



# CHEESE BITS

W3CCX  
CLUB MEMORIAL CALL

ARRL  
Affiliated  
Club



Volume LIV

December 2013

Number 12

PREZ  
SEZ:

This is the last issue of the year. It's hard to believe the year went so fast. The **big contest** is right around the corner. What do you have left to accomplish in preparation for the ARRL January VHF Contest? We know there are antenna parties and station building projects going on. The weather may still provide opportunity to get that next band going, I know some that are counting on that.

This is a busy season for HF contesting, with the 160 meter and 10 meter contest scheduled for the first two weekends of the month. There are several members who actively participate in these fun contests. These contests are both opportunities for you to **sharpen your CW skills** in preparation for the January VHF contest. CW is a great way to improve your score with weak signals. Have you heard that before?

Did you listen (or operate) on the CQ WW DX CW contest or the CW Sweepstakes last month? Those contests, once again provided us with some wonderful high band propagation making for some very high scoring entries.

Get ready this month for the Station Automation presentation. Our VP will present many innovative ideas for streamlining all of the switching at your contest station. This is the last in a series of technical presentations designed to assist with your station improvements. Also, remember to plan for

dinner at Giuseppe's restaurant before the meeting.

January will be our contest preparation meeting.

This time of year should be filled with family and holiday celebration events. Thanksgiving time kicks off the season. Be sure to take time away from your radio pursuits to enjoy this family time. Next year the Packrats are **considering a social event** in the November time frame, which should provide an opportunity to gather with family and radio friends for an evening of fun and fellowship.

I am told we still have **equipment available** for use during the contest. Rick and Bill (K1DS and K3EGE) are standing by waiting for your request. Do you need more power on a band? Need another band, better antenna? How about adding some points with WSJT? As we demonstrated last month at the meeting, you can grab some new grids by communicating off the meteors.

Again this year we have three contest teams. You should soon be hearing from you captain to see what your plans are for the contest. It's about this time of year that the nets start to get busy. Michael reported last week that he had 17 check in's, a sure sign that folks are making sure things are still working. Remember we can take time to work on the higher bands after the nets. Mike (WB2RVX), Paul (WA3GFZ) and I are usually around for the 1296 and 902 net and can exercise your upper

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

We operate on a .PDF exchange basis with other non-commercial publications. Anything that is printed in CHEESE BITS may be reprinted in a not for profit publication, unless stated otherwise, provided proper credit is given. Deadline for articles and swap-shop is the monthly meeting date. Non-commercial swap-shop items free of charge.

**Pack Rat Web Site:** <http://www.packratvhf.com>

**SUBSCRIPTION/ADVERTISING MANAGER:**

Bob Fischer, W2SJ 23 Morning Glory Circle, Mullica Hill, NJ 08062 (609) 440-2916 bobw2sj@gmail.com

**EDITOR:**

Lenny Wintfeld W2BVH 709 Lincoln Av., Cranford NJ 07016 (908)-272-0559 lennyw@comcast.net

**CLUB TREASURER:**

Dave Mascaro, W3KM 1603 Mink Road Ottsville, PA 18942 (215)-795-2648 w3km@verizon.net

**TRUSTEE OF CLUB CALL - W3CCX**

Brian Taylor N3EXA (215)-257-6303 n3exa@verizon.net

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

222.98/224.58 MHz (PL 136.5) Hilltown, PA

**OFFICERS 2013-2014**

PRESIDENT K3TUF, Phil Theis phil@k3tuf.com  
VICE PRES: WA3GFZ Paul Sokoloff dogfaces@comcast.net  
CORR. SEC: WA3EHD Jim Antonacci jjantonacci@verizon.net  
SEC: KA3WXV George Altemus ka3wxv@yahoo.com  
TREAS: W3KM Dave Mascaro w3km@verizon.net  
DIRECTORS:  
N3NGE Len Martin n3nge@dejazzd.com  
WB2RVX Mike Gullo mgullo3@comcast.net  
KB1JEY Michael Davis michael@bassettconsulting.com  
K1DS Rick Rosen rick1ds@hotmail.com  
PAST PRESIDENT: W3GAD Doc Whitticar w3gad@arrl.net

**COMMITTEE CHAIRMEN**

January Contest K3EGE billk3ege@gmail.com  
June Contest: N3ITT & K3TUF  
HAMARAMA: WA3DRC & KA3WXV  
VHF Conference: Rick K1DS rick1ds@hotmail.com  
CoChairs  
George ka3wxv@yahoo.com  
Michael  
michael@bassettconsulting.com

Awards Chairman KB3GJT  
Quartermaster: K3IUV bsoltoff@comcast.net

**PACKRAT BEACONS - W3CCX/B**

FM29jw Philadelphia, PA  
50.080 144.284 222.064 432.286 903.072 1296.245 MHz  
2304.043 3456.207 5763.196 10,368.062 MHz (as of 1/08)

**MONDAY NIGHT NETS**

**TIME** **FREQUENCY**  
7:30 PM 50.145 MHz

8:00 PM 144.150 MHz  
8:30 PM 222.125 MHz  
8:30 PM 224.58R MHz  
9:00 PM 432.110 MHz  
9:30 PM 1296.100 MHz  
10:00 PM 903.100 MHz

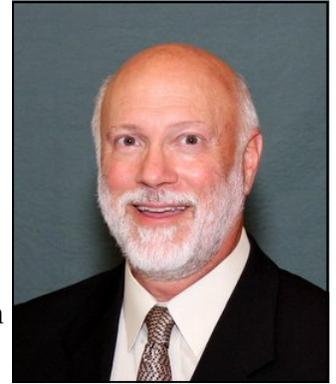
**NET CONTROL**

K3EOD FM29II  
WA3QPX FM29di  
N3ITT FN20KI  
KB1JEY FN20je  
W3GXB FN20jm  
WB2RVX FM29mt  
K3TUF FN10we  
WA3SRU FN20le

