

PACK RATS'



PACK RATS

CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC.

CHEESE BITS



MT. AIRY V.H.F. RADIO CLUB, INC., PHILADELPHIA, PENNSYLVANIA (ARNS)
(50.2, 145.2, 221.4, 432.03 & 1296.3 Mhz) Repeater 222.98/224.58
AFFILIATED CLUB: AMERICAN RADIO RELAY LEAGUE
MEETINGS: Third Thursday of Each Month 8:00 P.M.
Southampton Free Library, 947 E. Street Road
Southampton, Pennsylvania

VOLUME XVIII

MARCH 1976

NUMBER 3

THE PREZ SEZ

The February meeting was the club's annual Homebrew Night and attracted a rather large crowd. It seems there is still a lot of interest in this area of Amateur Radio. It is also interesting to note that as technology advances, the homebrewers are never far behind. This was evidenced by the high level techniques and devices being used in many of the projects. This is a healthy indicator for in amateur radio as well as life when you stop learning and advancing! You stop.

A rough count showed about 22 different exhibitors with at least one project and some with five or six! The winners in the various categories are detailed elsewhere in this issue along with many pictures taken at the meeting.

While we are on the subject of meetings, this might be a good time to talk about some ideas that were brought up at a recent board meeting. As you know, for many years we have had three outdoor meetings a year, July, August, and September. Over the past several years several things have happened that perhaps requires that we step back and evaluate our Summer meeting schedule. One of the factors is the growth and success of Hamarama. Another is the use of a nicely air conditioned meeting place and a third is the rather sparse attendance at our last outdoor meeting of the year, the White Elephant sale.

What has been proposed in light of the above is the following slight modification. Number one is to eliminate the full blown auction at W3ZD's in July. The reason is two-fold; we have outgrown the facilities to the point where we would have to seek a new location. A new location to be profitable would require advertising and much planning to do it the right way. In short, an effort similar to our first Hamarama's. And, secondly, we have a large auction at Hamarama every year. Number two would be to move the White Elephant sale to W3ZD's for the July outdoor meeting. A small crowd with little or no outside advertising. Number three would eliminate the September outdoor meeting and make it our first indoor meeting of the season, a program yet to be decided. Number four there would be no change in the August nostalgia meeting.

To summarize, there would be ten indoor meetings a year instead of nine. There would be two outdoor meetings, July and August, instead of three.

Your informal thoughts on this proposal are invited.

73, Ron, WA3AXV

Note: Apologies to some of the Homebrew contestants whose pictures do not appear on page-10. Those that attended the meeting must remember the flash problems with the camera.

PACK RATS' CHEESE BITS IS A PUBLICATION OF THE MT. AIRY V.H.F. RADIO CLUB, INC. PHILADELPHIA, PA. AND IS PUBLISHED MONTHLY.

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WE OPERATE ON AN EXCHANGE BASIS WITH OTHER PUBLICATIONS AND ANYTHING THAT IS PRINTED IN CHEESE BITS MAY BE REPRINTED, UNLESS SO STATED, AS LONG AS THE PROPER CREDIT IS GIVEN.

SWAP SHOP ITEMS - NO CHARGE

DEADLINE FOR ARTICLES IS THE GENERAL MEMBERSHIP MEETING.

EDITOR:

W3CL, HARRY B. STEIN 2087 PARKDALE AVENUE GLENSIDE, PA. 19038 215 TU 7-5052

PUBLISHER AND SUBSCRIPTION MANAGER:

K3GAS, DOC CUTLER 7815 NEW SECOND STREET ELKINS PARK, PA. 19117 215 ME 5-1078

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WA3DJF, CARL MATTIACE 7317 RYERS AVENUE PHILADELPHIA, PA. 19120 215 RA 5-1928

TYPIST:

WA3TEM, MARSHA STEIN

MONDAY NIGHT NETS: NET CONTROL

145.2 - 7:30 P.M. W2EIF
50.2 - 8:30 P.M. W3CL
221.4/224.58 9:00 P.M. K3GAS
432.03 - 9:30 P.M. K3IUU
1296.3 - 10:00 P.M. W3HMU

FRIDAY NIGHT ATV NET: NET CONTROL

439.250 - 7:00 P.M. WA3AXV

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K3ACR, RICH PATTISON
W3HMU, TONY SOUSA
W3HQT, BILL OLSON
WA3JUF, DAVE MASCARO

DIRECTORS' MEETINGS ARE HELD ON THE SECOND WEDNESDAY OF EACH MONTH AT DESIGNATED LOCATIONS.

TRUSTEE OF CLUB CALLS: W3CCX - WR3ACD:

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Ed Clark

CALENDAR OF COMING EVENTS

Syllabus by Lee, K3MXM

MARCH

- 8 BARCC Executive Board Meeting, QTH, W3ZD
- 10 Board of Directors Meeting, QTH, W3KKN. Ernie Kenas, 2823 Old Welsh Road, Willow Grove, Pa. If lost, phone 659-3485. Directors and interested parties invited.
- 11 WIAW, Qualifying Run. C W
- 15 For your crossword puzzle fans: Today is the famous IDES of March, Julius Ceasar died 44 BC
- 17 St. Patrick's Day
- 18 General Club Meeting, Sepcial Guest Speaker from G.E. Doc's Silent Auction, The Mario Raffle, Refreshments. Club members and friends invited. Hear all about the proposed EME expedition to Columbia, S.A. Southampton Free Library, Street Road, Southampton, Pa. 8:00 P.M.
- 20 Knight Raiders , East Rutherford, N.J.
- 20-21 DX Competition C W.
- 23 First Day of Spring
- 30 BARCC Dinner Meeting, Casa Conti, Glenside, Pa.
- ** Don't forget the Tuesday Nite Book Review Nets 8:00 P.M. 50.2 Mhz.

HAMFEST CALENDAR:

- 3/4 Beltsville, Md. High Point High School, Powder Mill Road (Rt. 212)
- 4/3 Tri State Repeater Auction, Garage of Bud, K3WAC, Phone: 215-644-8171 for directions
- 4/4 Clavert Hall, Towson, Md. Information, Bro. G. Malseed, W3WVC, 8102 LaSalle Road, Towson, Md. 21204 for flier.
- 4/24-26 Dayton, Ohio
- 5/2 Delaware Valley Auction, Ewing , N.J.
- 5/2 Westminster, Md.
- 5/22 Rochester, New York
- 7/18 Lehigh Valley Hamfest, Information Ed Panner, W3LOX
- 7/23-25 ATLANTIC DIVISION CONVENTION, Phila., Pa.
- 8/8 PACK RAT PICNIC, Ft. Washington State Park, Flourtown, Pa.
- 10/3 HAMARAMA - AGAIN AT THE BUCKS COUNTY (RTE. 611) DRIVE-IN MOVIE

NOTICE

PENN-JERSEY YL RC PLANNING A FLEA MARKET IN APRIL TO IMPLEMENT THEIR BARCC ACTIVITY FOR THE ARRL ATLANTIC DIVISION CONVENTION IN JULY. THEY ARE ASKING YOU TO DONATE ITEMS YOU WISH TO DISCARD (NO CLOTHING, PLANTS OR ELECTRICAL APPLIANCES, PLEASE). GET IN TOUCH WITH BERT KENAS, W3TNP FOR THIS WORTHWHILE CAUSE. PHONE: 215-659-3485.

Additional Listing of Local Phila. Area Nets:

- 8 P.M. Sunday, Wednesday, Friday: W3ETM Gives Code Practice on 147 66/06 Repeater for 20 Min.
- 8:30 P.M. Sunday - Gloucester Co. AREC - 147.78/18 Repeater.
- 8:30 P.M. Sunday, Del. Co. AREC Net - 147.66/06 Repeater.
- 9:30 P.M. Sunday, Philmont Radio Club, 147.63/03 Repeater.

