PACK RATS

W3CCX



CHEESE SE



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MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PENNSYLVANIA ARNS 50.125, 144.150, 220.125, 432.110, 1296.110 MHz-W3CCX-Repeater 222.98/224.58 MHz

Affiliated Club: AMERICAN RADIO RELAY LEAGUE

Meetings: Third Thursday of each month at 8:00 P.M.

Southampton Free Library, 947 E. Street Road

Southampton, Pennsylvania 19866

VOLUME XXXI

JUNE. 1989 NUMBER 6

THE PREZ SEZ

The Pack-Rats annual ARRL Night was very good again this year. Thanks to Kay Craigie, KC3LM, SM of EPA and Hugh Turnbull, W3ABC, Atlantic Division Director, for the latest on no-code licensing and the ARRL's position on this controversial subject.

Before the program, Hugh, W3ABC, presented the Club with our 29th gavel for placing first in the 1989 January VHF Contest. Thanks for bringing the gavel to the meeting, Hugh. Congratulations to all the Pack-Rats who participated this January. It's your participation in this Club event that makes our Club score what it is every year.

Bob Atkins, KAIGT, author of "The New Frontier" in OST provided the program on Laser Communications. Thank you, Bob, the presentation on our highest frequency ham bands was very enlightening.

Ladies Night this year was excellent. There was good company, good food and drink and good entertainment. Thanks to Doc Cutler, K3GAS, for organizing

this event that is enjoyed so much by everyone that attends.

June will be a busy month for the Pack-Rats. The Club expedition to FNO1 will be leaving June 9th for Taterville, PA to participate in the June VHF QSO. party. When the weary travelers return, the regular Club meeting will be the annual elections for Club Officers and Ron Cohen, K3ZKO, will be giving a presentation on amateur TV. Plan on coming to this meeting to hear the story of W3CCX/3 (FNØ1) and to see what's on ATV.

See you all at the June meeting!

73,

Bob, N2SB

AIM WEST TOWARD FN01 AND WORK THE PACK RAT EXPEDITION W3CCX !!

Pack Rats CHEESE BITS is a publication of THE MT. AIRY VHF RADIO CLUB, INC. Philadelphia, Pa. and is published monthly. SUBSCRIPTION RATE - \$5.00 PER YEAR

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DEADLINE FOR ARTICLES IS THE GENERAL MEMBERSHIP MEETING: THE THIRD THURSDAY OF THE MONTH, SWAP SHOP ITEMS - NO CHARGE

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215-355-5730

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WC2K, RICK CONNOR 609-268-0736

HAMARAMA CHAIRMAN:

WB3DNI, PAT CAWTHORNE 215-672-5289

MONDAY NIGHT NETS			NET CONTROL
7:30	PM	50.125 MHz	W3CL
8:00	PM -	144.150 MHz	W2EIF:
8:30	PM -	220.125 MHz	WC2K
8:30	PM -	224.58 MHz	K3GAS
9:00	PM -	432.110 MHz	WA3AXV
9:30	PM -	1296.1 MHz	WA3NUF

* * *



THE AMERICAN RADIO RELAY LEAGUE

OST

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Director, Atlantic Division

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CALENDAR OF COMING EVENTS By Harry Brown, W3IIT

JUNE

- lst anniversary of the big 6 meter E-Skip opening to Europe. Things should be even more frantic this year (the exact date isn't guaranteed)
- Pack-Rat Board of Directors meeting held at the QTH to be announced on nets.
- 7-13 WA4VCC, WW4T, K4MQG, and AA4SC will be operating from St. Martin (FS) in the French West Indies on 6 and 2 meters with laison on 28.885.
- 9-11 The Scandinavian VHF-UHF-SHF Meeting will be held in Silkeborg, Denmark For information and reservations contact OZ1FTU.
- 9-16 WA3HMK will be operating portable from FMØ3 on 6 and 2 meters and possibly 432 MHz.
- June VHF QSO Party. See May QST, Page 105 for rules. W3CCX will be operating from FNØl near Clearfield, in Taterville, Pa. on all bands thru 10 GHz.
- 10-11 Delaware QSO Party. See May QST, page 107 for rules.
- 14 Flag Day.
- Pack-Rat Meeting at the Southampton Free Library on Street Road in Southampton, Pa. Annual election of officers. All members and interested VHFers welcome. ATV Update program by Ron, K3ZKO.
- 18 Father's Day.
- 18-19 SMIRK QSO Party for all of you Six Meter Buffs. See May QST, page 107 for rules. Contest runs from 0000Z June 18 until 2400Z June 19.
- 21 +/- month. Look for openings to Europe on 6 meters.