Visit the Mt Airy VHF Radio Club at: [www.packratvhf.com](http://www.packratvhf.com) or [www.w3ccx.com](http://www.w3ccx.com)

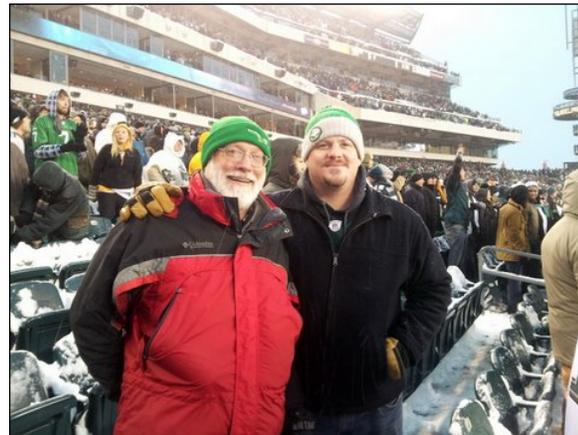
bands.

And mentioning 902, that is where we are running the 900 net now. Take time to see what you can do to move your IF or, if need be, get a new crystal for the LO in your transverter to get into the segment where the noise is much quieter and the signals get through. Every Monday night is a chance to see if your 900 system can work at 902.



So snow has arrived, and even more than predicted. I had the opportunity to attend the Eagles Snow Bowl (some called it the Shady/Snow Bowl) and what a memory that was. Ice followed and was still on my antennas for the most recent net. We sure hope this does not happen for the January contest. I remember several times when Ice prevented some of our members from getting on the entire contest. Get ready for whatever comes our way and lets work on lots of bands in January,

**Phil K3TUF**



Snow good



A photo from our visit with the Mouse last month.

# There Must Be An Easier Way To Upgrade Your Six Meter Beam

By Michael Davis KB1JEY

I will not forget Saturday afternoon, November 9, 2013 for a long time. One of my fellow Packrats, George KA3WXV stopped by after lunch to help me swap out the feed line to the 432 MHz yagi. As reported in previous issues of Cheese Bits, I have a steel Hy-Gain HG-54HD tower that cranks down from 54 feet and lays-over with the help of a boat winch and about 40 feet of wire rope. When the direction pawl on the winch is set to raise the tower, the winch handle can only rotate in that direction. However when the pawl is set in the other direction to lower the tower to horizontal, the handle essentially “free-wheels” unless someone is holding the winch handle.

(Can you guess what might have happened?)

To start the tower on its way to the horizontal position for servicing, it is usually necessary to use a 2x4 as a lever to put it in motion. One of us applied a 2x4, but the tower refused to lean over. So the other party to this misadventure grabbed another 2x4 and applied it from the other side. That got the tower to start moving. The only hitch was that neither George nor I were attending to the winch. “Timber!” In a matter of a couple of seconds, my 600 pound tower was laying on the ground as displayed in the accompanying picture.



OUCH!

Unfortunately, as the tower started to go down, I instinctively reached for the winch handle. A **massively** stupid idea! All that I accomplished was to create the need for my wife to drive me to the local hospital ER for x-rays and treatment of some lacerations. At least there were **no broken bones**. Unfortunately, my favorite Timex took a licking and is no longer ticking. When I consider what else might have happened, I consider myself very lucky!

All sorts of lessons could be learned from this misadventure but I will share only two: First, the owner of the tower *must* be the person to lower the tower and he or she must stay at the winch until it is safely resting on saw horses or a ladder. The owner’s hand must remain firmly around the winch handle until the winch pawl is set again to the raising direction.

Second, **if you see a 600 pound tower falling in an uncontrolled manner**, it is already too late to do anything. Just stay clear of it as it comes to rest on the ground.

The good news is that the ground was relatively soft and the *economic* damage to the tower and antennas was minor. The following day, George and I straightened out the 2 meter beam. The balun for the KLM 432 MHz yagi came loose but I had an identical spare yagi ready to swap in. I am sure that the Packrat "Antenna Doctor" and I can fix the loose balun. The 222 MHz yagi was unscathed. I was able to work the 2 meter and 222 MHz Packrat nets the following Monday.

The six meter beam took the brunt of the accident. It now looks more like a holiday decoration as shown in the accompanying picture. However, because the six meter beam was so much bigger than the antennas for the higher bands, it essentially "sacrificed" itself for the other antennas and the tower. This particular six meter yagi was not a particularly expensive one. When Hurricane Sandy took out my original 5 element six meter beam, Rick K1DS and George KA3WXV cleaned up a somewhat oxidized spare that I had lying on concrete blocks and put it up on the tower.



Two slightly bent yagi's and a 6 Meter Pretzel

Fortunately, a couple of Packrats offered attractive replacement six meter beams that were surplus to their needs. I should be back on six meters in a couple of weekends. Still, I can't help but think that there must be an easier way to upgrade your station's antennas.

## K3TUF CQWW CW Results

You want to see activity, get on ten meters it's gotta sharpen skills for VHF tests

Station: K3TUF                      Class: SOAB(A) HP  
 QTH: EPA                              Operating Time (hrs): 20  
 Club: Frankford Radio Club

Band QSOs Zones Countries

Band	QSOs	Zones	Countries	
160:				
80:	92	16	57	
40:	262	32	101	
20:	101	29	78	
15:	142	32	103	
10:	178	27	103	
-----				
Total:	775	136	442	Total Score = 1,268,710

Comments:

Sure is nice when the higher bands cooperate so much. This was another treat to have 10 meters so active. Experienced improvement with my 80 meter antenna. Room for more improvement but still much better than during SSB. The dream is the performance of the new 40 meter beam at 140 feet. All in all, it performed better than expected, and the numbers prove it. Was able to maintain a steady pace whenever on that band.

