

PACK RATS'



PACK RATS

CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC.

CHEESE BITS



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 XXVI

DECEMBER, 1987

NUMBER 12

THE PREZ SEZ

It seems like just a few weeks ago we were getting ready for the January 1987 VHF SS. Now it's time to start preparations for the January 1988 VHF SS. This year the Contest is late in the month, the 23rd through the 25th. Therefore, the traditional secret contest meeting will be on January 21st. At the December meeting, Paul, WB3JYO, this year's contest chairman, will hand out the contest packets and give a brief contest advisory alert, reserving the traditional secret contest meeting for January 21st. That's just two days before the contest. I'm sure Paul can whip us up into a frenzy that will last till the end of the contest.

Since the contest is so late this time, there are an extra two weeks to get ready. If you need help let Paul, WB3JYO, or your team captain know and we will see what can be done in the way of antenna help, rigs to loan, etc. If you don't have a place to operate, let me or WB2NPE or one of the other multi-op's know.

The program that V.P. Dave, N3CX, arranged for the November meeting was excellent. Steve, WB2WIK and Pete, KT2B, showed a slide presentation on their gridpedition to Chincoteague Island, Va. FM27. It was the best slide show I've ever seen. They say they are going back even though the weather was a tad wet. Good luck and we'll look for you on the bands.

Also, take a minute and look at your license. Make a note of the expiration date. I inadvertently let mine expire in September and had to apply for reinstatement - not renewal. If you don't renew before the expiration date, you can't operate. If you let it go for more than one year, you will lose your call sign and after 2 years you have to start all over again from square one. (That means you take all the tests again). This is just a reminder, you wouldn't believe how often you pick up the mic until you can't.

See you at the next meeting.

73, Bob, N2SB

* * *

Betty Lustick, the wife of Charles Lustick, K3HSS, passed away on November 10, 1987. Condolences to the family.

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SWAP SHOP ITEMS - NO CHARGE

DEADLINE FOR ARTICLES IS THE GENERAL MEMBERSHIP MEETING: THE THIRD THURSDAY OF THE MONTH.

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W3CL, HARRY B. STEIN

MONDAY NIGHT NETS

7:30 PM - 50.125 MHz
8:00 PM - 144.150 MHz
8:30 PM - 222.98/224.58
8:30 PM - 220.125 MHz
9:00 PM - 432.110 MHz
9:30 PM - 1296.1 MHz

NET CONTROL

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WA2OMY/K1PXE
N3CX/WA3JUF/WA3NUF

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CALENDAR OF COMING EVENTS

By Harry Brown, W3IIT

DECEMBER

- 7 Pearl Harbor Day
- 10 Pack Rat Board of Directors Meeting at the QTH of K3GAS at 8:00 P.M. Call: 215-635-1078 for directions.
- 13 Predicted peak of the Geminids Meteor shower at 1900 UTC.
- 17 First airplane flight 1903.
- 17 Chanukah
- 17 Pack Rat General Membership meeting. Open to everyone since the contest meeting will be held in January. Meeting starts at 8:00 P.M. at the Southampton Free Library. Come out and get the new membership directory and contest package.
- 20 New Moon
- 21 +/- Month. Winter peak of sporadic E propagation.
- 21 Volunteer License Exams at 6:15 P.M. at Pennridge High School. Call: Stu at 584-0775 to pre-register.
- 22 EME Perigee
- 22 Predicted peak of the Ursids meteor shower at 2200 UTC.
- 22 First Day of Winter
- 25 Christmas

JANUARY

- 1 Happy New Year
- 21 January Club Secret Contest Planning Session.
- 23-25 The 41st Annual ARRL VHF Sweepstakes will be held. See December QST, Page 80 for rules.

* * *

NOTE: December 14th: Delaware Valley Council of Radio Clubs is sponsoring an open forum with Dennis Coleman, of the FCC as the guest speaker. The meeting is at the Naval Supply Deposit, Oxford Avenue, Phila., Pa. This is an open invitation to all in Delaware Valley. 8:00 P.M.

The Delaware Valley Council provided emergency communications during the Thanksgiving Day parade sponsored by Channel 6 in Philadelphia.

VISITORS AT THE NOVEMBER 19, 1987 MEETING

KA3KSD - Dave Mueller, Pittsburgh, Pa. (EN9Ø)
WB2WIK - Steve Katz, Eatontown, New Jersey

KT2B - P. Putman, Doylestown, Pa.