***Congrats to Carl and Jane (WA2MWB) on their recent marriage... lots of happiness folks.

NEW PRODUCTS OF INTEREST TO HAMS

By Lyn, W3NSI

1. Beam Antenna for 220 Mhz FM: Cushcraft now has a 220 Mhz version of the "Power Pack" beam, which up to this time, had only been available for 146 Mhz. The unit is made of 2-11 element beams mounted vertically spaced 50 inches apart. Stacking harness and all hardware is included. Beams are 102" long and longest element is 27". Price: \$56.50
621 Hayward Street, Manchester, N.H. 03103
2. Handee Talkee For 220 Mhz: Wilson Electronics is now advertising (for March Del.) an H/T for 220 Mhz. The unit looks just like their #1405SM for 2 Meters and is the same size. Power out is 1 or 2 1/2 watts switchable and current drain is only 14 MA on receive. Receiver is double conversion and rated at .3 microvolt sens. for 20 DB Quieting. H/T comes with battery pack, leather case, antenna, and a simplex channel. Price \$280. 4288 S. Polaris Ave. Las Vegas, Nev. 89103
3. General Coverage Receiver - SSR-1: Drake Co. has a new receiver covering .5 Mc to 30 Mhz in 30 ranges of 1 Mhz each. Unit is fully solid state, and uses a synthesized drift — cancelling circuit giving crystal like stability. The separate Khz dial tunes 0-1000 and is marked at 10 Khz div. with the overall rated resetability noted as 5 Khz. There is also a fine tune control called a clarify adjust, which, when set at the mid point, can be used to tune the frequency 3 Khz either side. Reception modes are CW, SSB upper and lower, and AM. Speaker and PS are built in as is a whip antenna. Receiver measures 13" long x 11" deep and 5 1/2" high. Price \$350. 540 Richard Street, Miamisburg, Ohio 45342

— — —
ANNOUNCEMENT

NEW PACKRAT CLUB SERVICE

The enthusiastic response to the first edition of the Packrat Schematic inventory prompts us to announce a club crystal bank inventory. This is intended to be a listing of those crystals that club members have in junk boxes, cigar boxes, jars, etc.

Chances are good that the crystal you need is sitting in some members basement. A central listing would be a great help when you are working on a new project. We do not want to collect crystals, only listings thereof.

If you would like to participate, please list your crystals in the following manner:

Frequency (in Mhz)

Case Style (F for FT-243, H for HC-6U, and S for all others)

Send your lists to K3IUV, Bert Soltoff, 961 Warfield Lane, Huntingdon Valley, Pa. 19006. He will arrange for compilation into a master list....

— — —
TID BITS

Sid, W3GEW back home recuperating after a 23 day stay at Jeanes Hospital.

Please make the following correction to the Jan. VHF SS score of W3HQT. Should read 41,490 instead of 21,490. What a difference.

If you want to receive a beautiful QSL card, contact Bolmar, WB3AOP on 6 meters some evening.

Congratulations to Dick, K3MWV on the FB talk on ATV he gave to the PennWireless Club on February 16, 1976.

— — —
MOONBOUNCE TALK AT R.F. HILL A.R.C.

By Walt, K3BPP

On January 29, the Pack Rat Moonbounce Team of W3HMU, W3HQT and K3BPP did their act in front of standing room only audience at R.F. Hill Radio Club meeting. The talk consisted of the various technical aspects of moonbounce operation on 432, theoretical and practical. Details of equipment construction and operation were given. Slides were shown of the W3CCX/3 operation covering original construction through current operation. Tapes were played of echos and WA6LET, SSB contact. Many questions were answered during and after the meeting. Many congratulatory comments were received by all of the members of the moonbounce group.

VHF/UHF REPORT

By Jo, W2EIF

Six meters continues at a low level of activity and the band will probably remain quiet until about the first week in May, when the DX starts to come in.

