

CHEESE BITS



W3CCX

CLUB MEMORIAL CALL _____



ARRL
Affiliated
Club

SCANNED TO PDF BY BERT, K3RJV, 2013

VOLUME XLII

April 2000

Number 3

The PREZ SEZ

I am living out of a suitcase again, and can't find the on/off switches on the radios! I did have them on Monday night, which was the kickoff of the spring sprint season. I heard some raves early in the contest about good conditions. I did not participate until the last hour, but participation seemed lousy to me. I don't think the sprints were advertised as well this year. Seems like a cause and effect lesson to learn, so start talking up Microwave Update 2000 and Hamarama 2000.

Remember that this Saturday is June contest "checkout" day up at Bob, W3GXB's. April 15, traditional tax day, renamed to June contest checkout day. Which says the big extended weekend excursion can't be far away. Try to set that weekend aside to help the club with the effort. I think Al is still looking for truck driver #3, so help if you can.

With sadness, I must report the loss of Wil, K3PHY. I will miss him and was glad to have gotten to know him during my (shorter than most) association with the Pack Rats. I believe Ernie is going to try and post a short article in Cheesebits regarding Wil.

Well, its time to get back to the "high level" meetings and airport life. Turn on those radios and let's live'n up those sprints!

73, Ed, WA3DRC

Calendar of Coming Events - April 2000

- 10 144 MHz Spring Sprint (Monday evening) starting at 7-11 PM local time. See April 2000 Cheesebits for rules. E-mail logs to vhfdx@etdxa.org. Paper Logs to: ETDXA / NJ4I, 1620 Hidden Hills Drive, Clinton, TN 37716
- 12 Physicist John Thompson demonstrated his discovery of a body smaller than the atom, a negative charged he called a corpuscles now known as an electron in 1897.
- 13 Packrat Board of Directors Meeting at the QTH of Chris Getman, N3PLM, in Lansdale, PA, 413 Militia Hill Drive, Lansdale, PA. 215-368-1005.
- 14-15 Southeastern VHF Conference will be held at the Atlanta Marriott Northwest between Atlanta and Marietta. For details visit their web page at: <http://www.svhfs.org/svhs>.
- 18 Spring 222 MHz Sprint (Tuesday evening) 7-11 local time. See April 2000 Cheesebits for rules. E-mail logs to vhfdx@etdxa.org. Paper Logs to: ETDXA / NJ4I, 1620 Hidden Hills Drive, Clinton, TN 37716 See March 1999 Cheesebits for rules.
- 20 Packrat Meeting (ARRL Night) at the Southampton Free Library at 8:00 PM. Bring and/or invite your on the air VHF buddies. All VHFers invited. The speaker will be Dave Patton, NT1N, Special Assistant to Executive Vice-President of the ARRL.

(Continued on page 3)

MEETINGS

Third Thursday each month at 8:00 PM
 Southampton Free Library
 947 E. Street Road
 Southampton, PA 18966

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Pack Rat WEB Site: <http://www.ij.net/packrats>

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ
7258 Walnut Avenue
Pennsauken, NJ 08110
(609) 665-8488
bobw2sj@prodigy.com

EDITOR:

Harry Brown, W3HT
3012 Potshop Road
Norristown, PA 19403
(610) 584-4846
hbrown@voicenet.com

CLUB TREASURER:

Dave Mascaro, W3KM
1603 Mink Road
Ottsville, PA 18942
(215) 795-2648
dmascaro@gi.com

AWARDS CHAIRMAN:

Bob Fox, W3GXB
(610) 346-8698

TRUSTEE OF CLUB CALL - W3CCX

Ron Whitsel, W3RJW
W3RJW@aol.com
(215) 355-5730

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA FN20LE

OFFICERS: 1998-1999

PRESIDENT:	WA3DRC	Ed Finn, ed_finn@ustv.vlsi.com
VICE PRES:	WA3EHD	Jim Antonacci, jantonacci@worldnet.att.net
REC. SECR:	WA3AQA	Walt Zumbach, wzumbach@bellatlantic.net
TREASURER:	W3KM	Dave Mascaro, dmascaro@gi.com
COR. SECR:	AA3GN	Joe Landis, landisj@nad.com
DIRECTORS:	N3LVV	(1 Yr) Walt Rauscher
	N3EXA	(1 Yr) Brian Taylor
	N3ITT	(2 Yrs) Al Sheppard, alitt@epix.net
	N3XEM	(2 Yrs) Bob Minch, raminch@bellatlantic.net

PACK RAT BEACONS - W3CCX/B

FM29JW Philadelphia, PA
50.080 144.284 222.065 432.295 903.072 MHz
1296.251 2304.037 3456.220 5760.190 10,368.170 MHz

MONDAY NIGHT NETS

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:30 PM	50.150 Mhz	WA3EHD/K3EOD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ/N3EXA
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW/WA3DRC
9:30 PM	1296.100 MHz	WA3NUP
10:00 PM	903.100 MHz	N3AOG

COMMITTEE CHAIRMEN

LADIES' NIGHT:	N3AOG	215-443-9965
JUNE CONTEST:	N3ITT	610-847-5490
HAMARAMA:	NK8Q	610-847-2285
VHF CONFERENCE:	KB3XG	610-584-2489



