

PACK RATS'



PACK RATS

CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC.

CHEESE BITS



MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PA. ARNS
 50.125, 144.50, 432.110, 1296.025 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 XXII

MAY, 1980

NUMBER 5

THE PREZ SEZ

April was a good month for the club and we had a few excellent events to welcome in Spring. Most notable were "ARRL NIGHT" and the Pack-Rat Banquet.

At the April General Membership Meeting we were host to Dave Sumner, K1ZZ, Assistant General Manager of ARRL, and David Evans, G3OUF, Secretary and General Manager of the RSGB, the U.K.'s equivalent of the ARRL. To start off the festivities, Jim, N3AHI presented G3OUF with a certificate of appreciation to all the British amateurs who braved the TV QRM to give hundreds of stateside amateurs QSO's on 28/50 Mhz crossband operation. David returned the gesture by presenting the Pack-Rats an autographed RSGB pennant for the club archives. Davids' short talk was on the differences in VHF/UHF operation between our two countries. Seems like just about all the British amateurs would make good Pack-Rats. They have a much larger percent of their amateurs on VHF, UHF, CW and SSB. The most amazing discovery was that over 70 British amateurs are active from their home stations on 10 Ghz, and most of those are on SSB on that band! How 'bout that for an ambitious club project! We all thank David, who had been up that day since 1 AM our time, for holding up so well and presenting such an enlightening talk. Next up was Dave, K1ZZ, who told a thrilling story on how he almost didn't bring the January Contest gavel. Luckily, he managed to ~~make~~ the night connection with KIKI on the way to the airport the day of the meeting and we were presented with gavel number twenty. Thats' twenty years undefeated in the January Contest! Quite a record - the crowd cheered. Daves' audio-visual presentation was on the operation of WARC 79. Dave was a member of the IARU observer team, an advisory group representing amateur radio, at Geneva. It was a very interesting talk and if the rest of the IARU observers are as dedicated to amateur radio as Dave is, I can see why the amateur service made out so well at WARC. Thanks Dave!

The next big event of April was the Pack-Rat Banquet. Some know this event as "Ladies Night," but maybe "Awards Banquet" might be even more appropriate. Doc even ran out of film trying to photograph all the recipients. M.C., Harry, W3CL, did an excellent job of running the affair, but even he didn't know what to expect when he turned the podium over to Bill, A2DPU, January Contest Awards Chairman. Bill eloquently and gracefully praised all the Pack-Rats for their dedication, their wives for their patience, and proceeded to award the first annual batch of January Contest "incentive awards". These consisted of handsome plaques and certificates for all who showed improvement over last year. Good job Bill!

(CONTINUED ON PAGE 4)

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SWAP SHOP ITEMS - no charge.

DEADLINE FOR ARTICLES IS THE GENERAL MEMBERSHIP MEETING.

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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)
N3AHL, Jim Holt (2 years)
WA3NFV, Dan Mitten (2 years)
WA3JUF, Dave Mascaro (1 year)
WA3WAS, Steve Simon (1 year)

* * *

MONDAY NIGHT NETS:

7:30 PM - 144.2 Mhz AM/FM/SSB
8:30 PM - 50.2 Mhz AM/SSB
9:00 PM - 222.98/224.58 Mhz FM
9:15 PM - 1296.3 Mhz CW
9:30 PM - 432.1 Mhz CW/SSB

NET CONTROL

W2EIF
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K3GAS
W2EIF
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PACK RAT REPEATER - WR3ACD - 222.98/224.58
Churchville, Pa.

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MAKE A GOOD MARRIAGE GREAT!



ASK US ABOUT OUR WEEKEND.