Many have said that it is better to have the contest on the w/e before (Thanksgiving), but that's when I'm busy with holiday preparation. Consequently was only able to work the contest on Sunday, starting the evening before.

Looking forward to the spring season and the January VHF contest.

Phil K3TUF

## Ongoing Microwave Antenna Work at K3JJZ

Hi Len, just want to give you a update on El's station.

I spent most of the afternoon on El's roof replacing the switch box and the antenna cables. We don't have definitive or exact results because the main micro IF rig (TS830) failed and the 144 to 28 converter to the alternative 530 seems to be way low in gain. (No noise, no S meter on beacon)

We did hook up the TS700 EL has for a 144 spare IF and heard the 903 and 1296 beacon. The noise only IF level at 144 does not move the S meter on the 700, (700 is sort of deaf) but the beacon was a strong S7 on 903 and goes through a nice peak when turning the beam. So I am not sure of all the improvement made on 903.

1296 is still a concern, it was several S units, but there is hardly any peak when turning the beam. It has several small peaks, and no real "direction". It may be having multipath issues near the houses, but 903 definitely did not.



I also thought it was a longer beam, it is actually short, about a 6 foot boom? (maybe 8?) I am not sure of the manufacturer, I noticed the rear of the boom was drilled for a some kind of a rear mount, but it is mounted at center with a bracket. This beam has the elements through the boom. I wonder if the mount is interfering with the pattern.

I am thinking I'll go ahead and replace the 1296 antenna with the loop yagi El has if I can get a new feed loop.

**Gary WA2OMY**

## UK Radio Amateurs Set New Distance Record on 76GHz

A new distance record of 129km was achieved on 76GHz Saturday 23rd November 2013. Contacts between Brown Clee Hill in Shropshire (IO82QL) and Winter Hill, Lancashire (IO83RO). Operating on three mm-bands, 24, 47 and 76GHz, were Ian Lamb G8KQW and John Hazell G8ACE at Brown Clee Hill. On the three bands at Winter Hill were Roger Ray G8CUB with John Wood G4EAT.

Contacts on all three bands were made using NBFM. Signals on 76GHz were exchanged for one hour with some QSB at times primarily due to changes in atmospheric conditions along the path.

This tremendous success follows closely after the previous distance record was set by Lamb and Hazell on 14th September 2013 with a contact of 102km. Earlier in 2013 the existing 79km distance record had been bettered 3 times. This reflects the increasing level of interest in mm-band operating in UK and is the culmination of much hard work to improve system performance.

By calculating the link budget and path loss of this path it was possible to predict what environmental conditions would potentially give sufficient margin for success. The weather forecasts (specifically the dew-point) were carefully monitored during the preceding week to ensure the conditions on the day would allow the possibility to establish contact over the distance.

The team are indebted to Jim G8UGL and the Telford and District Radio Society, without their kind assistance in arranging access to Brown Clee and support on the day this would not have been possible.

**73s John G8ACE**

# November Meeting Pix



Jim & Al catching up before the main presentation



Paul, Mike & Phil review presentation material. Tried a live WSJT QSO to the Midwest. There were some problems with the receiver to computer interface, but we did see some decodes. No full QSO, though. Definitely worth trying. Per Mike it takes 2-3 weeks of fooling around to get the hang of it but after that it can add lots of grids from sigs that otherwise would be below the noise.

# WA3EHD Antenna Raising Party - Part 1

The WA3EHD preparation antenna party was 11/30/13. George and Jim reported that much of the prep work is now complete. The H frame with four antennas was finally making it's way up the tower but they were unsuccessful getting it attached.

This is one of the safest tower excursions you could ever go on. Jim's tower is on the low pitch roof of his row home. "Part 2" should see the job completed.

Phil K3TUF



# Third Weekend ARRL EME Contest Report

The report from my station is, "success is one CW QSO on 432." I managed to work OH2PO on CW sent 539/rcvO. I heard K1JT on Fri eve briefly working LZ1DX on CW. I also heard SV1BTR (539) working WD5AGO, and I tail-ended, but they did not come back. Pretty sure I heard DL7APV also. I also have a page of alphabet soup characters that popped up now and then, but I can't make them into reliable call signs. One thing I always heard was the KK when they signed!! At least I was hearing a lot more Sat eve than Friday.

I tried to copy some JT65B on 432 at about 0300 and I consistently saw two nice traces. I did get one decode of NC1I calling CQ, but at the time I did not have the transmit cabling for JT set-up, only receive.

The entire station is now disassembled (took me 90 minutes) and the antennas are all dismantled and in the garage along with the trailer. The mechanical set-up worked flawlessly, considering the sort-of home-made set-up that I have for mounting and aiming antennas. **As far as the future on 432**, here are the suggested thoughts for "next time on 432:"

- See if I can get a higher powered SSPA that works on 12-28VDC and puts out 350W
- Improve the preamp. (I was using the GaAsfet LNA that was inside the TE amp, but I have a WD5AGO cavity preamp)
- Make sure the long yagis are well aligned. The H-frame bar seemed to have a slight twist and it looked like the antennas might have been 5 degrees skewed--not sure if that makes a difference.