Two meters has shown fair activity. The equipments that are responsible for this are the KLM Echo II, the Multi-2000, the Kenwood TS-700A, and the Yaesu 2 meter rig which is similar to the Kenwood. One hears champions of all on the bands, but it looks like a toss up between the Kenwood and the Yaesu. The Sunday 10 AM net using SSB at 145.025 Mhz, had 27 checkins recently causing some confusion to net control WA1NGR who is located in Conn.

The 220 band showed good activity on the Tuesday nite 8:30 roundup. Stations worked last week were WA3JUF, K1PXE, W4UCH, W3EAX (Md) and K2BWR near Atlantic City. My sked with WA8PKB has not yielded any contact recently. I suspect that his antenna did not survive the big blow of a few weeks ago. It is understood that WA6LET is sounding out the fraternity about a moonbounce attempt on 220 Mhz. The frequency will probably be 222.0 Mhz.

432 Mhz has some activity, usually centered around K1PXE in Conn. who gets on nitely.

1296 Mhz is suffering for activity, but Doc, K3GAS and myself have revived the 1296 net on Monday nites at 10 P.M. This will be a CW net only but we will accept phone check ins!!!

It is understood that quite a group of North Jersey, N.Y. and Conn. have gone to 2304 Mhz. A 5 way QSO was recently accomplished on that band.

Just remember if there is no activity, it is probably because YOU are not on.

VISITORS AT MEETING 2/19/76 ---

WA3NUF, Phil Miguez, Pendel, Pa.
WA3ZRE, Earl Garber, Phila., Pa.
WB3AOP, Bolmer Aguilar, Phila., Pa.
WA3SZD, Dennis Gazak, Phila., Pa.

K3IQO, San Umin, Phila., Pa.
WA3NHT, Mel Richman, Phila., Pa.
David Powers, Phila., Pa.
George Shamlan, Feasterville, Pa.
Jim Autay, Norristown, Pa.

VOTED TO MEMBERSHIP==

WA3UDS, Richard Janssen, XYL, Pat
143 Fairhill Road
Churchville, Pa. 18966
Phone: 215-355-1980

February 9, 1976

Dear Harry:

I want you to know how very much I appreciate and enjoy the "Cheese Bits". They come regularly and I enjoy keeping up with the "Club".

I am doing well, I am a member of the R.S.V.P. (translated-Retired Senior Volunteer Program). I tutor Reading and Math in the Lawndale Public School on Wednesday mornings. I have three children and enjoy them very much. As you know, I taught school in Phila. before I married Ray.

He always enjoyed the Club. I often think back on our times together. Please remember me to Doc Cutler and Loretta. Carl Mattiace was very good to me, in getting rid of Ray's equipment.

Do give my best to the Club and my best regards to Sylvia.

Sincerely,

Eleanor (Whitehead), XYL, W3ZRR

A good 6 meter beacon is provided by Halliburton Oilfield Services on 47.44 Mhz. Their base station and mobiles operate all over the world reports Boulder QSPs. Should provide a very useful indicator of 6 meter band openings; de HR REPORTS.

New RFI Packet from ARRL is now available, included action plan, organization ideas. Send 10x13 envelope plus 68¢ (first class) or 34¢ (third class) to ARRL for yours. Small boy to mother "Can I help Dad fix his antennas - I know all the words"... de W6SD, Carrier HR reports that amateur radio spectrum allocations above 40 Gigahertz have been established: 48-50 Ghz, 71-76, 165-170, 240-250 Ghz.

