

# CHEESE BITS



**W3CCX**

CLUB MEMORIAL CALL

SCANNED TO PDF BY BERT, K3IUV, 2013



ARRL  
Affiliated  
Club

VOLUME XXXIX

May 1997

Number 5

## THE PREZ SEZ

ARRL Night was a great success thanks to Kay Craig, WT3P our Atlantic Division Director and Paul Danzer, N111 from league headquarters. Kay brought us up to date on activities in the division and the national level and Paul kept everyone entertained with an unusual mix of his then and now VHF to microwaves experiences. We also continued our recent tradition of honoring the winner of the Worked Most Packrats in the January contest award. This years winner is Steve Kostro N2CEI who joined us at the meeting to receive his award. Thanks to Kay, Paul, and Steve for making it a very enjoyable evening.

All VHF'ers were saddened to learn that Ed Tilton, W1HDQ, had passed away earlier this year. Ed was one of the earliest VHF pioneers and the originator of "The World Above 50 MHz" column in QST way back in 1939. W1HDQ was a supporter and frequent visitor to the club when the Packrats were just starting to grow. He is one of a very few VHF amateurs to be made an honorary member of the Packrats. Although Ed had been retired for many years and age and illness took their toll on his amateur activities WE ALL owe W1HDQ and the other pioneers of VHF/UHF and above our thanks for the many activities, awards, and institutions which we all take for granted today.

Who would believe that FM29 could someday be a rare grid? That's what happened in the 222 MHz Sprint a few weeks ago. The Sprint had plenty of activity with grids from VE's to the Ohio valley to the far South all asking the same question, has anyone heard FM29 on tonight? Rumor has it that WC2K showed up for the last 20 minutes of the event. Rick must have had a great time, it's not often that someone from these parts gets to be DX. So where were all the other FM29'ers???

Are you a LIFO, a FIFO, or a FISH?

Having been a member of this club for more than 20 years and now serving as president for the past 2 years, I have learned that there are two types of members. Those that volunteer as long as they don't have to do anything or can find a way out, and those that you can depend on whether it's a club activity or just helping another member with his station even if you don't need him for a contact in the next contest. The two groups are fairly easy to distinguish to anyone that takes the time to observe. The next time the question is raised - who intends to participate in such and such an activity? - look around and see who raises their hands, then listen on the nets and repeater over the next few weeks as some practice their excuses and finally, see who shows up. To meet the core group, the ones YOU can count

Continued on page 3

## MEETINGS

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

Pack Rats' **CHEESE BITS** is a monthly publication of the  
- Mt. AIRY VHF RADIO CLUB, INC. -

Southampton, PA

SUBSCRIPTION RATE: \$10.00 PER YEAR (USA)  
\$12.00 PER YEAR (CANADA)  
\$15.00 PER YEAR (ELSEWHERE)

We operate on an exchange basis with other non-commercial publications. Anything that is printed in **CHEESE BITS** may be reprinted in a not for profit publication, unless otherwise stated, provided proper credit is given.

**DEADLINE FOR ARTICLES AND SWAP SHOP IS THE MONTHLY MEETING DATE. NON-COMMERCIAL SWAP SHOP ITEMS-FREE OF CHARGE.**

**SUBSCRIPTION/ADVERTISING MANAGER:**

Bob Fischer, WB2YEH  
7258 Walnut Avenue  
Pennsauken, NJ 08110  
(609) 665-8488

**EDITOR:**

Harry Brown, W3IIT  
3012 Potshop Road  
Norristown, PA 19403  
(610) 584-4846  
hbrown@vf.lmms.lmco.com  
hbrown@voicenet.com

**CLUB TREASURER:**

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

**AWARDS CHAIRMAN:**

Bob Fox, W3GXB  
(610) 346-8698

**TRUSTEE OF CLUB CALL - W3CCX**

Ron Whitsel, WA3AXV  
rwhitsel@aol.com  
(215) 355-5730

**PACKRAT 222 MHz REPEATER - W3CCX/R**

222.98/224.58 MHz, Churchville, PA FN20LE

**OFFICERS: 1996-1997**

PRESIDENT: WA3NUF Phil Miguelez, pmiguelez@gic.gi.com  
VICE PRES: N3AOG Dick Comly, 104242.2614@compuserve.com  
REC. SECR: WA3AQA Walter Zumbach  
TREASURER: W3KM Dave Mascaro, dmascaro@gic.gi.com  
COR. SECR: KB3XG John Sorter, JohnKB3XG@aol.com  
DIRECTORS: N3DQZ Jack Kauker (2 Yrs) jkauker@voicenet.com  
WA3AXV Ron Whitsel (2 Yrs) rwhitsel@aol.com  
N3OZO Don Schwartzkopf (1 YR)  
WB3KRW Steve Dallas (1 YR) sdallas@erols.com

**MONDAY NIGHT NETS**

<u>TIME</u>	<u>FREQ.</u>	<u>NET CONTROL</u>
7:30 PM	50.150 MHz	K3EOD
8:00 PM	144.150 MHz	N3ITT/AA2UK
8:30 PM	222.125 MHz	WB2YEH/N3EXA
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	WA3AXV
9:30 PM	1296.100 MHz	WA3NUF
10:00 PM	903.100 MHz	N3AOG

