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

CHEESE BITS

ARRL Affiliated Club

W3CCX
CLUB MEMORIAL CALL

Volume LVII | March 2016 | Number 3

PREZ SEZ:

Where did the month go? I believe someone stole the first week in February, it was just gone, no trace left,. I don't know what happened to it.

We enjoyed the month here in Florida and plan to return again next year; it's just a great way to spend the cold time in sunny FL. Now we're in Disney's Fort Wilderness and it is another wonderful place to escape the cold weather.

This issue should have more reports from the contest. I wish I had been able to make the wrap up to hear the reports first hand. At least this issue will summarize club results. Results from the 3830 site are promising for the club individual standings.

I was extremely encouraged by the discussions on using CW in the contest to make weak signal contacts. This is such an effective mode to snag more grids. One idea that surfaced is the use of CW for net check ins. I think before the next contest that will be a valuable exercise.

Using CW in a contest does not require as much effort as if you were going to hold a conversation. First of all you can anticipate what is going to be sent. You know you have to copy a call sign, and that there will be only one number in the call sign. There are a few trivial connector phrases, and a grid. You know that the grid will begin with either an E or an F, another letter and two numbers. That's it. Then it's good to send and recognize two more numbers: 73 to close the contact. I think maybe we'll run a two meter net on CW before the June contest. **Any volunteers for net control?**

Another valuable tool in keeping or developing your CW skills is the free program "Morserunner". You need to keep this program around, it really helps when it's time to prepare for a contest.

In our quest to work as many of the club members as possible we have an add-on to the N1MM program that will keep and maintain a graphical account of what members you have worked and what members you need, and on what bands. **Roger, W3SZ has tapped into the database of N1MM and provided this valuable resource.** Maybe we can do a demo of it in an upcoming meeting. It's a good reason to move to the N1MMplus program for your logging. It's even endorsed by W3KM who now provides the call history file for the program. It's also a great way to keep assistance spots in front of you while you are in action during a contest. You really need the advantage of assistance within the logging program to keep yourself focused and have lots of information at your fingertips.

The meeting this month is "Home Brew Night" and as always we meet at Giuseppe's beforehand at 6PM with the meeting beginning at 7:30. Bring your latest project and show it to the group.

The list of attendees to the VHF Super Conference continues to grow. You need to get your call on that list. Go to: vhfsuperconference.com and add your name to the list. There won't be another conference like this one for a long time. Lets make sure our club is well represented.

Pack Rats **CHEESE BITS** is a monthly publication of the
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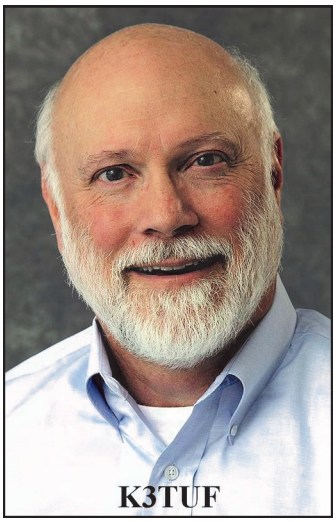
PACKRAT BEACONS - W3CCX/B
FM29jw Philadelphia, PA
50.080 ~~144.284~~ 222.062 432.290 903.072 1296.264 ~~2304.043~~
3456.200 ~~5760.195~~ 10,368.034 MHz (as of 1/16)

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



Three of the spring sprints happen in the month of April; the 11th is the 144MHz Sprint, the 19th is the 222MHz Sprint and the 27th is the 432MHz Sprint.

The June VHF Contest will be here before you know it, get your calendar cleared and be ready to come to Camelback from June 10 to 13. Setup begins just after lunch on Friday with the Contest beginning on Saturday as usual. Then when the contest is over the tear down takes place on Monday morning. We need your support. It will be a fun weekend and I hope to see you there.

That's all from down south for now. See you next month when we hope to work on lots of bands,
73,

Phil, K3TUF

Mt. Airy VHF Radio Club, Inc.
`The Packrats`
January 2016 VHF Sweepstakes Contest

Total Logs: 70 **Club Claimed Score: 2,238,450**

Here's the results of the January Sweepstakes as compiled by W3KM. How did you do? Check it out below. Each frequency cell shows Q's and Grids for that frequency. What can you do to improve for next year? Start planning soon!