THE AMERICAN RADIO RELAY LEAGUE



KAY C. CRAIGE, WT3P
DIRECTOR, ATLANTIC DIVISION

5 Faggs Manor Lane
Paoli, PA 19301-1905
610-993-9623

wt3p@arri.org

THE AMERICAN RADIO RELAY LEAGUE



BERNIE FULLER, N3EFN
VICE DIRECTOR, ATLANTIC DIVISION

17668 Price Road
Saegertown, PA 16433
814-763-1529

n3efn@arri.org

Calendar of Coming Events - April 2000 Continued

- 27 **LEAP INTO THE MICROWAVES** with the Packrats! 903 and above. Starting on the 4th Thursday of the month and continuing every 4th Thursday of the month operate from 8 to 10 PM local time on any band 903 MHz and above. For coordination on those difficult long haul contacts 144.260 MHz is the suggested liaison frequency. So here's your chance to fix what broke in the contest and work all those stations you missed.
- 23-25 **CQ-VHF Weak Signal Weekend**, sponsored by CQ-VHF Magazine. From 6 PM local time on 23 April to 12 AM local time on 25 April. Rules on page 100 of the April 1999 QST and the March issue of CQ-VHF.
- 30 The **Pen-Del Hamfest** will be held at the NUR Temple, 198 DuPont highway (Rte 13 near US 40 split), Newcastle DE. Talk-in on 224.220 and 147.225+.
- 25 Italian engineer and inventor Guglielmo Marconi, inventor of the wireless telegraph and Nobel Prize winner was born in 1874.
- 26 **Spring 432 MHz Sprint** (Wednesday evening) 7-11 local time. See April 2000 Cheesebits for rules. E-mail logs to :vhfdx@ctdxa.org. Paper Logs to : ETDXA/NJ4I, 1620 Hidden Hills Drive, Clinton, TN 37716
- 7 May **Warminster Amateur Radio Association Hamfest** at the Middletown Grange Fairgrounds in Wrightstown, Pa. Talk-in on 146.69/09 and 146.52. VE Testing.

Sept.

- 28-30 **Microwave Update 2000** hosted by the Mt. Airy VHF Radio Club will be held at the Holiday Inn Select, Bucks County, 4700 Street Road, Trevoze, PA 19053, (215) 364-2000, (800) HOLIDAY. For more information contact John Sortor, KB3XG at JohnKB3XG@aol.com, or <http://www.ij.net/packrats/mud.html>.

Health and Welfare: We are saddened by the loss of long time member of the Packrats, Will Burns, K3PHY.

HAMARAMA 2000

Fellow Packrats, October seems like a long way off at this point, but as many of you know, this year the Packrats are hosting Microwave Update 2000 and we will have guests attending MUD and HAMARAMA from around the country and the world, including many of the most well known and influential VHF, UHF and microwave amateurs. As a result, I believe our HAMARAMA 2000 (H2K) at the Wrightstown Grange will also be a much larger event than it would be in a normal year, and will require the support of many more club members to be successful. This will be our second year at the Wrightstown Grange following last year's very successful inaugural year.

H2K is our opportunity to raise a considerable amount of income for the club to sustain us for the upcoming year and to show the rest of the country that the Packrats are a vibrant, active club and that, in addition to our contesting and engineering prowess, we know how to put on an activity of this magnitude that will benefit a great number of hams.

In past years, many of our members have pitched in to help the club conduct the HAMARAMA. We are all grateful for your efforts because it was you, and the donation of your time and work which made our past HAMARAMAs such great successes. I hope that we can count on the help of the "Faithful" again this year. In addition, I would also like to solicit the help and support of those of you who, perhaps because of conflicting commitments in past years have not been able to help out. The Packrats NEED your help for H2K! If we can achieve total club participation in H2K this year, we can't help but have one of the best years ever! Please plan ahead so that Sunday, October 1, 2000 is clear on your calendars.

Also, please talk up the HAMARAMA in your conversations with other hams on the air and in person. Word of mouth publicity can help increase the number of attendees dramatically. Another suggestion is to add the following text to your e-mail signature file:

Microwave Update/Hamarama 2000
September 28, 29, 30/October 1, 2000
PHILADELPHIA, PA.
FOR INFORMATION VISIT
<http://www.ij.net/packrats/mud.html>

Any and all suggestions from you, the members, as to things we can do to make H2K a success are definitely encouraged. My e-mail address is ku3t@amsat.org and my home phone number is 215 256-1464. I will be posting updates on the status of HAMARAMA 2000 planning in upcoming issues of "Cheesebits". HAMARAMA 2000 Chairman, Joe Keer, KU3T

CHEESEBITS SUBSCRIPTIONS

Cheesebits subscriptions are available to everyone interested in activities and information from the VHF through the microwave frequencies. Subscriptions are for 1 year of 12 issues. For a subscription, send the following information:

Name: _____ Call: _____

Street Address: _____

Town: _____ State: _____ ZIP: _____

Subscription Rate: \$10.00 per year (USA), \$12.00 (Canada), \$15.00 (Worldwide)

April 2000

Send to: SUBSCRIPTION/ADVERTISING MANAGER:

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

JUNE CONTEST UPDATE

Spring is in the air! Hope everyone is getting fired up for the June Contest effort, I know I am! Ever since my first trip with the Pack Rats to the mountain, 9 years ago, I've looked forward to this trip every year, and have never failed to have a great time. For those who have never joined the group up on Camelback, you owe it to yourself to come on up, and partake in the fun, camaraderie, great food, and operating from a super site! Not only that, this event is for all types, from "op'till you drop" types to the casual contester, who just wants to help out and enjoy some time with their fellow Pack Rats, even if you just enjoy the great outdoors, this is for you.

So far things are looking good! All the main jobs are filled, and the sign up sheet is getting longer! However we could still use some more to make it comfortable, so try to make some time to join us, you might even enjoy it!

In closing, just some thoughts, I've always talked about what this event does for us as individuals but what does it do for the club. I guess one thing is that this is the one time every year that the club gets it's call on the air as a serious contender in a VHF contest, not just as a list of calls and scores in the Jan. contest. It would be a shame if the day would come when the call sign W3CCX is only heard on the airwaves with a /b or /r following it. It would be sad. So please support the W3CCX Multi-op this year, and in the future. I remember something said by Ernie Keens (W3KKN), at a meeting some time ago. Ernie said, "...It's a great thing you guys have going here, the way the guys help each other out and pull together. Don't ever loose it." How true! But sometimes when we loose things it doesn't happen all at once, sometimes they slip away, bit by bit. If the day ever comes when we don't have the manpower to do the June contest, what do we loose? An annual chance to play radio on a mountaintop and cement bonds of friendship with our fellow Pack Rats, that's about all. It wouldn't be the end of the world or even the end of the club. But, it would be just a bit of the Pack Rats, slipping away.

SUPPORT THE CLUB STATION BY COMING UP TO THE MOUNTAIN, OR WORKING W3CCX FROM HOME !!!