**COMMITTEE CHAIRMEN**

LADIES' NIGHT: N3AOG 215-443-9965  
JUNE CONTEST: WA3AXV 215-355-5730  
HAMARAMA: WB3JYO 609-538-1687  
VHF CONFERENCE: KB3XG 610-584-2489

**PACK RAT BEACONS - W3CCX/B FM29JW**

432.298 MHz 903.071 MHz  
1296.262 MHz 2304.034 MHz



THE AMERICAN RADIO RELAY LEAGUE

**KAY C. CRAIGIE, WT3P**  
DIRECTOR, ATLANTIC DIVISION

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

wt3p@arrl.org



THE AMERICAN RADIO RELAY LEAGUE

**Bernie Fuller, N3EFN**  
VICE DIRECTOR, ATLANTIC DIVISION

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

n3efn@arrl.org

**STEVEN N. WHITE**  
Attorney at Law

2217 PALOMINO DRIVE  
WARRINGTON, PA 18976

TEL: (215) 343-6902  
FAX: (215) 343-6903

on whenever YOU need help come to an activity like the June contest or Hamarama or even a board of directors meeting. That's where you'll meet the real Packrats. The ones that help each other and understand that the club is more than just a place to kill time for a few hours each month and get free coffee and donuts. They are some of my best friends and I expect they will always be - STILL HERE.

73  
Phil WA3NUF

**Calendar of Coming Events - May 1997**

- 1     **ARRL Spring 432 MHz Sprint** (Wednesday evening) 7-11 local time. See April QST, page 101 for rules.
- 6     **ETA Aquarid meteor shower** predicted peak at 0341 UTC.
- 5     **Warminster Amateur Radio Association Hamfest** at the Middletown Grange Fairgrounds in Wrightstown, Pa. Talk-in on 146.69/.09 and 146.52. VE Testing.
- 8     **Packrat Board of Directors** meeting at the QTH of Bruce, WA3YUE, at 8:00 PM. All interested Parties invited. Call 610-630-1875 for directions.
- 10    **Packrat Ladies Night** will be held at the Mill Race Inn, in Holland, Pa. starting at 6:00 PM.
- 10    **ARRL 902, 1296, and 2304 MHz Spring Sprint** , 6 PM to 11 PM. These sprints will be held simultaneously. See April QST, page 98 for rules.
- 11    **Mothers Day**.
- 16-18 **Dayton Hamvention**. If you've never been there you've never seen anything like it. If you're looking to buy it or sell or see it **GO**. The VHF/UHF Forum will include talks on both Saturday and Sunday. There will be a preamp gain/noise figure contest on Sunday morning.
- 17    Packrat general membership meeting at the Southampton Free Library on Street Road in Southampton, Pa. at 8:00 PM. All club members and VHFers invited.. Nominations for the election of officers in June will be accepted.
- 17-18 **ARRL 50 MHz Spring Sprint** 2300Z May 16 (Saturday Evening) until 0300Z. See April QST, page 98 for rules.
- 18    The **Ephrata Area Repeater Society Hamfest** will be held at the Ephrata Senior High School, Ephrata, PA. Talk-in on 144.85/145.45. VE Exam at 9 AM.
- 24    **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. or 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.
- 30-June 1 **Atlantic Division Convention and Annual Rochester Hamfest** at the Monroe County Fairgrounds near Rochester, NY. Talk-in on 146.28/.88.

**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)

May 1997

Send to: SUBSCRIPTION/ADVERTISING MANAGER:  
Bob Fischer, W2SJ  
7258 Walnut Avenue  
Pennsauken, NJ 08110

## 1997 ARRL June QSO Party

By: Ron, WA3AXV

Plans are underway for the club to once again operate W3CCX/3 from Camelback Mountain in grid square FN21HB. The contest dates are the weekend of June 14 and 15. We will have all bands from 50 MHz through 10 GHz fully operational with narrow band capability and large antennas. Schedules are invited. Stay tuned to this page for an update on the schedule coordination procedure.

### June Contest Band Captains

50 MHz - WA1YHO / W2SJ

144 MHz - WB3JYO / WC2K

220 MHz - N3EXA / N3NGE

432 MHz - W2SK / WA3AXV

903 MHz & UP - WA3NUF / W3KM

Contact Ron, WA3AXV for more information.

### Edward P. Tilton, W1HDQ, SK

ARRL Headquarters was saddened to learn that VHF pioneer and former QST VHF Editor Ed Tilton, W1HDQ, of Spring Hill, Florida, died March 1. He was 89. In December 1939, Tilton inaugurated the first QST column devoted to VHF. Originally called "On the Ultra Highs," it eventually became "The World Above 50 Mhz." Tilton edited the VHF column until he retired from the ARRL staff in 1960, reporting on-the-air activity and encouraging experimentation initially on the then 56 and 112-MHz amateur allocations and, later, on all VHF and UHF bands. The UHF DX Records box--the precursor of today's standings boxes--debuted in 1940.

