

# Mt. AIRY V.H.F. RADIO CLUB, INC.



# CHEESE BITS

**W3CCX**  
CLUB MEMORIAL CALL

ARRL  
Affiliated  
Club



Volume XLIV

July 2002

Number 7



The mountain setup



The crew enjoys dining

June 2002



Al, N3ITT, June Chair likes it!



Tired pack-up crew

Congratulations Packrats on the best June contest effort ever!! Somehow any mere words seem inadequate to describe just how great this weekend went, but I will do my best. I'm not sure what a "perfect" contest would be but this was as close as I've ever been. The weather was terrific, with no rain through the entire event, and moderate temps. and humidity. And the turnout!! WOW!! Although we were a little light at Bob's for load up, once we were up the mountain the ranks QUICKLY swelled with many hands making light work setting up the towers and other equipment in the bright sunshine and cool breezes that the RF Gods chose to bestow upon us!

By the time the dust cleared 27 folks had turned up to make it happen. It was extra nice that we had 2 guest ops. (and hopefully future Packrats) with Ben KB3CTX and Sarah KB3BBR. And the stuff all worked! No real equipment failures and crossband interference was almost non-existent. The station(s) just played beautifully! Even the bands seemed to cooperate. Even though there were no real extraordinary openings, the bands seemed "up" enough to make life interesting and complete some "OH WOW!" QSO's. It also seemed that the group worked as a team better than ever this year. Stations seemed to be passed almost effortlessly thru the bands this year. It really came together. Add to all that the great food, fun, and camaraderie and, well it really don't get much better than this!!! 73 AI N3ITT

THANKS TO ALL WHO HELPED UP ON THE MOUNTAIN, SUPPORTED THE CLUB STATION THRU DONATIONS OF EQUIPMENT OR FINANCIAL CONTRIBUTIONS, OR TOOK THE TIME TO WORK THE CLUB STATION FROM HOME AND MADE THIS ALL POSSIBLE!!!!!! ...THE PACKRAT MOUNTAINEERS... WA3RLT K1JT W3GAD N3EVV WA3DRC NE3I K1DS N3EXA N3OZO KB3XG AA3GN WA3YUE W3IIT K3DMA WA1YHO WA3NUF K3IUV W2SK KF6AJ W2PED W3OR N3FTI WA2OMY W0RSJ W3KM N3ITT ...GUEST OPS. KB3CTX, (BEN) KB3BBR, (SARAH)

Pack Rats **CHEESE BITS** is a monthly publication of the  
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222.98/224.58 MHz, Churchville, PA

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January Contest AA3GN 215-721-4286

June Contest: N3ITT 610-547-5490

HAMARAMA: W3KJ 215-256-1464

VHF Conference: KB3XG 610-584-2489

Awards Chairman WA3GFZ 215-884-3116

**PACKRAT BEACONS - W3CCX/B**

FM29w Philadelphia, PA

50.080 144.284 222.065 432.295 903.071 1296.251 MHz

2304.037 3456.220 5763.190 10,368.140 MHz (as of 3/1/01)

**MONDAY NIGHT NETS**

TIME	FREQUENCY	NET CONTROL
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
9:30 PM	1296.100 MHz	WA3NUF
10:00 PM	903.100 MHz	N3AOG

**THURSDAY NIGHT NETS (1st & 4th of the month)**

9:30 PM 2304.100 MHz W3KJ, & go to 3.4G & up after

## Editor's Column

The most unique reflector posting in the week prior to the contest had to be from the W2SZ gang, asking for additional rover operators to use their rover stations to help build the W2SZ score. The second most amazing post had to be from a ham in the southwest who first realized that this rover flotilla was the icing on the cake for their colossal scores. Then there were the post-contest rumored scores, and it appeared that SZ had a biggie—perhaps their call was heard, and others got to try being New England rovers.

Here in the Mid-Atlantic, the contest conditions were average or less, and except for some nice 6m E, there was little excitement. Many of the larger groups did not have their extended band capabilities, and went as limited multis. There was a lot of meteor scatter scheds that were completed on several bands that added to grid scores, but overall, the QSO counts on all bands but 6m were way down. I am wondering what the score page will look like for 10G with all of those "whiteboxes" and other 10G gear finding homes in the past year. There appear to be two rover scores in the area that are outstanding: W3IY/R and ND3F/R. Both are well known to the VHF community and their preparation, site research and advanced vehicular set-ups paid off!

For our club, participation seemed about average, despite many of the regulars having alternative commitments. It looked a bit thin from the start, with a small sign-up list, and at 8:15 there were only four of us at Bob's to start loading gear, but as the morning went on, more help trickled in, and by 5 PM on Friday, all of the big towers and antennas had been assembled and erected, without any complaints and a great deal of satisfaction from the participants. There are many to whom we owe special thanks, Al, N3ITT was a steady force in making this happen. His notes will include the other contributors. More weekend details will be in other articles and accompanying pictures in this and future issues.

I must say a few words about spending Sunday in the van with Leon, N1XKT, my son, as we operate the family rover, as this is a great father and son activity. His score outdoes mine, as he got to operate while I was driving, and he is becoming rather expert in the game. He anticipates needs, keeps a great log, senses potential hazards, keeps a cool head, and knows when to move on. He also is developing a good eye for rover spots. I am especially grateful that he works well with his boss to modify his work schedule to be able to do the team effort. The quote of the weekend came from him while we were driving across NJ on Route 78, "They should have made these grid squares smaller!" He also would like the club members to make his call recognition easier!