Nr	Call	QSO's	Total-Grids	Score	6M	2M	222	432	902/3	1.3 GHz	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	Laser
1	K3TUF	673	145	219675	150 25	183 32	80 21	117 26	35 9	54 15		21 4	15 5	13 4	5 4	
2	WB2RVX	534	112	162064	107 19	114 19	70 17	87 18	35 9	49 10	22 4	23 6	13 5	12 4		2 1
3	WA3NUF	583	90	116730	146 15	153 21	74 12	93 16	32 8	36 6	19 3	14 3	5 2	9 2	1 1	1 1
4	W3SZ	478	81	111213	92 12	101 15	61 10	79 10	25 5	40 7	21 5	21 5	15 4	18 4	5 4	
5	N3RG	454	101	108676	117 25	105 20	55 12	74 12	26 7	31 7	15 4	11 5	10 5	9 3		1 1
6	NN3Q/R	511	64	96448	58 7	149 12	69 8	67 7	39 4	40 5	26 3	24 4	18 4	18 4		3 2
7	K3IPM	546	80	93920	165 18	139 18	61 9	76 10	27 7	34 7	20 5	17 4		7 2		
8	WA3GFZ	421	72	72504	82 10	109 16	58 10	78 11	23 6	29 7	16 3	10 3	5 1	7 3	1 1	3 1
9	WA3DRC	375	58	59160	55 5	97 13	54 8	62 10	27 5	28 5	19 4	17 4	7 2	7 1		2 1
10	W0RSJ	393	73	55480	91 14	109 16	55 11	79 13	17 6	28 7	8 3	6 3				
11	K1DS/R	303	48	52368	31 4	60 7	52 4	30 4	24 4	27 4	16 3	18 3	14 3	17 3	9 3	5 2
12	W2SJ	359	61	51179	79 10	80 13	53 8	67 10	20 6	30 6	14 3	14 4				2 1
13	K3GNC	345	67	48977	61 11	114 21	39 6	71 14		36 9	14 4	10 2				
14	WA2FGK	411	84	42672	141 28	173 32		97 24								
15	N3YMS	362	67	41607	72 11	129 21	50 11	62 12	20 5	29 7						
16	WA3QPX	291	69	31878	115 12	83 30	32 8	32 8	11 4	13 5	5 2					
17	K0BAK/R	238	45	30240	65 7	51 8	24 3	30 4	12 3	12 3	9 2	11 3	7 3	8 2		9 2
18	KC2TN	328	54	30186	97 15	84 13	49 9	58 9	9 2	30 5						1 1
19	W3ICC/R	446	47	28858	152 12	126 12	77 9	91 9								
20	W3KM	282	47	20163	79 10	88 14	51 9	48 9		16 5						
21	K3MD	216	63	20160	69 17	73 18	26 10	33 11		15 7						
22	WA3SRU	263	41	19844	64 9	66 12	36 6	53 8	21 3	23 3						
23	WA2OMY	225	35	19565		143 15	12 2		23 4	19 4	14 4	11 4	3 2			
24	KA3FQS	271	37	18648	68 8	78 12	43 5	46 5	12 2	15 2	4 1	5 2				
25	K3JJZ	248	37	14689	69 7	72 9	42 6	52 7	2 2	7 2	2 2	1 1				1 1
26	W2TAG	233	31	11160	68 8	72 10	32 4	44 6		17 3						
27	W2BVH	216	37	10730	68 11	74 12	33 7	41 7								
28	WA3YUE	212	28	10444	63 6	62 7	25 4	35 5	13 3	9 2	5 1					
29	KB3MTW	242	20	8000	64 4	68 5	37 2	49 3	14 3	10 3						
30	KB1JEY	211	26	7748	68 8	62 7	39 5	41 5								1 1
31	N3EXA	210	27	6480	65 9	115 15	21 2	9 1								
32	W3HMS	107	32	6112	19 4	36 9	13 6	23 7	8 3	8 3						
33	K1JT	122	46	5612	74 19	48 27										
34	K3MF	101	42	5250	21 7	56 24		24 11								
35	KA3WXV	166	24	5208	56 8	59 9	17 3	34 4								

Mt. Airy VHF Radio Club, Inc.
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January 2016 VHF Sweepstakes Contest (cont'd)

Total Logs: 70 **Club Claimed Score: 2,238,450**

Nr	Call	QSO's	Total-Grids	Score	6M	2M	222	432	902/3	1.3 GHz	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	Laser
36	AA3JH	185	21	5103	86 10	41 5	19 2	39 4								
37	WA3RLT	171	24	4968	70 7	65 10		36 7								
38	N1XKT	182	17	4182	54 6	64 5	30 3	34 3								
39	WA3NFV	163	17	3689	62 6	47 6	22 2	32 3								
40	K2TXB	152	23	3496		152 23										
41	N2DEQ	126	20	3420	37 7	50 7	16 2	20 3		3 1						
42	K2WB	105	19	2755	32 4	33 7	18 4	22 4								
43	KB3XG	97	21	2646	29 6	39 8		29 7								
44	K3HUW	119	16	2560	19 3	59 8	9 1	32 4								
45	K3VEQ	124	17	2550	37 6	61 9		26 2								
46	WA3ELQ	133	14	2212	61 7	47 4	12 1	13 2								
47	WA3JZN	109	14	1904	55 5	27 6	19 1	8 2								
48	WR3P	98	12	1584	31 3	35 4	13 2	18 2		1 1						
49	W2MC/R	66	16	1552	15 3	20 4	17 4	14 3								
50	K3DMA	45	11	1430	5 1	9 2	12 2	6 1	4 1	2 1				1 1	1 1	5 1
51	W3GXB	55	15	915	23 8	26 6	6 1									
52	K1DS	46	11	748	11 2	17 4	5 1	11 2		2 2						
53	WA2DTW	35	13	663	9 3	10 4	8 3	8 3								
54	K3BPP	46	13	624	2 2	42 9		2 2								
55	NE3I/R	38	11	517	10 2	19 3		9 2								
56	NE3I	55	7	490	21 3	19 2	10 1	5 1								
57	AA2UK	28	10	280	28 10											
58	K3BFS	38	6	228		38 6										
59	KU3A	17	6	102	9 3	8 3										
60	W3FEY	9	5	85		1 1	7 3	1 1								
61	K2UYH	6	4	72				3 3		3 1						
62	W3GAD	4	4	52		1 1	1 1	1 1								1 1
63	K3EGE	3	2	36			1 1									2 1
64	WB2ONA	8	3	24	5 2	3 1										
65	WA3WUL	1	1	8												1 1
67	K3IB	3	2	6		3 2										

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January 2016 VHF Sweepstakes Contest (cont'd)

Total Logs: 70 **Club Claimed Score: 2,238,450**

Multi-OPS

Call	QSO's	Total Grids	Score	6M	2M	222	432	902/3	1.3 GHz	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	Laser
N3NGE	1226	198	496386	348 44	339 44	136 31	218 34	42 11	50 10	32 9	24 6	16 4	16 4		5 1
	Ops: N3NGE K3EGE K9PW K1WHS WA3WUL K3DK														
WA3EHD	380	49	40866	86 7	112 11	51 7	57 7	24 5	19 4	13 3	13 3		2 1		3 1
	Ops: WA3EHD K3DMA														
W1SMS	162	36	7200	66 11	58 14		38 11								
	Ops: W1SMS KD5CHG														
WB3IGR	46	23	1449	15 7	20 8	1 1	9 6								1 1
	Ops: WB3IGR WB3LTH														

Mt. Airy VHF Radio Club
January VHF SS
Previous Aggregate Claimed Scores

Year	Logs Submitted	Score
2016	70	2,238,450
2015	68	2,065,073
2014	68	2,277,747
2013	65	2,659,242
2012	77	2,491,702
2011	67	2,156,784
2010	70	2,699,809
2009	58	1,891,225
2008	63	2,232,731
2007	63	2,055,259
2006	57	2,724,560
2005	53	1,459,052
2004	56	2,856,837
2003	61	3,127,678
2002	49	2,113,624

PACKRAT CHAT PAGE

THANKS to Roger W3SZ, the Packrats now have an internet Chat Page that can be used to set up Microwave QSO's on our "Microwave Tuesdays", or for coordinating QSOs whenever you want.