73 CUI, A1 N3ITT

2000 Spring VHF/UHF Sprint International Contest

Sponsored by East Tennessee DX Association / NJ4I

ETDXA would like to remind everyone that the first of the Spring Sprints is only a few weeks away. Everyone is encouraged to participate, even if only in a small way. We have several sponsors this year, who have donated nice prizes to be drawn from a list of participants who have submitted contest logs this year. ETDXA has also added a nice engraved plaque to the list of awards. The plaque will go to the individual who submits the highest overall score, across all bands, and for the individual bands, a certificate will go to the three highest scores per band.

The rules have intentionally remained simple, and yes, they do encourage rover operation. The contest is intended for single operator, single transmitter entries, however if one wishes to introduce a newcomer to weak signal vhf/uhf operations, the sponsors of the contest reserve the right to allow such entries, if identified as such.

You will see that we have created a new email address for submission of logs, which will be on-line in time for the first contest. This is vhfdx@etdxa.org.

If there are any clubs, newsletters, or periodicals which need to be added to distribution, please let me know.

I wish you the very best of VHF! 73, Bert Rollen, K4AR

1. Object: To work as many amateur stations in as many 2 degrees by 1 degree grid squares as possible, using authorized amateur frequencies on the 50, 144, 222, 432, 902 MHz and above bands. (Formerly sponsored by ARRL)
2. Contest Period:
 - 2.1. The 144 MHz Sprint will be from 7 PM until 11 PM local time on Monday (April 10, 2000).
 - 2.2. The 222 MHz Sprint will be from 7 PM until 11 PM local time on Tuesday (April 18, 2000).
 - 2.3. The 432 MHz Sprint will be from 7 PM until 11 PM local time on Wednesday (April 26, 2000).
 - 2.4. The 902 MHz and above Sprint will be on Saturday (May 6, 2000) from 6 AM until 1 PM local time.
 - 2.5. The 50 MHz Sprint will be from 2300Z Saturday until 0300Z Sunday (May 13 & 14, 2000).
3. Exchange: Grid-square locator - signal report is optional.
4. Scoring:
 - 4.1. QSO Points: Count one point for each complete QSO.
 - 4.2. Multiplier: The total number of different grid squares worked. Each 2 degrees by 1 degree grid square counts as one multiplier.
 - 4.3. Final score: Multiply QSO points by multipliers. Each Sprint is scored separately.
 - 4.4. Rovers score same, but please segregate logs by grid (Thanks!)
5. Reporting: Logs (paper, ASCII, ADIF, .xls) must be submitted no later than four weeks after the closing of each event. Only submitted logs are eligible for awards.
6. Certificates for top three scores in each Sprint, Plaque for overall high score.
7. Submission of Logs: E-mail logs to : vhfdx@etdxa.org
Paper Logs to : ETDXA / NJ4I, 1620 Hidden Hills Drive, Clinton, TN 37716
Questions ? Email k4ar@arrl.net

PACKRATS HOMEBREW NIGHT

Another Homebrew Night program was held at the March meeting showed the craftsmanship of some of the Rats building a variety of projects from audio thru light. See photos on following pages. The entrants and their projects were:

Walt	WA3AQA	6 Meter vacuum tube transmitter. Project started in 1967 -- complete with 6L6 vacuum tubes! Never really tested, but entered as a historical radio antique.
Paul	W2PED	2m Mast mounted preamp and remote antenna selector. developed to overcome UHF relay problems, and switch between smaller array and 4 bay array. Xacto-etch GaAsFET preamp board claims 0.7 dB NF.
Jim	WA3EHD	6m 100 Watt Brick Amplifier. —built from QST article, with help from a team of club members, including Ben, Walt and Len. The tape mounts were forgone in favor of soldered brass washer spacers, screws and nuts, so that in the "heat" of contesting, the board wouldn't be left hanging by the output transistor leads
Chris	N3PLM	432 100 watt FM Commercial Amp conversion to linear. —'semi'-homebrew solid-state amp from a hamfest converted from class C to linear with biasing changes, complete with thermocouples and blower
Bob	W3GXB	All junkbox No cost Headset for his 222 FM xcvr. assembled from readily available surplus parts, add a PTT switch and you're ready for the new legal 'hands-free' radio operation
Rick	K1DS	1296 Interdigital Rcv Converter and 432 to 1296 Tripler Amp all made with hand tools. —using handtools only, the Interdigital mixer was fashioned, as well as the tuning strips for the tripler.
Len	N3NGE	3456 and 5760 Transverter System tower mounted with remote in shack control. —these RF engineer's dream machines were placed in the same rack enclosure, complete with the relay logic for their respective amplifiers. Pipe-cap filters were built to clean up the 3.4 GHz sigs. WA3NUF says, "you can come and wire my shack anytime."
Chuck	WA2ONK	10 GHz Transverter. —Using DEM kit parts, a brick LO, a rare 12 VDC SMA relay and a 2 stage pHEMT pre-amp, this rig puts out 8 mw.
Leon	N1XKT	Pair of Modulated Laser Communicators. —from the Feb '97 QST, these amplitude modulated 448 THz laser diodes and light receivers can communicate over paths greater than 1 Km.

Note: Ron, W3RJW showed a 5760 MHz Transverter to explain how it was done before no tune kits. He did not want to compete as it has been shown before at another homebrew night. —the key to success is the LO "X" series with the built-in stabilizing heater for the crystal. This was a re-entry from past years, to stimulate 3.4 GHz builders.

RESULTS:	Best Construction	Chuck	WA2ONK
	Most Ambitious	Len	N3NGE
	Most Unique	Leon	N1XKT
	Best Use of Hand Tools	Rick	K1DS
	Most Miserable Failure*	Walt	WA3AQA

*Walt revealed in one of his classic tales (of crying towel fame), that he had started this project in 1967. Though the construction was neat and had a handsome meter on the front panel, we deemed it the most miserable failure since it was started 33 years ago and he still does not know if it works!! The judges were: Don, N3OZO, Paul, WA3GFZ & Bob, W2SJ.

Tnx to Rick, K1DS, for photos and help with the project descriptions and to Bob, W2SJ, for help with the project descriptions.

SWAP SHOP

(send all ads to the editor)

FOR SALE: CALLSIGN HISTORY. Name and address of each holder since 1912. Cost \$15 plus SASE for printed CERTIFICATE. Wanted CallBooks before 1970 and QST's before 1940 will buy or trade. Also looking for 1x2 Ham Radio License Plates for my collection. Ron Allen W3OR, PO Box 73, Bethel, De. 19931-0073 or call 302-875-1100.

