# PACK RATS

# PACK RATS CLUB CALL: W3CCX CLUB CALL: W3CCX



MT. AIRY VHF RADIO CLUB, INC.

MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PA. 50.2, 144.2, 432.1, 1296 Mhz, WR3ACD - 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

SCANNED TO PDF BY BERT, K3IUV, 2012.

VOLUME XXI

SEPTEMBER, 1979

NUMBER 9

ARNS

# THE PREZ SEZ

Its September already, the indoor meeting season starts this month at the Southampton Tee Library. Time to give my annual "Are you ready for the Winter" spiel. The first big vent at the new season is the Hamarama - VHF Conference Weekend October 6 & 7. The Hamarama has really matured over the last few years and is now generally considered to be one of the best (and biggest) flea markets in the East. The club needs your help to keep it that way, so put the date on your calendar. Coupled with the Hamarama is the third annual Mid-Atlantic VHF Conference. This event has really come into its own this year and the Conference committee has come up with a fantastic program. Let's talk it up over the air in the next month and see if we can really increase the attendance this year. One of the main reasons for the existence of the Mt. Airy VHF Radio Club is to further VHF and UHF technology and operating skills. More than any other club event, the Conference helps achieve these goals. It also shows the world that the Pack Rats is a group of dedicated, technically oriented hams and not just a "Contest Club".

Which brings me to the next subject. January is only four months away....Time to start thinking about what you would like your station to look like this year and do something about it before the snow flies. You've heard it many times before, and last year's effort will be hard to beat, but I'm hoping for an extra special effort this year. Let's get together, get organized and with no twisting of arms, no nagging and by staying true to our principles as dedicated, courteous, VHF hams (get my drift?) lets set a score in the January Contest that will stand for a long time. I don't mean increase last year's score by 10 percent, I mean lets set a score that really reflects the abilities of the club!! Start now and set your goals and see if you can exceed them by January. There are plenty of club members willing to help and don't under estimate your own abilities. It would be nice if we could prove that the VHF Contest can still be won by VHFers! Think about it. Maybe it's time for two million!

Those who attended the August nostalgia night at the QTH of Doc, K3GAS, aside from seeing one of the east coast's finest underground VHF stations, and some new slides, were treated to an excellent magic show by club magician, Jim "Merlin" Ward, WA3AAJ, and also found out why W3CL seems to be a little absent-minded at times! Good show Jim!

See you all September 20th.

73, Bill, W3HQT

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

Subscription Rate - \$2.00 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.

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# CLUB HISTORIAN:

W3CL, Harry B. Stein

OFFICERS: 1979-1980

PRESIDENT: W3HQT, Bill Olson VICE-PRES: W3IIT, Harry Brown COR. SECY: WB3HHO, Paul Randolph REC. SECY: K3IGX, Dick Boyle TREASURER: K3GAS, Doc Cutler

DIRECTORS:

W3HMU, Tony Souza (Ex-Officio) N3AHI, Jim Holt (2 years) WA3NFV, Dan Mitten (2 years) WA3JUF, Dave Mascaro (1 year) WA3WAS, Steve Simon (1 year)

MONDAY NIGHT NETS:

NET CONTROL 7:30 PM - 144.2 Mhz AM/FM/SSB W2EIF W3CL. 8:30 PM - 50.2 Mhz AM/SSB 9:00 PM - 222.98/224.58 Mhz FM K3GAS 9:15 PM - 1296.3 Mhz CW W2EIF 9:30 PM - 432.1 Mhz CW/SSB K3IUV

PACK RAT REPEATER - WR3ACD - 222.98/224.58 Churchville, Pa.

1-302-478-2757

# ${f AMATEUR}$ and ADVANCED COMMUNICATIONS

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TONY AND JAN DOUG AND WENDY W3HMU. WB3KES HARRY AND ROSE DAN AND LUCY WABNEV