This should also be a great meeting place for use in contests that allow spotting.

The Chat Room is at **W3SZ.COM**

Just enter your call in the box provided and click the "Login as Guest" box. As of now, no password is required to use the chat.

K3IPM "Tower" Plans

Stan reports that his plans for the 2017 January Contest include using TWO man-lifts to hold the antennas. The mobile trailer tower will not be used.
Guess the single man-lift this year worked out well.

Mt Airy VHF Radio Club Current + Previous 6 Years Scores by Station

Call	2016	2015	2014	2013	2012	2011	2010
K3TUF	219675	132582	229330	272384	340091	229425	195295
WB2RVX	162064	230356	203592	199056	65892	119103	153360
WA3NUF	116730	123156	118085	132496	147854	156604	142040
W3SZ	111213	45784	33480	185725	83066	-	148821
N3RG	108676	108070	78800	91000	106236	46588	8
NN3Q/R	96448	71565	76096	110228	42552	79900	51675
K3IPM	93920	88788	82160	87480	111760	66276	77028
WA3GFZ	72504	67375	75768	68526	26049	16215	25434
WA3DRC	59160	59218	68839	94400	73100	81004	83585
W0RSJ	55480	35700	28408	50544	43512	46000	44979
K1DS/R	52368	87497	-	100548	136242	112320	157612
W2SJ	51179	27816	17520	15470	24	88764	125370
K3GNC	48977	38254	26826	34048	-	-	-
WA2FGK	42672	21016	184426	116242	-	-	-
N3YMS	41607	24832	44148	-	69286	33441	-
WA3QPX	31878	33128	54366	27840	247	31376	35642
K0BAK/R	30240	6480	-	-	-	-	-
KC2TN	30186	35904	37855	15720	28832	5564	-
W3ICC/R	28858	10428	-	-	-	7521	-
W3KM	20163	8613	11016	14523	4104	17388	31744
K3MD	20160	21513	12744	15433	11948	-	-
WA3SRU	19844	-	18935	24435	32376	-	12888
WA2OMY	19565	28620	44347	53392	57532	15171	20430
KA3FQS	18648	21868	3859	5140	5136	276	20007
K3JJZ	14689	5112	11296	14245	22736	16212	15785
W2TAG	11160	7722	869	-	4788	1344	-
W2BVH	10730	9792	18432	14288	16014	13489	20460
WA3YUE	10444	-	16296	8046	1650	8616	9656
KB3MTW	8000	6780	4466	1960	795	1040	1920
KB1JEY	7748	7300	6573	6279	9126	6510	4656
N3EXA	6480	60	-	-	198	115	325
W3HMS	6112	4669	6464	6688	10868	-	-
K1JT	5612	13188	16714	25728	65940	111899	130509
K3MF	5250	2	-	-	3038	-	16131
KA3WXV	5208	5400	3043	3819	7830	-	4746

Mt Airy VHF Radio Club Current + Previous 6 Years Scores by Station (cont'd)

CALL	2016	2015	2014	2013	2012	2011	2010
AA3JH	5103	4032	7020	4437	10640	2325	-
WA3RLT	4968	3116	1110	8704	14872	8576	14352
N1XKT	4182	2171	-	50	10040	1750	-
WA3NFV	3689	1507	-	-	-	-	-
K2TXB	3496	3674	1106	-	495	1680	9024
N2DEQ	3420	3080	3500	-	5452	5070	3888
K2WB	2755	3220	-	-	1872	-	-
KB3XG	2646	3458	900	4075	-	-	2560
K3HUW	2560	-	-	-	-	-	-
K3VEQ	2550	2227	3591	3630	6120	2736	2489
WA3ELQ	2212	1651	2496	-	4536	3363	-
WA3JZN	1904	-	-	-	-	-	-
WR3P	1584	-	-	-	-	-	-
W2MC/R	1552	-	-	11988	-	-	-
K3DMA	1430	1540	-	-	-	-	-
W3GXB	915	400	1649	828	744	1275	1854
K1DS	748	2520	-	600	423	1176	133
WA2DTW	663	376	864	441	3509	1710	-
K3BPP	624	576	756	-	1672	286	450
NE3I/R	517	-	-	5275	770	-	5037
NE3I	490	2247	27	-	5510	8844	4176
AA2UK	280	-	-	-	-	-	7640
K3BFS	228	448	222	140	913	880	432
KU3A	102	-	216	-	14	-	2
W3FEY	85	182	217	2352	1241	1344	3828
K2UYH	72	-	-	-	-	-	-
W3GAD	52	12258	30576	26688	19823	18040	45880
K3EGE	36	784	-	328	-	84	913
WB2ONA	24	144	-	-	9165	819	3444
WA3WUL	8	16	24	48	16	24	8
K3IB	6	-	20	203	18	360	756
MULTI-OPS							
N3NGE	496386	507726	541680	591832	541722	541944	735885
WA3EHD	40866	41256	34680	45980	52399	33372	8234
W1SMS	7200	320	-	-	84	-	2
WB3IGR	1449	14681	22168	28560	26670	28535	27720

Contest Comments

By Roger W3SZ

On the Tuesday before the contest I discovered that my rotor loop had dropped and I my azimuthal rotation was limited to 30-170 degrees. Thursday and Friday were spent working on a fix.

During the week I also added capability to my SDR software so that I could switch in and out direct digital audio and COM port connections to N1MM and WSJT-X with a mouse click, so that I could run the digital modes as well as the "standard" modes of SSB, CW, and FM easily during the contest.

So by Saturday morning everything was ready to go. Everything then ran without a hitch for the rest of the contest.