For Sale: 2304/2320 MHz RF amplifiers using Russian Gs9b triode. Typical 120 watts out from 12 watts in with 2500 VDC@350 mA. Silver plated copper and brass construction. Water and air cooling (both). Complete, assembled, tested and tuned with new tube, bias regulator, tech notes (7 pages!). Not for beginners. Two units available (this batch). \$500 each + shipping. Write for annotated photo. Ed Krome K9EK, 71611.76@COMPUSERVE.COM

W3HFY's Estate Sale. Many items listed in the January issue of Cheesebits from Hal, W3HFY's shack are still available and are being offered for sale by Hal's daughter-in-law, Lynn Grace. The price on each item is negotiable. Lynn's phone number is 610-259-0231.

HAMVENTION DINNER

The **VHF Weak Signal Group** that meets Monday nights at 0200 UT on 3.843 MHz, would like to invite everyone that is coming to the Dayton Hamvention to our Annual Banquet on Friday night May19th from 6:30 PM until 11:00 PM at the Holiday Inn North, Wagoner Ford Rd in Dayton.

WE have reserved a room that will seat 125, there will be a cash bar and plenty of seating to allow you to mix and mingle with other VHF'ers from all over the country and the world. Guest speaker will be Doug Smith, KF6DX, from the ARRL staff and editor of QEX magazine. Over 50 prizes with two grand prizes worth over \$300 dollars each will be drawn starting at 9:00 PM The cost of a ticket to attend this function which includes the 2 entree banquet dinner, is only \$33.00 per person, and they are limited to 125.

You may order your tickets by sending \$33.00 plus an SASE to Tom Whitted, WA8WZG, 4641 Port Clinton East Rd., Port Clinton, Ohio 43452. Website info is www.wa8wzg.com. This is one of the largest gatherings of VHF weak signal enthusiasts in the US, so get your tickets early and join us for an enjoyable evening at the Dayton Hamvention! Thanks and 73's Tom Whitted, WA8WZG

LADIES NIGHT 2000

The Packrats wish to announce this years

"Ladies Night" which will be held on

SATURDAY, MAY 13TH

Location: Water Shed Grill at the Mill Race Inn, 183 Buck Road,
Holland, Pa. (Same location as last year. New Name)

Agenda: 6:00 - 7:00 OPEN BAR
7:00 - 9:00 Dinner
9:00 - 9:30 Awards
9:30 - 11:00 Music & Dancing

Menu: Salad
Main Entree with vegetables
Desert
Coffee or Tea (Cash bar after 7:00)

Cost: \$30.00 per person



Note: This evening is set aside every year to thank our wives, or significant others for putting up with our nonsense throughout the year. For those of you who have not joined us in the past, it is really an enjoyable evening. The D.J. does a super job, just the right 'mix' of music. When you arrive, Hors d'oevers will be awaiting you along with the OPEN BAR. The club contributes a substantial amount for the cost of the evening. This is why the cost of an evening of cocktails, dinner, and music is only \$30.00. Please join us this year.

RESERVATIONS PLEASE, NO LATER THAN APRIL 30TH

Menu Choice: Prime Rib, Stuffed Flounder, Stuffed Chicken Breast

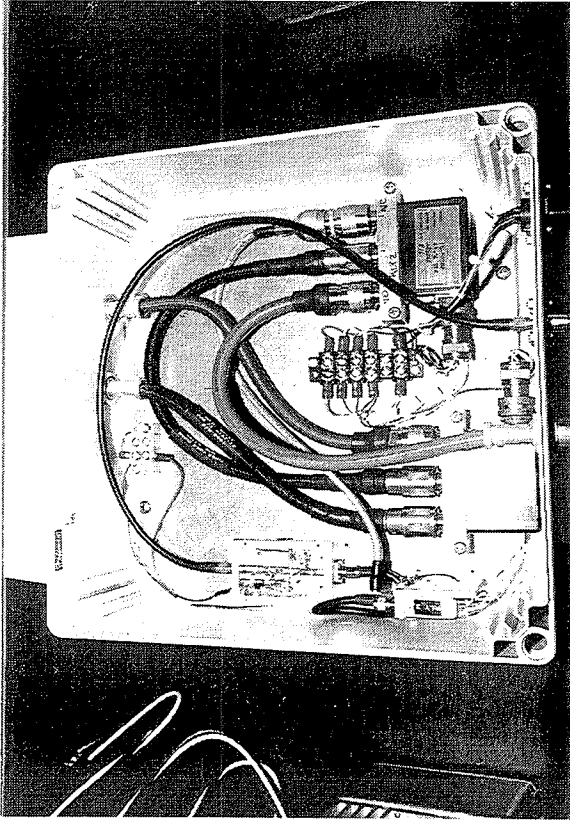
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Guest's Name _____ **Guest's Choice** _____

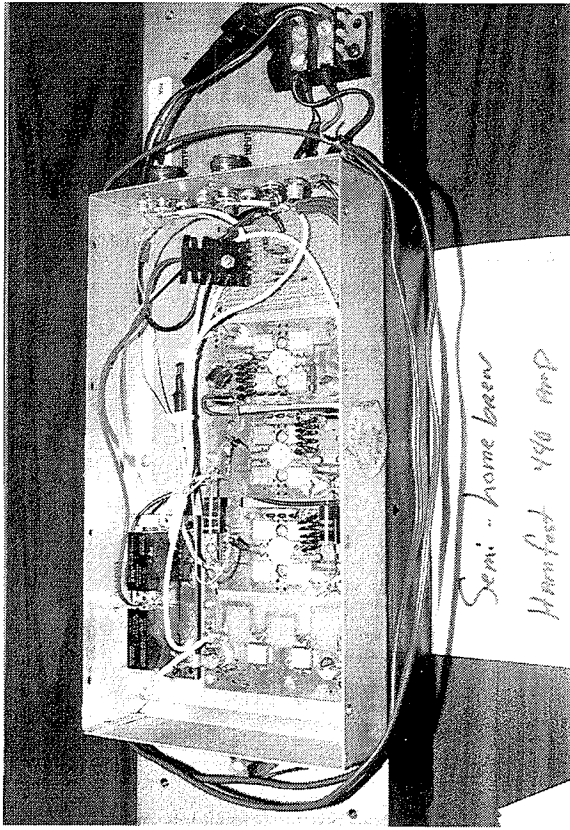
Check Payable to: MT. AIRY VHF RADIO CLUB