During World War II, Tilton worked as a field engineer for the military on radar projects--mostly at Pearl Harbor and Guam, and became acquainted with the great technological progress the military was making in the VHF-UHF spectrum. Even while occupied with his military duties, he still managed to file occasional columns throughout the war years.

In 1947, Tilton established the first WAS standings box for 6 meters. In 1955, he proposed establishing the first calling frequencies for the 6 and 2-meter bands. Following his retirement, Tilton remained a QST Contributing Editor. He was the author of the ARRL's first VHF Manual and wrote numerous articles for QST. Tilton's column inspired an entire generation of VHF and UHF enthusiasts and encouraged such activities as EME, meteor scatter and auroral propagation. He was considered an authority on sunspots and solar flares and their effects on propagation. As ARRL Executive Vice President David Sumner, K1ZZ, put it: "Ed Tilton was one of the outstanding amateur scientists of his generation. Perhaps more than any other individual, he led the exploration of the extended-range properties of the VHF and UHF bands."

Tilton was a life member of the ARRL. He also belonged to the QCWA and the Spring Hill Amateur Radio Club. He was a native of Springfield, Massachusetts. His wife, Leitha, died in 1995. His sister, Ruby, is among the survivors. He is to be interred in Canton, Connecticut. Donations in Ed Tilton's name may be made to the Hospice of the Florida Suncoast, 300 E Bay Dr., Largo, FL 34640.

### HP Power Sensor Check

By Lars, AA6IW relayed by WA3AXV

A question that often comes up when obtaining used HP power meter heads at swap meets is how to test them to make sure they aren't bad. There is a simple test to verify that the thermistors aren't burned out. Of course, this procedure doesn't guarantee that something else isn't broken in the sensor, but this is a place to start. The power sensor consists of two bridge circuits with a thermistor in one leg of each bridge. One bridge circuit is used to do the actual power measurement, while the other circuit is used to compensate for thermal drift due to ambient changes in the housing. In order to properly zero the meter and measure power, both bridge circuits must be working.

When no RF power is being applied to the thermistor head, both thermistors measure about the same value. When power is applied to the RF sensing bridge, its value changes and the difference is used to calculate the actual RF power. So all we need to do to test the power meter head is measure the resistance of the thermistors with no RF or DC power applied.

With the RF connector facing away from you, place the notch on the round cable connector so that the orientation notch is toward the bottom. Pin 1 will be on the bottom just to the right of the orientation notch. Count clockwise around the outside pins to locate pins 2 through 5. Pin 6 is the pin in the center. Connect the negative lead of your ohmmeter to pin 6 (the center pin). This is the common return for both thermistors. Now, measure the resistance on pin 1 and pin 3. Both of these resistances should be within about 10%. If it is significantly outside of this range, the sensor is probably bad. Sometimes sensors that measure slightly outside this range can be adjusted, but that is a job for the experts. Of course, if your power sensor is really bad, you could use it as a housing for a homebrew noise source.

### 3.4, 5.7 AND 10 GHz BEACON UPDATE

By: Ron, WA3AXV

The sources for 3456 and 5760 are cristaled up and ready to go. The 3.4 antenna (16 Slots) is complete except for the radome. A transition was built into the base of the antenna and a mount fabricated by putting a waveguide flange on the bottom of the antenna and securing the flange to a piece of aluminum angle. VSWR checks indicate a match at the proper frequency and blocking off slots with a piece of aluminum drastically affected the match. So at least its acting like an antenna. The 3.4 amp is in its conception stages. That is, the design has been formulated but no metal has been bent. The 'dreamer' has offered to hand off his obligation, but for the moment is still on the hook for a 5 watt amplifier.

The slots are milled in the 5760 guide, so its not far from becoming an antenna. This turned out to be a 24 slot antenna because that's how long the piece of guide was. We have a 5 watt Imfet amplifier (Rockwell/Collins) and an RF switch ready to go.

The 10 GHz antenna will be a 32 (or more?) slot antenna made out of WR-90 guide. The 32 slot antenna is only 12 inches long so is an extra 3 dB (64 slots, 24 ins) worth it? Time and the machinists patience will tell (the slots are 70 mils (.070 ins) wide). We have a source and RF switch for 10 GHz, but are still looking for a 1 watt solid state amp. Any ideas? Commercial power supplies will be needed soon. We have some -20 vdc for the sources but will probably be looking for small 15 vdc and 24 vdc supplies for the amps in the near future. Anyone is welcome to jump in any time.

### NEW 10 GHz EME WORLD RECORD

From: G3PHO@aol.com

On Wednesday, 12 March 1997, a new world record for EME on 10 GHz was set in a QSO between Joe DJ7FJ and Greg ZL1GSG. The two-way QSO took place at 08.30 UTC. DF7FJ operated from Schiltach in southwestern Germany and ZL1GSG from Awhitu Peninsula / Manukau Heads southwest of Auckland, New Zealand. The great circle distance between the QTH's is approximately 18340 km or just under 10000 nautical miles. DF7FJ and his team were using a 4.5m parabolic dish and a 50W traveling wave tube power amplifier, while ZL1GSG used a 3m dish and a similar PA.