TONY AND JAN DOUG AND WENDY
W3HMU WB3KES
HARRY AND ROSE DAN AND LUCY
W3IIT WA3NFV

CALENDAR OF COMING EVENTS

Syllabus by Lee, K3MXX

- MAY According to the Farmers Almanac, if it rains on May 1st, this is good luck for getting your head wet in the rain on May Day prevents headaches for the rest of the year - anyone want to try!! Remember what the Almanac said about garlic....
- 1 May Day
- 3 21st Annual Southern Tier ARC Hamfest - Owego Treadway Inn, Owego, N.Y. Information: STARC, P.O. Box 11, Endicott, N.Y. 13760
- 4 Tri County Hamfest, Stirling, N.J. Info: TCRA, P.O. Box 412, Scotch Plains, N.J.
- 4 Tamaqua Transmitting Society Hamfest. Info: Tony Sarli, W3CMA, Tamaqua, Pa.
- 4 Warminster ARC - 6th Annual Ham-Mart: William Tennent Im. School. Street Road (Rt. 132) and Newtown Rds. Warminster, Pa. A good Hamfest right in our own backyard. Come on out and support a good neighbor Radio Club.
- 8 Board of Directors Meeting - QTH, K3IGX, Dick Boyle, 7915 Bayard St., Phila., Pa. Directors and interested parties always invited to come and participate.
- 9 Nixon Impeachment hearings began 1974 - My how time flies....
- 11 MOTHERS DAY - Tell your Mom how she looks younger and give her something she cannot use in the kitchen....
- 15 General Club Meeting - Southampton Free Library, 8 P.M. PROGRAM: Narrative and slides on the Olympic Torch Run in February by speaker Bob Josuweit, WA3PZO. Also, nominations of Officers for 1981 season. Preparations for the JUNE QSO PARTY. The Mario Raffle, Frankie's Silent Auction, Refreshments.
- 16-18 Rochester, New York Hamfest and ARRL Convention
- 17 Armed Forces Day
- 17 ARRL - International EME Contest - Part II
- 17-18 Eastern VHF/UHF Conference. Boxborough, Mass. INFO: W1JR, Joe Reisert
- 18 Easton Maryland Hamfest - Info: Easton Maryland ARC, Box 781, Easton, MD. 21601
- 19 For our Canadian Readers - Victoria Day
- 24 Maryland FM Association Hamfest. INFO: Fred Siebert, K3PNL, 8357 Reservoir Rd. Fulton, Md. 20759
- 24 First Night Baseball Game 1935 - OK you buffs - who, what, where and who pitched.....
- 24-25 CQ WPX Contest - CW
- 25 Reading Radio Club Hamfest - Hamburg Field House, Hamburg, Pa. INFO: W3BN, P.O. Box 124, Reading, Pa. 19603
- 26 Memorial Day

NEW PRODUCTS OF INTEREST TO HAMS

By Lyn, W3NSI

1. KENWOOD TR 9000: The new TR 9000 is a multimode two meter unit which could be the replacement for the TS 700. Both search and memory are features of this dual VFO unit. Frequency can be controlled by up-down buttons on the mic. A five digit readout indicates frequency down to 100 Hz. More on this later. Price \$499.

2. CORDLESS MIC. While this unit was probably designed with the CB market in mind, it could find use in ham operation. A mini-receiver is connected to the mic input jack of the rig, and the transmitter in the mic case sends a 100 mw. signal to this receiver. T/R switching is taken care of in the mini-receiver unit, which takes its power from the 12 VDC line used for the rig. A 9 volt battery is used inside the mic. The control frequency is in the new 49 Mhz CB band. A mic set-up like this would allow you to hide the rig in the car and just have the mic handy. It would also allow a ham to work his rig while at the work bench across the room, or over in the kitchen having lunch. Price \$69.95. JS&A Products, One JS&A Plaza, Northbrook, Ill. 60062.

3. VHF SWR WATTMETER: The WV-1 by Dentron covers 50-160 Mhz and is scaled for 20 and 200 watts forward, and an adjustment on the front panel is provided for setting up SWR readings. Price \$69.50 Dentron Radio Co., 2100 Enterprise Parkway, Twinsburg, Ohio 44087.

* * *

VHF/UHF REPORT

By Jo, W2EIF

Not much to report on for this period. Very little activity on the VHF bands.

Six Meters has shown good activity almost everywhere except the U.S. The West Coast, South America, Puerto Rico, Hawaiian Islands seem to be enjoying DX conditions on six while in the North-East sit and drool.

Two meters has had small but continued activity through the past winter. There have been some tropo openings early in April, coastwise and into Ohio, but nothing that could be considered unusual.

There were big flares on the sun April 4 and 6 but no observable aurora resulted from these at least in this area.