My personal thanks to all who answered my SOS for computer help when I couldn't seem to get MSWord to open—it was a memory thing—too much in the start-up file. It's all fixed now—and faster! I still look forward to more summer fun, as Field Day is in another 2 weeks (over by the time you get this) but 6&2 seem to be busy then, then there's finally the opportunity to install WSJT using the new CD-Rom from Joe, and the UHF contest and the 10G cumulative in August....and as a special treat, I am going to go to the EME conference in Prague in August. Not that I am into EME so quickly, but it looked like a fun summer vacation destination, and coupled up with a few days in Vienna, and the fact that Joe, K1JT and Al, K2UYH will both be there, it was the right opportunity. Even the XYL is excited about the travel and timing.

So what are you all up to this summer? Working on those antennas in the nice weather? Nah...soaking up some rays and pool time, enjoying boating, fishing, the garden, the family... yes, we all have lives beyond radio. Remember to get your logs and scores in to ARRL for the June contest. And add your soap-box comments, or send them to me for sharing in CB. Summer fun for all.....73's Rick, K1DS



K1DS/R & N1XKT/R in FN30

The W3HMS 10 Ghz CW/F1 beacon is now on the air since 1915 tonight 30 May 2002. It is hosted with many thanks to the Keystone VHF Club of York, PA, the home of contest station W3HZU in FN10pa. The beacon is a DB6NT unit with CW F1 keying with 280 mw output to an 8 slot antenna situated at about 150 ft up on Club's principal tower located on a hill above York, PA. Due to F1 keying, you may hear two signals, the lower is the stronger and the best CW. The beacon, Murphy cooperating, will be on 24 hours per day, 7 days per week. The frequency was measured by SSB Electronics in Feb 2002 as 10,368.900422 Ghz. Due to xtal aging, etc. we recommend you tune usual plus and minus 10-20 KHz. The beacon IDs as W3HMS/B on 10.368 GHz in FM19hx although it is really in FN10pa due to a change of venue after IDER burned-in. The beacon contains telemetry in CW after the frequency of 10.368 Ghz like the following example: 044 068 012 000 where: 044=one half of the Fahn. temperature of the beacon metal case which here is 88 deg. F 068=coded buss voltage where  $V = \text{count}/51.2 \times 10$  which in this case is 068 which equals 13.28 VDC on the beacon. 000=nothing or just random voltage pickup..example 012. 000=nothing Reception reports would be appreciated to W3HMS@aol.com or 717-697-3633. The coordinates at the tower are: N 40-00-26.7 W 76-40-07.6 SUMMARY: Call:W3HMS/B Grid: FN10pa City/ST: York, PA Freq. 10368.9 Mhz Mode: F1 CW Hours: All 73, John Jaminet W3HMS

### White Elephant Sale—Thurs, July 18th

Gary Hitchner, WA2OMY, has graciously again volunteered the use of his yard and driveway for the annual White Elephant sale.

BENJAMIN G HITCHNER, JR  
39 W MOUNT KIRK AVE  
NORRISTOWN PA 19403

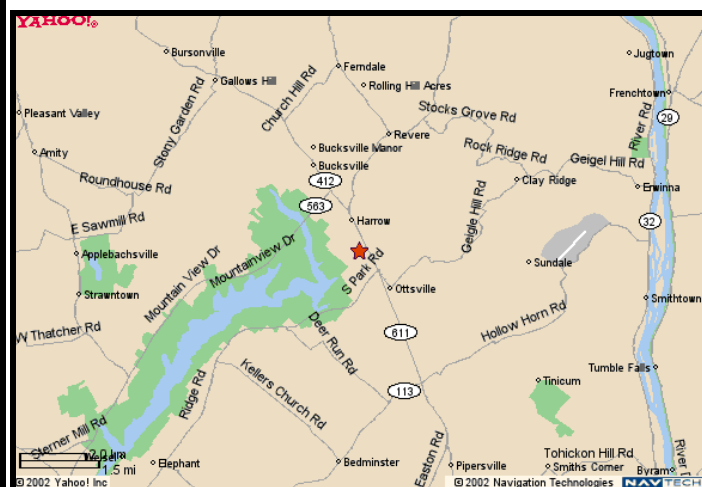
A percentage of the auction proceeds will go to the club. You are encouraged to bring your surplus gear and your dollars to bid on the usual selection of antiques, whatchamacallits, allegedly work-

ing and repairable radio gear, and the occasional gottahav its. Refreshments will be available. Gear inspection at 7:30 PM, bidding starts at 8.

### The Pack Rat Picnic —Sat, Aug 10th

The Pack Rat Picnic will be held all afternoon at the QTH of Al Sheppard, N3ITT, in Ottsville, PA on Saturday, 10 August with Sunday, 11 August as the rain date. This is a super opportunity for all family members to enjoy a day of fun and food—and the pool is always inviting, so bring the kids and bathing suits. It is traditional for the club to supply the grilled foods and liquid refreshments, and for the club members to bring a covered dish, salad, appetizer or dessert. Contributions toward this event are also accepted.