Mail to: Dick Comly, 56 Home Road, Hatboro, Pa. 19040
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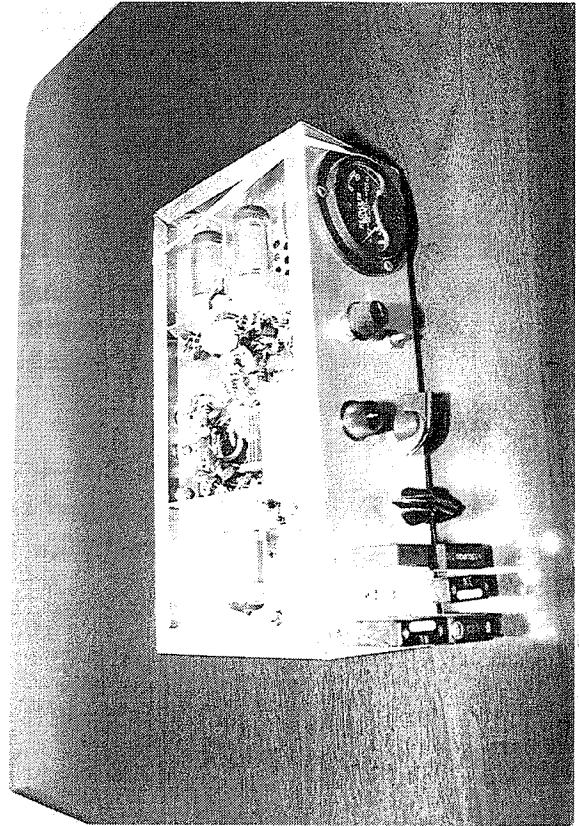
2000 PACKRAT HOMEBREW NIGHT



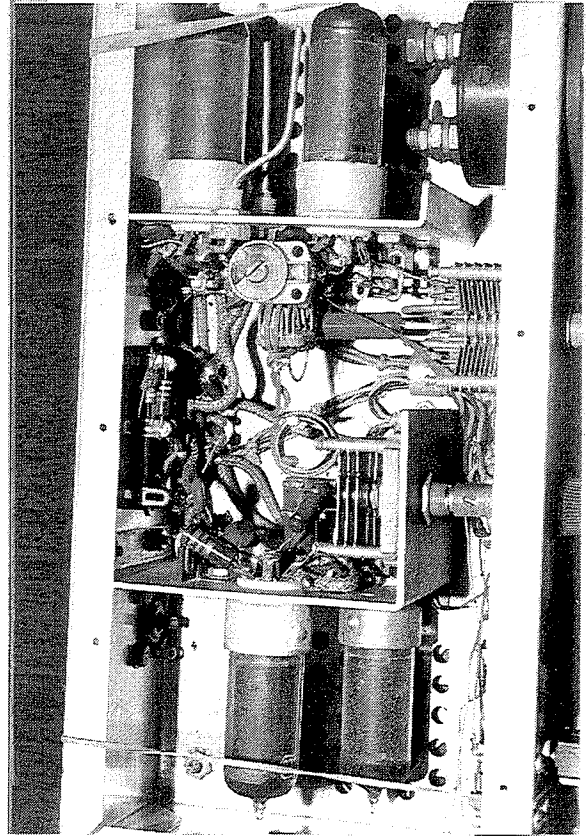
Paul, W2PED, 2 Meter Mast Mounted Preamp/Switch Assembly