# CALANDAR OF COMING EVENTS Syllabus by Lee, K3MXM

# ""PTEMBER

- 2 24th Annual York County Hamfest U.S. TR 30 Drag A-Way, about 10 miles West of York, Pa. A real good Hamfest and easily made up and back on a tank of gas. Next to the airport and fly-ins are welcome.
  - Japan signs W.W. II Surrender 1945.
  - 3 LABOR DAY
- 8-9 September VHF QSO Party See August QST for details
- 9 South Jersey Radio Association Hamfest Pennsauken High School about 1 mile past the Tacony Palmyra toll gate just off Rt. 73 on your right before Rt. 130. Rain or shine.
- 9 Findlay Ohio Hamfest in a class with Dayton.
- Board of Directors Meeting QTH W3HQT. Directors and interested parties always invited.
- OCWA Delaware Valley Chapter Dinner Meeting at Williamsons, Horsham, Pa. (Rte. 611)
- 16 Cincinnati Hamfest Stricker Grove, Ohio one of the older and better ones.
- 16 General Motors Incorporated 1908.
- Harrisburg, Pa. Hamfest Park-N-Shop Garage 200 Block Walnut Street. No vehicle over 7 feet can enter. Ask K3GAS for a funny story...
- General Club Meeting First Indoor Meeting of the season. 8:00 P.M. Southampton Free Library Street Road, Southampton, Pa. Program: Harold DePalma. W2WHG/3, General Manager Thingo Div. of Hull Corp. "Passive Component Considerations in VHF/UHF and Microwave Applications." The Mario Raffle, Frankie's Silent Auction, Refreshments. Guests always welcome.
- 22 First Day of Rosh Hashanah
- 30 Hamfest Gaithersburg, Md. A biggie and a goodie.
- \*\* 17 7:30 PM PARA sponsoring Wayne Green as the speaker at the Freedoms Foundation. Rte. 23
  OCTOBER Valley Forge, Pa. ALL WELCOME!!
  - 6-7 VHF Conference and HAMARAMA. Please offer your services to Ron, WASAXV, as there is much to be done...

\* \* \*

### NOTICE

THE 4X4 NET OF GREATER PHILA. INVITES YOU TO A BAGELS & LOX BREAKFAST. THE KLEIN BRANCH JYC, RED LION RD. AND JAMISON ST. PHILA. SUNDAY OCTOBER 28, 1979 at 10:00 A.M. GUEST SPEAKER HAL CRYSTAL, K2BYB, EDITOR & FOUNDER OF "CHAVERIM" PUBLICATION. FOR FURTHER INFORMATION CONTACT AL, W3AYJ; JAY, WA3IFY; SAM, W3CYH, ON TUESDAYS AT 9 P.M. 146.685 Mhz out.

# VISITORS - AUGUST 16, 1979 MEETING

Sylvia Stein (W3CL) Glenside, Pa.

Muriel Boyle (K3IGX) Phila., Pa.

Lucy Deacon (W3AJF) Phila., Pa.

Carol Cummings (W3CIL) Phila., Pa.

WB3CTP Paul Capone, Norristown, Pa.

Meredith Holt (N3AHI) Coopersburg, Pa. Peggy Cohen (K3MXM) Elkins Park, Pa. Lynn Whitsel (WA3AXV) Churchville, Pa. Loretta Cutler (K3GAS) Elkins Park, Pa. K8WW, David R. Vore, Seven Hills, Ohio

# NEW PRODUCTS OF INTEREST TO HAMS By Lyn, W3NSI

- 1. <u>VHF FM RECEIVER</u>: Hamtronics of Hilton, N.Y. has introduced the R75 series receivers for 10, 6, 2, 1-1/4 meter bands. The receiver is built on two PC boards and is available for use as a monitor with a broad selectivity (R75A  $\div$  and 30 Khz) price \$70. Three other versions are also available with selectivity and prices as noted: R75B Norm. FM service & + 17 Khz \$75. R75C Rpt. use & + 14 Khz \$85. R75D Split Chan. use & + 9 Khz \$100. Selectivity ratings are at 60 Db down. The D model receiver is rated at & + 15 Khz at 100 Db down, using an 8 pole crystal filter. Hamtronics Inc. 65 B. Moul Rd. Hilton, N.Y. 14468
- 2. <u>WIDEBAND PREAMP</u>: The PA 19 Preamp from Digitrex Co. features 19 Db gain over the range 2-200 Mhz. Input and output Z is rated at 50 ohms. Designed for use on counter inputs, the unit could also be used as a wide band receiver preamp. Current drain is 20 Ma, at 12 VDC. Price \$7.45 incl. ship. 4412 Fernlee, Royal Oak, Mich. 48073
- 3. HAND HELD FREQ. COUNTER: DSI Instruments is now producing two very compact counters. Both are built and tested, and feature 8 digit readouts. Accuracy at 17-40 C temp. range is rated at 1 PPM. Input sensitivity is 25 MV on either model. The 100HH covers 50 Hz to 100 Mhz. while the 500HH model goes to 500 Mhz. Price \$100 and \$150. 7924 Ronson Rd. San Diego, California 92111

