



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LVIII

February 2017

Number 2

PREZ
SEZ:

It's now the second month of the year and I find myself enjoying the warm climate in Sunny Florida. I am sorry I will miss both the wrap up meeting and the next two general meetings, but I am looking forward to seeing many of the Packrats who are attending Hamcation. It doesn't sound like the big snow has arrived north, so I hope you manage to escape nasty amounts of bad weather.

It was an adventure for me to return north for the contest; I flew north on meeting day, just like my friend K1DS. We both spent Friday preparing and managed to make many contacts during the contest. I wish I had scheduled a decompression day for Monday, but instead got to spend a lot of time at the Philadelphia Airport. We were leaving the gate when our **wing had an encounter with a catering truck** and the next five hours were lots of fun. I did manage to touch down in Tampa at 11:59 PM ending a wonderful day of travel (not).

At the meeting before the contest in January, we were forced to find an alternative location as our regular meeting venue, the Ben Wilson Senior Center was undergoing some construction. Giuseppe's was happy to oblige and we held the meeting there after a fine meal. After the meeting we were treated to coffee and spring water along with Italian desert pastries and brownies. Many folks said "why don't we have our regular meeting here all the time"? At least we have an alternative to the Senior Center arrangement.

The contest was fun this year, and worth the time to

travel north. At our last meeting we learned from Ben, WA3RLT how much our club score would increase if we didn't work any other station outside the club, but instead worked every other Packrat on bands that we were active on. It was incredible to see how important it is to work every other member possible. Correspondingly, Roger, W3SZ has sunk many hours of programming time into a program that will track every member's whereabouts and display where they are in frequency. **The effectiveness of the program increases proportionally with the number of members using it.** He calls the program "The Packrat Finder". I spent Sunday evening trying to pick up Q's from all members that I had not yet worked.

So it looks like we had ANOTHER contest with no special propagation, but we did have a new WSJT mode to bring in a few more grids. It's a mode known as MSK441. It is so cool to see decodes even when you don't hear a burst of meteor burn. Most of our great rovers were out in force: K1DS, W3ICC (W2PED), NN3Q (K3WGR), K0BAK, along with other rovers who came into the area. It is extremely exciting to get that call that a new grid is available, and especially when it produces 10 new contacts.

On to upcoming events: At the next meeting you must be present to hear the famous crying towel sessions. This is the opportunity to let everyone know what went wrong during the contest. Though there will be some assessment and discussions at the meeting, the formal wrap-up session will be held on the Saturday after the meeting at the QTH of our VP, KA3WVX. Come over at 10AM to learn how everyone else fared and share your latest strategy to

Pack Rats **CHEESE BITS** is a monthly publication of the
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PACKRAT BEACONS - W3CCX/B

FM29jw Philadelphia, PA
50.080 144.300 222.062 432.290 903.072 1296.264 **2304.043**
3456.200 **5760.195** 10,368.034 MHz (as of 1/17, red = off the air)

MONDAY / TUESDAY NIGHT NETS

VHF/UHF Monday:

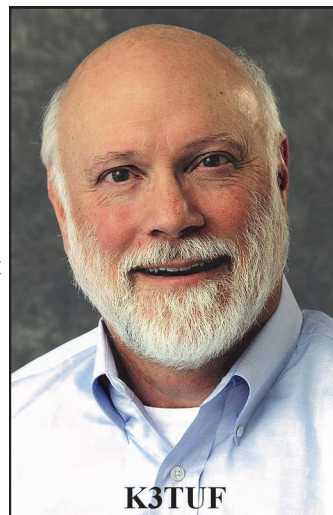
TIME	FREQUENCY	NET CONTROL
7:30 PM	50.145 MHz	N3RG FM29ki Ray
8:00 PM	144.150 MHz	K3GNC FN20ja Jerome
8:30 PM	222.125 MHz	KB1JEY FN20je Michael
8:30 PM	224.58R MHz	W3GXB FN20jm Bob
9:00 PM	432.110 MHz	WB2RVX FM29mt Mike

Microwave Tuesday:

7:30 Coordinate QSO's on 144.260 for all Microwave bands you'd like to work. Also setup Q's at w4dex.com/uhfqso or **Packrat Chat Page W3SZ.COM**
Visit the Mt Airy VHF Radio Club at: www.packratvhf.com or www.w3ccx.com

Week out a few more points for the club. Also, **please** make sure your log is submitted to ARRL and to W3KM before the wrap-up meeting.

The weekend of 2/18 and 19 hosts the ARRL CW DX Contest where you can work the world. This is a great opportunity to both practice your code, and also to fill out your DXCC list as **the world needs to work the USA**. Get on the air and put that long wire to use.



April will host the Northeast Weak Signal VHF/UHF/ Microwave Conference in Manchester CT from the 21st until the 23rd. Several packrats are planning to travel the AMTRAK line along with me to and from Hartford. Put this conference on your calendar.

Speaking of conferences, make sure you save the dates, October 6, 7 and 8 for our own Mid Atlantic VHF Conference. You will hear more about that in the coming weeks.

Another use for your long wire is to fire it up on 40, 30 or 20 meters and attempt a QSO with K3TUF. My dipole works on those three bands.

So lets talk on lots of bands,

Phil, K3TUF

THANKS THANKS THANKS

Cheese Bits received many reports and articles this month, mostly to do with the January contest, but on other subjects as well. Even with 26 pages, and 12 hours plus in the editor's chair there are still articles pictures and reports that have not been published yet in our newsletter. Rest assured you'll see them in the next month or so. And thanks very much to EVERYONE who sent in reports and articles.

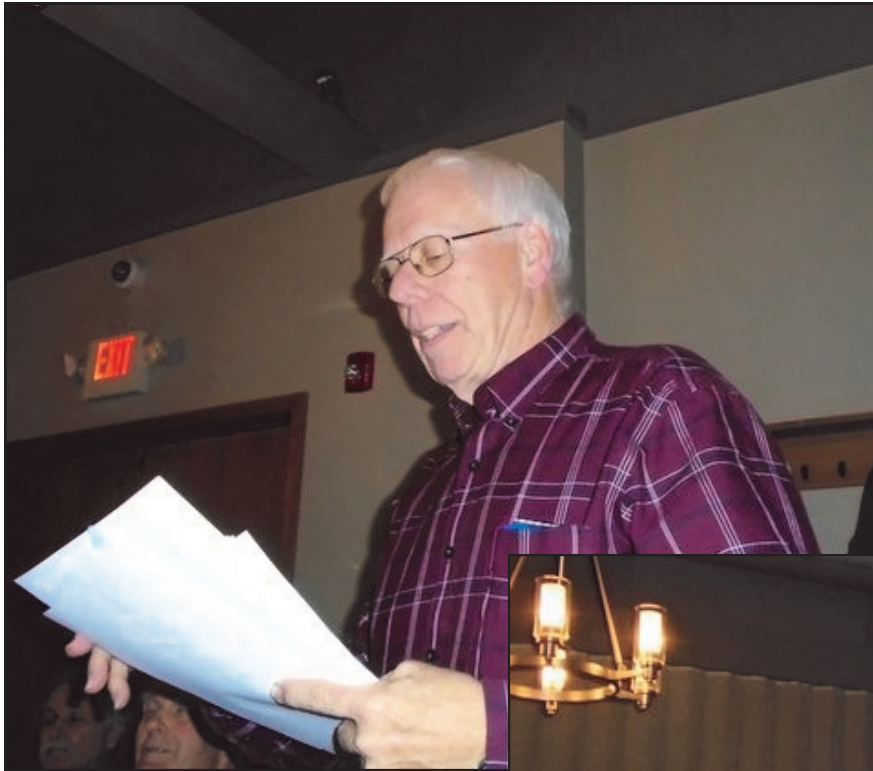
Please remind our President to remind me at the next meeting that there's no reason to bellyache about a shortage of material for Cheese Bits in March (but don't let that stop you from writing something!!!)

73, Lenny W2BVH, Editor

Some January Meeting Photos



Meeting Photos cont'd...



Meeting Photos cont'd...