ENTREES IN THE HOMEBREW CONTEST

- K3GAS, Antenna tuner, electronic music box (glidafone)
- W2EIF, 1KW 432 Mhz amplifier.
- WA3AQA, 432 Mhz preamp, 220 Mhz receiver, 220 Mhz preamp.
- K3MWV, 432 Mhz transmit-converter, ATV receiver, digital clock, 6 meter FM exciter, Mic. compressor, 2 mtr. converter, 2 mtr. solid state 30W transmitter, ATV converter.
- WA3AXV, ATV receiver, 200 Mhz FM transceiver, 432 Transverter.
- WA3JUF, 432 Mhz transverter, 220 & 432 Mhz amplifier.
- K3BPP, 25-93 Mhz tunable filter, low power dummy load == wattmeter, diode modulator.
- WA3NGK, 3.5-30 Mhz receiver synthesizer, 2 mtr. 4 way power divider.
- W3HMU, 432 Mhz yagi.
- K3IGX, Grid-dip meter ("Labor of Love"), code practice oscillator, "FM 21" power supply.
- WA3HIT, QSL book, Ham Radio accessory item.
- K3DLS, Regulated power supply, flag waving do-nothing box.
- W3NSI, Demonstration - etching bath with motor driven agitator for PC board manufacture.
- WA3ZRE, 2 mtr FM battery powered carrying pac - "On the air" demonstration.
- WA3HQT, 1 KW 432 8877 amplifier.
- WA3NFV, 50 Mhz transverter, 50 Mhz amplifier, 1Kv power supply.
- WA3SZD, 24 hour digital clock.
- WA3UXM, restored old time radio receiver (Freed-Eisemann)

WINNERS AS FOLLOWS:

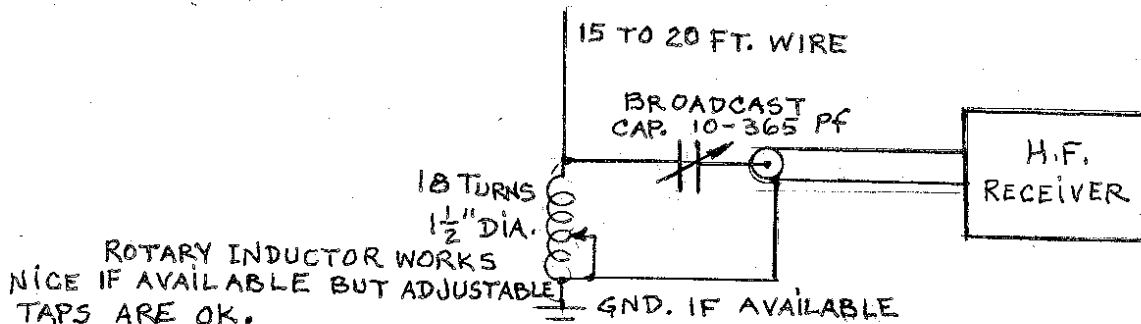
<u>Catagory</u>	<u>1ST PLACE</u>	<u>2ND PLACE</u>
Most Unique	K3DLS	WA3ZRE
Most Ambitious	WA3AXV	W2EIF
Best Design	K3MWV	W3HQT
Best Construction	WA3NGK	WA3AXV
Biggest Disaster	K3GAS	K3MWV

Prizes will be awarded at the March meeting.

- - -
C.W. PRACTICE

By Walt, K3BPP

Many tech's want to increase their c.w. speed. I have been working on it on and off for years with an average increase of about 2 wpm/year at this rate I may have a general in 2 years if it still exists. In any event, I thought I would be helpful to pass along a tidbit that might be helpful to V.H.F. Hams that don't want to put up an 80 meter dipole to copy WIAW (the best source of c w practice). I have a Drake 2B at my desk in my bedroom with a very short antenna WIAW is weak on 80m (40m has too much garbage). The simple antenna tuner shown in the figure made about a 5S unit improvement in WIAW on 80m. Adjust capacitor and inductor for maximum signal.



NET NEWS: Yes, the Tidewater Nets still meet to serve as your 6 & 2 mtr. crossroads between the North & South, each Tues. as follows:

- 6 M TSSBN 50.150 2000 EST each Tues.
- 2 M TSSBN 145.025 2100 EST each Tues.