\* \* \*

# VHF/UHF REPORT By Jo, W2E1F

The UHF Contest seemed to produce good participation from the writers viewpoint. 220 Mhz provided some good contacts from Maine to Ohio. There was very good tropo on Sunday AM which produced good contacts along the East Coast on all bands thru 1296 at least. The use of FM on 220 only, raises some questions. Some think it should not be used because 432 FM i prohibited. However, 432 has more activity on SSB and CW than 220. My personal feeling is to eliminate FM entirely but increase the value of 220 contacts to entice people to get on the low end on CW and SSB.

The Es openings on six meters have dropped off as expected and 2 and 432 have had some fair tropo openings. The best opening so far began Monday Aug. 13 with aurora on both 6 and 2. There were no aurora 432 reports to my knowledge.

Following the aurora, the 2 meter band opened with good tropo contacts about 10:30 P.M. This was the result of a weather front extending from Mo. through Penna. Contacts were made via SSB from this area to Ill., Indiana, Ohio, Ky, Mo., Ark., Tenn., N.C., S.C., Va., W. Va., Ala., Ga. and Fla. The opening lasted until about 2:30 A.M. on the 14th. Stations in Ga. were also worked on 432.

The last 2 weeks of August have always produced good tropo conditions, so keep your activity up during this period.

\* \* \*

# MID-ATLANTIC STATES VHF CONFERENCE PROGRAM (Sponsored by "THE PACKRATS")

Saturday, October 6, 1979 Warrington Motor Inn

0900	FM Repeater Forum, Moderator - Ed Kushner, W3HKZ
1030	High Power VHF Amplifiers - Steve Powlishen, K1FO
1300	Solid State 432 and 1296 Power Amps., Joe Reisert, WlJR
1430	Antenna Patterning by Computor, Dick Knadle, K2RIW
1600	Antenna Forum - Moderator, Walt Bohlman, K3BPP
1830	Cocktail Party - Packrat Hospitality Suite
1930	Buffet Banquet

The "Packrats" will sponsor a hospitality suite at the Warrington Motor Inn on Fri. and Sat. evenings where the above well-known VHFers will be available for chit-chat & eye-balls QSO. Pre-registration for all events is advisable, since motel and banquet space is limited. Several other events of a religious nature are scheduled for lower-middle Bucks County this same weekend, so act accordingly.