ALAN B SHEPPARD  
77 FOELLNER LN, OTTSVILLE PA 18942



## Radio Activity July 2002

S	MON	T	W	THU	FRI	SAT
	Mondays are Net Nights. See P2 for times and freqs and net control	2	3	4	5	6 Microwave Activity 7A-1P
7	8 Microwave Activity 7P-11P	9	10	11 Board of Dir—check email for QTH	12	13
14	15 Mondays are Net Nights. See P2 for times and freqs and net control	16	17	18 White Elephants for sale at WA2OMY's	19	20
21	22 Mondays are Net Nights. See P2 for times and freqs and net control	23	24	25	26	27
28	29 Mondays are Net Nights. See P2 for times and freqs and net control	30	31	Save the date:	Aug 10th Picnic	

### Prez Sez

June has been a very busy month, we had terrific turnout for the contest and we had very good conditions on the bands. The turnout showed the spirit of our club and everyone should be proud of the job they did to make it happen. We had our elections at the June meeting not much has changed Paul WA3GFZ is our new VP, I know Paul will do a good job for the club. Paul did a terrific job organizing the awards. By the way congrats to all who have received awards. If you have not been at a meeting to get yours I will have them at Gary's house, the July meeting. Joe AA3GN and ED WA3DRC have filled the director spots I know they will do a fine job. Keep on the bands there have been 6 meter openings and enhanced conditions. SEE YOU AT THE WHITE ELEPHANT SALE. 73 Brian N3EXA





The microwave truck: bands 9EFGHIJ



Despite a bad ankle sprain, KB3XG handles 2,3,5,10 & 24G

we were leaving, and he was busy anyway with watering his plants and getting into his convertible for a spin. Leon got a laugh out of the fact that he had one of those new Lexus convertibles, and wound up needing to refer to the owner's manual to get the top down! We scooted through NJ and out toward Easton to get on the road to Camelback. Leon manned the rigs while I drove, and we encountered a pair of rascals involved in a road rage incident—trying to drive each other off the road. Luckily they both pulled off at an exit and a trucker seemed to intervene, as one of the cars drove off in a puff of smoke. We made the mountain in plenty of time to see everyone and share a few stories, make our contacts and get headed off for the last two grids, FN11 and FN10. We found a great new spot in FN11, which we will memorialize on KB3XG's Palm Pilot. De K1DS/R

these great shots of the weekend. So many of the things that we have learned over the years just came together for a great weekend. The weather was outstanding, and the breezes on the mountain kept folks cool and comfortable. The gear was in prime operating condition, and almost everything was readied in plenty of time. The food support was there when folks were hungry. The telephone intercoms and power issues were all in synch. Members showed up throughout the entire four day period to pack, set-up, cook, operate, cheer the team on, make LASER QSOs and add other microwave contacts. The rover made the appointed rounds, and missed only 2 bands from 1 planned grid, but that grid was well accounted for by others.

As a rover, we were able to get started early on Sunday morning, and covered the first two "home" grids of FN20 and FM29 fairly quickly. It was a bit of a long ride toward the Sandy Neck area in NJ to get to FN30, but as we approached the National Seashore area, we decided to investigate a spot near a marina on the inland waterway area, which turned out to be ideal—there were no visitors except for some passing boats, no entry fee for parking, and no ranger to explain to. We made good friends with the homeowner on the water there, explaining what we were doing and when





Several people have asked me for some statistics on usage of WSJT in the June VHF QSO Party. I have collected no data on usage by other stations, but I can report that W3CCX, the club station of the Mt Airy VHF Radio Club ("The PackRats") used the FSK441 mode for meteor scatter on 2 meters between 0100 to 0740 EDT and on 222 MHz from 0400 to 0700 EDT. On 2 meters we had made 17 skeds, and we completed 12 QSOs for 11 new grid multipliers. Four of the remaining stations had to cancel for one reason or another, and one station was simply not heard. The 2-meter QSOs took from 2 to 25 minutes, with a median duration of 13 minutes. All but one of the stations worked were at distances of 600 to 1200 miles. On 222 Mhz we had 3 skeds and completed 1 QSO for one new multiplier. I don't yet know what caused the other two skeds to fail. Our one 222 MHz QSO was completed in an hour, over a 1000 mile path. With better frequency calibration of the radios at both ends, we could have completed the QSO in about half the time. As a rough estimate, the WSJT/FSK441 QSOs added about 36,000 points to the W3CCX total. Although the JT44 mode in WSJT should also be very useful for VHF/ UHF contesting -- particularly over long troposcatter or EME paths -- we did not use it at W3CCX in this event. -- 73, Joe, K1JT



WA3NUF and WA3DRC keep 2m active



K1JT logs while W1YHO hits 6m



W3CCX drops a grid on 222



N1EXA and K3IUV cover 432



# Meteor Scatter Rally Results

(from the wsvhf reflector)

From: Tip/WA5UFH, John/KM5ES, Joe/K1JT

Subject: Results of the 2002 North American Meteor Scatter Rally, and proposed rules for a Geminids Meteor Scatter Contest in December, 2002

**RALLY RESULTS:** can be viewed online at

[www.qsl.net/wa5ufh/Rally/Results.htm](http://www.qsl.net/wa5ufh/Rally/Results.htm) [www.qsl.net/km5es/](http://www.qsl.net/km5es/)

They are also contained in the text below, followed by a proposal for an event next December. Please post your suggestions and comments to this reflector! Activity in the Rally was very impressive, although many participants did not submit logs. No less than 74 unique callsigns appear in the 16 logs we did receive.

Results of the 2002 North American Meteor Scatter Rally

Notes: 1. S means single band entry, M means multi-band. 2. L means low power (less than 200 watts) H means high power. 3. Entries below the band headings give number of QSO's and grids contacted on that band.