* * *

THE PREZ SEZ

CONTINUED

Harry Brown presented the "Homebrew Night" awards (as well as a little homebrew of his own). The "King" won his annual award and everyone got a "Pack-Rat World VHF Champion" pen. On top of all this, believe it or not, we even had time to eat and socialize! It was a top notch group having a top notch time. I, for one, enjoyed seeing old and new faces in a more relaxed than normal atmosphere; it sure made me happy to be a member of such a fine group.

Speaking of fine groups, your June Contest Committee is still looking for help. We can use spare operators, loggers, setter uppers and taker downers. If you think you can help, contact your nearest Contest Chairman, and for sure mark June 14 & 15 on your calendar. Let's show the world you don't need to be on a mountain to win in June! All you gotta do is set the best VHF operators in the world down on a little hill with some old antennas and stuff....

73, Bill, W3HQT

* * *

VOTED TO MEMBERSHIP

K3GFF, George R. Korn, XYL-Ruth
3807 Amherst Place
Phila., Pa. 19136
215-DE 8-4260

CHANGE OF ADDRESS

WA3WAS, Steven M. Simons
435 Ivy Street
Warminster, Pa. 18974
215-672-6486

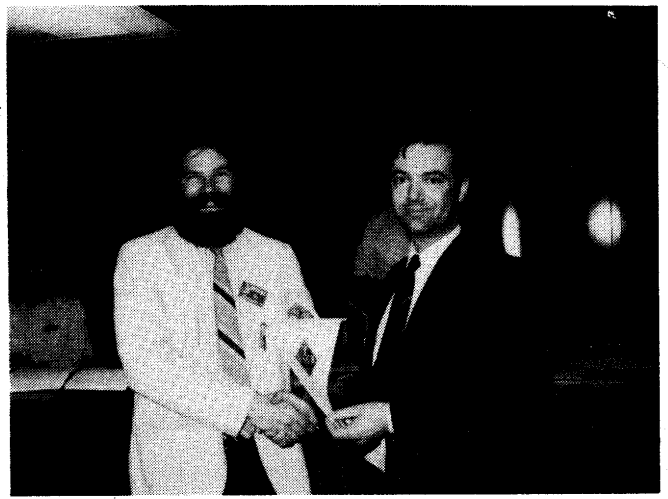
NEW SCM FOR EASTERN

PENNA. SECTIONS

W3VA, Karl W. Pfeil
211 Schuylkill Avenue
Tamaqua, Pa. 18252



JIM HOLT N3AHI PRESENTS DAVID EVANS G3OUF WITH A PACK RAT CERTIFICATE OF APPRECIATION



G3OUF RECIPROCATES WITH AN RSGB BANNER TO PRESIDENT BILL OLSON W3HQ T



BILL OLSON W3HQ T AND JIM HOLT N3AHI ACCEPT THE GAVEL FROM ARRL STAFFER DAVE SUMNER K1ZZ