Dave Zimmerman, W3ZD, Chairman

# EAST COAST VHF SOCIETY THIRTEENTH ANNUAL ANTENNA MEASURING CONTEST

# JULY 22, 1979 432 Mhz Results

	432 Mhz Results	
CALL	ANTENNA DESCRIPTION	GAIN
		over dipole
WA2ZZF	EIA Reference Antenna	7.7 db
K2RIW	4 x 19 el. RIW Yagi - H array	15,4
K2RIW	4 x 19 el. RIW Yagi — 5 ft. diamond array	15.2
K2RIW	19 el. RIW Yagi	13.6
K2RIW	19 el. RIW Yagi - aged one year	13.6
WB2BYP	7 x 8 el. Quagí	13.5
WB2BYP	6 x 8 el. Quagí	13.4
w3нqт	2 x 19 el. însulated Yagi	13.1
K2RIW	16 el. KLM Yagi - aged	12.3
W3HQT	19 el. insulated Yagi #1	12.0
wзнот	19 el. însulated Yagî #2	12.0
W3HQT	19 el. insulated Yagi #2, modified	12.0
WA2NCP	11 el. Quagí	11.3
W2JHY & WA2LSE	14 el. loop Yagi	10.2
W2JHY & WA2LSE	14 el. loop Yagi, modified	9.4
WIRJA	9 el. ATV Quagí	9.2
WB2BYP	8 el. Quagi	8.8
WB2BYP	8 el. Quagi #2	8.3
K2RIW	Lindenblat * * *	-4.3
	1296 Mhz Results	+ * •
CALL	ANTENNA DESCRIPTION	GAIN
		over
		isotropic
_A2ZZF	Reference Horn	15,4 db
WA2FGK	8 ft. dish - EIA reference feed	26.6
WA2FGK & WA2GMB	7 ft. TV dish - modified	23.3
W3CXU	45 el. loop yagi	20.1
W2EIF	45 el. loop yagi	19.4
K1VYU	23 el. loop yagí	18.8
W2ELF	45 el. 100p yagí	18.6
W2JHY & WA2LSE	2 x 26 el. loop yagi	17.9
WA2PAM	10 ft. dish - chicken wire surface	17.9
W2JHY & WA2LSE	26 el. loop yagi	16.9
K2RIW	26 el. 100p yagi - Spectrum International	16.4
W2JHY & WA2LSE	26 el. loop yagi #2 with reflector	
W2JHY & WA2LSE	26 el. loop yagi #2	16.3
WA2FGK	EIA Reference	15.6
K2RIW	Dorn & Margolin standard gain horn	10.4
WA2PAM	Feed horn #2	9.1
WA2PAM	Feed horn #1 * * * *	8.4
WAZFAM		6,9
CALL	2304 Mhz Results	
CALL	ANTENNA DESCRIPTION	GAIN
		over
K2RIW	Standard Gain Horn	isotropic
WA2FGK	8 ft. dish - EIA Reference feed	17.0 db
WA2FGK & WA2PAM		30.0
K2RIW	7 ft. modified TV dish - horn feed	25.5
*	32 el. Simon antenna	19.4
K2RIW	16 turn tapered helix	15.2
WA2ZZF	Horn	13.0
K2RIW	Dorn & Margolin standard gain horn	12.8
WA2ZZF	EIA Reference	11.9
WA2GMB	Feed horn (coffee can)	7.6
	·	

# SCM NOTES By WB2LCC, SCM S.N.J.

The Amateur Radio Public Service Corp. (ARPSC) is the backbone of the ARRL's public service operations. It is comprised of two main operating entities, the National Traffic System (NTS) and the Amateur Radio Emergency Service (ARES).

The Amateur Radio Emergency Service is organized on the local level for the purpose of providing both emergency and non-emergency communications. It is run by the Emergency Coordinator (EC) who oversees all operations in his area. In S. N.J. ARES is broken down by county, with one EC for each of our 9 counties. Each EC has his own county organization, with Assistant EC's appointed to help with the work. Each county runs nets at least weekly, for the purpose of training and traffic. They provide communications during normal times for such things as parades, walkathons, bikeathons, motorcycle rides, or anything else that needs our services. They maintain contact with local and county government officials, Red Cross, police, hospitals and anybody else who might require ARES services during an emergency. In short, the EC is the boss on his turf!

The overall operation of ARES in S. N.J. is tended to by the Section Emergency Coordinator (SEC), Boyd Prestwood, W2HOB. Boyd is in charge of co-ordinating the activities of all the counties, as well as overall system planning and advising. He also selects the EC for each county, whom I then appoint. Boyd has written the Emergency plan for the section which spells out just how the section will respond to an emergency. It explains how the counties will communicate with each other and the outside world both on two meters and on the low bands, as well as other miscellaneous things necessary to run the show on the section level. Operations within each county are not covered by this plan, as they are strictly the concern of the EC.

The National Traffic System is organized on the section level for the purpose of providing communications between ARES groups and stations. The Section Traffic Manager organizes section wide nets which maintain liason with region and area nets. He also recommends candidates for the position of Net Manager (NM). The section nets are the principal means of sending a message into, out of or throughout the section. Southern N.J. runs combined section nets with Northern N.J., providing better efficiency in liason and manpower, and bringing the state closer together. The major section nets are the N.J. Net (NJN), the N.J. Phone Net (NJPN) and the N.J. Slow Net (NJSN). The N.J. VHF Net (NJVN) will soon be operating on linked repeaters. NTS, including all of these nets, provide a valuable message service even in non-emergency times.

As you can see operation of the ARPSC is quite involved. Many man hours have been put into section wide planning, and many more are put into the operation of the organization each week. Are you involved? It doesn't take many hours to volunteer as a member of ARES or NTS. Why not contact your EC or NM today? Don't know his name...give me a call and I'll put you in touch. Until next month, very 73.