Again, I want to thank the club members who assisted me with the knowledge they imparted and the experience. Al, K2UYH, Marc, N2UO, Russ, K2TXB, Phil K3IB, who sold me the 4 yagis, Paul, WA3QPX who got me the 4-way splitter. Joe, K1JT who gave us all the WSJT suite and gave me the OK1DFC feed, Wayde, K3MF who sold me the big PS, Al, N3ITT who assisted with welding for the trailer and dish mount, Joe, K3VEQ who allowed me to store my trailer in his yard, Roger, W3SZ, and Paul, WA3GFZ, who helped me optimize feed position of the dish, Jim, WA3EHD who gave me ideas about mounting the 1296 amplifier module, and probably several others along the way who helped me set-up and test the gear. That's the Packrat Way.

I remember Kennedy's speech...*"We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win..."* **73, Rick, K1DS**



# Hope You'll Never Get to This Part of the Bronx: HART ISLAND

By Rick Rosen

Recent news about one of the largest potter's fields in the US brought to mind my weekend on Hart Island in 1960. A little know extension of the Bronx, the island was home to a number of low-risk prison inmates, and part of the island was designated as a cemetery for unknown persons and those who apparently could not afford a funeral and grave. According to the web-based information in Wikipedia, throughout its history, Hart Island has been a site for a workhouse, a hospital, prisons, a Civil War internment camp, a reformatory and a Nike missile base. The island's area of about 130 acres had no permanent population as of the 2000 census. Currently it serves as the city's potters field, run by the New York City Department of Corrections. But since I was neither a prisoner nor dead, how did I get to spend a weekend on Hart Island?

It was my first year as a licensed amateur (ham) radio operator and I was invited to join the Fordham Radio Club's annual Field Day outing. This is an annual national field exercise of emergency radio communications, conducted by the American Radio Relay League. Amateur radio's Field Day is scheduled for the fourth full weekend in June, when most schools would be out of session, summer vacations starting, and hopefully the weather would be nice enough to be able to enjoy the outdoor field conditions. One of the most important requirements of this exercise is that the radio gear be powered by non-commercial means. This would include portable gas-powered electric generators, batteries, or mobile units in automobiles, running off of the car's electrical power. The rules of the event allow for up to 24 continuous hours of radio operation, and a 3 hour bonus if preparation and set-up were commenced at the 2PM activity starting hour.

At that time, according to what the radio club members told me, the assistant warden was also an amateur radio operator and friendly to club members. In addition, the island's electricity was derived from a large diesel generator, independent of commercial sources. At 15 years of age, I was one of the younger invitees to join the group and the older cub members arranged to pick me up and take me on this adventure. I had been out to City Island many times with my family, but this was the first time I had ever seen or heard of Hart Island. We arrived at a small dock on the eastern side of City Island and drove our car and the truck loaded with radio gear onto a small flat ferry, just big enough for 2 vehicles. Within a few minutes we were across the channel and onto the island. Another 5 minute drive and we were at an open area looking out upon Long Island Sound. There was also a large shelter nearby in which we would eat, sleep (barely) and operate our radios for a 24 hour period in a test of emergency communications. As an added incentive, the weekend is also a modest competition, with amateur radio clubs and individuals adding up their numbers of contacts in an effort to show their effectiveness and efficiency in information exchange under field conditions.

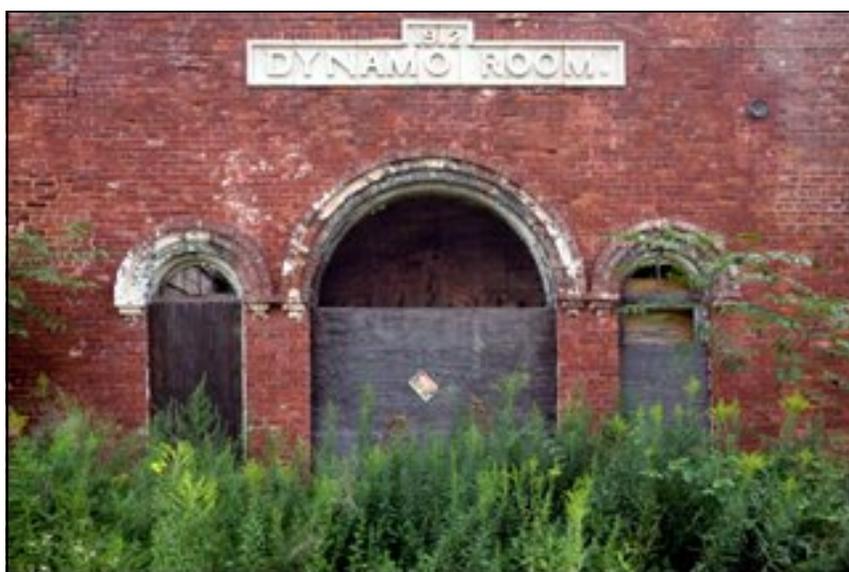
First things first—the antennas needed to be erected. We strung out wires and coaxial cables and used whatever supports we found to keep them as high as possible. Power was tapped from the generator feed in its shelter. Radio stations were spread out in the shelter and one high-powered unit was maintained in the truck because it was easier to isolate that unit and not have to load and unload the truck. I was assigned to the Morse code team operating a vintage military surplus radio unit, attached to one of the 66' wires that was erected earlier. The action commenced at 2PM: dots and dashes being sent and received all across the USA. Field Day is basically a domestic activity,

although amateur radio communication is worldwide, and more recently, even galactic. Hour after hour we pounded brass, making and logging contacts with similarly equipped and emergency powered stations. The group of us younger and newer hams were confined to the code operations, while the more senior members of the team used the high-powered radios in the truck with both voice and code communication.

As the day wore on we feasted on sandwiches we brought from home, kept hydrated with soft drinks, and rotated coverage of the communications. As the sun set, the pilot lights on the radios illuminated the dials and we continued to make our contacts. As midnight approached, the radio activities were still going full blast, but our bodies were fading and we each tried to catch some shut-eye while the rest of the team carried on the marathon event. I guess it's hard to remember whether you slept or not, only how tired you were when you woke up at 5AM to watch the sun rise and take a walk in the waves to refresh. What a glorious feeling; school was out for the summer and this was one of the penultimate group radio activities, and my first introduction to Field Day.