Call Grid S/M L/H 50 144 222 QSOs Points Grids Score

AB0SD EN30 M L 3/3 3/3 6 6 6 36

K0PW EN34 S H 43/38 43 83 38 3154

K1JT FN20 M H 21/20 39/34 1/1 61 152 53 8056

K1SIX FN43 S H 23/21 23 51 21 1071

K2OVS FN30 M L 3/3 3/3 6 10 6 60

N0UK EN34 S H 6/6 6 16 6 96

N80C EN83 M L 3/3 7/7 10 26 10 260

W5SNX EM73 S H 7/7 17/16 24 56 23 1288

W5UWB EL17 S H 2/2 2 2 4

W8PAT EN81 M L 2/2 8/8 10 16 10 160

W8WN EM77 M H 5/5 23/20 28 58 25 1450

W9BLI EN64 M L 9/9 10/10 19 45 19 855

WA5UFH EL19 M L 8/8 9/9 17 39 17 663

WB2SIH FN31 S H 13/13 13 23 13 299

WB8TGY EN72 S L 9/9 9 19 9 171

WO9S EN61 S L 2/2 4/4 6 6 6 36

Total number of submitted logs: 16 (WA5UFH non-competing

score) Total number of unique Grid Squares in all of the logs: 60

DM43 DN13 DO61 EL17 EM10 EN13 FM15 FN10 DM79 DN31

DO70 EL19 EM17 EN18 FM16 FN13 DN47 EL25 EM25 EN30

FM19 FN20 EL29 EM26 EN34 FM29 FN30 EL39 EM39 EN37

FN31 EL49 EM42 EN50 FN42 EL54 EM48 EN53 FN43 EL88

EM55 EN61 FN65 EL95 EM58 EN64 EL96 EM66 EN70 EM73

EN71 EM75 EN72 EM77 EN80 EM79 EN81 EM84 EN83 EM99

Total number of unique calls in the submitted logs: 74 AA4KJ

K0AWU N0LAN VE1RG W0IC AA7A K0PW N0PB VE5LY

W0PHD AB0SD K1JT N0QJM VE5UF W1LP/MM AK3E K1SIX

N0UK W1ZC K2OVS N4IS W2FU K2TXB N5BA W3MRG K4SSO

N5OSK W3TMZ K4TO N5YC W3UUM K9KNW N7CZ W5CTV

K9VHF N8KOL W5KI KA0RYT N80C W5SNX KA9UVY N9LR

W5UWB KB3HWO NJ0U W7FG KB9NKM W7XU KB9NLM

W8PAT KC5OAO W8WN KD5IUG W9BLI KF7CQ W9VHF

KN4SM WA5UFH KU2A WA7ADK KV4EB WA7GSK WA8CLT

WA8CXI WB2SIH WB4KMH WB4LHD WB5APD WB8TGY

WD4OZN WD4KPD WO9S WX4N WZ8D

**Soapbox Comments:** Great fun, wish I had more time to work

the Rally. Do it again! In the four years I have been active on

HSMS, I have never heard so many "Blue Whizzers" as in the last

weekend of the Rally. I personally witnessed 11 of them. By "Blue

Whizzer" I mean bursts lasting from 12 to 45 seconds. I usually

hear one or two at the most during the Perseids or Leonids. Coming

late in the Rally, I wonder if they were associated with the Hal-

leyids? I missed seeing some of the calls I have come to think of

as the HSMS old timers like K0GU, N0KQY, K7YVZ, K5IUA,

KM5PO, W5HUQ to name a few. Fun contest. Made two six meter

qso's using squalo antenna. Didn't know there was a Rally going

on - just finally got set up and thought I would give it a try! It was

a pleasure to participate as a new user of WSJT. Ears are still very

important as an indication of when a signal will be decodable.

Many thanks to Joe, K1JT, for advice on AGC and other settings.

**And now, a few words from your sponsors ...** Many thanks to

all those who participated in the 2002 North American Meteor

Scatter Rally! From all that we have heard, the event was greatly

enjoyed by all who took part. Many of us worked some new grids,

made initial meteor scatter contacts with new stations, and met

old meteor-scatter friends on the air once more. Whether you

were into the event in a serious way or "just getting on to give the

guys a few points," it was an enjoyable time in which to celebrate

our annual emergence from the meteor "low season." Looking

ahead, what kind of organized meteor scatter events would you

like to see in the future? We organized this year's May event at

the last moment, when we realized that the previous sponsors of

the annual North American HSMS Contest were not doing an

event for 2002. We quickly cobbled something together based on

the events of recent years, but with a few changes. In particular,

we changed the rules to permit any mode -- FSK441 and SSB, for

example, in addition to HSCW. We lengthened the event to two

full weeks plus the bracketing weekends. In an effort to empha-

size the goal of promoting activity, rather than producing

"winners," we decided to call it a "Rally" instead of a "Contest."

We changed the scoring rules slightly, as well. We would very

much like to hear from all participants what you thought of the

rules. We will not be offended if you did not like everything -- nei-

ther did we! Here are a few of our own observations: 1. We are

inclined to think that the big scoring premium given to "random"

QSOs did not work very well. On many occasions, even though

explicit schedules were not made, active stations could tell who

would likely be calling them, just by reading the Ping Jockey page.

There were probably very few truly "random" QSOs made in the

Rally. 2. We are inclined to think that the 16-day event was too

long, leading serious entrants to experience significant conflicts

with family and other responsibilities. 3. The chosen meteor

shower, the Eta Aquarids, has the disadvantage of being a day-

time shower, rising at about 0400 local daylight time and setting

around 1400. Therefore most of the boost in meteor rates above

the seasonal sporadics occurs when many participants are at

work or spending time with their families. Here is a straw-man pro-

posal for a meteor scatter contest next December, based loosely

on the European Meteor Scatter Contest sponsored at approxi-

mately the same time by the Bavarian Contest Club. It takes ad-

vantage of the Geminids, an evening-through-morning meteor

shower that peaks on December 14.