# CHANGE OF ADDRESS

WB2RXM - Carl P. Mattiace 131 Walt Whitman Blvd. Cherry Hill, N.J. 08003

# UHF CONTEST - PORTABLE/MOUNTAINTOP STYLE By Jim Holt, N3AHI

Picture this - two VHF/UHF types pipe dreaming about "working the world" from a mountaintop in a Contest atmosphere. Sounds familiar doesn't it? Well, the Prez and I were having one of that very kind of discussion about six months ago, and agreed we should find a proper site from which to operate the UHF Contest.

Friday night before the Contest (after much running around to load gear and support items) found us atop 1600 ft. Pulpit Rock, near Hamburg, Pa. While preparations for setting up the 220, 432 and 1296 Mhz stations proceeded smoothly enough, we hadn't expected visits by several groups of curious individuals wondering what we were doing there!

### SWAP SHOP

EE - Unless you think something is worth buying! Cleaning out all Junk Boxes. Please come and take it out of cellar! Some

goodies!

CONTACT: W3AJF - 215-VI 3-1808

FOR SALE: LD 50 RCA 6 meter FM Xcvr - pair 6146 in final. With mike, speaker, cables and whip antenna and trunk mount.

Good condition. Full price \$35.

CONTACT: Doc Cutler, K3GAS

Phone: 215-635-1078

FOR SALE: Two Gonsets G-50, G-28

communicator's, A-1 cond. mint.

For 6 meters and 10 meters. 45 watt trase's. Make offer.

CALL ANYTIME: Joe, W3TEC

Phone: 535-2358

FOR SALE: (Property of W3QY who moved to California) Drake 2B rcvr. w/inst. 80-10 mtrs, cw, am, SSB Multi-elmac tracs-citer model AF-67 w/int. 160-10 mtr. AM, CW, FM - 6146 Final - 400 volts. Power Supply - HB w/voltage regulator w/hi-lo pwr. switch. All in good condition - name your price.

CONTACT: Horace Deacon, W3AJF

Phone: 215-VI 3-1808

\* \* \*.

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\* \* \*

# CENTRAL STATES VHF SOCIETY VHF CONFERENCE By Jack Power, W2AXU

The Central States VHF Society VHF Conference was held the weekend of Aug. 17, 18 and 19 in Irving, Texas. Irving is in the Ft. Worth - Dallas Metro Area. It is the 13th VHF Conference held by the Society.

The technical program of the conference was started off with a discussion by Mel Wilson, W2BOC, on "Sporadic E-Past and Present." Mel discussed some of the good Sproadic - E days of the late 60's and 70's and contrasted them with periods of the late 30's early 40's. He discussed theories of why and how the Es clouds are born, their birth places and their transit across the U.S.A. The professionals have all but given up in their studies of Sporadic E. The VHF radio amateur is the most knowledgable group about Sproadic E and Mel suggests that as a group we try to make measurements toward the determination of the how, why and where of Sproadic E.

Mel was followed by Connie Marshall, K5CM, with an interesting talk on his experiences about "Ionospheric Sounding - F2 and Es." Connie, with the cooperation of Sam Whitley, K5SW, has been conducting ionospheric sounding experiments to determine Es clouds and F2 layers. He showed a number of interesting oscillograms produced by his experiments showing the presence of the Es and F2.

There was a talk by Al Burson, K5WXZ, on "High Dynamic Range Receivers and Impulse Noise Reductions." Sam Weaver of Texas Instruments Application Department discussed "VHF-UHF Circuit Design."

Tom Clark, W3IWI, discussed the up-coming satellite - AMSAT Phase III. For the satellite user, this should be the ultimate. Instead of short QSO's, the repeater will be available to those within its sight for 16 to 17 hours per day. Many interesting uses can be made of such a repeater.

Bill Tynan, W3XO, talked about his tests with Narrow Band Voice Modulation with W3HFY and played a demonstration tape. Bill also proposed a Geographic Location System similar to that

### UHF CONTEST CONTINUED

(It turned out our location was within 50 ft. of the Appalachian Hiking Trail) One bunch in particular who showed up Friday night decided (after looking at all the equipment) that without doubt, we had come up for the express purpose of tracking UFO's!