* * *

TID BITS

Sunspot No. for October 1987 = 61.1. Smoothed No. for April 1987 = 24.2.

Congratulations to Edith Rosner, W3AAU on receiving the "Buck Award" from the Penn Wireless Club; A well deserved honor.

Jay Miller, KS2T now reports having worked 52 countries on 6 meters.

John, K3KTY (our Florida Man) has problems getting his tower up - difficulty in obtaining a permit and can't find a cement man to put in the base. Can't you help him George, WB3IGR!!

Welcome home to Dave, W3ZD after a hospital stay.

Nice to see Al, K3EOD at the meeting - after a bit of surgery.

Hy, WB3NDE - tripped and fell onto some glass - required some stitches on his knee.

WB2BJH, Russ Edmunds showed up at the meeting after a long absence - work schedule eased up.

If your license is to be renewed in 1988, please advise W3CL if you need a 610 form.

Hey Bob (N2SB), I like your new scratch pad!!

* * *

PROPAGATION REPORT

By Paul Drexler, WB3JYO

Once again this past month's activity has proven noteworthy. Activity seems to be slowly increasing as the cooler weather sets in. Get that antenna work done before your fingers stick to the tower! The big news to report occurred on the 16th and 17th of Oct. On the 16th, at 2000 hrs local time, K3QIF was S9+20 on 2 mtrs., worked by myself, W2EIF and W3HFY. Although Rusty is usually strong the band seemed to be in good shape. No one else however, was worked Friday evening.

Early Saturday morning however, things were different. Several CQ's to the SW netted WA3MMP (FM17) on 144 and 432, K4QKR (FM06) on 144 and 432, and several others to the south. Signals were strong on both 144 and 432 although no contacts were to be found for 220 or 1296. After working my fill of contacts to the FM17/FM06 area single CQ on 144.200 was answered by WD4AFY (EM92) in Savannah, GA! Andy was S4 to S5 for over a half hour; a number of the FN20 and New England boys were able to make the contact. WA4VCC (EM84) and K3HJE (EM96) were also worked on 144 with good signals. A two way was completed with K3HJE on 432 but WA4VCC wasn't heard. Two meters had its share of excitement until shortly before noon on the 17th.

On October 20th at 1930 hrs Mike, N3BBI heard several Ø's on six although 2 ways were not completed. Marck, WB2JHG reports enhancement on the higher bands on the morning of Oct. 24th. Mark reported the "CX 903 beacon to be S9+20 (usually strong for his QTH) but no activity was heard. However, on Friday evening the 20th, N3CX worked WB3CZG on 903 - over a 100 mi path - w/good signals. "CZG was running 15 watts to an 8' TVRO dish just 8' off the ground! On the 3rd of Nov. Dave again made the contact on both 903 and 2304. WB3CZG was S39 running 1 watt to the same dish. On the 17th of Nov. enhancement was observed on all of the evening nets. K1PXE was several S-units stronger than usual on 432. Pete even reported W3CL as being 'louder than ever.'

See you on the bands - I'll be looking for Pack Rats.

* * *

JANUARY CONTEST UPDATE

Paul Drexler, WB3JYO

The January 1988 VHF Sweepstakes will be held the week-end of the 23rd - mark your calendars! If for some reason you have not received a questionnaire, please contact your team captain. There is still time to make all those station improvements you thought about during the LAST contest. Plenty of volunteers are available to help you get up that L Yagi or get on that new band. All you have to do is ask! The contest packets will be distributed at the December meeting. CU there!

SWAP SHOP

WANTED: Tube type stereo equipment - 1964-68 era; Fisher, Scott, Harmon Kardon, Marantz, etc. amps and tuners.

CONTACT: Gary Hitchner, WA2OMY
Phone: 215-539-6409

FOR SALE: Midland 13-509, 12W-220 FM box \$100. 432 Mhz amp-200W out, in rack w/pwr sply fully metered \$50.

CONTACT: Phil Miguelez, WA3NUF
Phone: 215-675-4277

FOR SALE: Mirage C1012-\$215; MMT 144/28R \$290; MMT 432/28S - \$215; Kantronics "The Interface" w/software on disk for the C64 (never used) \$75. FREE - A national NC-125 rcvr w/matching speaker - it works Pick up or send \$5 & large box!