70 CM. . . coming soon by popular demand. . . The 6 M net continues to average about 40 check-ins per month and the 2M session catches about 30. NCS for 6 is usually WA4GPM on the Chesapeake Bay in Norfolk, while the 2M group is hosted by WA4MMP down in the sticks of Chesapeake. Coverage on both bands is from NY to GA, so please join us.

MT. AIRY V.H.F. RADIO CLUB, INC.



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MANAGER
K3MWM

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FOR SALE: Sears dual speed, reel to reel tape recorder. Great condition, needs minor audio repair. \$13-including microphone.

CONTACT: Dennis Gazak, WA3SZD
Phone: 215-FI 2-5714

AD: I.D. BADGES (engraved), up to 16 letters per line; \$2.50 for 3 line badge; \$2.00 for 2 line badge; less 20% for two or more; also engraved nameplates for desks, doors, etc. special shapes available. Choice of color; also brass nameplates. Call PETE 215-886-1859

FOR SALE: 1-Gladophone-new owner must be able to play it as well as Doc "The Wonderful". Make a cheap offer.
CONTACT: K3GAS, Doc Cutler

Next time a person asks you What a Radio Amateur is...you tell them: A radio amateur is a person who passes an exacting exam as an exacting expert on the strength of being able to turn out, with prolific aptitude, strings of incomprehensible devices, built with metric precision, from extremely vague assumptions, based on debatable figures, acquired from inconclusive tests, and quite incomplete experiments, performed instrumentation accuracy, by persons of doubtful reliability and rather dubious mentality, with the particular anticipation of disconcerting and annoying everyone outside his own fraternity.
de ADM8RNY via Michigan MARS Bulletin.

FOR SALE: Gonset IV Communicator for 220 Mhz. Completely modified for FM (Pack-Rat Repeater). AM & CW on 221.4 and 220.050 Mhz. \$125.00
CONTACT: Stanley Smith, 133 Hogeland Rd. Southampton, Pa. 18966
Phone: 215-355-2867

FOR SALE: Icom 21A-digital VFO, 14 Xtals Like new - \$300. Drake TR72C- 10 Xtals, \$225, like new. Both units, manual, bkts,
CONTACT: Ken Jones, WA2GIW, 132 Manor Ave. Oaklyn, N.J. 08107



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THE 1975 SURVEY OF USERS OF THE SERVICES OF
RADIO STATIONS WWV AND WWVH

By Jack Power, W2AXU

Early in 1975 the users of the National Bureau of Standards (NBS) radio stations WWV and WWVH were surveyed by means of a questionnaire. The questionnaire was published in QST and other periodicals and mailed via a mailing list and on request. There were 12,000 of these questionnaires returned.

The energy crisis in the Fall of 1973 was the reason for the survey. The electricity costs to power WWVH more than doubled in a few months. As a consequence, it was proposed to reduce the power radiated by WWVH by 50 percent on the frequencies of 5, 10 and 15 Mhz.

As a result of the questionnaire, two decisions were made:

1. NBS would not (at that time) reduce power by 50 percent of WWVH on 5, 10 and 15 Mhz.
2. NBS would explore more broadly the question of cost and energy savings at both stations WWV and WWVH.

There was space provided on the questionnaire for responders to make comments for new or revised services or just general comments.

The following is a summary in brief of some of the more frequent suggestions:

1. Add weather information for continental U.S.
2. Add NBS time signals to the VHF weather stations.
3. Reinstate time signals in Morse Code at least occasionally in the format.
4. Provide more time in the format when only the carrier is transmitted.
5. Increase radiated power on 5, 10 and 15 Mhz.
6. Eliminate some transmitted frequencies (most often mentioned were 2.5, 20 and 25 Mhz).
7. Do not reduce any radiated power. If necessary, part-time operation.
8. Transmit 2.5 Mhz only at night and 20Mhz only during the day, with 5, 10 and 15 Mhz left on all the time.
9. Increase reliable coverage by adding one or more low-power stations in Eastern U.S.
10. Make the WWV-by-phone service a toll-free number from anywhere in the U.S.A.
11. Have announcers pronounce each digit of a number separately.
12. Work out a cooperative agreement with CHU which would effectively improve reliability of time signals received in Eastern U.S.
13. Provide more detailed marine weather, Geo-alert and radio propagation information.
14. Provide the above (13) more often - at least twice per hour.
15. Adjust broadcast format to put propagation forecasts and Geo-alerts closer together in time.