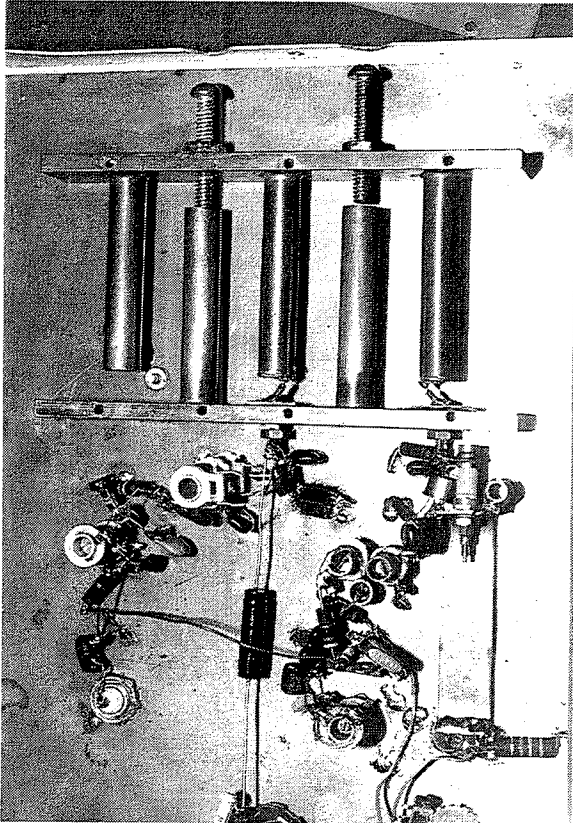
Chris, N3PLM, 440 MHz Amplifier



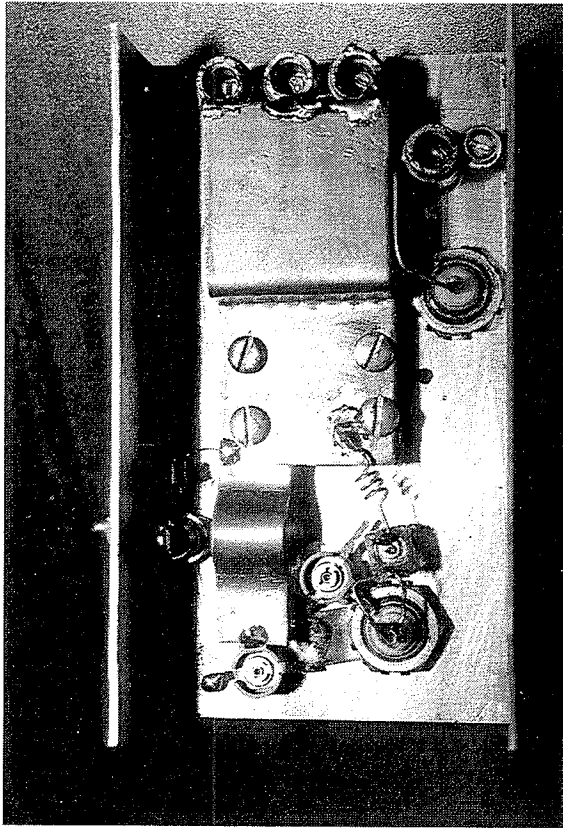
Walt, WA3AQA, 6 Meter Transmitter



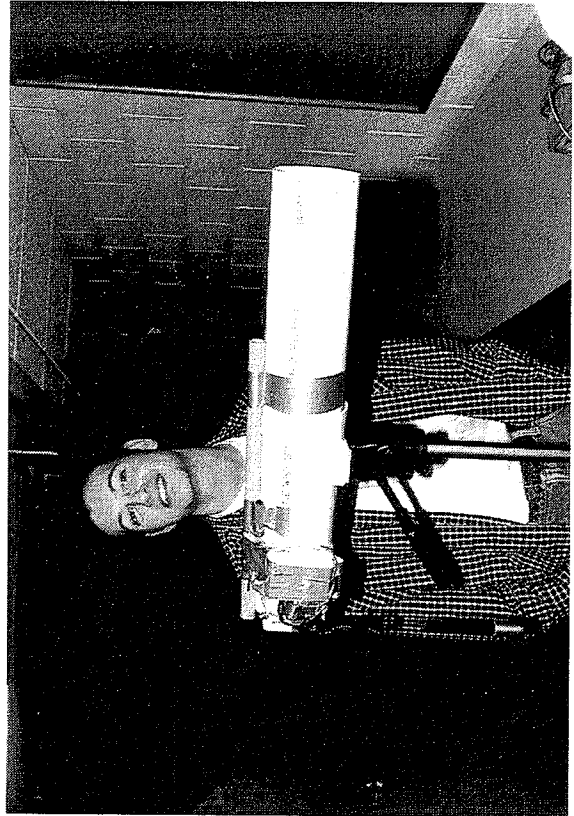
Walt, WA3AQA, 6 Meter Transmitter - Top View