"O" reports were exchanged both ways. The new world record came after a series of unsuccessful attempts and one semi-successful attempt that saw ZL1GSG using a 1.8m dish from Muriwai, on NZ's West Coast northwest of Auckland. Prior to the successful QSO, a test run from Awhitu Peninsula confirmed on the weekend before that moon echoes were clearly audible from the receiver's speaker even a few meters away from ZL1GSG's van. Earlier echoes using the 1.8m dish had been very faint. The change to a larger dish had clearly made the difference.

On the night of the QSO, moon echoes were received by ZL1GSG well from about an hour before sked time. A last-minute technical problem, caused by a short in the cable that switched the waveguide TX/RX relay, put the whole project in jeopardy just minutes before the QSO began. However, Greg's policy of having a spare bit of next to everything provided a makeshift solution only a few minutes into the sked window, and contact was established almost immediately after ZL1GSG was QRV again. The signals from Germany were clearly audible as had been the moon echoes.

Congratulations to Greg ZL1GSG and Joe DJ7FJ from their New Zealand ground support team of the day: Bill ZL1TTH Tim ZL3VTV Ulrich ZL1DDL Thanks go to many amateurs who helped with the provision of equipment, time, and a QTH.

### DAYTON WEAK SIGNAL BANQUET A FEW TICKETS LEFT

Tom Whitted, WA8WZG 3.843 MHz Weak Signal Group Net Control

To All..... The WEAK SIGNAL GROUP that meets Monday nights at 0200 UTC on 3.843 MHz. would like to invite everyone that is coming to the DAYTON HAMVENTION to our Annual Banquet. We have reserved a room, that will seat 150, on friday night MAY 16th, from 7:00 PM until 11:00 PM, at the HOLIDAY INN NORTH, Waggoner Ford Road , Dayton, Ohio. There will be a cash bar as well as plenty of seating to allow you to mix and mingle with other VHFERS from all over the country and the world. There will be over 50 prizes with two grand prizes worth over \$300 dollars each being drawn after the dinner. Also, there will be a guest speaker who will provide a short talk on VHF activity. There will also be a noise figure measuring table so bring your preamps to tweak.

The cost of a ticket to attend this function which includes the 2 entree Banquet dinner, is only \$29.00 per person, and they are limited to 150 tickets. You may order your tickets by sending \$29.00 plus an SASE to either Tony Emanuele ,WA8RJF, 7156 Kory Court, Concord Twp., Ohio 44077 or TOM WHITTED, 4641 Port Clinton East RD., Port Clinton, Ohio 43452

This is one of the largest gathering of VHF weak signal enthusiasts in the U.S., So get your tickets early and join us for an enjoyable evening. More info available at <http://www.wa8wzg.com> See you at the DAYTON HAMVENTION spaces 2914, 2915,2916 !!! Thanks and 73's, Tom Whitted WA8WZG, 3.843 MHz. Weak Signal Group Net Control, 50 MHz. Thru 10 GHz. EN81OM 419-732-2944.

## HF AND 6M CONTESTS

Larry N0LL Midwest CAC

To all concerned. Here is some info concerning this issue. The ARRL board of Directors ask us the ARRL Contest Advisory Committee to study the subject of the use of 6m is ARRL sponsored HF contests. I am 1 of 15 CAC members and was appointed by K4VX, a contester to represent the ARRL Midwest Division (Kansas, Nebraska, Iowa and Missouri). At the time of my appointment 2 yrs ago my director realized the CAC was very top heavy with those of primarily HF contest experience. Now that has changed somewhat with W4WA Southeastern and AA7A Southwestern also on the committee. One of the several questions we are studying now is how 6M and the many Amateurs who are licensed for that band but not yet HF could be included is a contest with HF. We have until June 15 to send a report to the ARRL Membership Services Committee. There is to be a in person meeting for those CAC members who get to Dayton. I wish the VHF reflector users to know I read everything on here as well as the CAC reflector which have been very active lately. Also remember activity is very different in the Midwest that say the coasts. As for Field Day my Director says that is not a CAC subject. Someone else makes the rules for FD. By the way, after being this reflector for about a yr. this is my first post.

### SILENT KEY: VE3ASO - DENNIS

From: Peter, VE3AX

It has been confirmed that Dennis Mungham, VE3ASO/VA3SO, passed away during the night of March 20/21 in his sleep. At 48 yrs. young (or so), this has happened much too early and only serves to remind us all how fragile life can be.

Dennis' ham career began over 35 years ago, when as a 14/15 year old he began "bootlegging" in the Toronto area. At that time, one HAD to be 15 years old to get a ham ticket. When he was caught by the Canadian equivalent of the FCC, he was given a few days only to qualify for his amateur license or his troubles would escalate. He passed the tests!

The VHF's were Dennis' love from the beginning and he became a well known voice on 2 meters in Southern Ontario. From his parent's home in Etobicoke, his 10/10/10/10 el yagis were a force to be reckoned with. Few could squeeze as many watts from a pair of 4CX250's as Dennis! He spoke often of the 1966 Leonids meteor storm and looked forward to their return in 1999.