JANUARY VHF SS NUMBER ONE PLAQUE TO THE KING WA3AXV RON WHITSEL PRESENTED BY N3AHI JIM HOLT SS CHAIRMAN



FROM THE LEFT K1ZZ DAVE SUMNER OF THE ARRL W3KT JESS BIEBERMAN DIRECTOR ATLANTIC DIV AND PACK RAT BERT SOLTOFF K3IU V

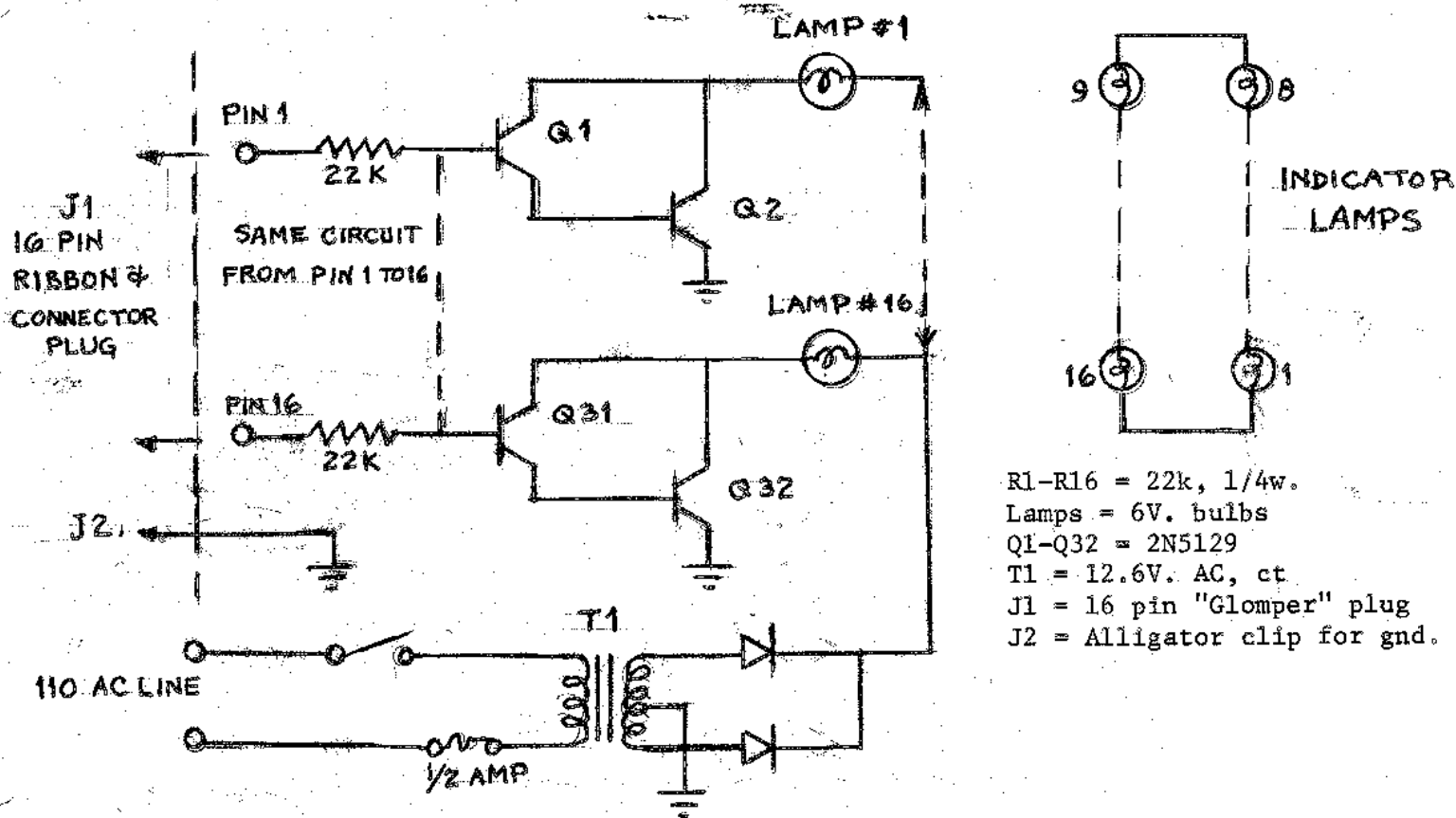


NUMBER 2 PLAQUE GOES TO BILL OLSON W3HQ T JIM HOLT N3AHI AGAIN DOING THE HONORS

ARRL NITE

HI/LO DIGITAL IC INDICATOR
by Dave Mascaro, WA3JUF

A great unit for checking live circuits for correct operation is described.



R1-R16 = 22k, 1/4w.
Lamps = 6V. bulbs
Q1-Q32 = 2N5129
T1 = 12.6V. AC, ct
J1 = 16 pin "Glopper" plug
J2 = Alligator clip for gnd.

Clamp 16 pin connector on IC and alligator clip to ground. Each of 16 pins indicates HI or LO. Above 1.5V or so is HI and below is LO (lamps off).

* * *

TID BITS

Received our first postcard from the Virgin Islands thanks to Joe Rushton, W3YXF; adding this one to our worldwide collection.

Over fifty hams honored Harry McConaghy, W3SW at a luncheon at Kenny's Restaurant in South Jersey on Wednesday, April 23, 1980. Tony Mangeri, W3SD0 presented Connie-Mac with a special album of photos, over 200 signatures and other memorabilia. This represented an expression of our feelings for his outstanding work first as Vice Director and then Director of the ARRL Atlantic Division. He served in these capacities for a period of twelve years. Good luck old friend -- the Pack-Rats wish you well.

We are happy to report that Susie, XYL W2EIF is back home again after a stay in the hospital. Please keep well Susie.