Tnx K3JJZ for pictures



January VHF Contest Reports

From John K3MD

263 Q's, 68 Grids, 26,044 Points, 13 Hrs Op
 A personal best
 VHF/UHF chat room and Packrats chat room FB!

From George WB3IGR

This was my first January contest from my new home FN-10vi. I have a 13 foot tower with a dual band beam for 2 and 432, 3 elements on 2 and 5 elements on 432, a 3 element 222 beam, and a 6 meter square loop antenna mounted to the side of the tower at 10 feet.



All that said, I had my best effort for 2017 here with 5,056 points. Here is a breakdown of what I did.

6 meters.....100 watts.....26 QSO's and 8 grids
 2 meters.....50 watts.....46 QSO's and 10 grids
 222.....75 watts.....21 QSO's and 7 grids
 432.....50 watts.....18 QSO's and 6 grids
 Laser, 2 club project models....1 QSO and 1 grid

From Ken KA2LIM

The write-up for the 2017 VHF Contest for the K2LIM station is now on our website.
<http://ka2lim.com/10.html>

From Steve N3FTI

Well here is my score from the weekend. Had a great time, but I need to get my LARCAN amps on the air by next year to keep up with all the other high quality/high power stations. Look forward to next January.

SOHP EPA

Band	QSOs	QSO pts.	Grids	Points
50	217	217	27	5859
144	133	133	22	2926
222	60	120	11	1320
432	63	126	11	1386
TOTAL	473	596	71	42316

Claimed score = 42316

From Ray N3RG

This year I painted myself into a corner by getting rid of all my radios with knobs and buying a FLEX5000uv from W2TAG. I rebuilt an older DEMI 144/28 to use as an interim transverter for my older microwave boxes up to 10Ghz. Next I built an automated switching system that takes the band data from the flex and switches the antennas, PTT lines, transverters, amps, LNAs, etc. so I was fully automated. Just before the contest I installed N1MM plus, WSJT-x, and the PackRatFinder application from Roger.

With all the applications and automation I overlooked the basics! I really didn't have a plan so the first part of the contest turned into a learning experience. I reached a point on Saturday after crashing the FLEX several times, (by entering a call in the frequency display!) that I considered loading up the RV and going on a rove with bottom four bands! After a short break I gathered my thoughts and worked through the software challenges.

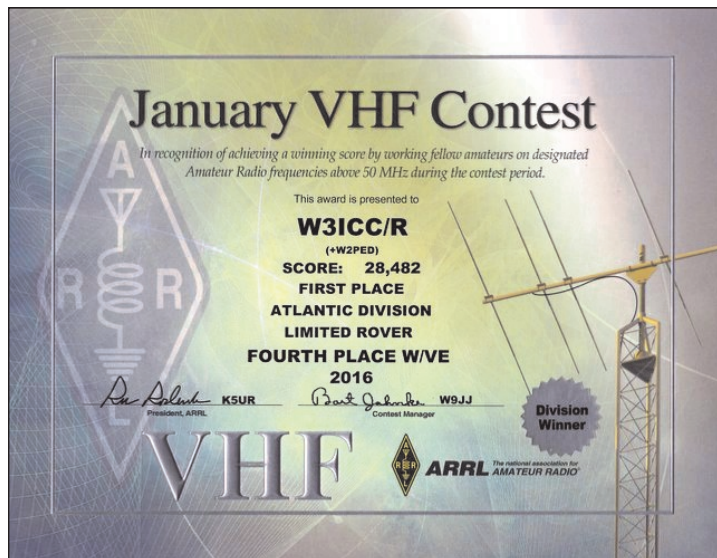
Everything works perfectly with the exception of the operator! Now I have to come up to speed. I could have done better in the contest had I not been learning everything "on the fly"! However, I learned a lot about our new tools and by next year I should be able to do a little better... that is, if the bands co-operate!

418 QSOs 100 grids Score: 88,900

From Drex W3ICC (+Paul W2PED)

Band	QSOs	Pts.	Grids	Points
50	109	109	10	1090
144	146	146	14	2044
222	86	172	11	1892
432	86	172	11	1892
Total	427	599	46+5	30549

And here's what happened last January (2016)



From Al K2UYH

Reported score: 260 pts. Six of my 20 q's were 432 MHz EME

From Paul WA3QPX

Poor condx in micros due to weather detuning aerials. Made up for it with Joe's MSK144 on 6 and 2 to gain enough extra grids to equal last year's score.

Reported score: 30415

From Tom KA3FQS

This year I made no improvements to my station although a few are waiting on the workbench. The biggest change was using CW to complete some contacts; this is something that I have to work on. Conditions seemed to be flat and it seemed to me that not as many New England stations were on. It was a good contest and I had fun. Next year more power on the microwave bands and get some digital stuff going.

KA3FQS cont'd

Band	QSOs	Pts	Grids	Points
50	68	68	9	612
144	73	73	9	657
222	47	94	7	658
432	50	100	6	600
903	15	60	2	120
1296	13	52	2	104
2304	7	56	1	56
3456	4	32	1	32

TOTALS 277 535 37 19795
Claimed score = 19795

From Roger W3SZ

I decided to use this contest for two purposes [1] to work as many Packrats as I could and [2] to gain some experience with the digital modes on our VHF and up frequencies. I was really pleased with how well things went with item #1 due to a combination of [a] all of the modes of assistance permitted and [b] the excellent use of these modes by my fellow Packrats. My hope to work even more Packrats than I did was thwarted when I crashed and burned Sunday afternoon likely as a result of a combination of the all-nighter I pulled Saturday night to work the digital modes and the week of nearly-all-nighters that I pulled before the contest. So the main lesson learned this contest weekend was that I am not as young as I used to be. In terms of the second goal, I was amazed at what I could do with a small yagi and 100 watts or less (significantly less at the antenna) on 6 meters in the lack of any enhanced propagation. I was able to on 50 MHz with MSK144 easily and quickly work into the midwest and southwest into grids EN35, EM45, EM45 again, EM31, EN52, EM48, and EN80 followed by the somewhat-more-mundane grids FN35, FN25, FN31, FN43, and FN44. And using the digital modes I was able to work through 1296 with Peter, VA3ELE in FN03. I really enjoyed the digital, sometimes chaotic activity on 6 meters. Next year I will try to get enough sleep the week before the contest, and I will again plan to stay up all night Saturday night doing digital. Thanks to all Packrats, both those whom I worked and those whom I didn't work, for making this a great contest! You are bunch of great folks!!
Claimed score: 52206

From Phil K3TUF

I really had fun in this contest. The assistance has taken the pressure off all of the planning and worry about getting the next meaningful contact. Now you can relax and enjoy the weak signal and VHF/UHF/Microwave essence that draws us to this hobby and sport. Being in FL for the first several months of the year I had to fly back north for this event, and I wish I had planned more preparation time. To my surprise I only operated 18 hours, it seemed like more; but gathering items for my return must have occupied the remaining time. This must be the cause for my drop in QSO's from last year. Of course everyone will tell you about the soup that we were living in during the contest and it's affect on the propagation: that is, no propagation. I had many fewer long microwave contacts than usual. In spite of the poor propagation, I yielded four grids on 24GHz, WOW. Once again the rovers were such a treat, I am so thankful that they put in an extensive effort. It's wonderful to get a call saying "we are on site". This year I received the most pleasure in seeing the spot list showing CW activity on six meters. I would change to CW mode and go work more stations in rapid fire. That was fun. Had a weird failure with my 1296 sequencer. It took some extra work to get contacts on that band. Fixing it is the first thing on the list when I return north. Also had a number of software issues to take care of. It's always a challenge when you are on the bleeding edge of innovation. One day it will all settle out, I hope. Great Contest, looking forward to the Sprints and ARRL June VHF.