By 2PM on Sunday, we had completed our 24 hours of continuous radio operation and it was time to pack up and go home. Throughout the weekend, we encountered no other people on the island, save for our own team. We could however hear the distinct hum of the big diesel electric generator at all times. The radios were stowed, the antennas were lowered and rolled up for future events, and we headed back to the little open flat ferry to take us back to City Island. This time I would have to catch the bus to get home. It was about 4PM and I caught the bus and got a transfer. When we got back up to Fordham Road, I changed for the Concourse bus and promptly fell asleep with the sound of those Morse code dots and dashes ringing in my ears calling "CQ FD." Luckily, I was jostled awake just in time to get out at the Tremont Avenue stop. I walked up the three flights of stairs to our apartment, plopped down into bed and slept for 24 hours straight.

Little did I know that this experience would be one of the formative activities of a hobby which has included many more Field Days, radio clubs, communication experiments, and great amateur radio buddies. I can still picture the scenes on Hart Island in my mind, and hear that repetitive call of the Morse code in my ears, 50 years later.



The Dynamo Room housed the old power plant for Hart Island.

Picture copied from :  
(<http://kingstonlounge.blogspot.com/2008/08/hart-island.html>).

Guerrilla preservation and urban archaeology.  
Brooklyn and beyond.

# 6 Meter Report

14 November 2013

Since my last report there has been very little propagation on six meters to or from most of North America, and certainly none from this area. To date the Solar Cycle 24 peak has not, with one notable exception, produced enough energy to support F2 propagation at 50 MHz. Although ten meters has been open around the world and the MUF has risen above 30 MHz with regularity, **it has rarely reached above 45 MHz.**

**The exception** to the absence of six meter F2 propagation in North America occurred on Saturday, November 9, 2013 when either a CME or geomagnetic disturbance excited the ionosphere enough to open six meters for about two hours.

Beginning about 15:00z stations throughout the United States and Eastern Canada worked into the Caribbean and northern South America. Several stations, including N1BUG, KC0V, KF8MY, W7JW and WD5COV worked the 5J0R San Andreas DXpedition. Andy, YS1AG reported that from his San Salvador QTH in EK53 the band was open simultaneously to both the east and west coasts as well as throughout the Caribbean.

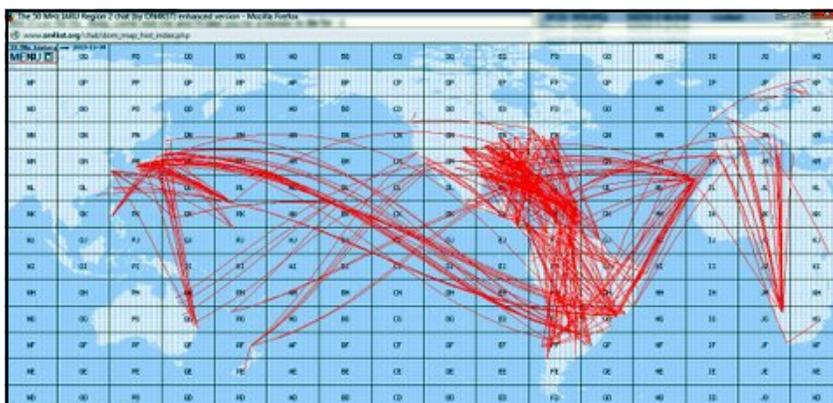
Jay K0GU in DN70 worked a number of Caribbean stations including PJ4NX in Bonaire and P43A in Aruba. He logged the YS1YS/B, YV4AB/B and V44KAI/B. He mentioned that he “only worked P43A to get something in the log to remember the date. Band was wide open when I got home around 15:30z.”

Apparently no **six meter operators in this area were on at the time the band was open.** Neither WA3HLP nor NZ3M have reported any activity during that time. I was on my way to Pittsburgh for a college visit and didn't learn about the opening until my return Sunday evening.

The geomagnetically excited F2 resumed on Monday November 11<sup>th</sup> when Jack OA4TT worked into W4/5 from Peru with good signals. Several stations in New England including K1SIX and N1BUG heard bursts from Jack via meteor scatter links to the F2 zone, but the bursts were not strong or long enough to enable contacts.

Here is a picture from the November 11<sup>th</sup> ON4KST chat page which shows the extent of the opening in North America.

Other notable propagation included the path from Japan to South America, and the path from New Zealand and Australia to the US West Coast. This propagation, which roughly parallels the geomagnetic equator, is not uncommon for well-equipped stations at this time of the year. For stations in this area to reach those locations, we need an Es link to the F2/TEP which doesn't happen often.



**The moral of the story** is that if you are going to be a successful DXer on six meters during this weak solar cycle peak, you've got to listen, listen, listen and get lucky.

73 Chris W3CMP

# PI9CAM Rescues a Satellite

The folks at Dwingeloo used their super dish for some unusual communication. As reported on moonbounce.info. Thanks to K1DS for forwarding this to Cheese Bits

On November 29 we had an exciting day at PI9CAM.

We were asked to rescue a satellite!

On November 21, 14 satellites were launched. One of them is TRITON-1, built by the Dutch ISIS group.

First all was OK, but when a transmitter was switched on to keep the temperature on board high enough something went wrong. Harmonic noise of that transmitter desensed the receiver in such a way that the command station **could not get any commands into the satellite....**

It's rather normal that satellite software resets every now and then. It appeared this satellite software was too stable. Not one reset took place.....