Congratulations to Mary and Dick Huntzinger, W3FQD on the recent birth of a grandson, Jeffrey Burke Huntzinger.

Jack, W2AXU reports the corrected monthly mean number for March 1980 is 126.5. The smooth number for July 1979 is 156.0. He also advises that after January 1981, Zurich sunspot numbers will no longer be available. Late add on-smooth number for Aug. 1979 157.0.

A number of members were interested in subscribing to the RSGB publication, so here is the information as follows: Radio Society of Great Britain, 35 Doughty Street, London, WC1N2AE England. Subscription is \$10 per annum - send info. to David A. Evans, G3OUF - Quote your sign when applying.

If you have feelings about the use of the new 10 Mhz band, get your thoughts to W4WHN. See April QST for details.

(CONTINUED ON PAGE 7)

SWAP SHOP

FOR SALE: KIM-1 Micro computer unassembled includes power supply, cabinet & full documentation. \$75.

CONTACT: Phil Miguez, WA3NUF

Phone: 215-575-0814

215-362-8500 Ext. 260

FOR SALE: Atlas 210X-200W SSB, CW transceiver. (limited edition) - 3.5 to 29 Mhz w/mobile mount, AC pwr. supply, VOX unit for SSB & CW plus MFJ audio filter installed \$350. Dentron 2 KW PEP linear amp. (uses 4-572B's) 3.5 to 21 Mhz Clipperton L Model. \$500.

CONTACT: Bill Benner, W3KRM

Phone: 215-224-1489

FOR SALE: Kenwood TS600, VOX3, KLM 80 W. amp., 6 el. beam, Janel 6 mtr. preamp. All for \$850.

CONTACT: Charlie Cloud, WB3CPW

Phone: 215-646-6012 after 4 p.m.

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FOR SALE: COLLINS 75-S3 rcvr. w/additional crystals for 14 to 15.4 Mhz converter tuning & for WWV reception. \$375. Heath Ham-Scan for panoramic reception \$50.

CONTACT: Ed Tilton, WLHDQ, Box 137, Canton, Ct. 06019. Phone: 203-693-4762

* * *

FOR SALE: Drake TR-6 with A.C. pwr. supply & noise bankler. Asking \$550 or best offer.

CONTACT: Jim Kulp, K3SW

Phone: 215-723-6570 evenings

FOR SALE: HW101, HP23D, Henry Mic. Model 102, HD1426 field strength meter. \$350 or trade.

CONTACT: Hank Smith, WA3TSK

721 Bushkill St.

Easton, Pa. 18042

Phone: 215-252-7296

FOR SALE: Collins 32S3 transmitter (39+K serial) \$575, 516F-2 pwr. supply \$150 Both mint shape w/manuals. KENWOOD TS-700A 2 meter all mode (FM, SSB, CW, AM) transceiver w/repeater sub-band modification, \$390. In mint shape, original carton, w/Kenwood Service Manual. ICOM IC-280 2 meter FM transceiver, like new condition, original carton \$275. TEN-TEC Model 645 Keyer, Brand new in sealed carton \$65. ERC Model SL-55 Active Audio Filter \$40. HEATH SB-610 Monitor Scope, set up for 455 Kc IF w/all parts for other IF's and manual, mint condition \$90. E.F. JOHNSON Model 4730 10 meter SSB and AM converted by Certified Communications w/magnetic mount 10 meter mobile antenna, brand new condition \$140.

CONTACT: Ed Vickner, K2SNK

21 Running Brook Rd.

Trenton, N.J. 08638

Phone: 609-883-5318

VISITORS APRIL 24, 1980 MEETING

G3OUF, David Evans, RSBG, London, England

K1ZZ, David Sumner, South Windsor, Ct.

W3KT, Jess Bieberman, Malvern, Pa.

VE7BUT/W2, Richard, Cherry Hill, N.J.

Steve, Wycombe, Pa.

WB3FEH, Bob, Churchville, Pa.

WB3JYO, Paul, Wycombe, Pa.

N3ICC, Drex, Wycombe, Pa.

WB3EFO, Ed Lee, Huntingdon Valley, Pa.