Band QSOs Mults

6:	151	23
2:	122	22
222:	67	14
432:	89	16
903:	31	6
1.2:	38	6
2.3:	24	5
3.4:	19	5
5.7:	15	4
10G:	11	4
24G:	4	4

Total: 571 109
Total Score = 157,505

From Bob W2SJ

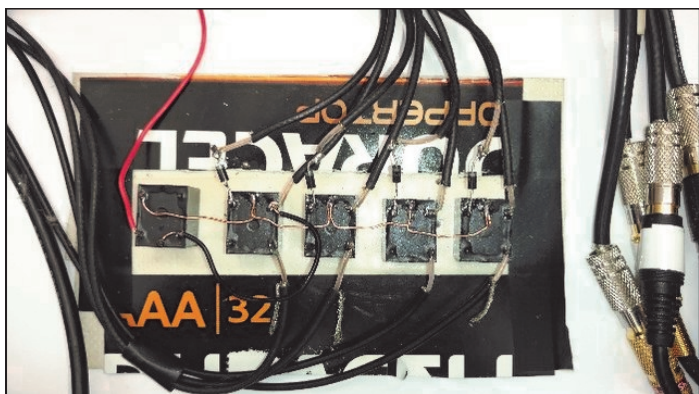
This contest with all the new technology (N1MM, SDR Radio, PackRatFinder, & automation of the station) completely fried my brain before the contest up to Friday night! That left me with little to no brain power to operate the contest. Then everything really hit the fan with the Flex 1500 changing from split IF to common IF whenever it felt like it and also whatever band it wanted to pick at any particular time. The automation of the station with N1MM SO2R controlling both the Kenwood TS-2000X on 50 thru 432 and the Flex 1500 on 903-3456 worked flawlessly! (Thanks Ray, N3RG!) I broke my golden contest rule this year: Never, Never, Never make changes to your station 2 weeks before the contest! I also broke the 2nd golden rule...Never try to fix equipment during the contest, just operate what works. So I hereby submit my lowest January score (**14,945**) that I can remember. I finally put away my toolbox Sunday afternoon and operated the TS-2000X on 50-432 plus 1296 to the end of the contest.

From Joe WA3SRU

Unfortunately, I missed a lot on Saturday due to some sort of 24 hr bug I got. Was able to get back on, in the morning, and stayed with it all day. Not too bad for 11.25 hrs. I was able to finish enough of the rewiring of my station to operate the contest. I built up a switching system that did band switching depending on which band I selected on the SDR screen. When I keyed the mike everything worked. The only missing piece now is the IF switching. Not enough time to setup the auto switching so I used the previous rotary switch to select the IF. Worked very nice. Now I will finish up with a nice box to put everything in. The only downside was I lost audio on my 903 xverter. Not sure if it was the xverter or something else. Have to look into it. Lost a lot of points as it is a 4 point band. Mid morning on Sunday, it started working and I worked Tom, KA3FQS. Shortly after that it stopped again. So, Tom has the distinction of being the only contact I worked on 903. All in all, I had a good time once the 24 hr bug cleared up. See everyone at the wrap-up meeting.



WA3SRU cont'd



Band	QSOs	QSO pts.	Grids	Points
50	62	62	6	372
144	75	75	8	600
222	41	82	6	492
432	53	106	6	636
903	1	4	1	4
1296	13	52	3	156
TOTAL	245	381	30	11430

Claimed score = 11430

From Michelle KB3MTW

Less than last year's score. Ten fewer Q's but many fewer grids. With less grids an 1100 miss of last year's score. We need to look into ways of boosting the grids. Either antenna height or a temporary change of antennas. I did have fun during the last hour and a half before the end of the contest. I knew I had contacted everyone I could hear at that point. I had put my call out on the 4 lower bands for a half hour prior with no responses. Then Joe Horanzy and I sat on 6 meters and just talked. Guys were coming out of the woodwork probably because they heard Joe's more powerful station and I was able to ride his coattails and get a few more contacts. Perhaps next year we should get into a discussion again and hopefully that will bring out more contacts than just sitting on a frequency and calling out CQ. Just a thought.

Band	QSOs	QSOpts.	Grids	Points
50	56	56	5	280
144	80	80	4	320
222	34	68	2	136

KB3MTW cont'd

Band	QSOs	QSOpts.	Grids	Points
432	38	76	3	228
903	13	52	2	104
1296	13	52	2	104
TOTAL	234	384	18	6912

Claimed score = 6912

From Rick K1DS/R

Band	QSOs	QSO pts.	Mults.
50	41	41	4
144	96	96	9
222	58	116	5
432	74	148	7
903	28	112	4
1296	36	144	5
2304	26	208	4
3456	23	184	3
5760	15	120	2
10368	19	152	2
24G	6	48	2
Laser	9	72	2
TOTAL	431	1441	49 + 4 = 53

Claimed score = 76,373

From Rick K1DS

Band	QSOs	QSO pts	Grids	Points
50	8	8	1	8
144	37	37	5	185
222	16	32	4	128
432	18	36	2	72
1296	5	20	2	40
TOTAL	84	133	14	1862

Claimed score = 1862

From Marten K3HUW

This January, I heeded the advice from the last contest and focused on trying to "be loud on 2m". A fellow packrat provided me with a AM-6154 amplifier, however it was part way through a conversion to 432 and I hadn't completed the 2m conversion by the time of the contest. I did manage to obtain a TV mast thrust bearing and raised my 2m antenna up by about 6 feet. This

was just enough to get over some local obstructions such as my chimney and I seemed to hear and get out much better! It meant removing my 432 antenna, but the gain in 2m was worth it. I had very limited operating time, but with about 3 hours total in the chair, I managed 52 QSOs in 8 grids. I think it was a good operating experience to focus on only one band and seek out more grids. Several contacts were CW which really helped my 50 watts get out and be heard. My best grids were FN12 (cross mode CW-SSB) and FM27. The main distraction on Saturday was an un-napped 2 year old, I suggest a new Amateur Radio "Q" signal, **QTT: QTT? Are you experiencing a local temper-tantrum? QTT (0-5) I am experiencing a local temper-tantrum of level 0-none, 1-wimpering, 2-crying, 3-crying and rolling on the ground, 4-wailing, 5-ears are ringing and things are flying.**

From George NE2U

Band	QSOpts	Grids
50	30	6
144	63	13
432	62	8
	SCORE	4185

From Ken K2WB/7/R

I operated 2500 miles out of the area, so my score doesn't count toward the Packrat aggregate. Grids DM42 and DM43 were activated by me. You are welcome to list me, but don't count my score. Please see my Arizona VHF adventure as a Rover article.

Band	Mode	QSOs	Pts	Grd	Pt/Q
50	USB	7	7	2	1.0
144	FM	3	3	1	1.0
144	USB	2	2	1	1.0
420	FM	2	4	2	2.0
420	USB	1	2	0	2.0
Total	Both	15	18	6	1.2
Score: 108					
1 Mult = 2.5 Q's					

From Lenny W2BVH

This was my first contest with a serious concentration on the microwaves. Two years ago I worked 3 Q's on 902 and that was all I needed to get really pumped about operating the microwaves. The 902 rig back then was in need of work and still, with it in that condition I was able to work W2SZ and a couple of others with it. In the last couple of months of 2016 I fixed up the 902, got my 2304 MMDS rig back from Gary WA2OMY all tuned up and added sequencing and relay power to it and bench tested it. I also stumbled onto a 1296 rig and got it into shape for the contest. With these 3 new bands I then had to take the time to put together an I.F. and footswitch switching box, and had some trouble doing it because of an intermittently bad position in the 1X4 rf relay I was using. In the nick of time, with help from WB2ONA, I had antennas for all the bands, so that was a relief. With all these new bands the contest was just great. I've always loved weak signal work and this January's contest gave me a real thrill with really weak signals (and some surprisingly strong ones too). The most difficult part of the contest this year was getting used to operating 2 radios. I somehow was pressing the wrong foot pedal or grabbing the wrong mic, and with all this confusion, I'm afraid I might have a really inaccurate log this year. But you live and learn. I think this year was my best score ever (until ARRL starts charging penalty points). Well, hopefully even better next year.