VHF contesting was Dennis' true passion. He broke record after record for the Ontario Section and Canadian Division as a single op, and was a driving force behind the VE3ONT contest group. It was Dennis, in 1992, who initiated contact with the Algonquin Radio Observatory that led to VE3ONT's EME successes on the 150 ft. dish. It is hard to accept the fact that the familiar "Voice of FN25" will no longer be heard on the bands from 50 MHz to 10 GHz. All of us in the Toronto VHF Society are going to miss him.

### AL WARD, WB5LUA, HONORED BY DAYTON HAMVENTION

de Bill Pasternak, WA6ITF, Newsline On-Line services

Lets all pause to congratulate Al Ward, WB5LUA, on being selected as recipient of the 1997 Dayton Amateur Radio Associations' "Technical Excellence Award." Al is being recognized by DARA for his many contributions to VHF and UHF circuit design and allied technologies that have enhanced operation by all radio amateurs on these higher bands.

### JAN. '97 ARRL VHF SS CONTEST RUMORED SCORES: by K00U and WZ1V Rev.3

Mt. Airy VHF Radio (Pack Rats) club score: 2.9 Million/57 logs (Unlim.)

North East Weak Signal Group club score: 2.3 Million/40 logs (Medium)

Northern Lights Radio Society club score: 0.5 Million/55 logs (Unlim.)

CALL	K3MQH	W2UTH	N2ODK	K1WHS	K2TVI	WA2AAU	N1BWT	KB5IUA
GRID	FM19	FN03	FN12	FN43	FN21	FN22	FN42	EL29
CLAS	M/U	M/U	M/U	M/U	M/U	M/U	M/U	M/U
50	463/69	223/47	216/39	284/69	??	83/23	118/38	67/20
144	847/64	404/48	294/42	207/25	??	194/26	138/19	124/25
222	198/43	127/37	111/32	53/18	??	42/16	50/12	7/6
432	333/52	175/37	156/32	87/21	??	62/17	67/14	49/15
903	18/11	37/12	40/16	16/6	??	30/14	15/6	3/2
1.2	32/15	53/15	45/15	24/7	??	37/14	17/5	11/7
2.3	0/0	23/6	17/7	10/6	??	19/11	0/0	0/0
3.4	0/0	12/4	3/3	0/0	??	9/4	0/0	0/0
5.7	0/0	11/4	0/0	0/0	??	6/4	0/0	0/0
10G	0/0	20/2	3/1	0/0	??	0/0	2/1	0/0
24G	0/0	10/2	0/0	0/0	??	0/0	0/0	0/0
LAS	0/0	1105/216	888/188	681/152	990/113	482/129	407/95	261/75
SCOR	650,000	492264	299296	141512	140,256	132,225	60,230	26,925
CALL	K3MQH	W2UTH	N2ODK	K1WHS	K2TVI	WA2AAU	N1BWT	KB5IUA

CALL	<b>N2XTX</b>	<b>N4UK</b>	<b>NC1I</b>	<b>NO2T</b>	<b>N6RMJ</b>	<b>WB1FLD</b>	<b>N2VOT</b>	<b>WA8BCA</b>
GRID	FN02	EM84	FN32	FN30	DM14	FN42	FN22	EN91
CLAS	M/L	M/L	M/L	M/L	M/L	M/L	M/L	M/L
50	292/63	183/84	96/15	137/24	89/31	123/37	149/40	433/79
144	403/64	189/59	342/30	447/31	117/34	201/23	149/17	0/0
222	52/30	51/31	40/12	50/17	56/24	58/14	68/14	0/0
432	78/33	90/54	222/46	149/15	89/33	91/17	90/16	0/0
TOT	825/190	513/228	700/103	781/87	251/122	473/91	456/87	433/79
SCOR	181450	149112	98986	65086	60512	56602	53418	34207
CALL	<b>N2XTX</b>	<b>N4UK</b>	<b>NC1I</b>	<b>NO2T</b>	<b>N6RMJ</b>	<b>WB1FLD</b>	<b>N2VOT</b>	<b>WA8BCA</b>

CALL	<b>WA8WZG</b>	<b>WA2TEO</b>	<b>N2CEI</b>	<b>WC2K</b>	<b>WA3AXV</b>	<b>AA2UK</b>	<b>WZ1V</b>	<b>W2FU</b>
GRID	EN81	FN31	FN20	FM29	FN20	FM29	FN31	FN13
CLAS	S	S	S	S	S	S	S	S
50	145/39	219/53	257/50	16130	129/30	70/19	162/44	98/29
144	190/44	413/46	308/36	322/37	249/27	251/35	207/33	222/38
222	89/34	108/29	104/26	109/24	118/20	85/25	85/23	67/22
432	149/45	157/33	108/26	119/28	139/20	100/31	127/26	111/31
903	40/19	49/20	39/12	41/16	49/14	42/14	40/14	37/13
1.2	65/30	48/17	48/16	53/7	64/16	63/19	45/14	39/14
2.3	32/18	25/10	23/8	29/7	31/7	27/7	22/8	16/6
3.4	13/9	0/0	13/4	12/2	18/2	8/2	6/2	4/3
5.7	18/9	0/0	3/2	7/2	10/2	8/2	0/0	4/3
10G	11/7	0/0	1/1	0/0	7/2	4/2	0/0	1/1
24G	0/0	0/0	1/1	0/0	0/0	0/0	0/0	0/0
LAS	1/1	0/0	0/0	0/0	0/0	0/0	222384	188800
CALL	<b>WA8WZG</b>	<b>WA2TEO</b>	<b>N2CEI</b>	<b>WC2K</b>	<b>WA3AXV</b>	<b>AA2UK</b>	<b>WZ1V</b>	<b>W2FU</b>