CONTACT: Jay Miller, KS2T,
527 Woodview Road
Toms River, N.J. 08753
Phone: 201-244-7623

FOR SALE: * * *

Odd assortment of 10 Ghz Gunn sources, complete with horns, examples as follows: 5-10 mw units, 7.5" long, round 2.5" horn, with detector diode installed \$18.00 postpaid. 5-10 mw units, 4.5" long, round 1.8" horn, with detector diode installed \$16.00 postpaid. 5-10 mw SOLFAN units, with detector diode and rectangular horn, \$20.00 postpaid. ANY OF THE ABOVE WILL BE TUNED TO HAM FREQ AND PWR CHECKED FOR \$5.00 ADDITIONAL. AVANTEK MSF-8885 Single-chip Front-end good to 12 Ghz, with documentation and literature, \$11.00 each, postpaid. SPARE GUNN DIODES for above Gunn Sources, 5.46 mm long, with 1.56 mm ends, about 5-10 mw output at 10 Ghz, \$5.00 each, postpaid. MINI-CIRCUITS MAR-1, MAR-2, MAR-3, MAR-4, MAR-7, and MAR-8 50 ohm in-out amplifier chips, with spec. sheet, \$5.00 each, postpaid. Check with Ham Call OK. SHF Microwave Supply, 7102 W. 500 S. La Porte, IN, 46350.

FOR SALE: Sattelite Sellout: Yeasu - Ft - 780R/430 Mhz, SSB, CW, AM, FM, excellent cond. w/ stock mike and desk mike; Mirrage D10 - 10W, 100 Watt amp - exc. cond.; KLM, Multi 2700, 2 mtr. all mode. good cond. has 10 mtr. Oscar down link and 2 VFO's. Lunar 2 meter pre-amp; Heath-Kit Swr: Wattmeter for 2 mtrs; Kenpro - 500 Elevation Rotor and control; Cushcraft Twist Ant; for 432 and 2 mtrs. Will sell outright or trade for HF. Gear. CONTACT: N2ESQ, Tom Briglia, 31 S. 14th Street, Easton, Pa. 18042. Phone: 215-559-1149.

FREE RF DESIGN SOFTWARE: Teledyne Microelectronics is offering free RF design software for IBM and compatibles. RF TOOLBOX includes a number of handy programs for everyday RF design tasks such as VSWR conversions, resistive attenuator design, noise figure calculations, etc. Teledyne offers this program for free, with permission to copy. CONTACT: WB3JYO for your copy

COMPUTER CW: I recently found several computer programs for the IBM PC which generate CW on the computer speaker. I see no reason why you could not connect your computer speaker to the audio input of the transmitter w/proper matching. IBMORSE.BAS David G. Hunter, KA5TIA, 1904 Swift, Houston, TX 77030. This program runs under GWBASIC, BASIC or BASICA and allows: 1. Send one character at a time. 2. Send one line at a time. 3. Random character quiz. 4. Random message quiz. 5. Change parameters, ie: letter spacing, audio freq., speed. SEND, and associated programs Chris Nadovich, KD3BJ, 407 N. Bellevue Ave., Wayne, PA 19087. An excellent and easy to use morse code generator. These programs are public domain, and are obtainable in the NTS BB (215) 356-8623 (300,1200,2400 baud;8N1) free of charge. In order to un-archive the programs you also need to get a copy of the PKX35A35, EXE program, which is also on the NTS BB For those do not have a modem, I will make a copy for \$5.00 (cash), including the disk, and mailing. Jerry Polin, K3KVS, 7700 Woodlawn Avenue, Melrose Park, PA 19126 (215) 635-4135.

FOR SALE: Sears 15 in. color TV \$50; HO trains and accessories, typewriters, TRS 80 programs, tubes, tape recorders, variable condensers, parts.

CONTACT: Doc Cutler, K3GAS
Phone: 215-685-1078

* * *

COMMERCIAL ADS

FOR SALE: Ten Tec Omni D - Series C w/560/ P.S. \$595. Triton 544 & PS \$395. Drake TR7/PS7, loaded \$795. Kenwood: TR-7730 \$250; TR-7930 \$275; TS 430 \$620; PS 430 \$120. Johnson: "500" transmitter \$395; KW matchbox, \$195.