It was a really fun contest. I very much enjoyed using the new operating aids allowed by the new rules.

I used **one computer with 4 monitors**. One monitor was dedicated to aprs.fi to show the rovers. I really didn't need to use this because the rovers were identified via the N1MM Telnet/DX Cluster or by **direct text messages sent by them to me**. Two monitors displayed my SDR control software, N1MM windows, the N1MM Rotor window, and WinGrid. The fourth monitor was used for WSJT, the Firefox web browser that was used to display the ON4KST chat and the W4DEX/UHFQSO chat, and the Verizon Text Application. I put a screen grab of these 4 screens taken during the contest at: http://www.nitehawk.com/w3sz/wa3lbi_10G_JT4F.png

The "new methods" that I used and their relative usefulness for me were [ranked **highest to lowest**] as follows:

1. N1MM+ Telnet/DX Cluster function, showing both "standard" spots and #rvrstatus spots
http://n1mm.hamdocs.com/tiki-index.php
http://n1mm.hamdocs.com/tiki-index.php?page=Telnet+Window
http://www.roverstatus.info/

2. ON4KST IARU Region 2 144 and 432 MHz Chat page
http://www.on4kst.org/chat/login.php?band=8

3. Text messages sent and received directly from my computer using Verizon's "Message+" App so I didn't need to use my cell phone itself to handle text messages. I could stay focused on the computer. You can download this app from www.vtext.com . [This link won't work unless you are a Verizon customer, and when you use this URL you will be forced to log on to your Verizon account before you can get to this URL].

4. Phone calls sent and received from my cell phone

5. w4dex.com/uhfqso chat page.

The pros and cons of each of the above for me were:

1. N1MM+ Telnet/DX Cluster function.

PROS: Easy to keep track of. Integrated with N1MM+ so I just had to click on the spot and my radio was set to the mode and frequency of the spot, and the spotted call and info were entered into the N1MM+ Entry Window just by tapping the space bar.

CONS: none

2. ON4KST IARU Region 2 144 and 432 MHz Chat page

PRO and CON: Extremely busy, enough so that it was tough to keep track of at times. At some points there were 10 or more new messages every minute.

3. Text messages sent and received directly from my logging/SDR computer

PROS: Worked well. By using the Verizon app [available only to those with Verizon cell service] I didn't need to use the cell phone itself and could stay focused on the computer. You can see a picture of the app on my computer screen at: www.nitehawk.com/w3sz/VerizonTextApp.png and you can see a picture of the app on 1 of my 4 monitor screens during the contest next to my web browser and partially covering WSJT at: www.nitehawk.com/w3sz/PCTEXTAPP.png

CONS: None

4. Cell phone calls.

PROS: Worked great. Handy and fast and provided immediate results...

CONS: ...except when I didn't hear the phone ringing due to my wearing headphones with the volume cranked too high [Sorry Jim!!]

5. W4DEX / UHF QSO

PROS: A great idea!

CONS: Very little activity...so not useful to me. This was my sentimental favorite going into the contest, but it didn't have enough use by other Packrats to make it useful. Had more Packrats used it, it would have been valuable because then the lower volume of traffic would have been an advantage for Packrat-to-Packrat communications. Packrat-to-Packrat communications were easily lost in the ON4KST chat when it was very, very busy.

Except for #5, all of these utilities were very important to me and provided a **significant number of contacts**. The only one of these that I could have lived without was #5. With these utilities in play, there were no dull moments for me during the contest, and they greatly increased my enjoyment of the contest!!

My high points this contest were:

1. Working Jim Malone WA3LBI on 10G using JT4F [my first digital contact on 10 GHz]; it was the first test of the modifications I made to my SDR software so that I could use WSJT directly with it, with no cables. You can see the WSJT windows displaying this contact on the leftmost screen of the image noted above: http://www.nitehawk.com/w3sz/wa3lbi_10G_JT4F.png or you can see it extracted and enlarged here: http://www.nitehawk.com/w3sz/wa3lbi_10G_JT4F_Cropped.png Jim and I were both GPS-locked.

2. Calling Dale AF1T on cell phone after I heard him and Phil trying unsuccessfully to work on 2 meters CW, and running the bands [except for 903] up to and including 1296 with him as a result of this call.

3. Multiple 24 GHz contacts with Rick K1DS/R and Phil K3TUF.

I very much enjoyed each and every Packrat contact. It is extremely gratifying to participate in an activity where the end result is that each Packrat-Packrat contact benefits both the two communicating Packrats individually and also the Club.

The most interesting "negative" of the contest was finding out that there was a point source 5G interferer that wiped out the entire 5G band when I was pointed at Phil WA3NUF, but not if I went just **4 degrees** off his heading. Of course when moved 4 degrees off his heading I also degraded his signal...so I worked all the bands with him thru 10GHz except for 5G. I checked several times during the contest and this noise at his azimuth was always present. This noise raised my noise floor by 20 dB when I was pointed at him. This is shown by this URL:
http://www.nitehawk.com/w3sz/WA3NUF_Direction_Noise.png
The light blue at the top of the waterfall is the 5 GHz noise floor at 94 degrees azimuth. The orange/yellow is the 5 GHz noise floor at 98 degrees, which is the azimuth for WA3NUF from W3SZ. The dark blue band is the 5 GHz noise floor at 120 degrees, which is representative of the noise floor at 5 GHz in most directions at W3SZ. The orange/yellow band at the bottom is again the 5 GHz noise floor at an azimuth of 98 degrees, pointing at WA3NUF. Phil and I worked easily on all other bands from 50 MHZ through and including 10 GHz. But this noise prevented me from hearing or seeing his signal on 5 GHz.

The most amusing thing that happened during the contest was finding out that my cardiology answering service got a call 2 years after my retirement asking if I was available to "run the bands on the microwaves". I wish I could have been there when they got that message.

I hope the above is helpful or at least interesting.