CALL	<b>K1RZ</b>	<b>WA3NUF</b>	<b>KD1DU</b>	<b>KE8FD</b>	<b>N1DPM</b>	<b>WB3JYO</b>	<b>W2UR</b>	<b>W3OR</b>
GRID	FM19	FN20	FN31	EM89	FN32	FN20	FM29	FM28
CLAS	S	S	S	S	S	S	S	S
50	185/32	81/10	144/28	87/36	85/38	107/18	99/21	108/28
144	314/43	261/28	435/38	216/55	155/24	225/27	161/22	219/36
222	80/24	94/19	79/21	75/40	66/17	94/17	68/18	62/21
432	121/26	118.22	109/23	109/41	98/20	116/19	83/20	95/30
903	31/12	44/11	35/14	14/11	34/14	41/9	43/12	34/14
1.2	40/13	60/14	37/13	28/17	44/13	54/10	52/11	39/16
2.3	6/3	28/5	0/0	0/0	18/9	23/3	22/4	1/1
3.4	0/0	16/2	0/0	0/0	9/5	14/2	11/2	1/1
5.7	0/0	5/2	0/0	0/0	0/0	0/0	6/2	0/0
TOT	777/153	707/113	839/137	529/200	509/140	674/105	545/112	559/147
SCOR	188649	177800	170291	167800	153440	150000	140400	139500
CALL	<b>K1RZ</b>	<b>WA3NUF</b>	<b>KD1DU</b>	<b>KE8FD</b>	<b>N1DPM</b>	<b>WB3JYO</b>	<b>W2UR</b>	<b>W3OR</b>

**1997 JUNE VHF CONTEST- L/S OP AND 2 MAN TEAM MULTI AWARDS**

By: "Ken N4UK", ramirezsk@emi.com

The Limited Single operator and the 2 Man Team Multiop awards program were a resounding success last year! The Grid Pirates will again organize and sponsor the awards for 1st place for each category. 2nd-5th place awards will also be offered if enough sponsors are found. The Limited Single op award is for those single ops. who submit a log of 4 bands or less to the ARRL for the June VHF Contest. The results are based upon the results printed in the December issue of QST. This award is aimed at those ops. in areas with little to no higher band activity where the effort involved to get on those bands just doesn't pay off. It is also an incentive to get on a 4th band if you are presently only on 6,2, and 432. (try 222 or 1296!)

## 1997 JUNE VHF CONTEST- L/S OP AND 2 MAN TEAM MULTI AWARDS contd.

The 2 Man Team Multiop award is for multiop efforts that consist of 2 operators who MUST be the same two operators throughout the contest. Any and all bands can be used. Portable operations, home stations, etc. are all allowed. This award is geared towards operations in the less populated areas where there is difficulty in finding enough ops to launch a full effort with lots of operators. Band strategy is key! The results are also culled from the December issue of QST Sponsors wanted!!!

We were able to award 10! plaques last year. (5 for each category) The plaques are beautiful and depict the Skull and Crossbones logo of the Grid Pirates VHF Group along with the call of the op(ops) and the call of the sponsor or club name. Unfortunately, Only 8 of the 10 people who "vouched" to sponsor and come up with the money for the plaque came through at paying time. I wound up having to pay the cost of the plaques and shipping out of my own pocket, something I am not willing to do this time around. If you or your club would like to sponsor one of these nice plaques and help to increase the VHF activity in this year's June contest please send me an E-mail and I'll tell you where to send the check. The cost of sponsoring a plaque this year will be 30.00 (a 5 dollar increase over last year. Shipping was more than I had estimated.) Ask any of the recipients of last year's plaques and they will tell you that the plaque is well worth competing for! 73 The Grid Pirates! Ken N4UK, Gene W3ZZ, Chuck W4XP, Terry WD8ISK.

### Dayton Forums!

VHF and other Forums of interest that will be offered at the 1997 Dayton Hamvention as of 4/24/97.

