE
Meetings: Third Thursday of each month at 8:00 P.M.
Southampton Free Library, 947 E. Street Road
Southampton, Pennsylvania 18966

VOLUME XXIV

MARCH, 1982

NUMBER 3

THE PREZ SEZ

We've just completed one major club activity - participation in the January VHF Sweepstakes so it may not be easy for some to start thinking of the next major activity - no it's not the June Contest, it's the Club Banquet. Plans are well underway and I hope you'll mark your calendar now for Saturday, April 24. When you receive the announcement in the mail, fill it out right away and get ready for an enjoyable evening with your wife or girlfriend and all of your on the air buddies and their gals. With some pressure, maybe the Treasurer will allow an open bar again this year.

Writing about these club activities reminds me of the many activities in which the Packrats are involved. Non-Packrats may not know of these and may think that all we do is Contest - taint so. I'd like to point out some activities to non-members with a hope that you'll see something that you like, will get to know us better and become one of us. The Packrats have one thing in common - the enjoyment of the vhf/uhf and higher frequencies - it's the common item that keeps us building equipment, rag chewing, operating, contesting, etc. Back to activities, there's always the January Contest, home-brew night in February (the group builds a lot of equipment with only a small amount showing up at the meeting), the club banquet, ARRL night (last year we had John Lindholm, W1XX), the June VHF QSO party (I know it's another contest, but it's a lot different in the field with a first class multi-op setup), there's the EME contest that some of the guys operate, the UHF contest for the purists (15 min. of ragchewing required for some contacts), Sept. QSO party, the Mid-Atlantic VHF Conference and Hamarama. On a more frequent basis, there's the Monday night nets - who else in the world has nets from 50 to 1296 every week? To tie a lot of club activity together, there's the 220 repeater - we rag chew on it like everyone else, pass info on openings and DX (vhf variety) info. but also use it to co-ordinate 1296 and higher contacts - real interesting stuff. What I'm really trying to say to anyone that is really interested in VHF, is that we're having a lot of fun, doing a lot of things together and we'd like for you to drop in on our nets and meetings and get to know each other better.

73, Harry, W3IIT

---DUES ARE DUE---

Pack Rats CHEESE BITS is a publication of THE MT. AIRY VHF RADIO CLUB, INC. Philadelphia, Pa. and is published monthly.

SUBSCRIPTION RATE - \$2.50 PER YEAR

We operate on an exchange basis with other publications. Anything that is printed in CHEESE BITS may be reprinted, unless otherwise stated, provided that proper credit is given.

SWAP SHOP ITEMS - NO CHARGE

DEADLINE FOR ARTICLES IS THE GENERAL MEMBERSHIP MEETING: THE THIRD THURSDAY OF THE MONTH

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215-355-5730

AWARDS CHAIRMAN:

W2EIF, JOSEPH KILGORE
609-783-9478

CLUB HISTORIAN:

W3CL, HARRY B. STEIN

MONDAY NIGHT NETS

NET CONTROL

7:30 PM - 50.125 MHZ	W3CL-W3HQ
8:00 PM - 144.150 MHZ	W2EIF
8:30 PM - 222.98/224.58	K3GAS
9:00 PM - 432.1 MHZ	K3IUV-WA2DPU
9:30 PM - 1296.025 MHZ	W3CXU

PACK RAT REPEATER 222.98/224.58 MHZ
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REC. SECY: K3IGX, DICK BOYLE
TREASURER: K3GAS, DOC CUTLER
DIRECTORS:

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WA3NUF, PHIL MIQUELEZ (2yrs)
WA2DPU, BILL SMITH (1yr)
K3NHX, JOE GARDOCKI (1yr)

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CALENDAR OF COMING EVENTS
Syllabus by Lee, K3MXX