Band	Mode	QSOs	Pts	Grd
50	USB	52	52	7
144	CW	9	9	3
144	USB	78	77	15
222	CW	2	4	1
222	USB	32	64	7
420	CW	4	8	1
420	USB	41	82	6
902	CW	4	16	3
902	USB	3	12	3
1240	CW	13	52	5
1240	USB	6	24	2
2300	CW	6	48	3
2300	USB	1	8	1
Total	Both	251	456	57
Score : 25,992				

Location, Location, Location

“Activity Breeds Activity”

This story begins in the January VHF Contest 2014 with a Kenwood HT. I was going to be in Fairfield California for the contest. Knowing this I packed my trusty 5W HT to see what I could get on 2m from the 5th floor of the hotel. It did not bear the fruit I expected but I was able to make 5 contacts in 2 grids.

To make the contact I had to wait out a church net (yes on simplex) to get my contacts. As soon as the net disbanded I immediately jumped in and called the call signs I heard. I was the first “outsider” they spoke to on the radio. To their credit they all got their licenses to be prepared when the normal communications stops.

“Elmer on the Air”

I explained the art of Radio Sport and what Maidenhead grid squares were, I was able to make contacts with each. After I finished I suggested they find a Field Day operation and meet more hams, which they thought was a good idea. This experience planted a seed. I should be able to do this anywhere, perhaps better. January 2015 I was home and then was away for the January 2016 contest. This time I improved my travel station: same HT but I made a 5/8 wave 300 ohm ribbon J-Pole antenna. I scanned the 2m FM band from 144 MHz to 148 MHz and could not find anyone. I could not reach or hear the local repeater. After a couple of hours of frustration I gave up. That was my first contest in Arizona and I produced a **zero score**.

“Nowhere to go but up!”

Until about a month before the 2017 contest it looked like I was going to be home for the January VHF contest. But that plan was short lived. I had to be back in Arizona for the contest and this year I was **not going to settle** for a zero score again. I got a FT-991 radio, so that I would have C4FM available if I got the chance to connect to a node. I already have a 4 element 2m Arrow antenna. Six Meters was going to be a problem. My initial thought was a wire dipole antenna that I could string between the Saguaro. I abandoned that plan and got the idea to buy two telescoping antennas. DX Engineering had just the ticket. Armed with the new radio, antennas and camera tripods I went off to Arizona. I have a friend in Mesa who let me borrow a 12V DC Power Supply and I was set. Between battery clamps to run the radio when I was outside and the power supply for my hotel room I was good to go. TIP: Don't leave your antennas assembled in the room. It scares housekeeping.

I arrived and got the power supply and tested the station a couple of days before the contest. During my research I discovered that most of the stations on C4FM were on 440 MHz. I did not have an antenna for 440 MHz but... There is a Ham Radio toy store in Phoenix so I drove to it. Not having parental supervision while out of town, I ended up with a 5 element 440 MHz Arrow and a really small 30A PowerWerks Power supply. I met another Ham in the store and he offered a lot of advice. “Most stations are FM not SSB and the worst part is that they are not very active in contesting.” Nothing will stand in the way of my enthusiasm so I started executing my plan of operation around my work schedule at the customer's factory.

Further testing of the equipment exposed the fact that I was logging with a computer whose battery lasts about 2 hours. Not a good situation to be in. The next task was to get the solution to the problem

of how to get 120V to run the computer the in desert and do it quickly. As luck would have it there was a Harbor Freight in the town where I was staying. My first plan was to get one of those 900W small generators and give it to a friend to store for me in Arizona. As I was shopping I found a small 800W inverter with battery clips (problem solved). Now I was ready.

I wire tied the 440 Beam to the 2m Beam. Both antennas seemed to work ok. I was able to bring up repeaters on 2m and 75cm 30 to 40 miles away. Now for the research before the contest:

Last Year 2016 results.

SNJ had 22 entries and EPA had 82 last year for comparison.

This is an excerpt from the 2016 ARRL January VHF Contest Database

#	Call	Score	QSO's	Mult	Class	Section	Grids	Club	Ops
1	W7QQ/R	8,399	119	37	R	AZ	9		(+KK6MC)
2	WA7JTM	510	41	10	Q	AZ			
3	N7RK	297	28	9	3B	AZ		Arizona Outlaws Contest Club	
4	W7ON	279	25	9	3B	AZ		Arizona Outlaws Contest Club	
5	KOKFC	192	6	4	A	AZ			
6	N7NEV	55	10	5	3B	AZ			
7	K7RJ	48	2	3	A	AZ			
8	KC7V	4	2	2	A	AZ		Arizona Outlaws Contest Club	
9	WOPAN	3	3	1	A	AZ		Arizona Outlaws Contest Club	

The results in the excerpt indicate that there is a population of hams in Arizona that don't submit logs. Saturday I had to work late in the customers facility. I forgot that the contest started at 12:00 hours MST (14:00 EST). So I missed the first 6 hours of the contest. Sadly I was told this is usually the most productive 6 hours out in Arizona. Still I pressed on to call CQ on 6 meters from my hotel room. After spotting myself in DM32 I got my first contact. On Sunday I moved to DM43 on a rise that gave an unobstructed view of Phoenix to the West. When all was done I managed 15 QSO's and 6 grids. With being a rover I managed to get 144 points. Based on last year's results I may be in the running for the top 10 in Arizona.

The lesson is that all locations are not equal. Fortunately we live on the east coast with a good population of hams that are active in the January contest. Interestingly based on the QRZ 2004 Ham population census I come up with this interesting statistic of % of hams submitting a log in the January contest.

State	# Ham Operators	# Logs Submitted	% Submitted
AZ	15744	9	0.057%
PA	24034	82	0.341%
NJ	14908	24	0.161%
NJ+PA	38942	106	0.272%

Considering the activity, I had a ton of fun planning and executing my operation plan, and I would do it again next year. Thinking of this the June Contest is only 120 days away. Now is the time to start planning.

73's Ken K2WB/7/R



NN3Q/R JANUARY CONTEST REPORT

Preparations for the January 2017 VHF contest began in November with a check of all systems. During the August UHF contest we noticed what appeared to be an improperly operating 3 Ghz transverter. Both transmit and receive appeared to be less than optimal. Further checks also discovered a wobbly local oscillator on 2 Ghz. Both transverters were removed and while the 2 Ghz took a quick trip to Northern Florida visiting **Dr. DEM**, the 3 Ghz was opened on the work bench and the healing began.

One of the conclusions was that it was not so much a problem with the 3 Ghz transverter as it was with the 3 Ghz amp. While a little tweaking improved receiver sensitivity a recommendation from Paul WA3GFZ to purchase a new (used) 3 Ghz amp would greatly improve the station. The Toshiba amp was ordered, coming from Israel.

During the downtime we also addressed an additional concern of a nonoperative 2M FM transceiver, and what appeared to be a low power output from the 2 meter amp so further investigation was started. We discovered something we did not want to find. Deep behind the 320 AH deep cycle battery box hid a corroded high amperage connection to the 80 amp booster that feeds the 300 watt 2 meter amp, and also the DC feed for the 2 meter transverter. The corrosion was so extensive (inside the in-line commercial connector) that the **heat build up melted the external plastic insulator shell.**

At the same time, the battery box was opened to check our battery to battery connections for any more corroded connections. The connections were fine, but what we found was even more disturbing. All four batteries did not show any level of electrolyte. So we have batteries that are very depleted and if they can spit out any current it is quickly used up by warming the poor connection to the 80 amp booster. That is lousy science.

Two of the batteries never recovered and they went to recycle heaven at Deka, being replaced by two new second cousins. The wiring was corrected, and numerous other connections at all our boosters were cleaned and assured they were tight.

A great feature of our rover van is the two radio integrated audio system. This allows the two K3's to mix their audio and to be heard by either operating position. This means, as the microwave operator is running the bands he can also listen to the lower four frequencies (stereo is still great, isn't it!), and any coordination efforts of the station on the other end talking to the op of the lower four. At the same time the lower four can listen to what is going on at the microwave station. This feature can be turned off by either operator. Well this too needed some attention. Russ had to remove a number of audio matching transformers, and did other rewiring to reduce the hum that grew into the two units over a period of time. The result was **clear audio** presented to the ears.