**Proposed 2002 Geminids North American Meteor Scatter**

**Contest**. Contest period starts on Saturday, December 14 at

0000 UTC and ends on Monday, December 16 at 0800 UTC.

These times correspond to Friday evening at 1600 PST (1900

EST) through Sunday evening at 2300 PST (0200 Monday morn-

ing, EST). 2. There are four entry categories: Single Band Low

Power, Single Band High Power, Multi-Band Low Power, and

Multi-Band High Power. Low power means less than 200 Watts

output at all times. 3. Any mode is permissible. QSOs with the

same station can be made only once per band, regardless of

mode. 4. Required contest exchange includes full callsigns, four-

digit grid squares, and final rogers. 5. Only random meteor scatter

QSOs count for the contest on 50 and 144 MHz. Schedules are

explicitly forbidden on these bands. In addition, you must not use

the Ping Jockey page or any other non-meteor-scatter communi-

cation during the contest with any station that you work for credit

on 50 or 144 MHz. On these bands, QSOs must originate with

one station calling CQ, by "tail ending" on another QSO, or by

moving a QSO partner to another band, using meteor scatter

communication to make the arrangements. 6. Schedules are per-

mitted on the 222 and 432 MHz bands and may be made at any

time, including during the contest. The Ping Jockey page may be

used to make schedule arrangements for these bands, but of

course may not be used for any communication during a valid

QSO. 7. The preferred frequencies for calling CQ on 6 and 2 me-

ters are 50.270 and 144.140 MHz. The westernmost station always transmits first. If you are working directly north-south, the southern station goes first. If the preferred CQ frequencies become too busy, move up 10 kHz and use 50.280 and 144.150. 8. The preferred method of calling CQ will be in the form "CQ nnn W1ABC", where nnn is a three-digit number giving the frequency on which you will be listening for replies and on which the subsequent QSO will take place. For example: W1ABC in FN42 beams southwest and calls "CQ 113 W1ABC" on 144.140, transmitting in the second half of each minute. W4XYZ replies on 144.113. As soon as W1ABC hears the reply, he QSYs to 144.113 to send "W4XYZ W1ABC FN42", and the two stations complete the QSO on that frequency. 9. Each QSO counts 1 point on 50 and 144 MHz, 3 points on 222 MHz, and 10 points on 432 MHz. QSOs originating by any of the permitted methods -- calling CQ, tail-ending, requesting a QSY to another band, or by schedule on 222 or 432 MHz -- are all scored the same way. Any communication by non-meteor-scatter means during a contact invalidates the contact. 10. Scoring: your final score is the sum of all QSO points multiplied by the total number of unique 4-digit grid locators worked, per band. Example: W1ABC works 6 stations in 5 grids on 50 MHz, 11 in 8 grids on 144 MHz, 1 in 1 grid on 222 MHz, and 1 in 1 grid on 432 MHz. His QSO points add up to 6 + 11 + 3 + 10 = 30, his total multiplier is 5 + 8 + 1 + 1 = 15, and his total score is 30 x 15 = 450.

We are encouraging open discussion of any and all of the proposed rules for this event! We would also like to know whether you would be likely to participate, and to submit a log. What changes might increase the chances of your doing so? If there is enough enthusiasm, we will proceed with suitable announcements, etc. Thanks, once more, for your interest in promoting amateur radio communications by meteor scatter propagation! We invite your replies to be sent to the High Speed Meteor Scatter Reflector, hsm@qsl.net. -- 73 from your Rally Sponsors, Tip WA5UFH wa5ufh@ykc.com John KM5ES km5es@lakewebs.net Joe K1JT k1jt@arrl.net

## WSJT on CD-ROM

The WSJT software package has always been freely available on the web, and I intend for it to remain so. However, since the time of the earliest release of the program I have received requests for copies of it on CD-ROM -- perhaps for backup purposes, to make it easier to install the program on another computer, or because downloading takes too long or your internet connection is unreliable. As a trial, I have made a limited number of CD-ROMs containing the full distribution of WSJT V2.0.1 together with some pictures and example files. A full listing of the files is contained in a README.TXT file, the contents of which are reproduced below. If you would like to obtain a copy of this CD-ROM, please send \$20 in US funds (check, money order, or cash is OK) to: Joe Taylor, K1JT 272 Hartley Avenue Princeton, NJ 08540 USA Be sure to give me your name, callsign, and mailing address. Sorry, but I do not presently have any means of handling other than US funds. I do not plan to keep any of the proceeds from distribution of the present batch of CD-ROMs. I will cover the duplication and mailing costs myself, and will send the total amount received as a donation to the American Radio Relay League in support its Defense of Frequencies Fund or its Education and Technologies Fund. (For further details, see the "PLEASE NOTE" announcement at the bottom of the README.TXT file.) If the CD-ROMs become a popular means of distributing WSJT, I may in future need to adopt a different scheme for covering costs. -- 73, Joe, K1JT k1jt@arrl.net

README.TXT WSJT Version 2.0.1 Distribution May 12, 2002 This directory contains the following files: README.TXT The file you are reading now index.html Snapshot of the WSJT web site's opening page UPD201.TXT Recent version history of WSJT

WSJT201.EXE Installation file for WSJT WSJT201.PDF WSJT User's Guide and Reference Manual MSVBVM60.DLL Windows system file, in case you need it Subdirectories: Pictures Screen-capture images of WSJT TestFiles FSK441 Example files of signals in FSK441 mode JT44 Example files of signals in JT44 mode To install WSJT, start the program WSJT201.EXE and follow the on-screen directions. Be sure to read the User's Guide and Reference Manual before you attempt to use WSJT on the air. If you are new to WSJT I recommend that after installation you start WSJT and use it to open a number of the example files. These are audio recordings on on-the-air signals recorded by WSJT. The program will decode them as if they had been recorded in real time; you can also play them back through the computer speakers, to see what WSJT signals sound like. Bug reports should be sent to k1jt@arrl.net.