73, Roger W3SZ

Some Contesting Advice

In a comment on the VHF Contesting reflector, Jim, KK6MC gives some advice to relatively new VHF'ers on improving their operation. I agree 100% with his statement advising to **"be loud on 2 meters!"** A year or two after getting started as a new club member I upgraded my then 50 W solid state 144 MHz signal to running a pair of 4CX250's for 500-600 W output (with thanks to WA2OMY for help with construction!) ... it brought the band to life! My 144 score certainly showed it but as he said, it also gave me a lot more "qsy's" to the other bands.

The W3ICC/R is working on being LOUD on 2 meters! (We're looking for a 250 watt - class SSPA. Let us know if you know about one that's available).

73, Paul w2ped

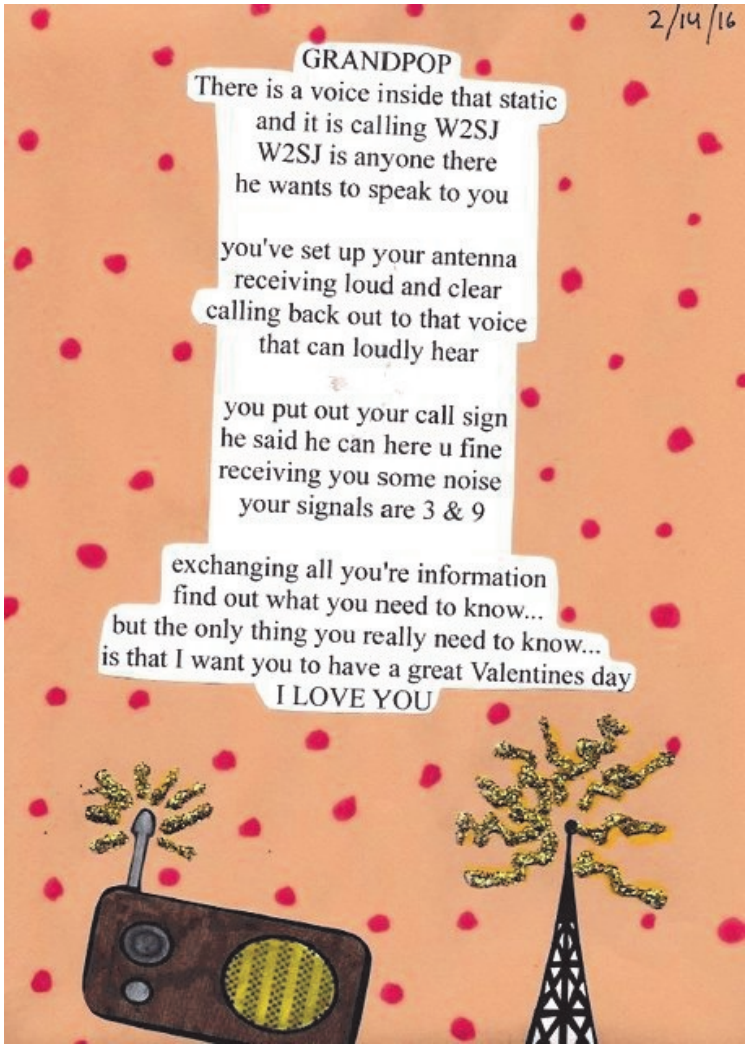
W2SJ's Valentine

2/14/16
Lenny,

Returned home today after a hard day of delivering flowers in 15 degree weather... The attachment is a .pdf of the artwork my 11 year old granddaughter Lexie left on my desk in the shack.

She has been watching me build my new antenna system for months and asking questions about ham radio. Maybe a future member for the club!

73, Bob



A Raspberry Pi QRP Transmitter Shield

By Joe Muchnij, N8QOD

Although it's not VHF or UHF, I thought I'd share something vey interesting demonstrated at the recent TAPR Digital Communications Conference: a 20m transmitter built from a Raspberry Pi computer.

TAPR brought its developer, Zoltan Doczi HA7DCD to the conference from Budapest Hungary and will soon be selling his QRPi shield.

Zoltan has made digital contacts throughout Europe, as distant as 2400 km (~1500 mi) from his QTH using a simple outdoor random wire antenna only 2m above ground and the digital WSPR mode, developed by Joe Taylor K1JT (the open source software he used can be downloaded from https://github.com/JamesP6000/WsprryPi).

The Raspberry Pi is an inexpensive (< $40) computer available from many sources, including MCM.

Zoltan added a tiny daughter board that plugs directly onto it containing two filters, a 10 dB FET amplifier and a protection diode; it outputs 100 mW on the 20 meter band.

A full technical paper is in the 2014 Conference proceedings, available from TAPR.

--From “Anomalous Propagation” Newsletter of the Midwest VHF/UHF Society

Contest Wrap-Up Meeting Pix

Contest Wrap-Up cont'd

CRYING TOWEL MEETING PIX

CRYING TOWEL CONT'D

Stern and demanding judges make their pronouncements

Some of the Criers

The moderately coveted Crying Towel goes to W2BVH

The mildly coveted Crying Tissue goes to WB2RVX

Hints & Bits

Several decades ago, I published a **`Hints & Bits`** article in Cheese Bits similar to this about signal sources used for LNA tuning under on-the-air conditions.

Back in the 80`s I built a single transistor signal source with a 72 MHz crystal and listened to the harmonics on 144, 432, 1296 and 2304. A signal source makes it easy to tune up LNAs when they are connected to the antenna. I would put the source out in the woods, then rotate the antenna until I could barely hear it. Then tune the preamp for the best signal. Anything can be used for the source's antenna. A wire soldered to a connector or a coffee can feed both work well.

Years later in the early 90`s I made sources for 432, 1296 and 2304 that used a 1N34 glass multiplier diode and an interdigital filter. I also wanted to use them as frequency markers, so I put 60 deg C PTC thermistors on the crystals so the frequency wouldn`t move. I ran the sources on the bench for a week to `age` them before measuring the actual frequencies. See the next to last article at http://www.packratvhf.com/Article_6/w3km_picks.htm for info on using PTC's. (BTW Steve N2CEI picked up on this and uses it in his products)

Recently I bought 2 used very low power beacons - a DEMI for 1296 MHz and an SSB Electronic 2400 MHz. The DEMI unit already has a PTC thermistor, so I`ll put one on the SSB unit as well. I am ordering a crystal for the 2400 unit to put the output on 2304 MHz. Although the single transistor sources were designed for 9V battery power, I will use small 12V rechargeable packs for these 2 signal sources.