* * *

TID BITS

The banquet (Ladies Nite) on April 26, 1980 was a grand and warm affair. Every ham received the new Pack-Rat World Champions writing pen. The ladies were presented with beautiful pieces of costume jewelry. The one hour free bar was very popular. The prime event of the evening was the presentation of plaques and certificates by Bill Smith, WA2DPU, the awards Chairman, to the lucky participants in the January VHF SS Contest. The "Pack Rat Of The Year" award was presented by W3CL to an almost speechless Bill Olson, W3HQT. Bill, the President of the Club during the past two years was most deserving of the honor.

Charley Craft, N3MW admitted he came to attend the ARRL Nite a week early--he therefore receives the "Golden Attendance" award. Wonder how many others showed up the third Thurs. in April and are keeping discreetly quiet. But back to N3MW - we must hasten to congratulate him on receiving his DX CC.

144 Mhz Preamplifiers

CALL	TYPE	NF
WB5LUA	DXL3501 GaAsFet H.B.	0.5dB
K1WHS	35K48 H.B.	0.9
WB4EXW	3SK48 H.B.	0.9
F9FT	NE64535	1.0
K5GW	3N211 H.B.	1.1
WBØZXU	3SK48 #1	1.3
WA6MGZ	U310	1.3
K5ASZ	3N211 H.B.	1.4
WBØZXU	3SK48 #2 H.B.	1.4
WA6MGZ	U310	1.4
W5LUU	U310 H.B.	1.5
WB4EXW	U310	1.5
W3IWI	JANEL 144 PB #1	1.6
KH6IHP	JANEL 144 PB	1.6
WBØTEM	U310 #1	1.7
WBØTEM	U310 #2	1.7
W5FF	MRF 901	1.7
WA8OGS	ANGLE LINEAR	1.8
K9LQZ	ANGLE LINEAR	1.9
WB4WPI	QBIT 0614-02	1.9
W3IWI	JANEL 144 PB #2	2.0
W7FN	ANGLE LINEAR	2.0
WBØVYV	JANEL QSA-5	2.1
K4PKV	MS0150	2.2
WØNTD	AD. RSCH P144VD	2.25

432 Mhz Preamplifiers

W6PO	DXL 3501 H.B. GaAsFet	0.5dB
W65LUA	DXL 3501 H.B. "	0.5
K5JL	NE64535 H.B.	0.75
WB5LUA	NE64535 H.B.	0.75
T12NA	NE64535 H.B.	0.8
ZL3AAD	NE64535 LUNAR 432-5	0.8
W4ATC	"	0.8
W7LUX	"	0.8
WA8OGS	"	0.8
W5UPR	NE64535 H.B.	0.9
WB6NMT	NE64535 LUNAR 432-5	0.9
WB6NMT	"	0.9
WA5HMK	NE64535 H.B.	0.95
ZL5AAD	NE64535 H.B.	1.0
WB6NMT	NE64535 LUNAR 432-5	1.0
W5UPR	NE64535 H.B.	1.0
NØUU	NE64535	1.05
WA8ULG	NE64535 H.B.	1.25
KH6IHP	LUNAR 432-2	1.3
WA8ULG	2N5650 H.B.	1.4
WA8OGS	LUNAR 432-2	1.5
AAØL	FMT4575 H.B.	1.5
AAØL	FMT4575 H.B. w/CAVITY	2.2
WA8ULG	MRF901	1.6
WA8ULG	2N5650 H.B.	1.7
WBØZXU	JANEL 432-PC	1.75

144 Mhz Converters

CALL	TYPE	NF
W5LUU	3N140	2.0dB
K5GW	SD306	2.3
KH6IHP	M.M. CONV. 3N204	2.6
W3IWI	ADV. REC. RESEARCH CONV.	2.6
KH6IHP	M.M. CONV. 40822	3.5
K9LQZ	M.M. CONV.	3.6
K4PKV	2N4416 H.B.	4.0
AAØL	2N4416 H.B.	8.1

432 Mhz Converters

CALL	TYPE	NF
K5IS	M.M. 432-28 CONV.	2.8dB
K9MRI	M.M. 432-28 CONV.	2.8
W3IWI	JAMSAT MODE-J	3.2
K9LQZ	PARKS CONV. UN-MODIFIED	4.0

220 Mhz Converters

CALL	TYPE	NF
WB6NMT	LUNAR MODULAR CONV.	1.9dB
WA5YOU	AD. REC. RSCH. CONV.	2.2
WØVB	VANGUARD CONV.	3.9
W9UD	JANEL CONV.	4.3