The following are a few of the more "interesting" of the comments made.

1. Have no use for these services. I can always get a time check from local AM radio stations.
2. I suggest a dipole directional beam antenna aimed in all directions would increase radiated power.
3. Since energy needs to be saved, why does the FCC not power down some of the FICTION on the air? Please leave us the FACTS - they are a scarce itme!
4. I wouldn't mind if one frequency were discontinued - say 5 and increase output in signal was given to another - say 10 - to thwart interference by shortwave stations, hams -- CBers, who make it inaudible.
5. Please don't cut back too far. For you are my link with the star. Sorry, your questionnaire can't reach my habitation. Because Polynesia is my destination. Just add me to the number of those who listen. For without your service -- I'd be reported "missin".

The above are only a few of the "interesting" ones. If there is further interest in this survey, the report is as titled above, WBS Technical Note 674 issued Oct. 1975 and available from the Superintendent of Documents, U.S.G.P.O. Washington, D.C. 20402 for \$1.50. Order by SD catalogue No. C13.46:674.



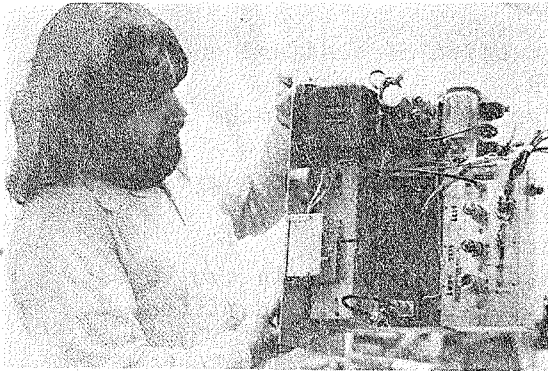
WA3NFV



W3HMU



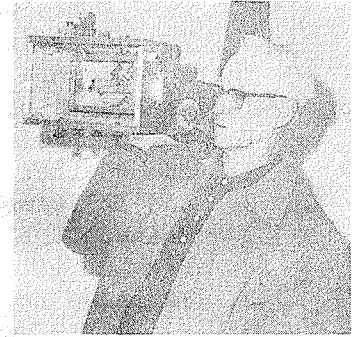
K3GAS



WA3JUF



WA3NGK



W2EIF



K3DLS



WA3HIT



K3MWV



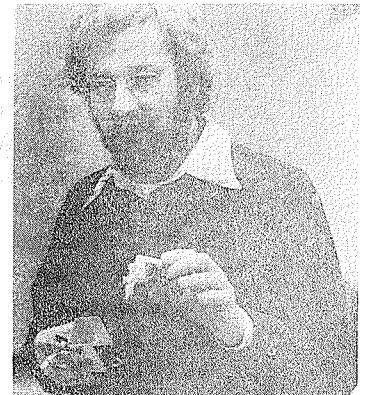
W3HQT



K3IGX



WA3AXV



K3BPP

HOMEBREWERS

THE SOUTH JERSEY RADIO ASSOCIATION BIDENTENNIAL AWARD

Coincident with the 200th Anniversary of the signing of the Declaration of Independence, the South Jersey Radio Association is celebrating the 60th Anniversary of their organizational meeting which occurred on June 12, 1916.

To commemorate both the Bicentennial and the South Jersey Radio Associations' 60th year their monthly publication HARMONICS announces SJRA sponsorship of an award, a certificate of achievement, to any Amateur Radio Station in the United States who furnishes proof of having established two way communication under the following conditions.