Friday

12:05 -12:55 **AMSAT(session #1) ROOM 4**

Moderator: Keith Pugh, W5IU, VP-Operations AMSAT-NA

Speakers: "Getting Started on the Amateur Radio Analog and Digital Satellites" Barry Baines, WD4ASW, AMSAT- NA Vice President, Field Operations

1:00 - 5:00 **TAPR DIGITAL RADIO ROOM 1 (PACKET) (session #2)**

Moderator: John Ackerman, AG9V

Speakers: "Introduction to Spread Spectrum Communications", Steve Bible, N7HPR  
"Building TCP/IP Networks in Amateur Radio Community", John Ackerman, AG9V, Allan Finne, KB5SQK (IP\_Masq topic)  
"METCON-2 Telemetry and DAS Project Updates", Paul Newland, AD7I  
"Review of Current SS Development", Barry McLarnon, VE3JF, DeWayne Hendricks, WA8DZP  
"System Design Parameters for Spread Spectrum Systems", Tom McDermott, N5EG  
"TAC-2 (Totally Accurate Clock) GPS Project", Tom Clark, W3IWI  
"Update on Amateur DSP Activity", Bob Stricklin, N5BRG and Bill Reed, WDyETZ  
"APRS Update and SIG Meeting", Bob Bruninga, WB4APR, and Keith Sproul, WU2Z

9:00 - 12:30 **VHF/UHF/MICROWAVE ROOM 5 (session #16)**

Moderator: Bob French, N8EHA, and Merle Rummell, W9LCE

Speakers: "Listening to Mars Global Explorer", Mike Suhar, WB8GXB  
"The NTMS Log Periodic Dipole", Kent Britain, WA5VJB  
"Getting RF to the Antenna", Tom Whitted, WA8WZG  
"Feed Horn Designs", Joel Harrison, W5ZN  
"10 GHz For Beginners", Gerd Schrick, WB8IFM

12:45 - 1:45 **AMSAT (session #29) ROOM 5**

Moderator: Bill Tynan, W3XO, President, AMSAT-North America

Speakers: "PHASE 3-D – The Satellite for ALL Amateurs!", Project Team Panel Discussion  
Bill Tynan, W3XO, President, AMSAT-North America  
Keith Baker, KB1SF, Executive Vice President, AMSAT-North America  
Lou McFadin, W5DID, Phase 3-D Integration Laboratory Manager



(302) 478-2757

Since 1977

### AMATEUR & ADVANCED COMMUNICATIONS

Amateur and Shortwave  
Closed Sunday & Monday

GISELE  
K3WAJ

3208 Concord Pike Rte. 202  
Wilmington, Delaware 19803

609-541-0120  
FAX 609-541-2546

### Bob Fischer Company, Inc.

AERIAL LADDERS - CRANES - MANLIFT EQUIPMENT

BOB FISCHER  
PRESIDENT

2765 LINCOLN AVE.  
CAMDEN, N. J. 08105



**HARRIET SOLTOFF**  
TRAVEL CONSULTANT

616 SOUTH THIRD STREET  
PHILADELPHIA, PA 19147

(215)  
RES. 947-4483

### THE R. F. CONNECTION

*"Specialist in  
R F Connectors and Coax"*

Joel Knoblock  
301/840-5477  
Fax 301/889-3680

Order Line 800-783-2666  
Suite 11, 213 N. Frederick Ave.  
Gaithersburg, MD 20877

Graphic Design Illustration Production



Lynne D. Whitsel

209 Frog Hollow Road  
Churchville, PA 18966  
215 355-5730

RICHARD E. COMLY



TOOL, DIE & MACHINE CO., INC.  
2065 BENNETT RD. PHILA., PA 19118



(215) 676-1300  
FAX 934-5237

(215) 745-6173  
(609) 266-3668  
(800) 5-EASY-DO



**COMPU-SIMPLE, INC.**  
COMPUTER APPLICATIONS FOR SMALL BUSINESS

ELLIOTT T. WEISMAN  
Consultant

P.O. BOX 7161  
WILMINGTON, DELAWARE 19803

AUTHORIZED DEALER  
ROHN TOWERS

TEL 908-776-2522  
FAX 908-775-3835

TELEX-HY-GAIN  
ANTENNA SYSTEMS  
ROTATORS  
TOWERS

**PILOT ELECTRIC CO., INC.**  
1300 HWY. #35  
NEPTUNE, N.J. 07753

GENE PILOT

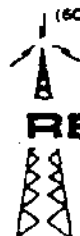


(215) 288-0325

# W3HK

GEORGE S. VanDYKE, JR. P.E.

1737 Scattergood Street  
Philadelphia, PA 19124



(609) 268-0738

RICHARD CONNOR

**RECON** Communications

- COMMUNICATIONS TOWER MAINTENANCE
- ANTENNAS, FEEDLINES, TOWERS INSTALLED
- TOWER PAINTING, RE-LAMPING, RE-GUYING
- RF SYSTEM TROUBLESHOOTING
- LIGHTNING PROTECTION, GROUND SYSTEMS

Emergency Service

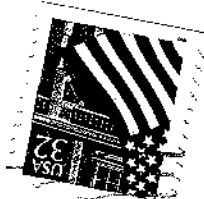
412 Carranza Road  
Tabernacle, NJ 08068

MT. AIRY V.H.F. RADIO CLUB INC.