TID BITS

- -Doc Cutler, K3GAS underwent surgery on May 19, 1989 and is home recuperating. -BB Wentzel, W2HX received the 1989 "Certificate of Merit Award" from the Engineers Club of Trenton, NJ on May 26, 1989.
- -The Ladies Nite Banquet on Saturday, May 20th was an FB event with a good turnout. Many thanks to Loretta (XYL-K3GAS) for handling the details in the absence of Doc, the Chairman, who was recovering from surgery in a local hospital.

VOTED TO MEMBERSHIP MAY 18, 1989

K9ES - Eric Smitt 9 Spinning Wheel Lane Marlton, NJ 08053 609-985-7011

PROPAGATION REPORT Paul Drexler, WB3JYO

Activity in the past month has been lower than normal for this time of year since the tropo has been behind schedule. This Spring's activity is nothing compared to last year's! So much for propagation forecasting - have patience - we're going to get our share sooner or later!

Although there hasn't been much exciting on the higher bands, 6 has had some good openings. On May 5th and 6th the band opened up to South America with several LU's to be worked. Among others, N3BBI reports working CO2KK (Cuba) on the 5th at 2326 GMT and 8RlAH (Guyana) on the 6th at 0123 GMT. Then on the 8th the band opened again to our area and Mike worked HH7PV (Haiti), YV4UY (Venezuela), and KG4SM (Guantanamo Bay)! Terrific job to Mike for working 3 new countries in just 3 days!

Again on the evening of the 13th, 6 opened to South America with plenty of LU's to be worked.

On May 15th 2 meters showed some signs of life with enhancement to New England and then to the South to WVA, but signals were up and down and it didn't really amount to anything. Keep your fingers crossed that the June contest will be a little more exciting! W3CCX will be on from and excelent location in FNØ1, on 50 MHz thru 24 GHz. CU in the contest!

VISITORS - MAY 18, 1989 MEETING

W3ABC - Hugh Turnbull

- College Park, MD

KC3LM - Kay Craigie

- Devon, PA

W3AJS - Charles E. Keener, 'Ed' - Oreland, PA KAlGT - Bob Atkins

- Millington, NJ

N6JH - Jerry Hinshaw

- Towson, MD

K3ESJ, Bill Jaxheimer 6 Highpoint Road Perkasie, PA 18944 215-822-0121

WC2K, Rick Connor 412 Carranza Road Tabernacle, NJ 08088

HEY PACK RATS, DUES ARE DUE!!!

CHANGE OF ADDRESS

N3AHI, KF6AJ, N2AQJ, WB2BJH, W3CXU, N3EAX, K3ESJ, K2EVW, W2HX, WB3IGR, WB3IND, K3IPM, WB3KES, K3KVS, NF2L, AK3O, WB2RVX, W3RZU, AC3T, KS2T, W3VIR, KB3XG, WA3YDZ, AA2Z.

If you're listed above and took care of the situation recently, we thank you. As for the rest of you guys... YOOOOOH!!!

ZF8 6-METER EXPEDITION DE Harry, KA3B

I will be operational from the island of Little Cayman on 6 meters from June 4th until June 14th. My operation will be from the QTH of Ron, ZF8AA, which is in grid square EK99. The eastern half of Little Cayman lies within grid square FK09 and it is hoped that I can set up a portable installation for use by ZF8AA and others to use. I will be on 28.885 every day; my callsign will be ZF2 something/portable ZF8. QSL with SASE via my home address.