To try to regain command over the satellite PI9CAM was asked to help. The link budget predicted we might just be able to 'cut through' the noise with our 25 m dish and 400W on 70 cm.

So people from ISIS and CAMRAS met in Dwingeloo at PI9CAM in the early morning of November 29.

Mr. Murphy decided to join us that day.... First we found out that we connected the wrong cable up in the focus-box when we last worked on the frontend. So we had no power on 70 cm....

It was raining and there was strong wind but the only way to get this right was to go up to the

focus-box at 15 M with the elevator.... We worked as fast as we could to prevent much water going into the focus-box. I have never been so wet.....

**But we managed!**

Due to this we missed the first good pass of the satellite....

During the second pass the wind was really strong and probably because of that something went wrong when the dish started tracking the satellite at AOS. It more or less was blown into maximum safety position. This can only be repaired by doing manual elevation.

So we lost the second pass and two men got very wet by elevating the dish manually.

**But again we managed....**

The third pass was only available at 21:00 so we had a lot of time to test tracking and to play with the freshly installed satellite tracking software. Even a few bugs were found and removed going through the software.

At 21:00 we were ready for it and everybody was very tense....

As soon as the satellite was above our TX limit of 10 degrees elevation we started transmitting.

After 10 seconds we received good news from the ISIS ground station. We successfully switched off the transmitter of the satellite and the ground station had control over the satellite again!

Everybody was very happy! We even had some champagne to celebrate this successful collaboration!

And we were all very proud of 'our' 57 year old and restored dish.

Old, but still going strong!

73! Team PI9CAM  
(PE4WJ (ISIS), PA3CEG, PE1NUT, PE2HRM, PE0SHF, PE1CHQ, PA3DSS and PA3FXB)

## Additional CubeSat Info

A large number of CubeSats carrying amateur radio payloads were launched from NASA's Wallops Flight Facility in Wallops Island, Va., on Nov. 19, 2013 at 0115 UT. In total 29 satellites were on the rocket of which 12 operate in Amateur Satellite Service frequencies. See

<http://amsat-uk.org/2013/11/20/minotaur-1-deploys-cubesats/>

Help Track ISS CubeSats

<http://amsat-uk.org/2013/11/19/help-track-iss-cubesats/>

—Reported by K1DS

## Troposcatter Feature Added to W3SZ's Software

I took some time to add troposcatter calculations to the AircraftScatter Sharp program. I used Yeh's formula, which Dick Frey WA2AAU kindly gave to me.

To use the troposcatter feature you need to have installed the SRTM3 files. For more info on using the SRTM files with AircraftScatter Sharp, download <http://www.nitehawk.com/w3sz/AircraftScatterSharp.pdf> and go to item 22 in the appendix.

If you are interested, you can download the new version of AircraftScatter Sharp from <http://www.nitehawk.com/w3sz/AircraftScatterSharp.zip>

I also made a little visual basic program for which you have to enter the numbers rather than having it done automatically for a path as in AircraftScatter Sharp. Its not a finished product, just a 10 minute knockoff, but it gets the job done. I did it just to check the calcs in AircraftScatter Sharp, which checked out fine.

The source and exe files for that are at: <http://www.nitehawk.com/w3sz/tropo.zip>. Let me know if there are problems.

**73, Roger Rehr W3SZ**

## KB3MTW Antennas

Michelle sent along a few pictures of her new antennas at her new condo. Looks like a **lot of progress**.



## **The Wayback Machine**

Gleaned from the pages of  
Cheese Bits, December 1963  
(Vol. VI Nr. 9)  
(Authors comments in *italics*)

- Cover. Featured Helen's usual Holiday drawings, celebrating Hanukkah & Christmas
  - Nice report on the efforts of the Philadelphia Co. ARPSC (Amateur Radio Public Service Committee) in helping to immunize over 2,000,000 people in the area, with the Type III Sabin Oral Vaccine against polio. This effort was sponsored by the committee for the "Victory Over Polio". The participating amateurs had sole responsibility for distributing the vaccine from the storage point to clinics around the city. A number of our club members are listed as participating, including our own EI, K3JJZ.
  - A page was set aside in memory of the club Silent Keys, including W3CCX (2/4/1958), K3MTL (6/9/1961) and W3ASD (2/25/1963). Helen intended this to be an annual item, published in the December issue.
  - A 4-column article related the experience and activities of Maurice Siegel, a retired Press Telegrapher, then living in New Orleans. A very interesting article to browse through. He relates a lot of information about the telegrapher's operating practices, and includes a few anecdotes.  
( *I recommend you read the full article in the issue published at W3CCX.COM. I'm sure you'll find it fascinating*). (How many remember that the club's own W3HK had also been a Telegrapher. He was tied into a DC loop that routed to other ex-Telegrapher's homes in the Philadelphia area. This was a tariff item that Bell Tel was mandated to provide at the time).
- W3OR (Alan Vincent, SK) reports on making **3,841 contacts** with mobile stations from 11/1/1962 to 10/31/1963. These included contacts with W5, W6 and W0 stations. Alan's specialty was working mobile stations.
  - A technical tidbit authored by K3IUU, Bert (this author) describes tracking down the source of a spurious signal in the ubiquitous R48 Receivers (*used by the club members for our 221.4 intercom and net frequency*). Traced to an oscillation in one of the IF amplifiers, an easy to implement fix is described
  - K3KKM, Woody, relates details of the stations heard and worked on Two Meters in the past several months. He reports on a number of active stations, including the club's W3IBH, Charlie. Charlie was one of the top guns on two meters in that time period, running an excellent station at his home QTH as well as a mobile operation. (*Living on a high hill in Germantown didn't hurt either!*)
  - Reminder. January contest is getting closer. If you have any problems or need help, contact your contest coordinator (*Coordinators were a key*