During the down time W3SZ, Roger, had worked up PackRatFinder (PRF). This was installed in both laptops, along with Packrat Chatroom.

It is now two weeks before the contest and the station was being reassembled. Some station wiring was being rerouted, the repaired transverters were reinstalled, and the computers were placed at the operating table. Electrical and RF checks all proved nominal. A quick road trip proved all systems were a GO for the contest.

Our rove was one that we had taken before. Saturday we start in FN 20, Montgomeryville, then off to FM29 Newtown Square, at then end of the first day. Sunday our start was again in FN20 but this time we're atop Mount Penn in Reading, then off to FM29, FM19 (Gap) and we finish the day in FN10 Shady Maple.

Late Saturday afternoon we were working the bands in FM29 and kept noticing that the visibility to Route 3 was getting less than optimal. Concerned about the situation getting worse, a little after 6 pm we headed out into the fog bank and worked our way west back to FN10xi.

Sunday morning found us inching our way up Mount Penn in Reading, as the fog had not lifted. Our operating position had a maximum forward visibility of maybe 200 feet all morning, and very few visitors as compared to other years.

Our trip from Mount Penn to Gap PA had a pleasant and productive side trip to the N3NGE multi/multi station and a delicious piece of pie! Thank you Len and Linda. Laser and FM QSO's were made with the gang.

We had only one equipment glitch with the 1296 transverter which had always worked well, and never had a problem. All of a sudden, no RF output. While looking for poor cable connections the unit slipped out of my hand and when it bounced off the van floor it began to work, as it did, always. Problem solved (nice when radios fix themselves).

Throughout the contest we were checking into Packrat Chatroom, and PRF. We found both applications very useful and provided us additional information about the location of stations that we

would have otherwise missed.

We wish to thank all the Packrats we worked over the contest weekend. We certainly appreciate all the activity. During the contest we did miss some stations who we wanted to work but the constraints of time dictate a rover's life during the contest.

Our final contact was a W2 type rover in FN22, a new grid for us, helping our final score to end up in the 66k+ arena.

73 AI K3WGR and Russ NN3Q

The Spotless Sun in Sky&Telescope By: Sean Walker 1-12-2017

Originally found in "Anomalous Propagation" the monthly newsletter of the Mid-West VHF/UHF Society (MVUS)

Since the start of 2017, only a single small sunspot has made a brief appearance on the solar disk. Although 2017 heralds the first total solar eclipse to be seen from the continental U.S. in more than 30 years, the Sun itself has become a featureless ball — at least in visible wavelengths. Following the weakest solar cycle in more than 100 years, the minimum of Cycle 24 appears to have arrived for the duration, at least for observers. According to Tony Phillips of SpaceWeather.com, the Sun hasn't been blank for so long since May 2010. Only a single tiny sunspot briefly appeared then vanished on January 3rd, followed by a continuing stretch of spotless days. Even the usually dynamic chromosphere visible at the wavelength of hydrogen alpha is nearly as featureless, with only several tiny prominences visible along the solar limb. Long-time Sky & Telescope contributor Tom Fleming notes this is the first spotless week following a steady decline throughout the last half of 2016. But not to worry, the situation can change very suddenly. NASA's STEREO A spacecraft, which monitors the Sun from a point ahead of us along Earth's orbit and sees a good portion of the solar disk that has recently disappeared from our view, shows an active region on the Sun's far side. This region should come around and be visible in about a week or so, assuming it doesn't dissipate. And just because there are no sunspots doesn't mean the Sun is completely inactive. The solar wind buffeted Earth's magnetosphere several days ago, producing aurora activity near the Arctic Circle. Although no coronal holes are expected to face Earth in the coming days, that too can change.



January VHF Contest at KB3MTW

Another ARRL VHF contest come and gone. As usual I always start out with renewed hope and anticipation for better signals and scores. This year we added not another band, but more frequencies on a band we already had - 222. We have an

Alinco DR235 FM radio hooked up to a mag mount on a 2x2 foot piece of sheet metal on top of a small aluminum table. I had purchased a 10 watt 222 Transverter and with the help of Doc got it up to snuff for operating. For the antennas we had to go stealth so squalos were the answer, but advice from AI - K2UYH suggested that stacked antennas would perform better. I bought 2 222 squalos from DX Engineering and had to get the stacking kit from M2. Since I got turned down by my condo association for putting up more, we put the antennas on a pvc mast which already had an antenna on it and then attached plastic leaves to make it look like foliage instead of an antenna.



Again with the help of Doc and George - KA3WXV we ran another length of LMR-600 through the gap in the walls to the radio room. Because all the antennas are compromised or stealth and cannot be raised above the roofline, we are limited in how far we can contact which limits our grid square contacts to just a few. So to make up for our deficit I elicit contacts from local hams.

A couple of days prior to the contest I typed up a short note and emailed it to Penn Wireless and the Warminster Amateur Radio Club. I got 1 maybe 2 from WARC and about 4 from PWA plus 2 who tried, but were unsuccessful. The result was 9 less contacts and about 1100 pts off from last year's score. The focus on next year is being able to get a little more height out of the antennas we have. Even if only during the cover of night.

As I say: "What they don't know won't hurt me."

73 and see you all soon. **Michelle London KB3MTW**

THE LAST (?) KIDS/R ROVE

This year's rove started with planning last year as some of the preparation was done 6 months ago during the September VHF contest and the ARRL EME microwave weekend. The antennas were checked, the batteries left in a fully charged state, and all the electronics were checked as working. The flights were scheduled and I arrived on Thursday afternoon with time to get to the house, start recharging the batteries to top them off and check the memory-keyer and LASER communicators that run off 9V batteries. I even had time to visit the grandchildren and then be at the meeting at Giuseppe's. It was great to see all the regulars and some new folks too. The membership continues to grow. The presentations by Ben WA3RLT and Roger W3SZ were very engaging. I was able to get on our chat room a few times during the weekend, and I was able to get the PackRatFinder software working, although as busy as I was in the rove, I'll admit that it is best used by the home stations and mostly on Sunday when the action on the air is a bit slower.

I was thankful that Friday's weather was mild in the morning and I was able to get all the rover antennas erected and the coax connectors sealed with rubber tape as the weekend was **certainly moist!** Spent more time with grandkids and had dinner with my licensed harmonic Leon N1XKT and his family. I convinced him to make a bit of an effort for the contest (which he did). Saturday morning was wet, and by 12:30 I was on the road to Morgantown to start the contest at N3NGE's where I could score a bunch of QSOs and meet Jack AB4CR/R who would also be roving with gear through 24G + LASER. How exciting to be greeted by the dogs and their playball attitude. They both got a half-dozen throws from me, jumping in the air to catch the ball or bounding back and forth as the ball caromed between all the parked vehicles. The Boston terrier hopped into my rover van to check it out—front seat, operating position and back bench. I just had to double check that he wasn't going to rove with me and that he hopped out before I took off. The kitchen counter was full of goodies Linda made for the multi-op team. I was hoping to say hi to her, but Len told me she was out doing her new rural postal route. Off we go after running the bands, several LASER QSOs, and getting a bunch of FM contacts with the other guys. Jack and I pull into the parking lot of the Mennonite church down the road and I hunt up K3TUF to run through 24GHz with him while Jack set up his gear—bottom 4 antennas are strapped to the roof (but his rotator was not operational). His microwave gear uses 4 short loopers on a mast tied to the lift-gate. Dishes for 5/10 and 24G are hand-held. We did a 12 band run, 6 through 24GHz. While it's still light, we hustle over to the Blue Ball elementary school in FN10 and get running there. Plenty of action, and QSOs also with W3ICC/R who says he's in the area at Shady Maple. Also got a visit from Pete KOBAK



who was nearby. Little did we know as we pulled out of the parking lot that Drex W3ICC and Paul W2PED were on the other side of the school building. Their rover pneumatic mast was erected, and I can tell you for certain, size matters! It was so foggy by that time that you could barely see the top of the mast with the antennas. Snapped a quick picture of the 3 rovers and we were on our way to the next grid FM19 in Gap. The fog was so thick, we could barely see 50 feet and went 25 MPH most of the way.