CONTACT: Tony Musero, K3UKW
Phone: 215-271-8898

22 Oct 87
RD 1 Rt 167
Brackney, PA 18812

W3ZD, Dave,

Your letter telling me I was the winner of the ICOM 3A+ (220 Mhz) was a pleasant surprise. We attend the Packrat Hamarama every year for the past 6 or more years, and thoroughly enjoy it. Also, we usually find what we need there. The excellent variety of tailgating and dealers make it worth the 3 hour drive one way from Brackney. Also, it gives my wife and I a chance to see old friends we only see about once a year.

To answer your question, Yes, I will take the 220 Mhz handheld. I have been wanting one for some time. We have access to (2) two repeaters from this location. Again, tnx for the delightful news. Will be anxiously awaiting its arrival. Maybe see you in January as I am active in VHF Contest. Looking forward to seeing you next year.

Sincerely,
Ray Carley, WB3CZG

* * *

A DX NOTE

While travelling back from Massachusetts, I made a 2 meter contact with my first contact which was CW on 80 meters. We recognized each other's call and met at a restaurant and while talking, I found that his work will be taking him to Asklon, Isreal for 3 months and will be working nightly under the call sign of 4X11AX. He will be using a Yaesu rig with phase dipoles on 15 and 10 meters CW in the novice portion. I know he would appreciate any and all contacts.

Jean, KA3YKN

* * *

A REPORT BY KS2T

I have some news from the U.K. concerning 6 meter propagation they've had. The station on from Madeira is CT3DK. There are at least 5 stations on 6 meters from Malta, 9H1BT, CG, EL, FL and GB. NOTE: that 2nd one is CG as in Coast Guard. The C and G look quite the same on this daisy wheel.

On Oct. 8th, A22KZ (Botswana) at 1720 UTC, was heard on 50.110 SSB in southern England. At this same time southwest England was hearing Malta and cyprus.

On Oct. 17th at 1040 UTC, G6XHQ (I091UL) heard ZS3E (Namibia) for 1 1/2 minutes on 50.110 SSB. G6XHQ had the impression that ZS3E was talking with someone in the Mediterranean area. Trans-equatorial and Es combination of propagation is supported here.

Oct. 22nd at 1535 UTC, G2ADR (1093KX) heard A22KZ on 50.110 CW, 549. G2ADR couldn't get his 6 meter transmitter going but fortunately a QSO was made on 28.885 with A22KZ and then at 1547 UTC a 2-way QSO on 50.110, G2ADR received a 519 from A22KZ and gave him a 539. G2ADR was using 9 watts and a dipole, A22KZ was using a IC551D and 4 elements!

At 1638 UTC, G4HBA (1093ES) worked A22KZ and gave a 539 and G4HBA got a 529. G2ADR made another QSO with A22KZ at 1644-1648 UTC. G4HBA uses 15 watts and 3 elements.

At 1650 UTC, GM4DGT (1086CD) worked A22KZ giving him 539 and GM4DGT got a 519.

At 1652 UTC, G1AWP had a CW QSO with A22KZ.

At 1655 UTC, G4GAI (1083VP) worked A22KZ giving a 539 and getting a 419 report. G4GAI uses 10 watts and 3 elements.

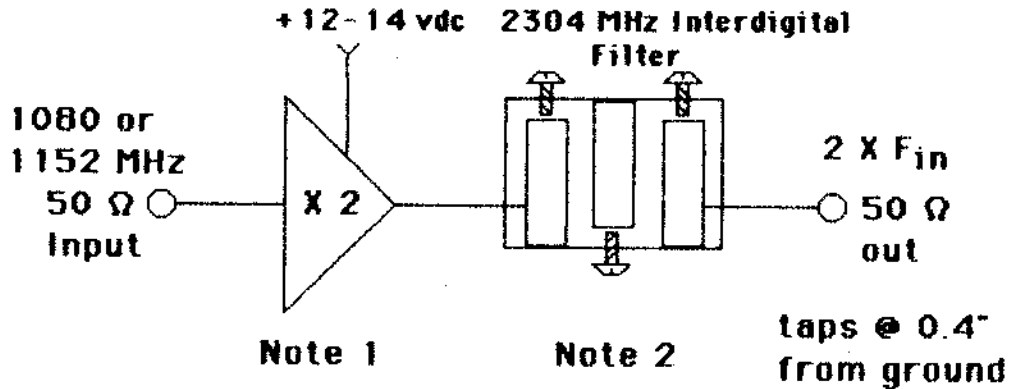
At 1657 UTC, G3CCH worked A22KZ receiving 529 and giving a 579 signal report. A22KZ was heard on and off up till 1722 UTC.