220 Mhz Preamplifiers

CALL	TYPE	NF
WB6NMT	2N5245	1.4dB
W9UD	JANEL	1.5
WB4WPI	QBIT 614-02	1.8

432 Mhz Preamplifiers

Continued

CALL	TYPE	NF
K4PKV	MRF901 H.B.	1.95 dB
AAØL	BFR90 H.B.	2.25
AAØL	BFR90 w/CAVITY	3.0
W3XO	N6RX MICROCOMM. SPECIAL	2.8
WB4WPI	Q-BIT 614-02	2.9
?	LUNAR 432-5	3.2
K4PKV	MS0150 H.B.	3.5
W7LUX	1296mHz MRF902	5.2
WØOHU	ECG161	6.8
WA5ØNR	L72001	7.0
AAØL	2N5245 H.B.	7.25

N.F. POST AMP = 1.7 dB

1296 Mhz Converters

CALL	TYPE	NF
WØYZS	H.B. CONVERTER	6 dB
W9UD	MICROWAVE MODULES	6.5
K1WHS	"	6.6
K5UGM	"	6.8
WB5LUA	H.B. INTERDIGITAL CONVERTER	7.25
W5UPR	MICROWAVE MODULES	7.5

THE FOLLOWING LETTER WAS RECEIVED BY RON, WA3AXV AND WE PASS IT
ALONG TO YOU

"I received a copy of the March, 1980, "Cheese-Bits" news letter that contained some incorrect information about the new Cushcraft 617-6B six meter Yagi. I am not sure, but I think the equipment reviewer has the 617-6B confused with some of the competition.

First of all, the six meter "boomer" has a "T" match feed with a coaxial balun for direct 50 ohm feed. (S0-239) There is no gamma match on it. The elements are not 5/8" tapered to 1/2", but rather 3/4" diameter, tapered to 5/8". All tubing in the boom and elements is 6063-T832 seamless drawn tubing.

A brace for the boom is supplied. It is fabricated of aluminum tubing as well. All hardware is stainless steel and immune to rust.

The element dimensions are correct, but if someone were to duplicate the antenna, he must use the 3/4" x 48" tubing in the center of the element with 5/8" tubing telescoped on each end to the proper length. Our element mounting scheme is a bit different than is pictured in the "Cheese-Bits" article. We use a 2 inch throat stainless U-bolt around the boom and through the element with a suitable aluminum spacer and backing plate.

Your test results seemed quite accurate. Front to back ratio is in excess of 20 dB over a 500 KHz spread in frequency. Maximum F/B ratio with our dimensions occurs near 50.25 Mhz and is over 30 dB. Such nulls are actually hard to measure. 22 dB sounds right for 50.1 MHz. I measured the gain at over 12.25 dBd which is in close agreement with your results. VSWR measurements were very close as was the -3dB beam-width.

Some improvement in gain is possible with this Yagi, but at the expense of a fantastic pattern, so we left it as is and I'm sure that 99.9% of all users will agree that low side lobes are more important than three or four tenths of a decibel in forward gain.

I hope you can pass this information on to the gang to straighten everything out. I hope to get active again on 144 MHz now that the weather is warming up, so maybe I'll catch you there soon."

73, CUSHCRAFT CORPORATION, Dave Olean, KIWHS
* * *

FROM THE CENTRAL STATES 1979 VHF CONVERENCE CONTINUED

1296 Mhz Preamplifiers

#	See Note CALL	TYPE	G	NF	ACTUAL NF
1	W5UPR	NE64535 H.B.	10dB	2.2dB	1.5dB
1	WB5LUA	NE64535 H.B.	10	2.2	1.5
1	WA5HMK	NE57835 H.B.	10	2.65	2.0
1	WA5VAJ	H.B.	10	2.9	2.3
1,3	W1UHE	NE64535 H.B.	7	3.7	2.6
2	W7LUX	MRF901	10	4.2	3.4
2	W9UD	MRF901	10	5.0	4.3
	1. SECOND STAGE N.F. 5.5dB				
	2. SECOND STAGE N.F. 7.5dB				
	3. 100Ω FOR OUTPUT MATCHING - GAIN ASSUMED ≈ 7dB				

* * *

MORE OF LEE'S JOTTINGS

Overheard on a local repeater: He was 21 years old before he knew which part of the banana to throw away...