After a bite of dinner at 8PM, I was able to run the bands with K3TUF, W3SZ and N3NGE from my little nook off the road and then zip up to FM29 for the balance of the evening. I was able to run the bands with the three of them again and added plenty of other QSOs from other Packrats. By 11PM I was wiped and with a bit over 40K points in the log, headed home.



On Sunday I was out by 8:30AM on site at the bank parking lot at 309 and Stump Rd. This has been a good location for working most all of the Packrats. I put the 6M Moxon on top of the main mast and raised the array; got the 5/10GHz dish mounted and set off to work more stations. As the weather was wet, some of the microwave bands were difficult, but in the end, there were over 400 QSOs in the log. Thanks to everyone with patience and good operating techniques, going to CW when SSB was a problem and tuning around as nothing in the rover is Rubidium or GPS locked. By 2PM it was time to get on the road to fill in a few more promised contacts and grab lunch. With stops at KB1JEY,

K3IPM and WA3EHD, I completed my course and headed home in the daylight. The rover coax cables were disconnected, antennas removed and all power off. The 12V incandescent pilot light on my charger panel blew out, so there was no indicator of the status—one thing I'll need to address in the spring.

On the home front I was able to make contacts on 6 through 1296MHz for another 84 QSOs and a separate log. One of the improvements in the home station was an IC-375, the multimode 220MHz rig, thanks to a deal I made with K3IPM. It will complement my future operations, whether as a rover or home station. After more than 25 years of roving in the northeast and mid-Atlantic, it's time to change things up. I am continuing to pursue EME on 432, 1296 and 2304, and will consider the possibility of 10GHz if I can find some substantial power on that band. Stay tuned.....73, Rick, K1DS

TOTALS 431 Q's 1441QSO Pts 49 + 4 = 53 Mults Claimed score = 76,373

VHF MOBILE/FIXED* CONTEST OPERATIONS AND THE MILITARY STRATEGY OF "INTERIOR LINES"

Visualize a semi-circle. If you are the defender on the inside of the semi-circle, you have the advantage of being able to employ the strategy of "Interior Lines." Inside of the circle, you can maneuver your forces a shorter distance than your adversary to reach the same point of defense/attack along the line. This advantage probably saved Washington's Continental Army from the British flanking attack near here, at the Brandywine. General Lee took advantage of it at Antietam, (Shepardstown). My sporadic operation as a "weak signal" Mobile, under the towers in the N3NGE front yard, prompted this article for your analysis and future discussion.

Pre-contest casualties of multiple regular operators for the N3NGE multi-op effort provided me with the opportunity to be a Substitute Op, and to experience the smooth professional cadence of Len's well drilled and combat tested VHF Contest Strike Force. Len's station is "Top Gun" quality, all of the ops are seasoned veterans. Internal and Over the Horizon RADARs (networks), are Fail Safe effective. The N3NGE QTH proved to be a Rallying Point for "Move, Shoot and Communicate" Armored Cavalry (Rovers). N3NGE ops exploited these deployments for "Light" Infantry Engagements, (LASER Qs). It was during these Rover Incursions that I, armed only with my LASER and a modest four band Mobile, (vertically polarized for the most part), recognized the potential benefit, Interior Lines could provide to "Weak Signal" soldiers like me. During these brief, though effective, point blank Artillery Duels with the Rovers and, notwithstanding my limited ammunition and firepower, I was also able to work other Packrat and Civilian stations with relative ease. -A special thank you to Bill, W0RSJ and Bruce, WA3YUE who, taking pity after reading my Reflector email, "In the unlikely event that you hear my weak signal, work me while you can.", made a special effort to coordinate attacks. Bill pulled me through the fire fight on 6 from Len's yard. Bruce employed Combined Arms tactics (SSB and FM), for Qs on 4 Bands. The latter victory came after my redeployment to Limerick, using the strategy of Interior Lines. Roger over?

The point is, roving in a sedan with simple antennas involves time between stops, fatigue and often low Q rates. Recent Rule changes will help you to find weak signal mobiles and rovers. However, should an Infantryman with limited time, simple mobile antennas and limited attention span/patience, consider employing the Strategy of Interior Lines? Moving within the same grid square, (as opposed to "Roving" by rule, e.g., activating more than one grid square), offers an opportunity to be more efficient with less fatigue. It is understood that by activating grid squares and providing multiple Qs to the mega stations generates more points per Q to the mega stations (because, they accumulate more multipliers). However, does such activity necessarily maximize the Club combined score? It probably depends. In a limited time, limited endurance, simple equipment battlefield, the trade off with Roving may be working fewer Rats. For the new recruit and Light Cavalry (mobiles with simple antennas), the Strategy of Interior Lines, (maneuvering within a single grid square), could provide engagements (Qs) with more stations and less fatigue. (More fun?)

Unfortunately, I may miss the debriefing (Wrap Up) by the S3 (Training and Operations Officer) at the Jump CP (temporary Command Post). I therefore leave bombardment of the Strategy of Interior Lines to the S2 (Intelligence) Section and our troops. Thanks again to Len and comrades. Thanks All for the contacts and fun. Results follow. **73. Griff NE3I**

*As there is no "Mobile" category in ARRL VHF Contests, one must submit such a log as a "Fixed" entry. Although a Mobile changes location within a single grid square, all antennas and transmitters are, (naturally), located within a 500 foot circle so, that's OK, I think. (Nothing herein represents or is intended to constitute a legal opinion or legal advice.) **So there.**

NE3I Mobile (Fixed) FN 20, IC 706 (40 watts) HF7A Vertical, Alinco DJ280T HT (5 watts) Larson 5/8 wave mag mount

Band/QSOs/Grids

6.	12	3
2.	11	3
220.	8	2
432.	10	3
Laser	5	1
Total	46	12
		Points 1188

LAST BIT OF ANTENNA WORK BEFORE THE JANUARY CONTEST

--by Lenny W2BVH

Last summer, Warren, WB2ONA came over and hung my 25 element 1296 MHz looper (along with a rotor loop) on the antenna pole that sticks out of the roof. But there was no time to put in the 7/8" hardline from the rotor loop to the shack. Lack of a line to the shack was ok, since I had no 1296 rig to connect it to!

This past fall, through some unexpected circumstances, I found myself with a very nice 1296 rig that just needed a bit of work to put into usable shape.

In December I got the 1296 rig going and bench tested. As always seems to happen, the "bit of work" I expected it to be, turned out to be more than a week's almost full time effort. It all worked out fine though, after an exploding electrolytic cap attacked me.. (See last month's Cheese Bits for details of that episode.)

So now, with a working 1296 rig, all of a sudden getting the hardline from the rotor loop to the shack became a priority, if I was to be on 1296 MHz in the January Contest.

Less than 2 weeks before the Contest I got a call from Warren: "Hey Lenny, we just finished a job up on the hill in Clifton and we'll be passing right by your place on the Garden State. You want us to come over and put up that hardline?" My answer was "Well yeah" (actually it was a bit saltier). Warren and his guys were here and gone in less than an hour with the hardline in place. There was still a connector missing from the shack end of the hardline, but Warren came back the following weekend and that problem was solved in short order. I did a couple of airchecks on 1296 with some fellow 'Rats just before the Contest and all was well.

If you were one of my 19 Q's on 1296 in the January contest it's Warren and his guys who need to get some of the credit!! THANKS!



Warren WB2ONA with Peter (making a major fashion statement with his safety gear) and helper "Strong Man" Mike on the side of the house.



Finishing off the 1296 hardline installation

EME RPORT FROM Pete (X- WB0DRL)

On 7 Jan around 0200 and on 1296.016 during the Funtest, I heard KL6M, VE6BGT and N4PZ in a 3 way SSB QSO. I broke into their chat, which made it KL6M, VE6BGT, N4PZ and N0OY in a 4 way SSB QSO via EME. Signals were Q5 all the way around for the 10+ minutes we talked. For me my 1296 EME journey has come a long way from the early days of struggling to make power and trying to hear weak signals to now with voice off the Moon - what a ride!