*feature of the club's contest strategy at that time).*

- Venue for the annual Ladies Night announced. To be held at the Southwark Athletic Club. *(Ask an old-timer about the banana joke by the entertainer).*
- The number of Amateurs licensed in the United States was 259,170. The Pennsylvania count was 13,541.
- A short list of well known personalities holding Ham licenses was included. Among them were Tex Beneke (K0HWY), Crown Prince Faisal of Saudi Arabia (HZ1AF), Herbert Hoover Jr. (W6ZH), Robert Rickover (W3CWK – Son of the Admiral) and Luz Zuluaga (HK6LT – 1959 Miss Universe).
- W2EIF, Joe (SK) described his recent 220 activity, and compliments the performance of the “Barry” rig he uses. *(For those not in the know, this nickname came from the source, “Barry Electronics” on Canal St in NYC. Originally a Radiosonde xmtr, a few of us made several trips to Canal St to purchase these units [as well as the companion R-48 receivers] . Nearly every member used one. An 8200 kHz surplus xtal, a little retuning of the L.O. multiplier string, and tweaking the 6939 output circuit yielded about 10-W on 221.4).* Joe reports he used a “W2EIF 8 over 8 special” **which could be built for \$6.60**. The antenna construction details would be available at our meetings.
- A full page charcoal sketch of Karl (W3ASD (fondly nicknamed “The Old Fat Boy”), was included in his memory

(SK, 2/25/63) The sketch was made by his wife Nell, as Karl sat at the mike in the Jan, 63 contest.

- Swap Shoppe Item. For sale by Bert, K3IUV, 8-element Telrex 2-meter beam (\$8.00). Also, a 6-meter kilowatt station, from Joe, W3HYJ (price negotiable).
- Contest reminder from the chairman K3IUZ (John Hannes). He requests member's support and determination to make it “Four in 64”, a reference to the club's top score in the previous 3 Jan contests. Two members planned to operate from Karl's station in Smyrna, Del, in the Jan 3<sup>rd</sup> and 4<sup>th</sup> contest.
- Lastly a hand-written acknowledgement and prayer for President John Kennedy, assassinated Nov 22, 1963. Helen's words “God rest his soul in peace, and comfort his family

(This issue consisted of nine (9) sheets, double-column format and printed double-sided, on heavy stock legal size paper. Postage now 6-cents to mail).

*(As in previous editions, many “folksy” comments about members, their families, and activities were included in this edition of Cheese Bits. If interested, visit [www.W3CCX.COM](http://www.W3CCX.COM) and read the full issue posted there by our Webmaster, Ron, W3RJJ).*

—Thirty—  
K3IUV, Bert



# Lunar-Link International

VHF & UHF amplifiers  
for demanding modes  
50 - 144 - 222 - 432 MHz  
EME - Digital - Contesting



[www.lunarlink.com](http://www.lunarlink.com)

[info@lunarlink.com](mailto:info@lunarlink.com)  
33 Ball Pond Road Danbury, CT

## Events

For inclusion, please direct event notices to the editor.

**January VHF Sweepstakes Contest** - January 18-20, 2014. Details to follow. Bring equipment for test to Tech December 19th

**ARRL June VHF QSO Party - Contest** June 14-16, 2014. The annual Camelback trek. Details to follow.

**ARRL August UHF Contest** - August 2-3, 2013. Details to follow.

**10 GHz and Up (round 1) Contest** - August 6-17, 2014. Details to follow.

**September VHF QSO Party - Contest** September 13-15, 2014. Details to follow.

**10 GHz and Up (round 2) Contest** - September 20-21, 2014. Details to follow.

**EME Contest 2.3 GHz & Up Contest** - September 7-28, 2014. Details to follow.

**EME Contest 6M - 23 cm (round 1) Contest** - October 25-26, 2014. Details to follow.

## G AND G ELECTRONICS OF MARYLAND

JEFF GOLDMAN, K3DUA

PO Box 222 (301)258-7373  
Lisbon, MD 21765-0222 EMAIL: k3dua@erols.com

-Dealers in New and used electronics-



## Bob Fischer Company, Inc

Eastern Van Ladder Sales Representative

Ask Me: "How can I reach  
45ft high from my Van"?

283-B Egg Harbor Rd. #125  
Sewell, NJ 08080  
(800) 852-0120  
Cell: (609) 440-2916  
[bobfischercompany@gmail.com](mailto:bobfischercompany@gmail.com)

Bob Fischer

## DESTINATIONS TRAVEL

A Full Service Travel Agency

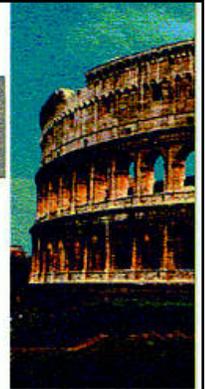
### HARRIET SOLTOFF

Travel Consultant

XYL, K3IUU

229 Fairway Dr  
Warminster, PA 18974-3797

Phone: 215-957-6084  
Fax: 215-957-6085  
E-Mail: [BSoltoff@Comcast.net](mailto:BSoltoff@Comcast.net)



## Joel Knoblock W3RFC

[www.therfc.com](http://www.therfc.com)