A22KZ had 15 days of propagation to Malta and SV1DH. 9H1BT and A22KZ had nightly contacts peaking between 1630-1730 UTC from October 8-13th. A22KZ is in grid KG19RX.

Back to the 17th, ZS3E worked 9H1BT and CT4KQ at 1450 UTC. Harry, the above info was sent to me by Dave, G4GLT. It was in some sort of 'newsletter' or 'bulletin' of some kind. There was no indication of who wrote this 'report' or who put it out. I'm writing to G4GLT to find out and ask if I can receive future reports from him or whomever. I think in October's Cheese Bits you have me down for working 50 countries on 6 mtrs, if you want you can change that to 52 countries worked and 51 confirmed, I'm waiting for GM3ZBE.

<p>HAPPY HOLIDAYS FROM JACK - W2AXU + FLORENCE - W2WYE</p>	<p>HAPPY HOLIDAYS  MARSHA (W3TEM) FRED, JOSHUA AND REBECCA</p>	<p>HOLIDAY GREETINGS DE SYLVIA + HARRY W3CL</p>	<p>Happy Holidays from The Pattisons Rich, Jorge, Kaye + Larry K3ACR</p>	<p>HOLIDAY GREETINGS THE CHANCELLOR AND GORDON K3VYG</p>
<p> HOLIDAY JOE ---- to - W3TEC - all GREETINGS</p>	<p>Happy Holidays From Pat Patsy Pat + Susan</p>	<p>Happy Holidays and a Happy ^{new} YEAR. From David, Sylvia Brian, Nancy and David II. Hackford N3CX, K3ZMXS. ← Noel →</p>	<p>Happy Holidays FROM FRANK + MADELINE AK30</p>	<p> HOLIDAY GREETINGS DOCT COBETTA K3GAS</p>
<p>HAPPY HOLIDAYS DE LYN W3NSI LYN SR W3ZHTJ SALLY + FLORENCE</p>	<p>Happy Holidays DAVE - W3ZVLA NANCY - N2AII + FAMILY</p>	<p> SANDY - DE - W3ZVLA RICK RICH HARRY PAUL CHRIS AND HAPPY NEW YEAR</p>	<p>Merry Christmas + Happy New Year W3GXB Bob XYL Rth</p>	<p>Seasons Greetings Harry W3IIT + Rose</p>
<p>HAPPY HOLIDAYS FROM N3EAX TOM </p>	<p>GREETINGS FROM STEEL CITY ARC W3KWH EN9B + K3KSD</p>	<p>HOLIDAY GREETINGS de GRACIE - W3BQJ es GEORGE - W3HK</p>	<p>SEASONS GREETINGS DE N3BBI + FAMILY</p>	<p>JOE + SUSIE W2EIF SEND HOLIDAY GREETINGS TO ONE + ALL</p>
<p>Seasons Greetings From Helen Brick "Mother Rat"</p>	<p>SEASONS GREETINGS  W3SJF AND FAMILY</p>	<p>HAPPY HOLIDAYS FROM THE MILLERS OF Toms River, NJ JAY - K3ZT</p>	<p>Merry Christmas W320WA N2CYM BABY</p>	<p>HAPPY HOLIDAYS JOHN and BARBARA K3KTY FROM Florida</p>
<p>Merry Christmas from Gary + Jennifer W3ZOMY</p>	<p>SEASONS GREETINGS FROM THE WARD'S JIM W3AAJ PAT SCOTT DM 12 PETE</p>	<p>XMAS GREETINGS DE JANE - W3BDSK DAVE - W3ZD JILL, NANCIE, SCOTT, MARK ES HAPPY NEW YEAR</p>	<p>SEASON'S GREETINGS BERT W3TNP ERNIE W3KKN</p>	<p>The Jenkins send Best wishes for a Happy Holiday Season Tom + Betty K3VIT</p>
<p>SEASONS GREETINGS EL K3JJZ + LORRAINE</p>	<p>Seasons Greetings from Ralph, Lynda, Dawn + Denice W3FOF</p>	<p>SEASONS GREETINGS! From ED W3AJS</p>	<p>HAPPY HOLIDAYS! DEAC W3AJF</p>	<p>HAPPY HOLIDAYS WB3IND</p>