I worked lots of 2304 QSOs long before I ever heard the W3CCX 2304 beacon - it was always in the noise. So I want to use this SSB beacon to make sure my 2304 RX is working before contests. It didn`t work in this January contest! But, that's not surprising, it is ~30 years old. Even though it always worked before, the LO crystals age and the LO probably just quit -- time to refurb.

Dave W3KM

Dayton VHF / Microwave Presentations Needed

The VHF/UHF/Microwave Forum at the Dayton Hamvention is schedule for Saturday May 21st from 3:15 to 5 PM.

I am looking for 4 or 5 presentations over a wide range of homebrew VHF/UHF/Microwave topics that may attract newcomers to the forum and to our favorite part of the spectrum as well as inform and enlighten the usual suspects. 15 minutes may seem a bit brief but as demonstrated in the past a well-organized PowerPoint presentation can be very effective despite the time constraint.

All that can be offered in the way of fame and fortune is that your name, callsign and the title of your presentation will be listed in the official Hamvention program and speakers are issued a speaker badge which will not only impress your friends and neighbors but permit complementary entry to the Hamvention.

If you have any questions please do not hesitate to contact me at WA8RJF@arrl.net or temanuele@ebulent.com

73, Tony WA8RJF

N3FA - RIP

With deep regret, I am forwarding sad news. The person behind the invasion of Red Rock Mountain (FN11) in June and September has passed this morning (2/1/2016)

Bob was the trustee of the famous K3 Yellow Traffic Light and Murgas Radio Club for many years. He has inspired VHF contesting and field day since 1975. Bob was quite sick for some time. During the rain swept Field Day in 2015, I took a picture of him operating CW for the 45th year in a row. His competitive nature will be sorely missed. I always enjoyed calling him my mentor. So knowledgeable in every aspect of ham radio. One thing in ham radio he would never do. "Never selling a high powered amplifier". Life was to short for QRP May my friend RIP

Herb K2LNS

Contest PackRatFinder App is Complete and Set To GO!

Thanks for the kind comments, suggestions, and bug reports regarding the PackRatFinder app! Development for the app is now complete and all known bugs have been eradicated.

The feature set of the app has been expanded and now includes:

[1] When first started, the app shows in red each band that a Packrat station has available and active "on the air".

[2] When the Packrat running the program works a station on a band, the cell for that band and that station changes from red to white.

[3] When the mouse hovers over a particular station's cell for a given band, a pop-up "tool tip" will show the date and time of that contact.

[4] The program is **interfaced with N1MM Logger+** so that when a contact is logged in N1MM, the cell for that station and band will change from red to white. If that contact is deleted in N1MM, the cell will change back from white to red.

[5] The program will generate both a display and a text file report showing each band worked for each Packrat included in the "Packrats to Look For" file, and that lists the time and date of each contact. The report also shows the total points made [exclusive of multiplier] by contacts with each Packrat, and the **total possible number of points that could have been made** by contacting that Packrat on every mutually available band.

[6] The main display also shows [in the third column] the number of **points that are still to be obtained** by contacting each Packrat on mutually available bands for which contacts have not yet been logged. This column essentially indicates work still needing to be done during a contest.

[7] **If one is not running N1MM Logger+**, the program can also be used in "manual" mode. In this mode, left clicking on a cell will "log" a contact by changing the cell color from red to white, and by recording the time that the contact was made, and right clicking on a cell will delete a "logged" contact. This can also be used to "add" a band for a particular station if it turns out that the station has a particular band working but that band was omitted for that station in the "Packrats to Look For" List.

I don't anticipate any further changes to the program unless bugs pop up. As before, the program can be downloaded from a link near the bottom of this web page:
http://www.nitehawk.com/w3sz/PackRatFinder.html

I decided to leave this as an executable file rather than making it an installed app as that gives each user more safety as there is no "installation" process to mess with your computer's operating system.
If someone wants an installer, let me know and I will send you an installer version, but there is no need for that and I am NOT using an installer version of the program here for me. And I advise against using an installer and will not warrant it to be problem-free [although I have never had problems or heard of any with any installer-version programs that I have created or distributed].

Please let me know if you have questions, problems, bug reports, complaints!
73, Roger W3SZ

The Wayback Machine
In CHEESE BITS, 50 Years Ago

(Nibbles from January 1966. Vol. VIII # 12)
de Bert, K3IUV (*author's comments in italics*)

- **MIA (missing in action)**. The March, 1966 edition of Cheese Bits is one of the two issues that are missing from my collection. [The other is September, 1982]. An extensive search of attics, shacks, and other cubbyholes failed to uncover a surviving copy. So those of you that have become accustomed to reading the nostalgia from old copies, together with my commentary, will have to find other things to occupy yourself with this month. You might consider; 1. Cleaning out the shack; 2. Polishing your crying towel story; 3. Repairing gear that broke during the contest. 4. Make a winter trip to Puerto Vallarta, as I am doing this month; or, just resting your eyes. Or, why not take the time to write an article for Cheese Bits**. In another 50 years, you would then be in the nostalgia article.**

thirty, de K3IUV

VHF Super Conference Call for Papers, Pictures & Videos

Third Call for Papers and Presentations for the Super VHF Conference, April 15-17, 2016, near Washington, DC. Jointly sponsored by Packrats, NEWS Group, and SVHFS.

Details at http://vhfsuperconference.com/

Registration is now open!

We have a nearly full schedule of presentations, but we will find room for interesting topics.

Still looking for papers for the Proceedings on VHF, UHF, microwaves, and higher. All aspects welcome - operating, contesting, homebrewing, software, EME, surplus, antennas, test equipment, amplifiers, SDR, 47 GHz Superregen, whatever.

Pictures and Video - the Proceedings CD has room for material to supplement the Proceedings book. If you have some interesting pictures of VHF+ activity or projects, please send them. Short videos are also welcome. PLEASE give the files descriptive titles including your call.