ARCH

- 3 June VHF QSO Party Contest planning meeting - 8 P.M. QTH, W3HQT
- 7 Sunday, Penn Wireless Association ARC - TRADEFEST - PNG ARMORY, Roosevelt Blvd. and Southampton Rds. NE Phila. A good local Hamfest and well worth visiting.
- 7 ARRL International DX Contest - Phone - See December QST Pg. 94
- 11 Board of Directors Meeting - QTH, W3IIT, Harry Brown, 3012 Potshop Road, Norristown, Pa. Directors and interested club members cordially invited to attend & add your input on the club's direction.
- 12 Orlando, Florida Hamfest
- 13-14 QCWA - QSO Party, Phone. Talk with the Pioneers
- 17 The Wearing of the Green; St. Patrick's Day. Everyone is IRISH today!
- 18 General Club Meeting, Southampton Free Library, 8 PM. An open meeting to all area Amateurs especially those interested in VHF/UHF activities. Topic: Computer Demo. The Mario Raffle - Frankies Silent Auction - Free Refreshments.
- 22 Technology at work. Third Shot. Space Shuttle. Cape Canavral, Florida
- 3 For you Joggers and track fans - The first mile run under 4 minutes was accomplished by Roger Bannister in 1939.
- 25 R.F. Hill ARC. Spring Auction VFW Post, Sellersville, Pa. 7 PM (off Old Rte. 309)
- 27-28 Third Annual Spring VHF/UHF Qso Party. Sponsored by the Ramapo Mountain ARC. Starts 1600 (local) Saturday March 27, 1982 until 2400 (local) Sunday, March 28, 1982. Complete set of rules in February Cheese-Bits.
- 27 Annual Games Festival - LaSalle College. Sponsored by the Philadelphia Area Computer Society. It is well worth a visit by you and your children to see and challenge the best in computers.
- 28 Sunday, Delaware Valley ARC - 10th Annual Flea Market. NJNG Armory, Eggerts Crossing Road, Lawrenceville, N.J. (Suburban Trenton Area)
- 30 For you movie buffs - "Birth of a Nation" Premiere 1915
- 31 Daylight Saving Time first used in U.S. 1918

* * *

* * BON MOTS * *

The only perfect science is HINDSIGHT.
Sigh at a Hamfest - Buy in Haste - Repair in Leisure.
By making something absolutely clear, someone will be confused...

NEW PRODUCTS OF INTEREST TO HAMS

By Lyn, W3NSI

1. KENWOOD R-600 RECEIVER: The new R-600 is a general coverage communications receiver covering 150 Khz to 30 Mhz in 30 bands. It features a five digit frequency display, both 6 and 2.7 Khz filters for SSB and CW reception, and an RF attenuator. In most respects, it is a smaller version of the popular R1000. Price \$369.
2. Weatheradio by Radio Shack: The new three channel, crystal controlled #12-152, weatheradio receives the three NOAA frequencies 162.4 - 162.475 - 162.55 Mhz. Receiver operates on built in 9 volt battery and uses built in whip antenna. Tests indicate the unit will receive at ranges of 50 miles and more, probably due to the RF amp used in the circuit. No tuning is required. The on/off switch is a push bar on the top, the other controls are on the case bottom. Price \$25.
3. Lunar 220 Mhz Amp: The new 1.3M4-30P amplifier is designed to be used with a 1-4 watt HT unit. A built in receive preamp can be switched in to increase sensitivity. A regulated 9.6 or 10.8 voltage is available from the unit to operate the HT. The amp can be used on FM or SSB with a power gain of 10 times. Price \$125.

* * *

VHF/UHF REPORT

By Joe, W2EIF

The DX has continued on 6 meters. The band has been open to South America and the Carribean. Feb. 2 found the ZL's getting into Texas. Feb. 3 produced contacts with Panama, Columbia and Equador. These openings apparently did not produce any X band contacts in the AM. The band seems to have closed down as of Feb. 18 at least in the E.Pa. S.NJ area. We can not expect this type of DX much longer since the Sun Spot activity is surely dropping. There have also been some very good auroras which have yielded contacts up thru 220 Mhz. I managed to work W9UD, W89SNR(Ill.), K9MRI (Ind.) and K8ATQ (Ohio) on aurora Feb. 4 on 220.

2 meters seems to have dropped off in activity particularly on 144.200. Maybe it will pick up with the Spring weather. If you want activity you should get on the air. Don't wait for the other guy.

* * *

VISITORS FEB. 18, 1982 MEETING

N3BHS, John Blubaugh, Norwood, Pa.
KA2MLN, Chris Kelly, Gibbstown, N.J.
W3AJS, Ed Keener, Oreland, Pa.
KA3EEX, Sean Smith, Holland, Pa.