To be eligible for the certificate, all communication shall be made on frequencies of 50 Mhz or higher and shall have been with stations of the 13 Original States whose representatives did sign the Declaration of Independence. These communications shall have occurred during the Bicentennial year 1976.

Proof of communication shall be the QSL cards received from the stations in the 13 Original States.

Any of the modes permitted the Amateur Radio Service may be employed for such communications. Communication through repeaters is not allowed, however.

Send QSL cards in a package of 13 to:

Awards Chairman - Ed Poole, WN2ZDU
South Jersey Radio Association
Box 293, Cherry Hill, N.J. 08034
(Thanks to Walt Schmidt, W2EA)

OFFICIAL BULLETIN NR 575 FROM ARRL HEADQUARTERS NEWINGTON CT FEBRUARY 5 1976 TO ALL RADIO AMATEURS BT: Two more deregulatory actions have been taken by the Federal Communications Commission. The first order permits operation of 29.5 - 29.7 Mhz repeaters without the special proof of need required up to now. However, the signals of only those classes of amateurs authorized to operate in the ten meter band may be retransmitted by such a repeater. The second action redefines a club and simplifies procedures for groups meeting the new definition when they apply for a club station license. When the text of the orders have been received and reproduced at ARRL Headquarters, they will be mailed upon request accompanied by a stamped addressed envelope. AR

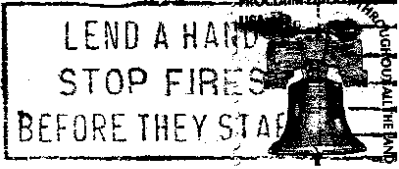
OFFICIAL BULLETIN NR 576 FROM ARRL HEADQUARTERS NEWINGTON CT FEBRUARY 12 1976 TO ALL RADIO AMATEURS BT: FCC has issued a Report and Order in Docket 19723, dealing with the Radio Amateur Civil Emergency Service, RACES. New rules, effective March 23, closely parallel the proposal, which appeared beginning on page 73, QST for August, 1974. Amateurs needing a copy of the text may send a stamped self addressed envelope mentioning the docket number 19723, to ARRL Hq., Newington, CT 06111. The requests will be filled as soon as the documents reach headquarters and have been reproduced. AR

Last minute SWAP SHOP ITEMS

FOR SALE :

Vanguard mosfet 45 MHZ RF Preamp.	\$5	Heath Battery Eliminator BE4, 12V., 7.5A	\$20
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PS-HB, Rack Mnt. 150V., 200 ma.	\$15	RCA 5 in. Scope- WO-79, rack mnt.	\$75
RF preamp, 50Mhz-HB, Rack Mnt.	\$5	Heath VTVM - V7A, NEW	\$35
6 Mtr. AM Xmtr., 250 Watts-HB with PS8s & Mod., rack mnt.	\$50	Heath Grid Dip Meter GD 1B	\$15
2 Mtr. AM Xmtr., HB 6146-rack mnt.	\$10	Elco Grid Dip Meter #710	\$15
10 Mtr. AM Xmtr., HB 6146-rack mnt.	\$10	Hallicrafter S106- 6 Mtr. rcvr. with 'S' Mtr.	\$10
220 Mhz. Barry rig with PS- rack mnt.	\$20	Scott Comm. Rcvr-90Khz to 23 Mhz-rack mnt.	\$40
20 Mtr. novice type xmtr.	\$10	Johnson 6 N 2 Xmtr. with VFO-rack mnt.	\$25
Waters 50-52 Mhz. 100 Watt. LP filter Model 373-6	\$10	AM Modulation 3 in. Scope with PS, HB	\$10
		Heath VFO #HG-10 with PS, rack mnt.	\$20
		ARC-5 VFO, 7-9.1 Mhz. with PS & NFM Mod. Rack mnt.	\$15

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