SWAP SHOP

FOR FREE: Radio Equipment

CONTACT: GRANT GERBACH, W3UZM

1029 Hoover Ave.

Feasterville, PA PHONE: 215-357-4519 FOR SALE: Heathkit SB-101 - \$100. CONTACT:

RICHARD PRIM. WA3IWT

215-355-1192 PHONE: after 5 PM

COMMERCIAL ADS

HAM RADIO MAGAZINE: HR is the leader in Amateur Radio state-of-the art! Projects for every interest. Plus Joe Reisert, WlJR. Act now. Don't miss another exciting issue! Greenville, NH 03048 (603) 878-1441. LOOP YAGIS: 902 MHz 33 element \$82 kit, \$99 assembled and tested. 1296-45 element \$82 kit, \$99 assembled and tested. 1296-55 element (New "Super Looper") \$99 kit, \$119 assembled and tested. 2304-45 element \$67 kit, \$80 assembled and tested. Also available: Element and hardware kits for above. 2 & 4 way power dividers. Discount on complete arrays. Solid State linear amplifiers, 13.8 VDC: 1296 MHz, 8 W in 35 W out \$305, 1 W in 20 W out \$55. Coming soon: 65 W Solid State Linear for 1296. GaAs FET preamps 902 MHz .8db NF \$80, 1296 .8db \$80, 2304 ldb max \$125. Universal 1 GHz LO kit \$48 less xtal, 700-800 MHz LO kit \$48. Xtals available. Write for complete catalog: DOWN EAST MICROWAVE, Bill Olson, W3HQT, Box 2310 R.R. 1 Troy, ME 04907 - 207-948-3741. MICROWAVE PARTS FOR SALE: All prices shown are POSTPAID. Check with a Ham Callsign accepted. 10 GHz Gunn Sources: All work the same. They run on +7.5 vdc, put out about 5 milliwatts, come on 10.525 GHz, but tune down to 10.1 GHz or lower w/no modification. They include a Detector Diode to allow for transceive operation. SOLFAN STYLE \$20. ROUNDHORN STYLE lightest, either 5" or 8" long, ur choice \$20. Most of the time, we also have odd units around, like FLATPLATE UNITS, OR SQUAREHORN UNITS WITH MOUNT TABS, OR GUNN SOURCES WITHOUT HORNS, OR WITHOUT DETECTOR DIODES, from \$10-\$20, SASE if interested. SPARE GUNN DIODES FOR ALL ABOVE \$5 each. BEGINNER MICROWAVE 10-PAGE BOOKLET describes fuzzbuster-busters, listening thru walls, doppler, and our experiment using K-Mart and auto radios for audio links. Don't expect too much! \$2 pp. SHF MICROWAVE PARTS CO., 7102 W. 500 S., La Porte, IN 46350.

NOMINATION OF OFFICERS - 1989-1990

The following slate of officers for the Mt. Airy VHF Club was presented to the club by the nominating committee at the May general meeting:

PRESIDENT: DAVE HACKFORD, N3CX

VICE PRESIDENT: PAT CAWTHORNE, WB3DNI

CORRESPONDING SECRETARY: PAUL DREXLER, WB3JYO

RECORDING SECRETARY: WALT ZUMBACH, WA3AQA

TREASURER: BRUCE LOSS, WA3YUE

AL BOBLITT, K3EOD

BOARD OF DIRECTORS (2 year term): Doc Cutler, K3GAS

Phil Miguelez, WA3NUF

The election of club officers will take place at the regular meeting on June 15, 1989. Nominations remain open until and during that meeting.

1989 JANUARY VHF SS AWARDS PRESENTSD AT THE MEETING MAY 18, 1989 and THE LADIES NITE BANQUET MAY 20, 1989

SINGLE OPERATOR

MULTI-OPERATOR

lst Place - WA3NUF
2nd Place - KB3QM*
3rd Place - KF6AJ*

1st Place - WC2K 2nd Place - WA3AXV 3rd Place - W3KKN

MOST IMPROVED STATION

1st PLACE CLUB COMPETITON ARRL
UNLIMITED CATEGORY

N3BBI*

(*not present)

THE PACK RATS

Phil, WA3NUF placed 5th nationally; Ron, KB3QM finished 7th overall. WC2K placed 1st in the nation for multi-ops and Ron, WA3AXV, who entered multi-op for the first time, finished 5th nationally. In the EPA section, Pack Rats occupy 15 of the top 20 finishers. Once again, the expertise, tenacity, and depth of the "bench" of the Pack Rat team wins us a championship ARRL gavel. The coveted award was presented to Prez N2SB and the 'Rats at our ARRL Night by Hugh Turnbull, W3ABC, Atlantic Division Director.