WA2GTJ, Rich Bassett, Florence, N.J.
WB3EFO, Ed Lee, Huntingdon Valley, Pa.
KA2NYF, Janet Cormaney, Deptford, N.J.
Harry Nagil, Holland, Pa.

CHANGE OF ADDRESS

K2EWW, Rich Subin
4215 Regent Square
Phila., Pa. 19104
Home - 215-382-3465
Office - 215-243-4615

K3ACR, Rich Pattison
2921 Mt. Carmel Ave. (Apt. #2)
Glenside, Pa. 19038
215-572-6307

WA3HVL, Don Derosa
Phone (215-969-4622)

WB3KES, Doug Simpson
1343 N. A1A - #6A
Satellite Beach, FL. 32937

SWAP SHOP

FOR SALE: Collins S-Line, latest model - \$1750. Drake C-Line, R4C + T4XC + AC4 - \$750. TC2/SC2, TC6/SC6 CG-1 + CPS1 - 525

CONTACT: Bill Smith, WA2DPU
Phone: 609-386-4504

FOR SALE: Yaesu #207 2 meter HT with memory, digital scan, spare battery, case, instruction manual, wattenty card \$250. Fast charger \$50.

CONTACT: Larry
Phone: 215-342-3363

FOR SALE: Complete 6&2 SSB transceiver - 100 watts Drake TR6 +TC2 +CC1 + Pwr. supply \$800. 2 meter FM transceiver - Icom IC230 - \$175; 220 FM transceiver - Clegg FM21 - \$100. Complete HF station includes -- HQ110 Rcvr, HT-37 Xmtr (100W), Johnson match box - complete \$375. 12V-6A pwr sply, Misc. antennas, rotators & components; easy way 70 ft. crank-up tilt over tower (never used) make offer.

CONTACT: Rich Pattison, K3ACR
Phone: 8 AM to 5 PM 609-234-5700
Ext. 2312

FOR SALE: Here is a wonderful opportunity to fill your junk box or to procure new parts, speakers, phono needles and cartridges and other things too numerous to mention at real bargain prices. Listed below are excellent pieces of test equipment: Lee condenser and leakage tester. Semcore tube tester TC 136. Eico sine & square wave audio generator #377. Eico signal tracer model 147A. Midland field strength meter. Stereo level indicator. MVRA swr and field strength meter. RCA Isotap WP25A. RCA RF signal generator NR50B. RCA sine & square wave audio generator WA504A. RCA color bar generator WL502A. RCA marker generator WP89A. Wintronic intermittant condition analyzer #828. Eico signal tracer #147A. RCA sweep generator WR59C. Paco R/C ratio generator model C-20. Paco grid-dip meter model G-15W. Blonder tongue ultra verter model BTV25. Eico cathode ray tube checker. Manuals for all.

CONTACT: Doc Cutler, K3GAS
Phone: 215-635-1078

NOTICE

add to the Holmesburg Amateur Radio Club business card ad on the last page - Repeater Frequency 146.685 Mhz.

* * *

HOME BREW COMPETITION

- K3GAS - Crystal tester; Key/telephone dial test set with light and buzzer; Pack Rat Shack Controls (nervous Pack Rat)
- W3KKN - 220 Preamp; 432 Amp (cavity) 100 watts out
- W3CXU - 230 Amp. 8874 From Dec. 71 Ham Radio
- WA3JUF - 1296 Transverter 2 meter -- 1296 1 watt out
- W3NSI - "Tissue Box" 220 mobile
- W3HQT - 2304 mixer
- N3AHI - 50 Mhz in 1296 out mixer; 220 Mhz 4CX250 Amp
- W2EIF - Wattmeter for low power Audio--1296 Mhz; 1296 amplifier
- WB3JYO - 432 Transverter
- KA3EEX - ASCII Keyboard/Computer
- WB2RVX - 432 Amp

WINNERS:

Most Ambitious

WA3JUF

Best Construction

WB3JYO

Most Unusual

W3NSI

Most Miserable Failure

WB2RVX

Honorable Mention

KA3EEX

Runner up

W3HQT

W3CXU

K3GAS (telephone dial)