At any rate, came 1900 GMT Sat. afternoon, and we were off to the races - during a chow break several hours later, comparing notes so to speak, neither of us thought conditions were any better than average, but that there was a really gratifying amount of activity on all bands. (Apparently conditions were worse than we thought at the time, as a number of you who operated have told us since then, that we were working stations to the West and South you didn't. Guess the location did help).

Murphy didn't get into the act until Sat. evening when a thermal overload device shut down my 12 VDC supply, (the interior temperature of the tent was probably in excess of 110 degrees) and I didn't have the sense to realize what was wrong. Being that the need to stay on the air was greater than anything else, a hook up to the car battery was quickly improvised, powering the station in that manner until the next morning when, to my embarrassment the probelm supply worked great after cooling down...talk about feeling small! Incidentally, HQT's stuff wroked great all weekend.

The outstanding contacts of the whole affair were made Sun. morning by 'HQT, working not just one but two Michigan stations on 220. For those wondering where we were on 220 FM, in view of Bill's remarks in August Cheese Bits, we elected to be purists and therefore didn't have an FM box of any description with us - sorry guys, but we wanted to see what could be done without it.

The balance of our operation continued without further problems, and when it was over (The Contest, that is), we got things down and off the mountain in short order.

Both of us agree we had a great time. Although the score probably won't set the world on fire, we're proud of it! Further more, we'll do it again next year - however - I won't be in the tent next time, and you can take that to the bank!

P.S. I got my first real exposure to 1296 that weekend, and that did it. I gotta get on! Make room for another check-in, Joe.

# TWENTY YEARS OF AMATEUR RADIO C.B. DESOTO QST SEPTEMBER 1934

The year 1923 rolled in on a tide of wild enthusiasm. Hardly had it opened when New Zealand amateurs reported logging stations from every district in the U.S. In midsummer came reports from Australia that they were hearing American amateur stations from all but the eastern districts. Coincident with these reports came word that several ships in Chinese and Japanese waters had logged west-coast amateurs. MacMillan went to the Arctic, and with him on the Bowdo: the League sent Don Mix and a transmitter to carry on amateur work from the Far North. QST began talking about shore waves. But there was little interest. Yet amateurs clung to 200 meters. It took another startling example to again turn the tide - - this time transatlantic two-way communication.

The evening of Nov. 27, 1923. Fred Schnell, the A.R.R.L.'s traffic manager, is at the receiver of LMO, with Maxim and Warner as witnesses. At ten p.m. Leon Deloy, 8AB, after a summer of preparation including a trip to this country, is to call them from Nice, France. New Reinartz circuits are in use at both ends. At the appointed hour Deloy's rough, throaty, gargle fills the phones. They reply. The Atlantic has been conquered by two-way amateur communication for the first time in history!

But even more significant was the wavelength used. 110 meters. Other stations, using similarly short waves under special government permission, were equally successful.

That was the start. Before a month was out five countries were in contact -- England, France, Holland, Canada, U.S.A. A list of international intermediates were evolved, to identify stations of various nationalities.

In Australia, 2CM worked 1500 miles to New Zealand with 0.004 watt. President Coolidge sent Christmas greetings to MacMillan at the North Pole. PRR -- the amateur emergency network for the Pa. railroad got under way. In January, Italy joined the international DX list.

# TWENTY YEARS OF AMATEUR RADIO CONTINUED

Short waves again were the vehicle -- 114 meters. In Feb. northwestern amateurs did heroic emergency service when a blizzard paralyzed the country.

"The radio bills that bloom in the spring," said QST, commencing on the 1924 White Bill. The A.R.R.L. had had a long and varied experience in legislative matters by now. Although supported by A.T.& T. and R.C.A., but a danger to amateur radio, this bill, too, was successfully opposed. Meanwhile, Hiram Percy Maxim was being tendered a dinner by Europe's most distinguished radio men at the Hotel Luteria in Paris. It was from this meeting that the International Amateur Radio Union grew.

A daylight transcen -- without relays! On May 22d the world's DX record went to Argentina and New Zealand, 5400 miles. Superheterodynes -- that worked, they said.

July 24th . . . short-wave bands open to all. Prior to this time only experimental stations had been able to operate outside the regular 150-200 meter amateur band. Now the Commissioner of Navigation announced the opening up of wide additional territory at 5, 20, 40 and 80 meters, for c.w. operation only. This was achieved at the Fourth National Radio Conference, after more than a year's work on the part of the League.