Southeastern VHF Society Conference

The SVHF Society will hold our convention in Charlotte, NC this year on April 28 and 29 at the Doubletree by Hilton Hotel Charlotte Airport, 2600 Yorkmont Road, Charlotte, NC 28201.

We have arranged rooms at \$95; you can call 800-222-TREE and ask for this rate under the name "South East VHF Society". Registration hyperlink is currently online: (<http://svhfs.org>). The conference fee for pre-registration is \$30, Friday's Luncheon is \$15, and the Saturday's banquet is \$40.

I hope to see many of you there, Gary Greene, W2ZV, conference committee member.

SVHFS Call For Papers

Jim Worsham, W4KXY@bellsouth.net is the contact person.

Papers and presentations are solicited on both the technical and operational aspects of VHF, UHF and Microwave weak signal amateur radio. Some suggested areas of interest are:

- **Transmitters**
- **Receivers**
- **Transverters**
- **RF Power Amplifiers**
- **RF Low Noise Pre Amplifiers**
- **Antennas**
- **Construction Projects**
- **Test Equipment And Station Accessories**
- **Station Design And Construction**
- **Contesting**
- **Roving**
- **DXpeditions**
- **EME**
- **Propagation (Sporadic E, Meteor Scatter, Tropospheric ducting, etc.)**
- **Digital Modes (WSJT, etc.)**
- **Digital Signal Processing (DSP)**
- **Software Defined Radio (SDR)**
- **Amateur Satellites**
- **Amateur Television**

In general papers and presentations on non-weak signal related topics such as FM repeaters and packet will not be accepted but exceptions may be made if the topic is related to weak signal. For example, a paper or presentation on the use of FM simplex in contests or on the use of APRS to track rovers during contests would be considered.

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Want to give a Presentation and/or have something for the Proceedings? Have some Pictures of Interesting Projects? **Please email Paul Wade: W1GHZ@arrl.net**

Check: www.newsvhf.com for updates

The Wayback Machine **In CHEESE BITS, 50 Years** **Ago**

Nibbles from February 1967. Vol. IX Nr. 10
& 11

de Bert, K3IUV
(author's comments in italics)

Part 2 of the combined issue follows.

- **“Technical Topics”**. An interesting article penned by member W2AXU, Jack Power, was titled “How Come 50-ohm coaxial Cable?”. Jack discussed the formulas defining cable impedance, and showed how a compromise of characteristics led to the universal (*then*) selection of 50-ohms for RF cables. He also showed how 75-ohm cable would result in the least loss (*with lower power capacity*), suggesting why it is now the TV cable company standard. (*As usual, for more details refer to the full text available at W3CCX.com*).
- **Tongue-in-Cheek**. Another humorous article by frequent contributor EI, K3JJZ. Co-authored with WA3BIV, Carl Barish, they relate a comical mobile exchange from an unusual vehicle. (*I wonder if EI remembers it?*). *For the details, and a laugh, read the original article in the scanned copy of this issue, posted on W3CCX.com*).
- **Sunspots**. A lengthy article written by WN7UF was copied from the Radio Club of Tacoma newsletter. Using material provided by Chuck, W7ER, he described in detail the reasons and impact of Solar activity on Amateur operation. He also discussed monitoring the peaks and

cycles of the solar activity to better prepare for the influence on our radio activities.

- **Points to watch in SSB operation**. A nice discussion of good operating practices, emphasizing how to keep your signal “clean”. (*Still applies today*).
- **Swap & Shoppe**. The monthly column by W3ZRR. For Sale by Doc, K3GAS. Two slide projectors, listed as in “top shape”! \$25 each. (*Doc was the collector of the club slides, which documented all the club activities. Frequently shown at outdoor meetings and other club gatherings. Are these now gathering dust in KB3XGs attic?*). Larry, K3ORD listed numerous tubes for sale. They included several of the 8939, the small power tube used in the club “Barry” rigs. \$4.50. (*Try to find one now?*).
- **ARRL Bulletin NR 95**. Issued 1/12/1967. For DXers. A new country was added to the ARRL countries list. Now to be known as Farquhar, it was formerly one of the Seychelles but is now part of the British Indian Territory. Contacts made after 11/10/66 will be credited to DXCC awards. (*Interestingly, Google shows this to still be the current status of the Island*).



6m EME Ain't Easy

6m EME ain't easy. Aerials are quite large to get needed gain for the path. --- Paul,wa3qpx

Hi Paul, Trying hard to complete my 6m was still missing states. One of them is DE. Is there any way for you to do some 6m jt65a eme or maybe you know someone there
Best 73, Frank DL8YHR

Frank, I am only station on eme from Delaware. What is your station? I have two M2 6M7JHV with no elevation. I have not had much luck on 6m eme. Paul, wa3qpx

Great that will work. have 4 times 6m5x here with elevation. Who did you work already? Are you on skype? Best 73, Frank

Hi, Hope you are ok. Moon will go down soon to a lower elevation so I would be happy to try. What are your future plans? Any time or are weekdays best for you? Best off 73 Frank

Hi Frank, Lot of wind this week. I will check out the gear tomorrow. Time is not a big problem just it is difficult getting up at 3am hi. 73, Paul, wa3qpx

Ok. OK let me know if all ok and i will set a few dates. Best 73 Frank

Frank, Checked out gear this morning all ok. We had wind for four days sustained 25mph with gusts to 45mph. I have a W2ODO preamp but running checks it is not needed with Flex 6500. I found no difference in signal. My second lobe is 10 to 15 degrees. I have to raise tower to 70 feet to get above trees this puts the top 6m7jvh at 92 feet. Checked out Lunar Link at low power 500w out capable of 1500 continuous. AM East Coast sked pse. I retire early. I am retired from work so date is not problem. 73 Paul, wa3qpx

Hi Our next good windows with moderate Dec will start the 12/3 around 15:13 your Moonrise and the next days. So if ok for you lets try beginning the If ok for you and if not ok maybe the upcoming days as well. How? Best 73 Frank

...Wayback cont'd

Postage remained at 10c this month (5 sheets 8-1/2" x 14"). As in previous editions, many "folksy" comments about members, their families, and activities were included in this edition of Cheese Bits. If interested, or for more detail on the above items, visit www.W3CCX.COM and read the full issue posted there by our Webmaster, Ron, W3RJW).

thirty, de K3IUU

6M EME cont'd...

Hi, Just calculated moon windows today I may not be back from qrl early enough but tomorrow your moonrise is around 13:15 so perfect as well as Saturday and Sunday will try to be home today as well but can't guaranty that I'm back right in time. How? Best 73 Frank.

December 30:

OK --Paul

Your moon is still below horizon -2 degrees right?

LOST YOU. Anything your side? ---Frank

Will keep going. ---Paul

Yes please.....any trace from me? --Frank

No traces. tower was down due to wind but wanted to try anyway to see if it made difference.

Tower up tomorrow --Paul

RRR....if we cant make it eme I'm sure we will work on multi es GL tomorrow. --Frank

December 31:

RUNNING 202 ME FIRST OK? --Frank

OK --Paul

NOTHING FROM ME? -- Frank

Finaly Paul! Got your ro -.30 Calls -27. Tnx a lot for Delaware! Best -27. Tnx so much for all the tries. Have a beautiful New Year!!

All the best Frank! --Paul

Events

For inclusion, please direct event notices to the editor.

VHF Spring Sprints 2 Meters - Contest - April 17, 2017, 7-11pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

VHF Spring Sprints 222 MHz - Contest - April 25, 2017, 7-11pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

VHF Spring Sprints 432 MHz - Contest - May 3, 2017, 7-11pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

VHF Spring Sprints Microwaves - Contest - May 6, 2017, 8am-2pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

WARC Hamfest - Hamfest - May 7, 2017. Details to follow

VHF Spring Sprints 6 Meters - Contest - May 13 - 14, 2017, 2300Z to 0300Z. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

ARRL June VHF QSO Party - Contest - June 10 - 12, 2017. Details to follow.

CQ WW VHF - Contest - July 15-16, 2017. Details to follow.