Camera gets special mention

FROM NORTHEAST VHF NEWS

FCC Beacon Proposal: PR Docket 81-823 proposes authorizing beacon stations (one-way transmissions are normally prohibited by Amateurs) in the subbands: 28.08-28.10, 50.06-50.08; 144.05-144.06, 220.05-220.06, 222.05-222.06 and 432.07-432.08 Mhz, using A0, A1, F0, or F1 emission. All amateur frequencies above 450 MHz would also be permitted using any mode authorized for the particular frequency. Beacon power input would also be limited to 100 watts, and identification would be required at intervals of one minute or less. CW identification would be "W1XYZ/B" or "W1XYZ/BCN"; on phone the word "beacon" would have to follow the station callsign. Only one beacon would be permitted on each band from a given location, and though "automatic control" would be permitted, measures would be required to insure the beacon's proper operation when no control operator was on duty. Comments on PR81-823 will be due at the FCC March 15, with reply comments due April 15. (HR RPT).

EDITORS NOTE: (If this goes through - a Pack-Rat 220 Mhz beacon would be in order)

* * *

AMATEUR RADIO FELLOWSHIP MEETING

Mrs. Gertrude Anderson of the FCC will speak on RFI at a meeting of the Greater Northeast Phila. Amateur Radio Fellowship on Monday, March 22nd, 7:00 P.M., Northeast Regional Library, Cottman Ave. and Oakland St. (Opposite Gimbel's) Admission is free and there is ample free parking opposite the Library. For further information, call either Al, W3AYJ, 725-2869; Joe, K3RFL, 698-8051 or Dan, K3HES, 338-7946.

* * *

TID BITS

Sun Watcher, Jack Power, W2AXU reports the Sunspot No. for January 1982 = 110.7. Smoothed No. for July 1981 = 139.8.

It is sad to report that an old friend of the Pack-Rats Melvin Wilson, W2BOC became a silent key on February 3, 1982.

Bert, W3TNP XYL of Ernie, W3KKN fractured her left ankle - hobbling about with a walking cast. Take it easy Bert!

Don't forget Ladies Nite Banquet April 24, 1982 - Warrington Motor Lodge.

Congrats to K3MXM, Lee who made BPL with his outstanding efforts handling Christmas traffic from local hospital patients.

Doc Cutler, K3GAS is again Chairman of Registration for the Liberty Dental Conference to be held at the Phila. Center Hotel, 17th and John Kennedy Blvd. March 7th to 10th. Anyone in the area at that time, stop in and say hello.

Doug and Wendy Simpson (WB3KES) send their best from the Satellite Beach, Florida high rise apartment QTH. Out best wishes.

Our veep K3KTY sent greetings from Lookout Mountain, Chattanooga, Tenn. Is that a good June VHF QSO Party location, John?

Dave, WB2VLA and family spent a pleasant week in Hawaii during February.

John, W2AXU and XYL Florence, WA2WYE dashed off to Sarasota, Florida to visit with WA1WHT (Charley and Norma).

Our Prez, W3IIT spent a few days with our recently located Doug & Wendy (WB3KES) at Satellite Beach, Florida.

Bert, K3IUV visiting Mexico recently claims he found a suitable replacement location for the June VHF QSO Party - Goodbye Hilltown!

* * *

NOTICE

W3FQD, Dick Huntzinger, an eminent authority on computer technology, will update the personal computer field at our March 18, 1982 meeting. Our V.P./program chairman and your editor spent a very instructive session with Dick and went away convinced that the home computer techniques and applications seem to be unlimited.

MORE FROM THE OLD TIMER

Sometimes progress is good and sometimes it is just the opposite. Better living through chemistry sometimes ends in Love Canal. And sometimes watching "Sixty Minutes" on your boob tube can give you a simultaneous chest x-ray.

And, sometimes dividing up Amateur Radio frequency bands into a lot of little channels, hoping to reduce interference and improve the range of communication, can lead to trouble. Just because the cab drivers and airplane drivers and bus drivers have to talk on channels is no reason to do it on the Ham bands. We only started this foolishness because we bought their surplus gear cheap, modified it and used it. And now we have the habit.

Here's some of the things that can happen:

Large groups of Hams begin to use a favorite channel regularly and it's nice. Until, one day, in flies "Big Bird"----you know, the long-winded gas bag whose rapid maunderings soon drive away the rest. And, there is the obscene sickie who moves in from his rubber room to display his mastery of gutter gabble. Also, the malicious interference expert with his trigger-fast mike button and raucous touch-tone pad! Egad!!