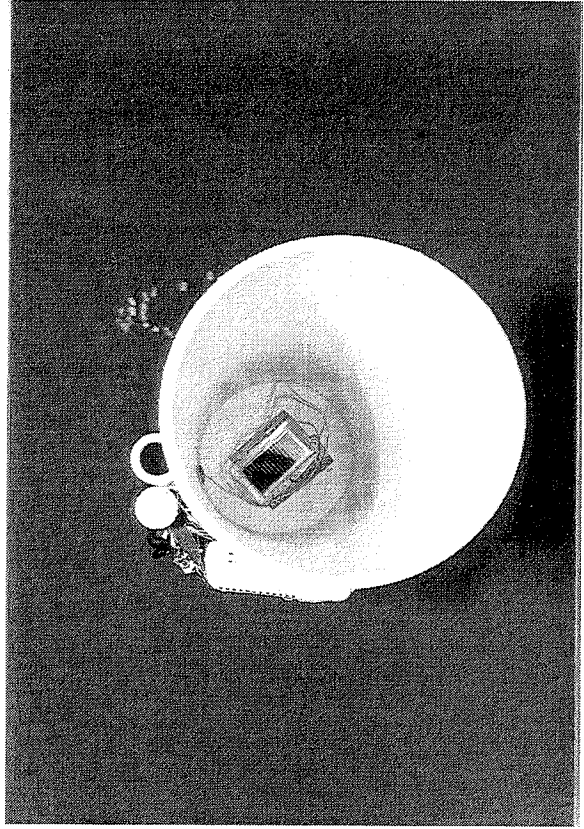
Rick, KIDS, 1296 MHz Receive Converter



Rick, KIDS, 432/1296 Varactor Tripler

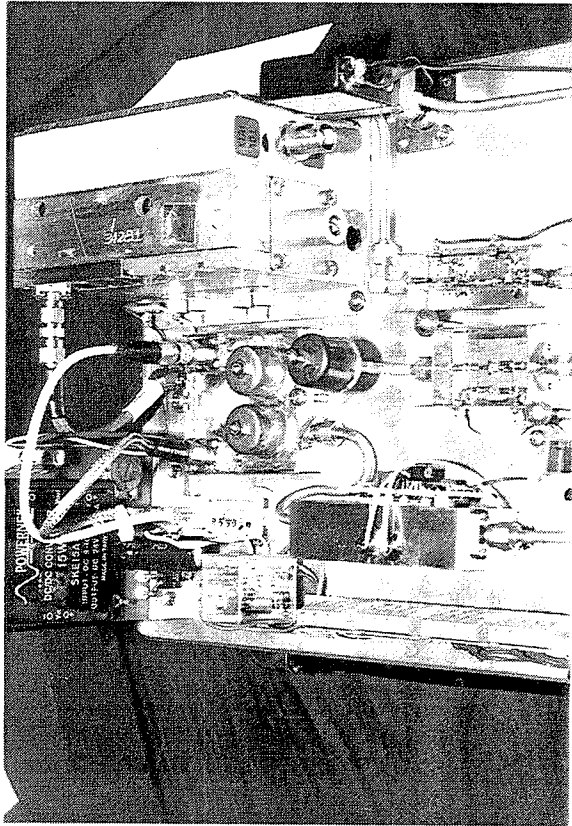


Leon, NIXKT, 448 THz Laser Rig

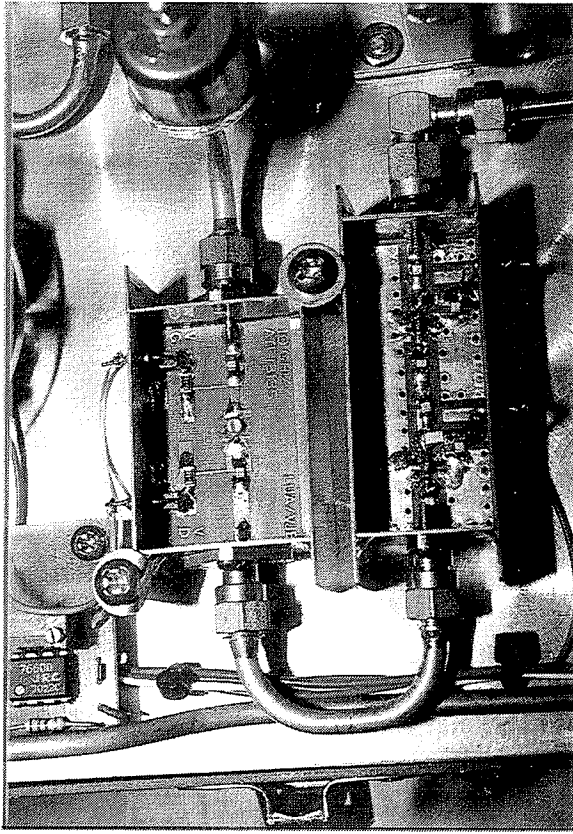


Leon, NIXKT, 448 THz Laser Rig End View

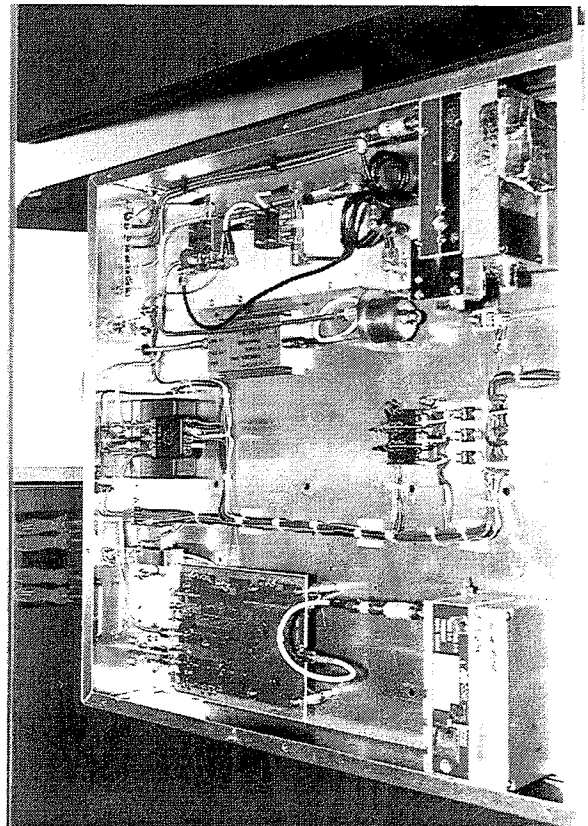
2000 PACKRAT HOMEBREW NIGHT



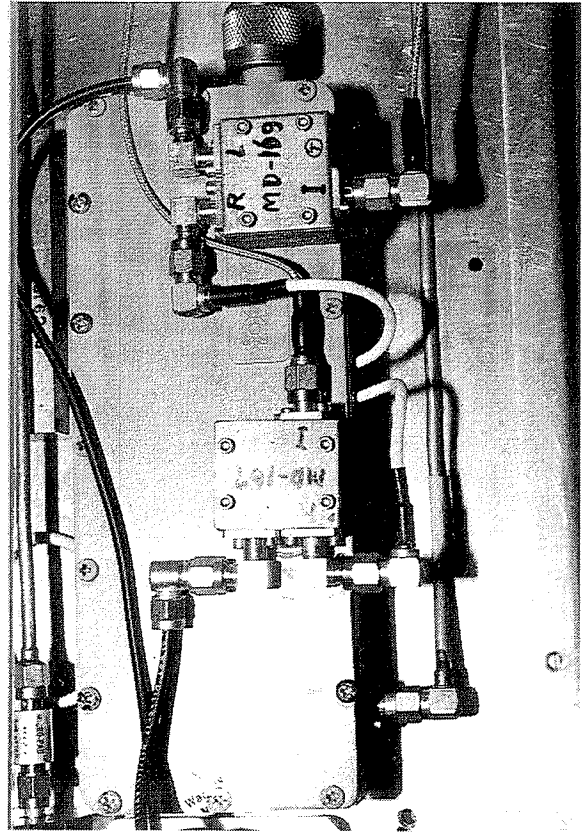
Chuck, WA2ONK, 10 GHz Transverter- Top View