Sussex County (NJ) ARC Hamfest - Hamfest - July 16, 2017. Sussex County Fair Grounds, 37 Plains Road Augusta, NJ 07822 . URL to follow.

Proposed 222 MHz and Up Distance Contest - Contest - August 5-6, 2017. Info on whether this will be held, to follow.

10 GHz and Up – First Round - Contest - August 19-20 , 2017. Details to follow.

Frank, K2MLB SK

Word reached Cheese Bits via phone from his XYL, that former Packrat Frank Grosso, K2MLB passed away last May 25th after “A year-and-a-half valiant battle with cancer.” His wife Marianne said he had made many friends in Ham Radio over the years, and retained those friendships all the way to the end. He built many of his radios himself. His enthusiasm for our hobby never waned: He worked the January 2015 VHF contest while on chemo and placed first in the Low Power Single Op in the NNJ Section for that contest. Also while on chemo, he managed to set up an EME station for 2 meters with help and advice from his good friend Roger NJ2R. His wife informed your editor that he and Roger “were jumping up and down with excitement” after completing his first EME QSO, December 2014 or January 2015. Bob W2SJ said that Frank stopped coming to Packrat meetings only after his eyesight became too poor for him to drive and that his XYL would read the hardcopy of Cheese Bits to him when it arrived each month.

RIP, Frank.

TXFactor

TXFactor is an ongoing series of Video reports created by UK hams. They're interesting, informative and well produced. A good place for Packrats to get started is episode 13 which has about 1/3 of its content devoted to and explanation of VHF propagation and space weather. Well worth a look. <http://www.txfilms.co.uk/txfactor/episode->

Sound Card Performance

W3SZ sent along the following URL in the Packrat Reflector last month: <http://www.sm5bsz.com/linuxdsp/hware/ensemble.htm>

The author, Leif SM5BSZ records the performance of a large number of sound cards when used with SDR's. There are some very interesting conclusions. One is that a moderately priced sound card hooked up to an inexpensive SDR (like the most recent SoftRock's) yield very good performance. Check it out! --W2BVH

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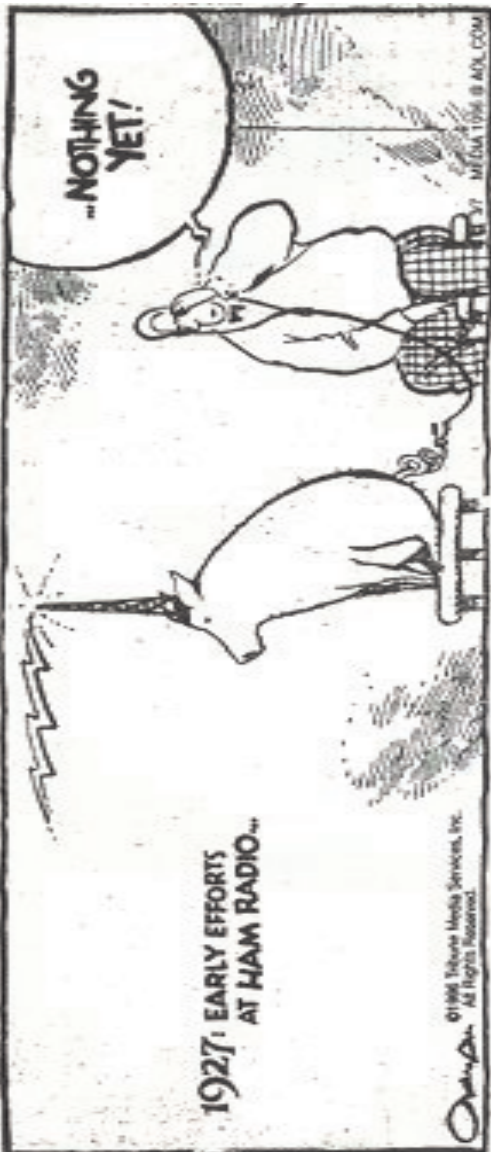
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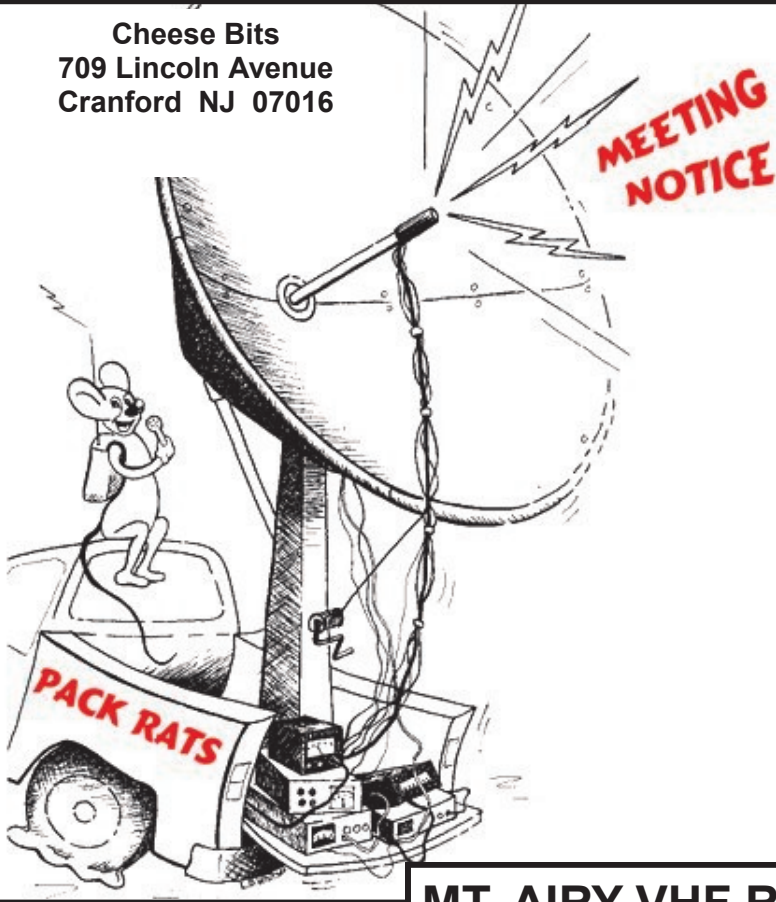
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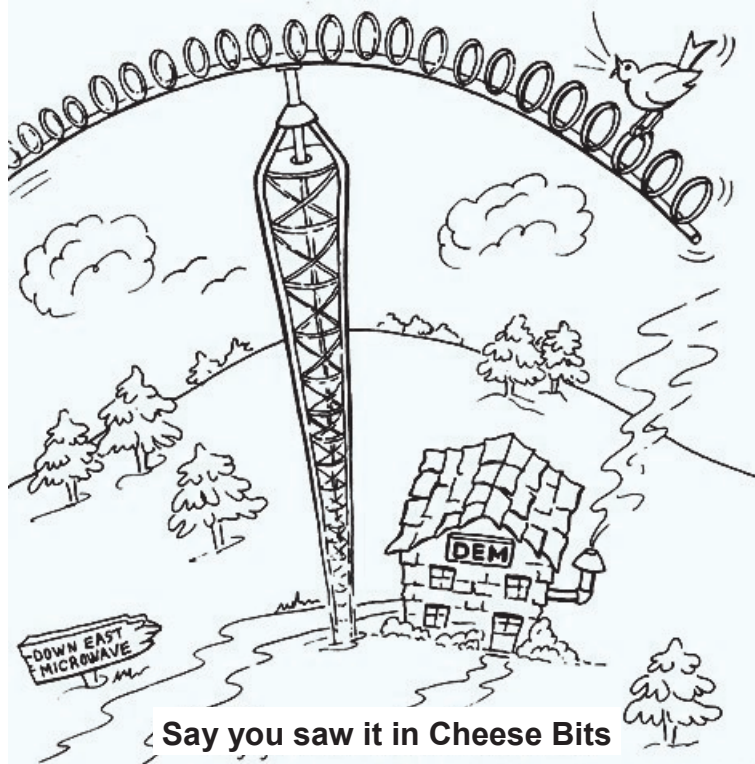


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