What we need to do is de-channelize, de-repeaterize and use the whole band with one station and during one transmission!!

Now, before you think I'm off the deep end and rowing with one oar, have you ever heard of spread spectrum operation?? This is what I mean.

The simplest type of spread spectrum operation is called frequency hopping. Imagine your transmitter automatically hopping at high speed from one frequency to another in an apparently random manner all during the time you are talking. And imagine you have given the list of frequency hops to the person you will talk to and his receiver is automatically hopping in synchronism with your transmitter. He can hear and understand you perfectly, as you can him. BUT, no one else, not having the code of frequency hops, can hear, or understand you.

Well, here is the best part.

A large number of QSO's can be handled on the same frequency space at the same average time without interference, and only those stations who share a common hop code can significantly interfere with each other. In fact, stations with one hop code will probably not even be aware of the presence of other stations.

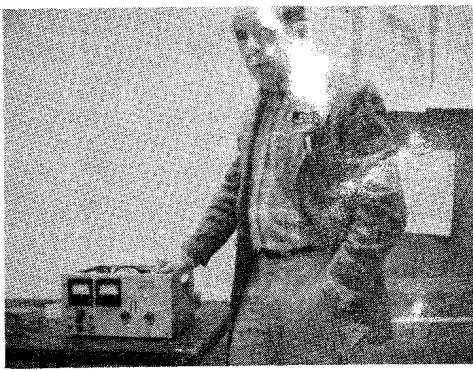
So, see what I mean?....we should de-channel and spread out and leave the channels to those potential recipients of the Wouff Hong, appropriately applied!

73 SK de TOT
(from the rags review)

* * *

ARRL BULLETIN NR 17 FROM ARRL HEADQUARTERS NEWINGTON CT FEBRUARY 2, 1982 TO ALL RADIO AMATEURS BT: The Fourth Anniversary of AMSAT OSCAR 8 on 5 March, 1982 will be commemorated with a black and white glossy photograph of OSCAR 8, to those who send information of a two way QSO via OSCAR 8. QSL's are not required. The participation period will be the entire month of March. Send a 5x7 sase. The OSCAR 8 QSL card continues to be available for reports of telemetry. Send your requests to OSCAR 8 Fourth Anniversary, ARRL Club and Training Dept., 225 Main St., Newington, Ct. 06111 AR.

ARRL BULLETIN NR. 19 FROM ARRL HEADQUARTERS NEWINGTON CT FEB.11, 1982 TO ALL RADIO AMATEURS BT: FCC today adopted a combined Notice of Proposed Rulemaking and Notice of Inquiry on the subject of HF phone band expansion. The Commission proposes expansion of the 14 Mhz phone and by 50 kHz, from 14.150 to 14.350 MHz, with the new segment to be available equally to licensees of General class and higher. There would be no change to the segment 14.200 to 14.275 MHz, which would continue to be available only to Advanced and Extra class. In its Notice of Inquiry, FCC requests comments on several issues relating to phone subbands, among them the desirability of expanding other phone bands and the proper relationship between frequency and mode privileges and license class. Amateurs wishing to comment should wait until a Docket number has been assigned and the actual document has been released. Sufficient time will be provided for comments after the details are published. QST will carry details as soon as they are available. AR.