### The R.F.Connection

213 N. Frederick Ave. #11WWW  
Gaithersburg, MD 20877 USA

World wide shipping via FED-EX or US Post Office

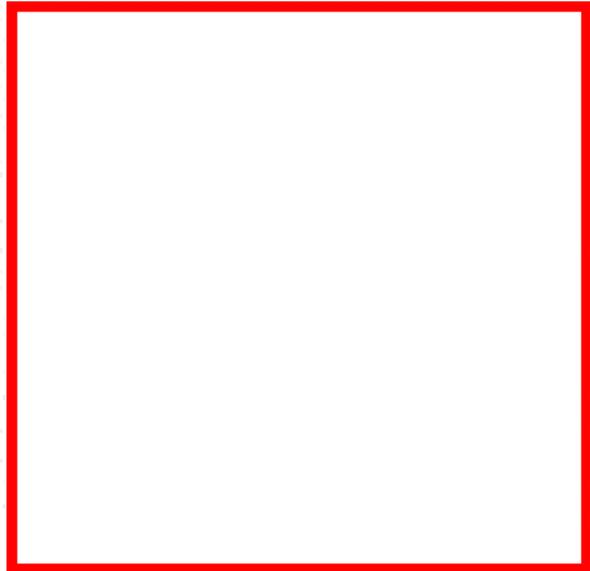
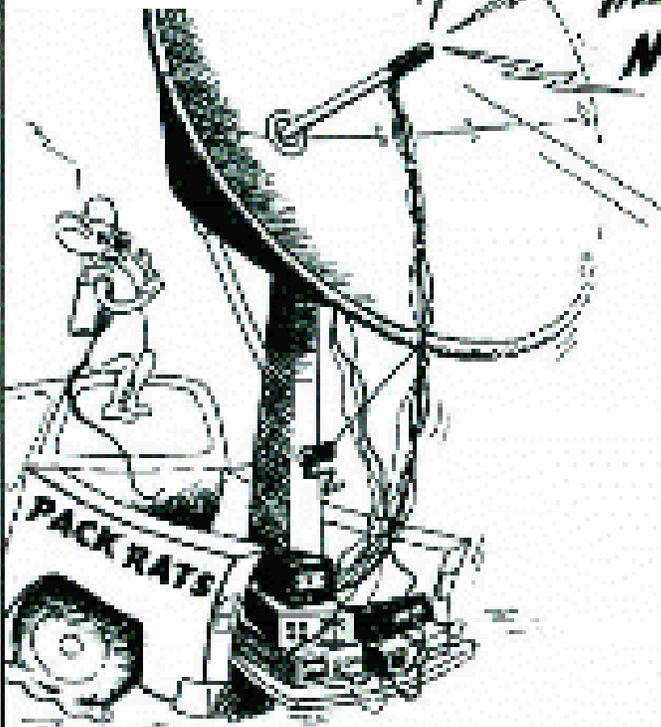
Tech Line 301/840-5477 Order Line 800/783-2666

Fax Line 301/869-3680

Hours: Monday-Friday 9:30am-5:30pm Eastern  
All major credit cards accepted

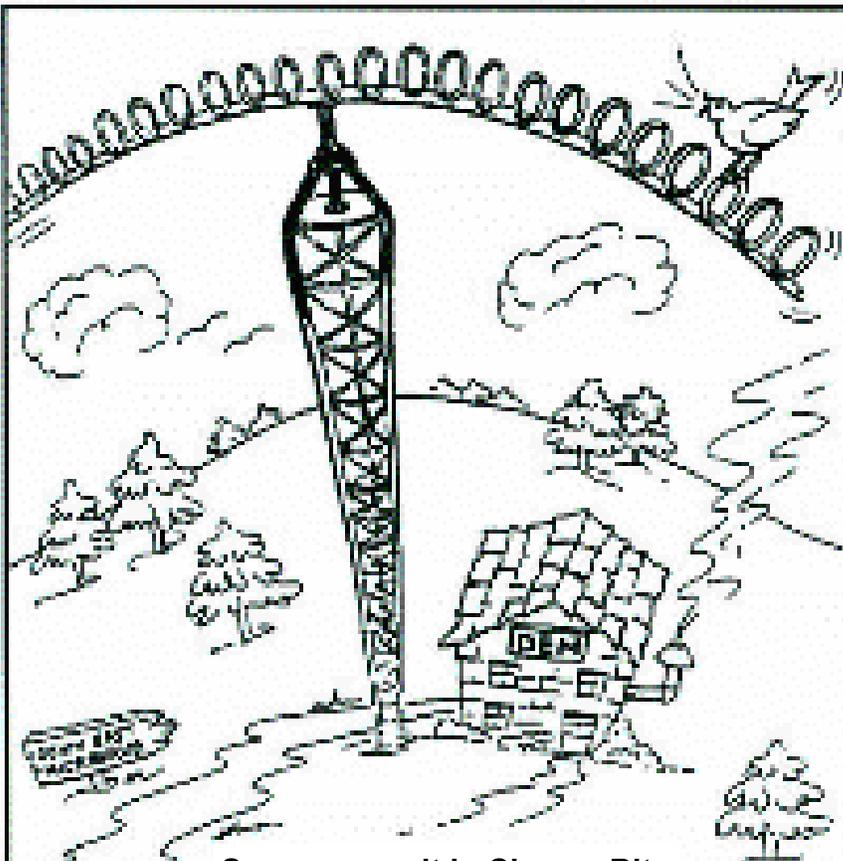
Cheese Bits  
709 Lincoln Avenue  
Cranford NJ 07016

**MEETING  
NOTICE**



FIRST CLASS

**MT. AIRY VHF RADIO CLUB, INC.**



Say you saw it in Cheese Bits

## DOWN EAST MICROWAVE

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

- No-Tune Linear Transverters
- Linear Power Amplifiers
- Low Noise Preamps
- Coax Relays, Coax Cable, Connectors
- Crystals, Chip Capacitors, MMICs, Transistors, RF Modules

For All Equipment  
Steve Kostro, N2CEI

<http://www.downeastmicrowave.com>

19519 78th Ter.  
Live Oak FL 32060  
Tel. 386-364-5529 (Voice)