**PLEASE NOTE: This program and its internal algorithms are copyright 2001 and 2002 by Joseph H. Taylor, Jr, K1JT.**

The program is distributed free of charge to Radio Amateurs anywhere in the world. I wrote it just for fun, motivated by a desire to further the art of Amateur Radio communication. If you enjoy using the program, I would appreciate your making a donation of \$20 or more to the American Radio Relay League to support its Defense of Frequencies Fund, its Education and Technologies Fund, or any of a number of other worthy activities of the League. Full information can be found at the web address <https://www.arrl.org/forms/development/donations/basic/>

## June Meeting Program & Election Results

John Kedziora, WU3C, used a computer projector to present his work in simplifying and reducing the cost of microwave modules by using computer modelling to allow the use of printed circuit technology to construct modules with flat responses between the in and out ports from 20 Hz to over 50 GHz at a substantially reduced cost without the need for gold wire bonding and parts placement under a microscope. The talk was well received and appreciated by the attendees.

Phil Miguez, WA3NUF, presented the following slate of nominees for office:

President: Brian Taylor, N3EXA;  
 Vice President: Paul Sokoloff, WA3GFZ;  
 Treasurer: Dave Mascaro, W3KM;  
 Recording Secretary: Walt Zumbach, WA3AQA;  
 Corresponding Secretary: Jim Antonacci, WA3EHD;  
 Director: Joe Landis, AA3GN;  
 Director: ED Finn, WA3DRC.

With no nominations from the floor M/S/C to close the nominations and declare the slate elected by acclamation.

We send our condolences to Paul Sokoloff, WA3GHZ, on the recent passing away of his mother.

We also give our condolences to Len Martin, N3NGE on the passing away of his father in June.

Wishes for a speedy recovery from a severely sprained ankle to John, KB3XG

## Robert A. Griffiths Attorney at Law

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## AO-40 Microwave QSO

(from the Microwave reflector Apr 23)

I'd like to report completion of a QSO using AO-40's K band transponder. The SSB contact was made Saturday 04/20/2002 at 1737 UTC between Jerry, K5OE and myself, Mike N1JEZ. I was using L band up (1269 Mhz) and K band (24,048 MHz) down. Jerry was using L Band up (1269 MHz) and S Band down (2401 MHz). AO-40 was 63,000 km away at the time. Elevation for me was 10 degrees above the horizon. AO-40 was showing a squint of ~ 5 degrees at the time. The AMSAT Web site lists AO-40's K Band transponder as having a power of 1 watt into a 23 dB horn. I used a 0.5 meter dish with a linear feed. Because of this, there was pretty severe fading due to the fact AO-40 is currently spinning. Pictures and audio of the contact are available at <http://members.aol.com/mike73> I had two more successful contacts the following day and hope to post that audio as well soon. 73, Mike, N1JEZ

## Rover Site Resource

(from the Microwave reflector Apr 23)

One of the hardest things I've come across as a Rover is identifying sites to operate from. If you want some ideas for a site or two, you might stop by the "N2MH Rover Site Locator" page at <http://www.intac.com/~mherson/rover.htm>

I've started to collect info about sites that may be useful to Rovers. At the very least, the web page will give you the name of the site, its geographic coordinates, Grid Locator, and links to map making machines. You can generate a map that will tell you how to get there, a topo map of the site itself and even an aerial photo of the site. Additionally, some sites have an individual description page depending on information at hand. Where possible, these individual pages give headings to other microwave sites. Right now, there are mostly East Coast sites included. However, if anyone wants to have other locations added, please send them along to me and I'll get them in there.

73 and Happy Microwaving Mark, N2MH

## TenTec Omni 6 as IF Rig

(from the reflector, Jun 5)

1. Receive. Just use the "Aux" antenna jack on the rear panel, and select same with the Aux/Main button next to the power switch.

2. Transmit.

a. Install an SMA or BNC jack at a convenient location on the rear panel (to right of center as viewed from rear).

b. Connect a jumper from connector #79 (Tx out) on the low level driver board to the new jack on the rear panel.

c. Disconnect the control wire 'T' from the PA to disable bias, or unhook the DC power to the pa. The above mod will get you on the air in the most basic fashion. Transmit power is somewhere in the range of 1 watt. The if power control on the radio will reach max. power out at about 10 o'clock position, leave it set there, add attenuators as required for your transverters. In my setup a small DPDT toggle switch is used to switch to rig between "normal" mode and "transverter" mode. One pole activate a miniature if relay. The if relay routes LL driver output to either the transverter TX jack or to the PA. The other pole connects control line T to the pa for normal, or open for transverter use. You may either cut the existing LL driver to pa jumper, and insert an if switch, or obtain a replacement cable assembly with the special push on connector from Ten-Tec. For the if relay I would recommend #UTR-12X from Down East Microwave. This is a high performance, low power, low cost relay and a small ready made pc board to mount it on. Can be used with or without connectors as desired. There are other/additional mods which you might consider, but this is a good basic mod which works very well. Good luck. 73 Len N3NGE

## 10 GHz Rain Scatter

(from the reflector, Jun 2)

Brad, K4EDF, and I (Dexter, W4DEX) completed a Q5 10 GHz rain scatter QSO from EM78bh (Indiana) to EM95tg (NC) a distance of 370.446 miles (596.176 KM). CW signals were S7 to S9 via 60K ft storm tops just SE of Lexington, KY. SSB was about Q3 copy. W4DEX using a SSB Electronics transverter kit driving a Hughes 1177H TWT. Output power at the time was about +42 dbm at the WR90 switch. Transmission line is 110 feet of EW90 with a 4 foot flex jumper. Total measured loss is 3.5 db. Antenna is a 2 foot "Kruth special" at 105 feet. K4EDF used a SSB Electronics transverter driving a DL2AM solid state amplifier which gives me about 5 watts to a scalar feedhorn on a 2 foot dish. I aimed this out the side door of a cargo van which gave me a sheltered environment to operate from. The Indiana location was a bluff about 500 feet above average ground level overlooking the Ohio River and the city of Louisville, KY with a good clear path to the storm. Dex did an excellent job of aiming his big signal at the high storm top and it was no trouble finding it.