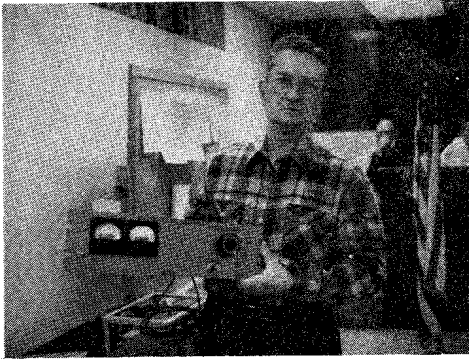
432 MHZ 100W AMPLIFIER by W3KKN



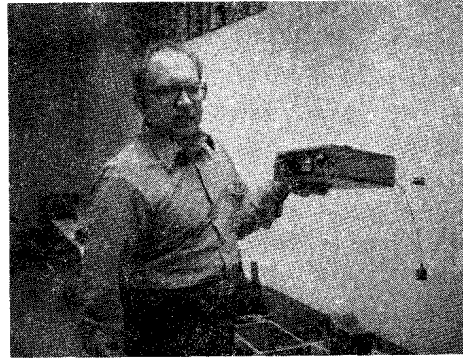
THE JUDGES - WA3AAJ, K3MXM, K3MNV



THE "NERVOUS" PACK-RAT by K3GAS



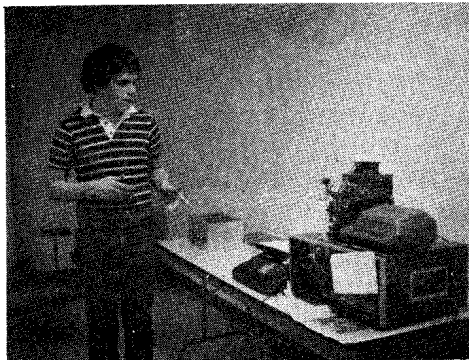
200 MHZ - 8874 AMOLIFIER by W3CXU



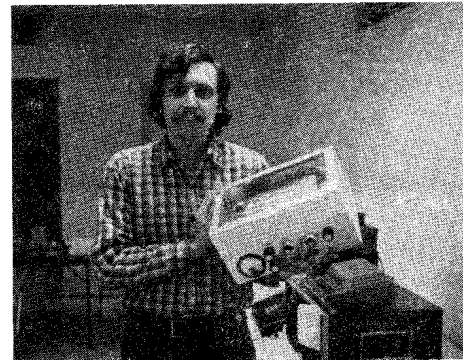
"TISSUE BOX" 220 MHZ MOBILE by W3NSI



VERY LOW POWER WATTMETER by W2EIF



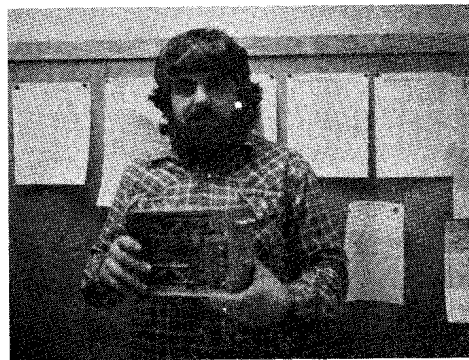
ASC II KEYBOARD/COMPUTER by KA3EEX



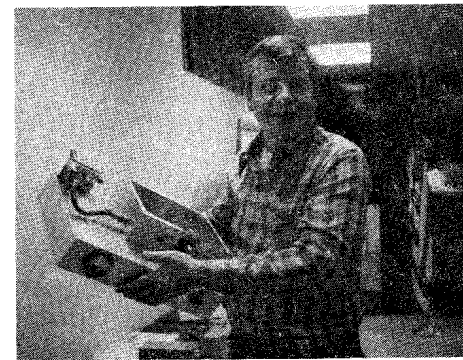
432 MHZ AMPLIFIER by WB2RVX



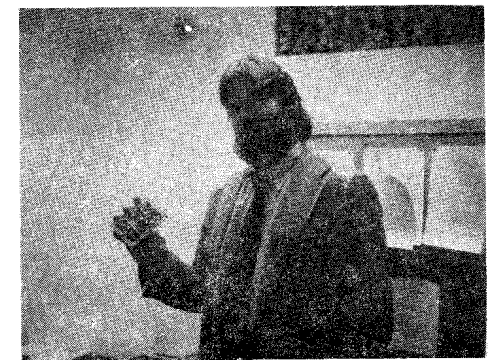
432 MHZ TRANSVERTER by WB3JYO



1296 MHZ TRANSVERTER by WA3JUF



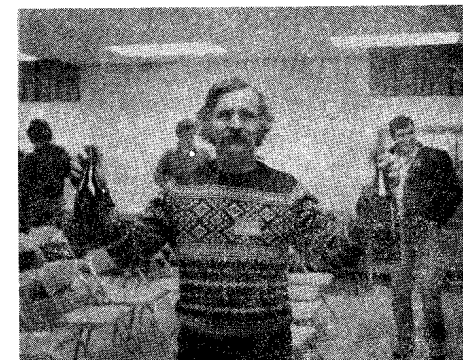
220 MHZ 4CX250 AMPLIFIER by N3AHI



2304 MHZ MIXER by W3HQT

HOME

BREW



INTRODUCTIONS BY OUR PREZ W3IIT

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