N2CEI and W1GHZ will be coordinating the Proceedings.

Submissions and questions to:
scpapers@downeastmicrowave.com

73, Paul and Steve

RF Calculators

Doc, W3GAD passed along the following URL which has links to a couple of dozen special RF calculators. Its hosted by Pasternack Electronics.

Included are Antenna, Attenuator, Microstrip, Noise Figure, VSWR etc., etc.

http://www.pasternack.com/t-rf-microwave-calculators-and-conversions.aspx

The First Ever, VHF SUPER Conference

will be held at the Holiday Inn Washington-Dulles International Airport, Sterling, VA, April 14-17, 2016.

If there ever was One VHF Conference to go to –This Is IT!

The Southeastern VHF Society (SVHFS), North East Weak Signal Group (NEWS) and Mt. Airy VHF Radio Club (Packrats) have come together to sponsor this VHF "Super Conference". It is being hosted by the Grid Pirates Contest Group (K8GP) and Directive Systems and Engineering.

FOR FURTHER INFORMATION AND TO REGISTER FOR THE CONFERENCE GO TO VHFSUPERCONFERENCE.COM. THIS IS A RARE OPPORTUNITY TO MEET WITH AND HEAR FROM SOME OF THE TOP OPERATORS AND TECHNICAL MINDS IN VHF AMATEUR RADIO TODAY ALL IN ONE LOCATION. DON'T MISS IT!

Thursday, April 14: 10am-6pm Guided Bus Tour (3 hrs) of Washington DC, and afternoon stop at Smithsonian Area Museums 7pm-Hospitality Suite & Swap

Friday, April 15: 8am-5pm Presentations, Vendors, Lunch with Speaker, Auctions
9am-4pm Washington DC Bus Transportation to Smithsonian/US Capitol/National Mall/Botanic Gardens area
7pm-Hospitality Suite & Swap

Saturday, April 16 8am-5pm Presentations, Vendors, Lunch with Speaker, Auctions
7pm-Banquet, Speaker, Awards, Door prizes

Sunday, April 17 8am-11am Swap & Vendors

Special $89+tax Hotel rate includes breakfast on Friday & Saturday. The $89 rate is available from Tuesday, April 12 through Tuesday, April 19 Must confirm on-line or telephone reservations for "VHF Super Conference" using group code "E06" to get the discounted rate + Fri/Sat Breakfast.

Registration includes Lunch and all day beverages for Friday and Saturday!

Register before March 15 and **save up to $30 each person**, on Registration, Banquet, and DC bus transportation total!

This is a beautiful time to visit the Washington, DC area with Warm Spring Weather and Cherry Blossoms!

Free Hotel shuttle to and from Dulles Airport & the Udvar-Hazy Air & Space Museum available daily.

Mark, K1MAP

Contacts for the VHF SUPER Conference: SVHFS: N2CEI, W8ZN, K4MEP Mt. Airy/Packrats: K3TUF, K1DS
NEWS: K1MAP, W1GHZ, WZ1V

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Speakers: Ruth Wolfish, IEEE Client Services, and Valerie Tucci, Phys Sciences & Eng. Librarian, TCNJ, Workshop on "How IEEE Information Resources can Support Entrepreneurship".

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David Soll on Windows 10 and Microsoft Office

Apple's Dave Marra Conducts an Apple Track (OS X, IOS, etc.)

Author Barry Burd Speaks on Android Phone Apps and Developing for Amazon Echo

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Arduino Developer/User Tutorial/Workshop

Raspberry Pi Tutorial and Projects

TCF Saturday Banquet with Door Prizes.
See TCF Web Site to Buy Tickets.

IEEE Integrated STEM Education Conference (ISEC)**
Saturday, March 5 – 8:00 am — 5:00 pm
at Friend Center, Princeton University, NJ
Theme: Promoting a Community of STE(a)M Learning
Info: http://ewh.ieee.org/conf/stem/

IEEE/ACM IT PROFESSIONAL CONFERENCE

Friday March 18, 2016, 8:30 am — 5:00pm**
Continuing as part of TCF's Saturday Talks.
For Conference Info and Fees see
http://princetonacm.acm.org/tcfpro/

For additional TCF'16 Info, directions and advance tickets:
www.tcf-nj.org

2016P-rev-07a

***The IT Pro (Friday) and ISEC Conferences require separate registrations.**

The 2016 TCF™ is sponsored by The College of New Jersey, its School of Engineering and supported organizations.

Events

For inclusion, please direct event notices to the editor.

Cabin Fever Hamfest - Hamfest - March 12, 2016. Tech Night Amateur Radio Club. Pocono Manor, PA. See http://www.arrl.org/hamfests/cabin-fever-hamfest-6 for details.

41st Trenton Computer Fair - Convention - March 19, 2016**.** Dozens of presentations on all sorts of technology plus a technology flea market. Hosted by The College of New Jersey and organized by Al, K2UYH. See info elsewhere in this issue.

Penn Wireless Assoc - Auction - March 21, 2016. See http://www.qsl.net/w2vtm/hamfest.html for details.

2M Spring Sprint - Contest - April 11, 2016, 7 - 11 pm local time. See https://sites.google.com/site/springvhfupsprints/home/2016-information for details.

VHF Super Conference - Conference - April 15 - 17, 2016. See additional details on page 18 and http://vhfsuperconference.com/ for details.

222 MHz Spring Sprint - Contest - April 19, 2016, 7 - 11 pm local time. See https://sites.google.com/site/springvhfupsprints/home/2016-information for details.

432 MHz Spring Sprint - Contest - April 27, 2016, 7 - 11 pm local time. See https://sites.google.com/site/springvhfupsprints/home/2016-information for details.

WARC Hamfest - Hamfest - May 1, 2016. See http://www.k3dn.org/hamfest.htm for details.

902 MHz and up Spring Sprint - Contest - May 7, 2016, 7 - 11 pm local time. See https://sites.google.com/site/springvhfupsprints/home/2016-information for details.