1989 HOMEBREW AWARDS

WA3AOA

K3GYS

W2EIF

WA3IAC*

K3GAS*

(*not present)

SPECIAL CLUB AWARDS PRESENTED AT THE LADIES NITE BANQUET ON MAY 20, 1989

PACK RAT OF THE YEAR AWARD - PAUL DREXLER, WB3JYO

PRESIDENTS AWARD - BOB COOK, N2SB

FOR DEDICATED SERVICE AS CLUB TREASURER - DOC CUTLER, K3GAS*

FOR DEDICATED SERVICE AS PRINTER OF CHEESE-BITS
-DAVE POWER, WB2VLA

THE ROCHESTER AWARD, FOR WORKING THE GREATEST NUMBER OF ROCHESTER VHF SOCIETY MEMBERS DURING THE JANUARY VHF SS

Tom Williams, N3EAX

Congratulations to the above deserving members for their achievments and recognition. All participating Pack Rats of the January SS will soon receive commemorative mugs as a club award for their individual efforts.

220 MHz SSB ACTIVITY DIRECTORY

The 1989 edition of the 220 MHz SSB/CW Activity Directory is now ready for distribution. Thanks to everyone for their interest and input. The directory is available for \$3.00 (includes 1st Class postage) from: Peter Beedlow, NN9K 741 Greenway Ave., Colona, Illinois 61241.

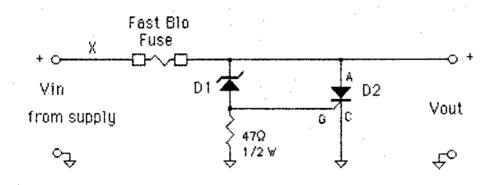
Hints and Bits

Overvoltage can cause serious damage to transceivers and transverters connected to your low voltage/high current power supplies. Overvoltage in the power supply results when the pass transistors short circuit, collector to emitter. This means the pre-regulated dc voltage is applied directly to your equipment. A 12 volt radio can probably withstand 15–16 volts without damage, but certainly not 25–35 volts.

If your power supply doesn't have an overvoltage crowbar, it's a good idea to add one to it. A single crowbar can be mounted inside the supply or several can be mounted externally if your supply is >10 amps and feeds multiple equipment.

In the crowbar circuit, Zener diode D1 conducts when the input voltage exceeds the zener breakdown voltage. This causes SCR D2 to conduct heavily, which blows the in-line fuse to the equipment. D1 is selected for a voltage rating just over the input voltage. The SCR's current rating must be higher than the fuse rating.

Proper operation of the crowbar can be tested by using a small value fuse and a variable power supply, with a digital volt meter connected to the output.



D1 Input 12 V 1N964B,1N5243B,1N4743A,1N5350B

13.8 1N965B, 1N5244B, 1N4744A, 1N5351B

24 1N971B, 1N5253B, 1N4750A, 1N5360B

D2 2N6401 100V/16 Amp SCR for example

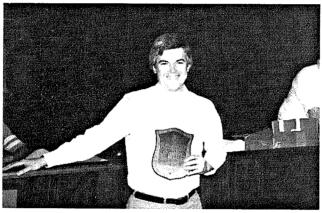
de WA3JUF



"HOMEBREWERS" - W2EIF, WA3AQA, K3GYS



VHF SS MULTI-OPS #1-WC2K, #2-WA3AXV(WB3KRW),#3-W3KKN



VHF SS SINGLE OP - #1- WA3NUF



E.PA SECTION MANAGER - KC3LM



ATLANTIC DIVISION DIRECTOR - W3ABC



THE SPEAKER - KA1GT



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