FIRST CLASS

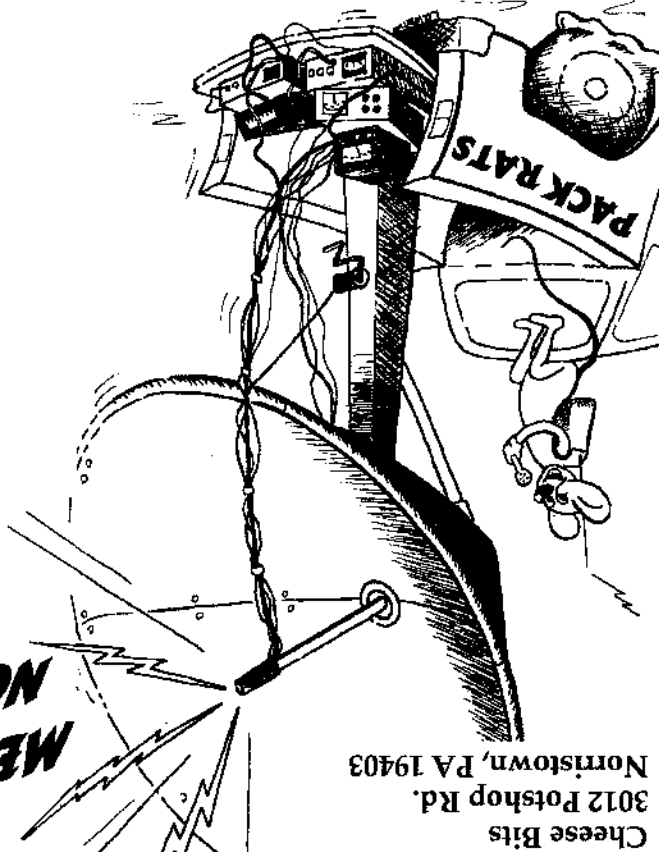
DICK HUNTZINGER  
W3FQD  
130 FAIRHILL RD.  
CHURCHVILLE, PA 18966

12/96



MEETING  
NOTICE

Cheese Bits  
3012 Potshop Rd.  
Norristown, PA 19403



## DOWN EAST MICROWAVE

Manufacturers and Distributors  
of VHF/UHF/SHF Equipment and Parts  
50 to 10,368 MHz

- Microwave Loop Yagis
- VHF/UHF Yagis
- No-Tune Linear Transverters
- Linear Power Amplifiers
- Low Noise Preamps
- Coax Relays, Coax Cable, Connectors
- Crystals, Chip Components, MMICs, Transistors, RF Modules

For All Equipment & Antennas:

Steve Kostro, N2CEI

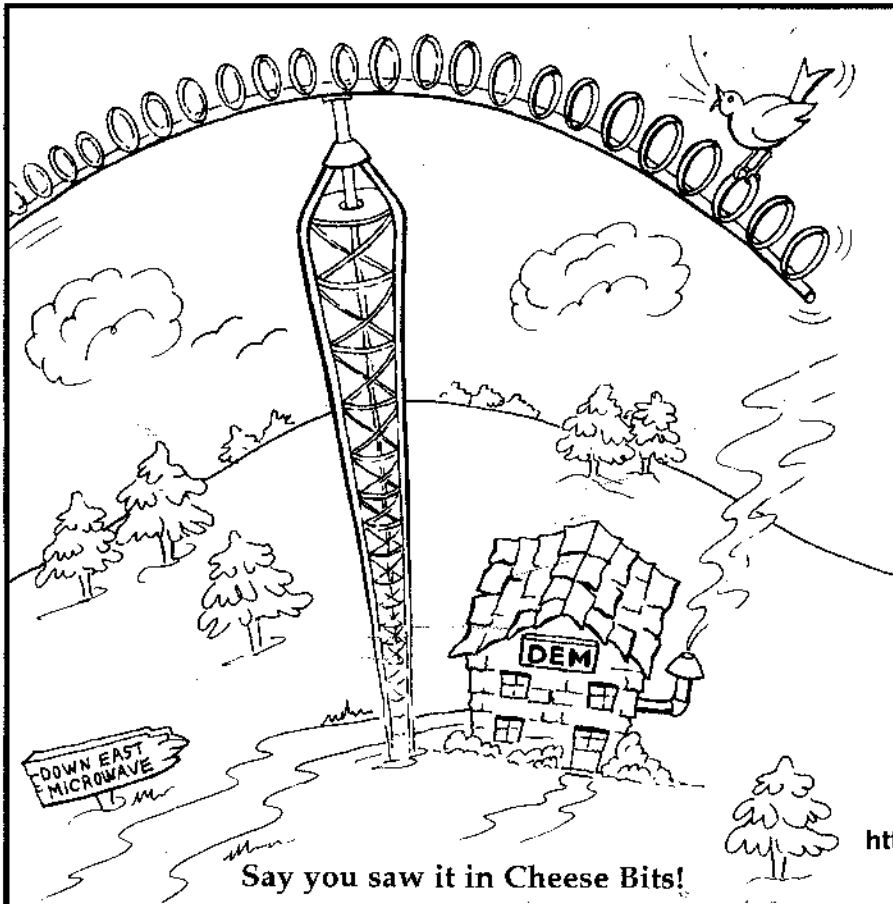
954 Rt. 519

Frenchtown, NJ 08825

Tel.. 908-996-3584

Fax. 908-996-3702

<http://www.downeastmicrowave.com/index.html>



Say you saw it in Cheese Bits!