June VHF - Contest - June 11 - 13, 2016. Details to follow.

SUPER CONFERENCE UPDATE

If you haven't already made your registration and hotel reservation, act quickly. There are over 100 registered to date and rooms at the conference hotel are filling quickly and the conference is about 40 days away.

Vhfsuperconference.com

This is a 2 day conference with all the "trimmings" including the usual hospitality, horse trading and flea, vendors, door prizes, presentations, banquet, and tours and sightseeing. It's a first for a multi- club sponsorship and cooperative. Be there!!

And we can also use more volunteer help for registration. So far we have 4 Packrats (me, Roger, Ray & Joe TN) but can use more. Let me know if you can help.

Rick K1DS

2016 EME Conf Web Page

August 19-21, 2016. Venice Italy. Additional info will be added here as it becomes available.
http://www.eme2016.org/

--Info from Rick, K1DS

A Year of Sunspots in 6 Minutes

Here's a movie of a year of sunspot observations from the NASA Solar Dynamics Observatory sped up to 6 minutes. Fascinating and almost hypnotic.

http://www.huffingtonpost.com/entry/nasa-time-lapse-sun_us_56c77e38e4b0928f5a6bd98f

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For Sale

I have available 4 Henry VHF/UHF amps, all with 8877 tube

3006 - 6M $1500

3002 - 2M $1500

3002 - 220 version $2500 (pretty rare)

3002 – 432 version (no output) $400

Also IC-375a 220 all mode rig $1200

Any that are interested contact me.

Ken <ka2lim@stny.rr.com>

Wanted

Wanted: Icom IC202's, IC402's, IC502's, any condition. For microwave IF radios. State condition and price.

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we95@comcast.net

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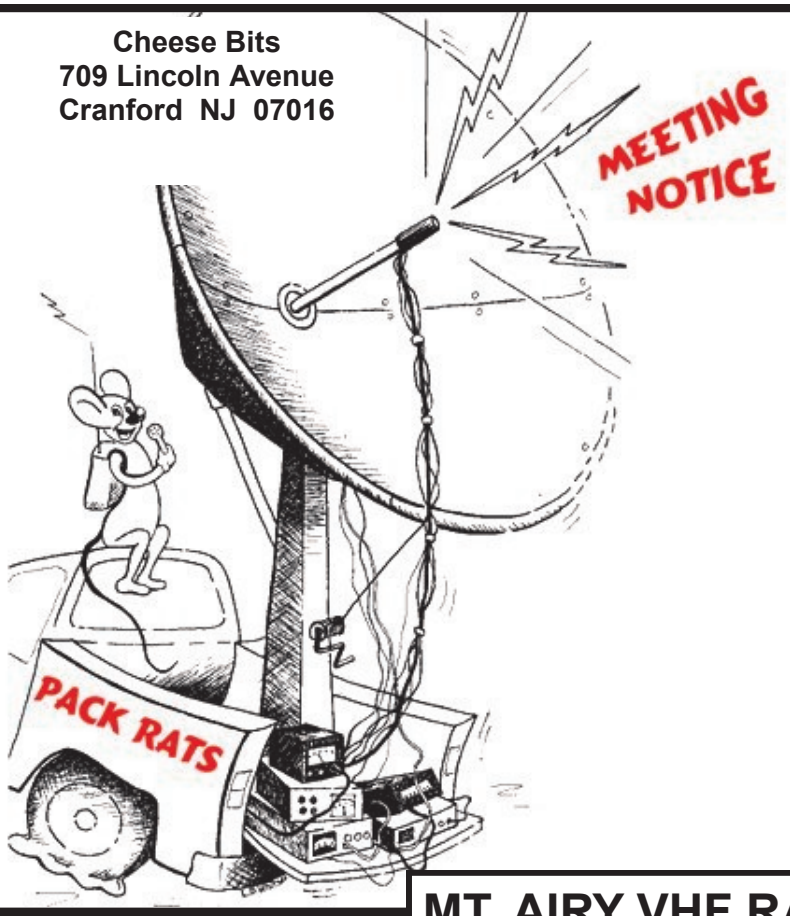

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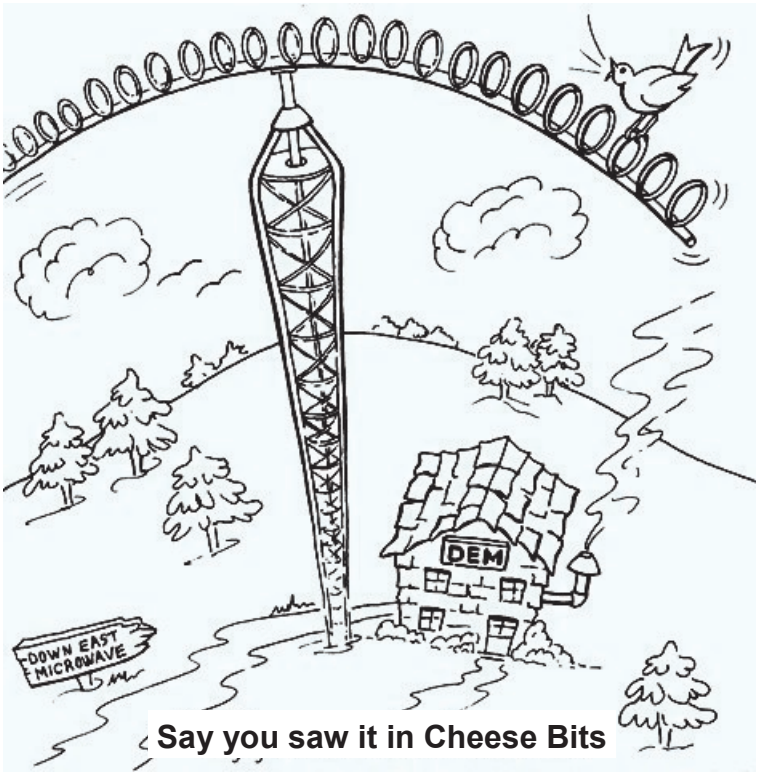
MT. AIRY VHF RADIO CLUB, INC.



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