Thanks for your interest. Dexter, W4DEX

Thanks for the coverage, Rick. 73, Brad Totten, K4EDF



## Movin' Your Cheese (Buy-Sell)

I'm looking to put out a bit more power on 222 and 432 MHz. If you have an amplifier for one of these bands that you might be willing to part with -- something with 300 W or more output -- please let me know, stating model, condition, and price. Homebrew OK if well made. -- 73, Joe, K1JT [joe@puppsr1.princeton.edu](mailto:joe@puppsr1.princeton.edu)

## In Sympathy

**SILENT KEY:** FORMER PACKRAT FRANK BENNER W3BRU ON FRIDAY JUNE 21 2002 AT GRANDVIEW HOSPITAL IN SELLERSVILLE PA. THIS INFO HAS BEEN PASSED FROM FRANK'S SON FRANK K. BENNER.

**Silent key W3HT:** Some of my happiest and earliest childhood memories were with my Uncle Bob (DOC) Stewart, M. D. as I visited his station at the Willow Grove Hospital on Fitzwatertown Road. He had all of the homebrew VHF gear one could want, along with an NC300 receiver. Doc lived until the 1979 when lung cancer caught up with him. His widow (June Stewart) lives in Jacksonville. Doc inspired me to pursue amateur radio as I got old enough to comprehend how powerful and wonderful this hobby is. I owe a deep sense of gratitude to the PACKRATS for their support and encouragement during those early years. Doc had a lot of newsletters and mementos and spoke fondly of the PACKRATS when he was alive. Maybe an oldtimer would remember DOC. He was one-of-a-kind. 73, Jerry Sinclair, WA4CIF, Jacksonville, FL. PS: I attended Philadelphia College of Bible in 1970



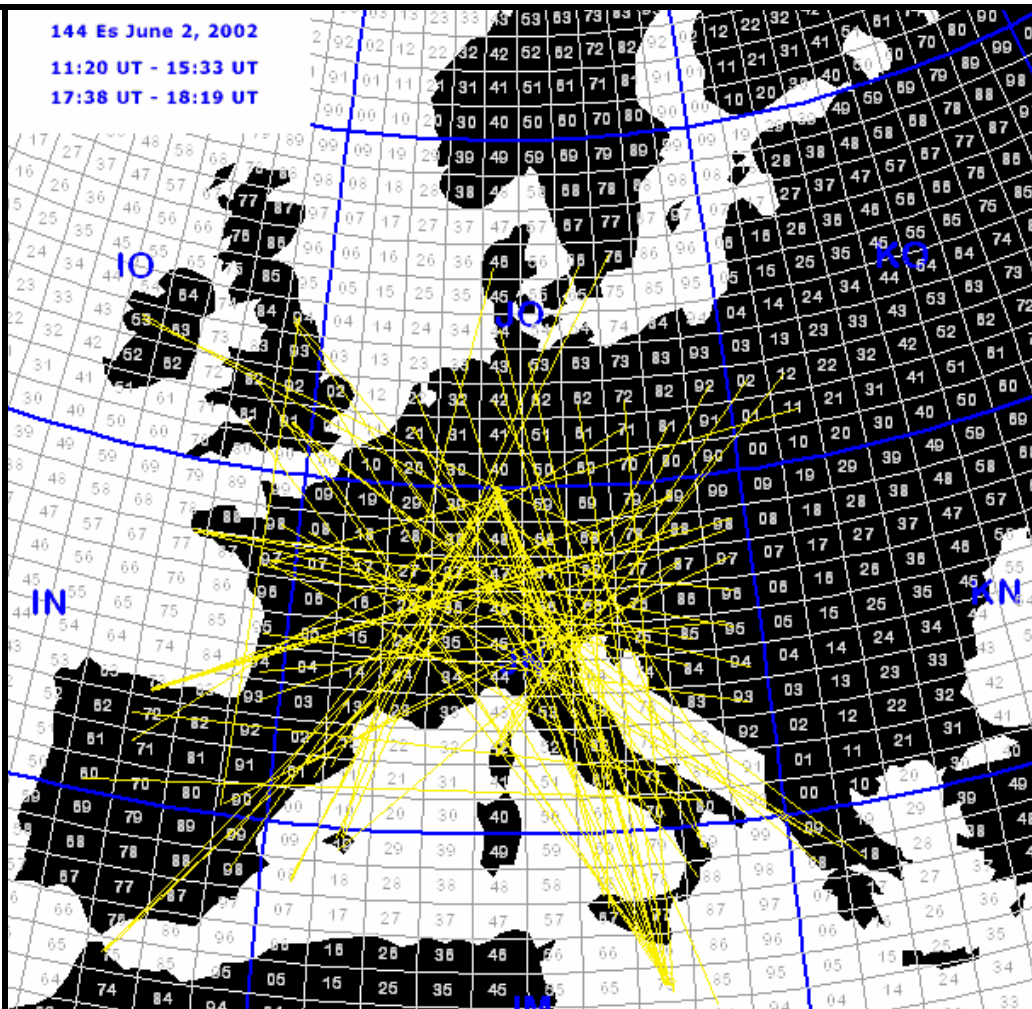
Thanks to Udo, DK5YA, this picture of European E on 2m was captured on his website:  
[http://www.dk5ya.de/es\\_summary\\_02\\_june\\_2.htm](http://www.dk5ya.de/es_summary_02_june_2.htm)