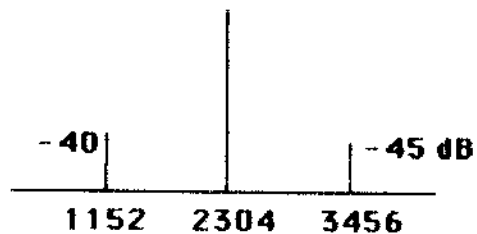
2160/2304 MHz Doubler



Note 1: WA3JUF, 1985, 1-2 watt Class 'C' Amplifier for 2.3 GHz.

Note 2: R. Fisher, W2CQH, Jan. 1974 QST

Pin @ 1152 MHz	Pout @ 2304 MHz Vcb=12v
20 mw	10 mw
30 mw	40 mw
50 mw	70 mw



Use the 1 watt CW 2304 amplifier as is. The Input RTL is good @ 1080 and 1152 MHz. Go over the tuning of the transistor stage several times to obtain optimum performance. Tune the multiplier/filter combination while using a spectrum analyzer.

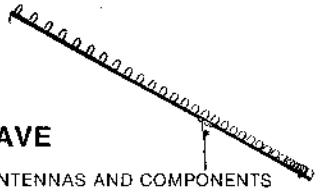
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SAT. 9⁰⁰ - 4⁰⁰

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FERTIK'S ELECTRONICS

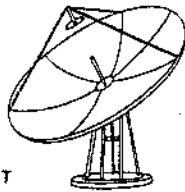
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JENKINTOWN, PA.
TUrn 4-0375 - 4-1050
WA 7-4325



**JUDGE
INC.**

HOWARD WEINSTEIN
K3HW
DoD Tech Recruiter

THE EXECUTIVE MEWS
SUITE G-37
1930 E. MARLTON PIKE
CHERRY HILL, NJ 08003
609-424-8600

"HAM" BUEGER, INC.
 Electronic Equipment Distributor
 "Right in the middle of a lot of good company!"
 68 N. YORK ROAD
 WILLOW GROVE, PA 19090
 215-659-5900
 Service Since 1956

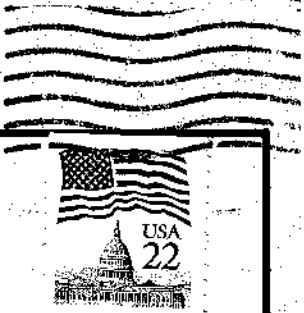
If we're judged by the company we keep, we should do pretty well!



The advertisement is surrounded by numerous logos of electronic equipment manufacturers and distributors, including:

- Wilson Electronics Corp.** (top left)
- Xcelite** (top center)
- Sprague** (top right)
- TELEX** (top right)
- Cushcraft** (top right)
- TRW** (top right)
- NBC** (top right)
- Vibroplex** (top right)
- BRONCOT** (top right)
- "W2AU"** (top right)
- Larsen Antennas** (top right)
- ICOM** (bottom right)
- GES** (bottom right)
- Saxton** (bottom right)
- DRAKE** (bottom right)
- CAF** (bottom right)
- nte** (bottom center)
- GILFER LMB** (bottom center)
- TPL** (bottom center)
- Weller** (bottom left)
- Waldom** (bottom left)
- MISCO** (bottom left)
- BITO** (bottom left)
- HUSTLER** (bottom left)
- phelps dodge** (bottom left)
- AMCO** (bottom left)
- BOMAR** (bottom left)
- AMP SPECIAL INDUSTRIES** (bottom left)
- COVER CRAFT** (bottom left)
- SWAN** (bottom left)
- Vector** (bottom left)
- OHM** (bottom left)
- South River** (bottom right)
- ASLATIC** (bottom right)
- Miller** (bottom right)
- ROHN** (bottom right)
- HAM-KEY** (bottom right)

Cheese Bits
 2087 Parkdale Ave.
 Glenside, Pa. 19038



MEETING NOTICE

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W3FQD
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