To keep bills down - use a heavier paperweight...

Have you ever wondered why we abbreviate the word pound as lb. when there is no L or B in it --

Diligent research comes up with the answer - the Latin word is Librae.

(CONTINUED ON PAGE 10)

JAMES R. FISK, W1HR
December 12, 1934 -
April 18, 1980

Jim Fisk, W1HR, editor-in-chief of Ham Radio and Ham Radio Horizons magazines, died of a heart attack at his home early Friday morning, April 18. He was 45 years old.

Jim was the founding editor of Ham Radio, which began publication in March, 1968. A native of Delhi, New York, he attended the University of Richmond in Richmond, Virginia, and attended and taught at Whittier College in Whittier, California.

He was a life member of the ARRL, a member of the Antique Wireless Association, an honorary life member of the Sidney, New York, Amateur Radio Club, and a member of the Nashua, New Hampshire, Amateur Radio Club. Jim was an active and avid DXer; he was in the process of building an impressive "superstation" at the time of his death.

Besides Amateur Radio, Jim was also a devoted auto racing buff and an accomplished professional photographer. He belonged to the Sports Car Club of America and the Society of Photographers in Communications (ASMP).

Surviving Jim are his wife, Diane; a son, Michael J. Fisk of Fort Mill, South Carolina; his parents, Mr. and Mrs. James G. Fisk of Peterborough, New Hampshire; and two sisters, Mrs. Ann E. Harper of San Diego, California, and Mrs. Jennifer L. Griffith of Chicago, Illinois.

Contributions in Jim's memory may be made to the Jimmy Fund, Statler Hotel, Boston, Massachusetts, or the American Heart Association, 33 Broad Street, Boston, Massachusetts.

When Jim Fisk joined with publisher Skip Tenney to form Ham Radio Magazine it was his desire to create a journal of excellence unmatched by any other in the field. Throughout his career Jim kept himself (and all of us here) up to date with the state of the art. He was always a demanding worker, and the rewards and benefits of his leadership were great.

Jim's friendship and guidance were invaluable to all of us at Ham Radio. His loss will be felt by the entire Amateur Radio world.

* * *

LEE'S FILLERS CONTINUED

Why is it that every time you are in a hurry to go somewhere traffic always backs up like this?

You think you get troubles over goof-ups. Two politicians were at a dedication of a 500 million dollar Dam when one said to the other - "Good Heavens - the water is supposed to be on the other side..."

The wife of a recently retired club member was heard to say - I've got twice as much husband and half as much income...

There is one thing you can do better than anyone else in the world -- read your own handwriting.

Just think what a tax bind we would be in if we weren't a nation of peace - loving people. As it is now, only 75% of our money is now spent for war or war material...

We see by the papers that via inflation the cost of living has gone up 95 cents a shot...

Not everyone who has a green thumb is a good gardner - some are just sloppy painters...

Don't look to the government to take care of too many of your needs - Remember what happened to the American Indian.

If the government isn't careful, the first of our natural resources to be used up will be the taxpayer...

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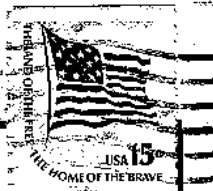
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The advertisement is surrounded by numerous logos for electronic and radio-related companies, including: Wilson Electronics Corp., Xcelite, SPRAGUE, TELEX, AMPHENOL, CUSHCROFT, TAB BOOKS, TEN-TEC, TRW, NPC, VIRAPLEX, BEANCOFF, SOUTH POLES, "W2AU" HAM-KEY, LORSEN ANTENNAS, ASTATIC, ROHN, MISCOT, HAMKEY, ICOM, SEXTON, DRAKE, CDE, nte, GILFER, LMB, TPL, WELLS, WELDER, WILDOM, MANDY, MISCOS, HUSTLER, PHYLAS, AMSCO, BOMAR, COVER CRAFT, SWAN, M7, VECTOR, BIRD, MISCOS, WELLS, WELDER, WILDOM, MANDY, MISCOS, HUSTLER, PHYLAS, AMSCO, BOMAR, COVER CRAFT, SWAN, M7, VECTOR, BIRD, MISCOS.

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