**Del. Valley Radio Association,  
W2ZQ Hamfest  
Rain or Shine**  
Date: September 28<sup>th</sup>, 2002  
NJ National Guard Armory,  
Eggerts Crossing Road,  
Lawrenceville, New Jersey  
Vendor Load In 0600-0800,  
General Admission 0800-1400  
General Admission \$6.00  
Under 12 years old-free  
Tailgate Vendor \$10.00  
(Includes 1 admission)  
Indoor Vendor \$15.00  
(Includes 1 admission)  
Indoor Vendor Wall  
(electricity) \$20.00  
(Includes 1 admission)  
Extra Table \$10.00  
For More Information:  
Glenn Costello, N2RPM  
abbott0903@aol.com  
(609) 882-2240  
[www.w2zq.com](http://www.w2zq.com)  
Talk In: 146.67 (-) 131.8

144 Es June 2, 2002

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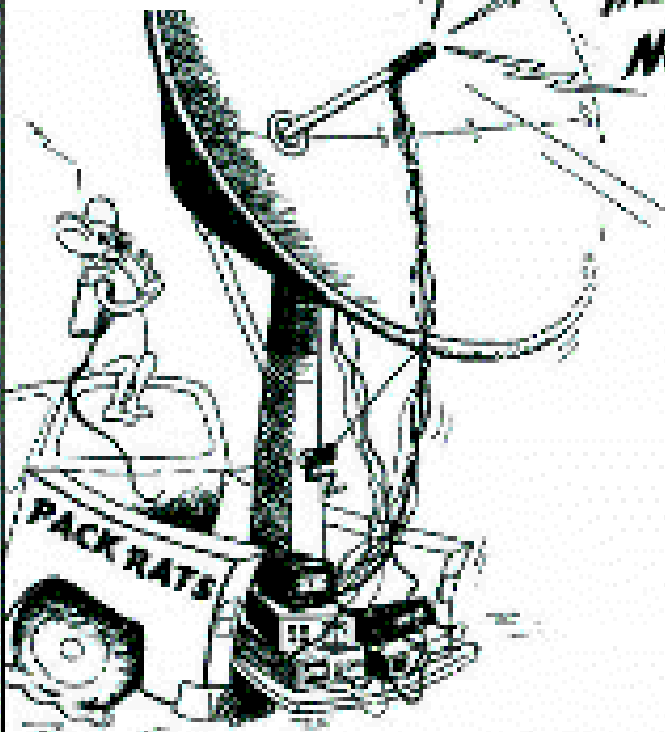
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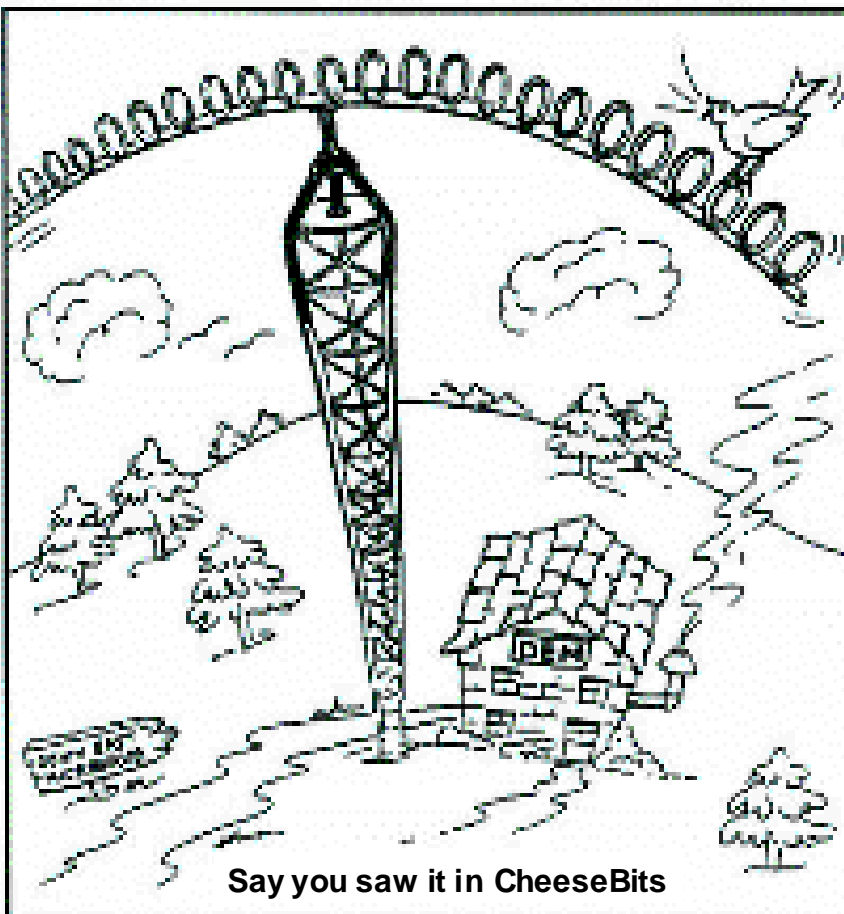
White Elephant Sale  
Thursday, July 18th  
QTH of Gary, WA2OMY  
Better not miss the bargains!

Packrat Picnic  
Saturday, August 10th, raindate  
Aug 11th.

QTH of Al, N3ITT  
Bring the family, enjoy a fun af-  
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