The Bowdoin returned September 20th, after a year and four months in the Arctic. MacMillan was loud in his praise of amateur radio; never again did he venture into the North without an amateur operator and his station aboard. Single-control receivers, The Antipodes linked by amateur radio -- New Zealand and England. No more new DX records. The world had been girdled!

# \* \* \* CENTRAL STATES VHF SOCIETY VHF CONFERENCE CONTINUED

presently used in Europe. This proposal generated a lot of discussion in the Forum.

Joe Hobart, W7LUX, gave us an interesting slide tour of the Greenbrook Radio Astronomy Observatory in West Virginia as well as several other radio astronomy facilities.

Edgar Mueller, YV5ZZ, gave us an interesting insight into the problems encountered by the S. American radio amateur. He discussed a number of problems, the greatest being the lack of communications - that is information on immediate events, technical articles published in Spanish, Spanish language publications, etc.

Marshall Williams, K5MB, presented a blow-by-blow description of his 144 Mhz EME expedition to KH6. Mike Vestol, WØYZS conducted us on a slide trip through the Western US of his 432 Mhz EME expedition. Dick Halloway, K4PKV, told us of his 144 Mhz EME expedition to Tennessee and Al Katz, K2UYH, conducted up through Arkansas, Mississippi and Louisiana.

The Saturday night banquet was attended by 226. The largest attendence of any conference. Tom Clark was the speaker and showed slides and discussed the Voyager II picture taking voyage to Jupiter. A large number of the ladies and hams took home a number of valuable prizes.

It was an exciting and pleasant weekend. All call districts were represented as well as VE4, V5, VK, YV, XE, TI and KH6. Next year's Central States VHF Conference will be held in Colorado Springs, Colorado during the weekend of August 15, 16 and 17, 1980.

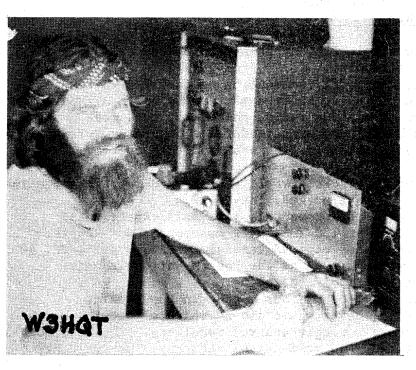
# TID BITS

Congratulations to WA2DPU and K3MWV who have completed their <u>WAS</u> on 6 meters. The John Tates (K3KTY) Barbara and Jill vacationing in Nova Scotia and Canada. Thanks for all the FB cards John.

We have name plates for the following: WAINGR, K3ACV, K3LOM and K3LYB. Come to the September meeting and get them.

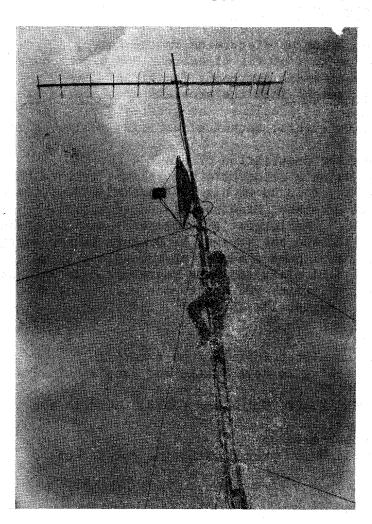
Good to hear Joe, W3YXF on the 220 net the other evening.

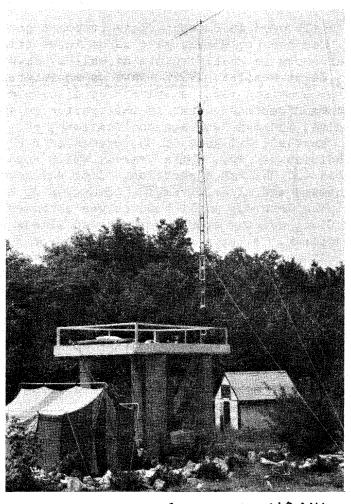
The last meeting at Doc's produced a ham "Merlin" who proved without a doubt that ye editor doesn't have too much between the ears!





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