Chuck, WA2ONK, 10 GHz Transverter -Preamp Details

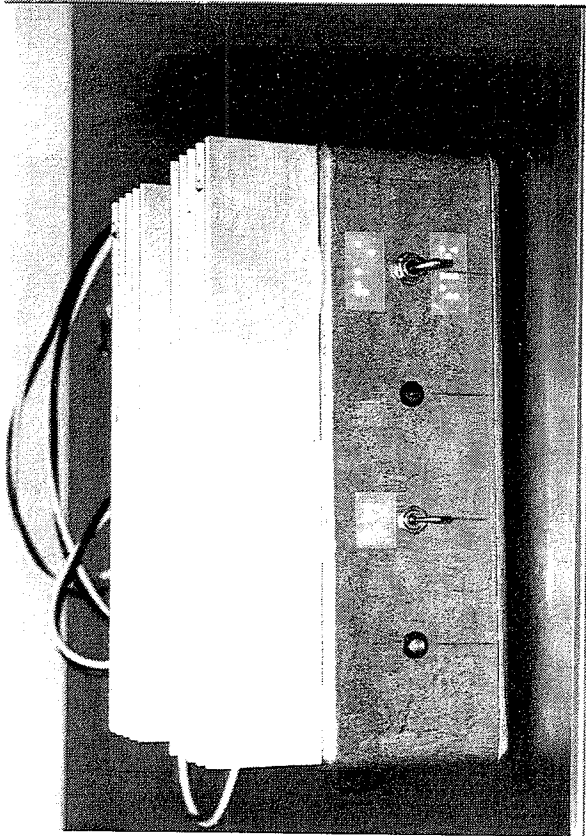


Len, N3NGE, 3.4 and 5.6 GHz Transverter Top View

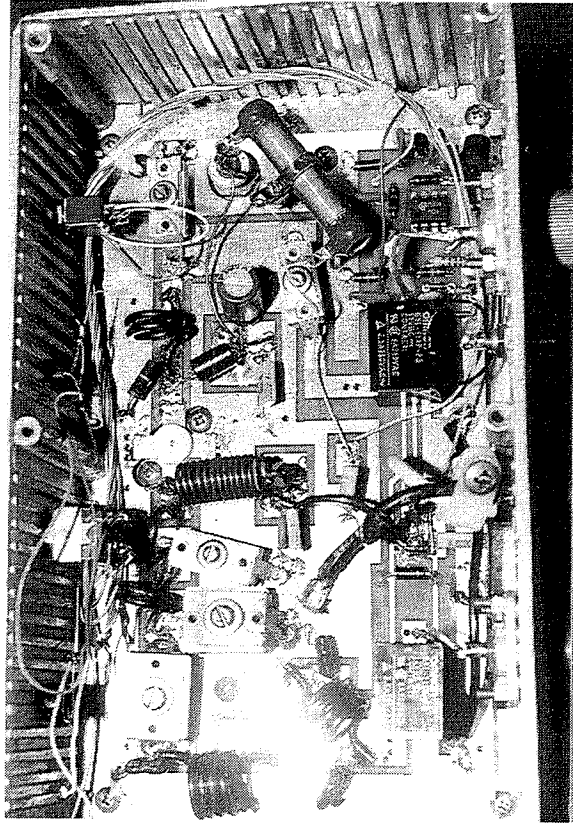


Len, N3NGE, 3.4 and 5.6 GHz Transverter - Mixers over LNA

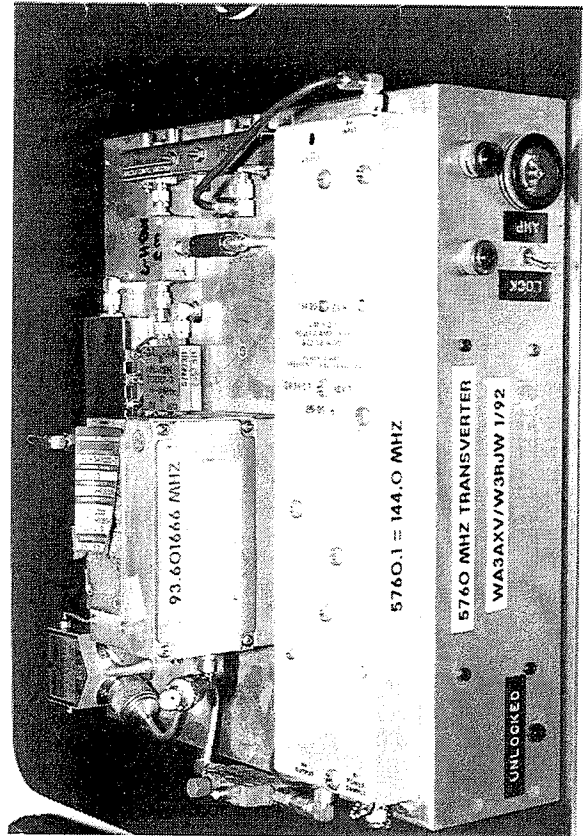
2000 PACKRAT HOMEBREW NIGHT



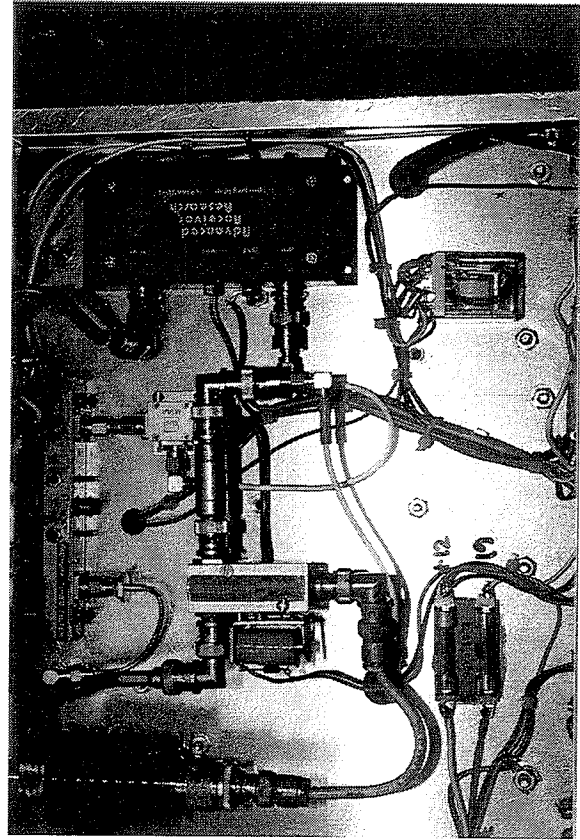
Jim, WA3EHD, 6 Meter Amp



Jim, WA3EHD, 6 Meter Amp - Circuit Side



Ron, W3RJW, 5760 Transverter - 1992 Vintage



Ron, W3RJW, 5760 Transverter - 1992 Vintage - Bottom Details

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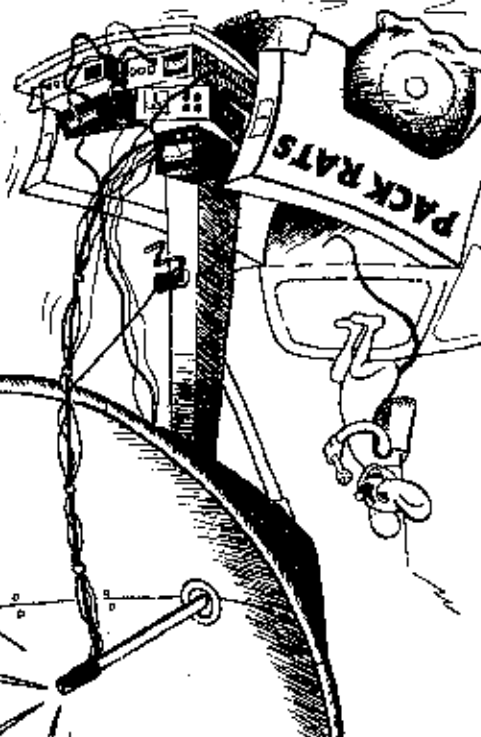
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