

Volume LX

February 2019

Number 2



It's February already! Both the Contest and the wrap up meeting have come and gone. Here's hoping the rest of the year doesn't go as quickly.

So how did you do in the January contest? Propagation was not the greatest this year. I could not work many of the grids I worked last year. Notably missing were many of the stations to the north and northeast but ice and snow in that area might have prevented many of the normal contacts in those directions. Unfortunately working stations to the far south wasn't much better for me. I could not work the single EM90 I heard and he was weak. Assistance continued to help me work other Packrats. I used everything I could including texting and phone calls. I also love the online version of the Packrat Finder and Slack. And then there's N1MM - The logging program I love and hate at the same time. I downloaded and installed the latest VHF-history file but not all grid square data was displayed for known past contacts and therefore the bearing did not always show. Knowing were to point the beam quickly can mean the difference between working the station or not! This little bug is not Crying Towel worthy but a minor pain anyway! I did not use any of the digital modes this year.

The wrap up meeting went well with a good turnout. Mike, N2DEQ lead the group and everyone got a chance to relate their experiences. Many mentioned their scores were

down and conditions just weren't that good. Mike and others also broached some new ideas including moving much of the January's meeting content to November. January's meeting is usually just two days before the contest. Mike also would like to see training and familiarization with some of the new software programs like the Packrat Finder. There's no doubt that greater use of these tools would increase our scores. **The more Packrats that use these programs the more effective they become for all!**

February is the Crying Towel meeting. I heard some rumors about what went on at Joe WA3SRU's station. They may be hard to beat! Be sure to come to the meeting prepared to tell us your tales of woe and mishaps. You too have a chance to win the lace trimmed towel embroidered with the Packrat mascot suitable for framing!

March is Home Brew night. Now is the time to get that project into shape to present to the group. The presentation doesn't have to be polished or long, even 5 minutes is fine. Part of the reason behind Home Brew night is to prompt other Packrats to build and improve their shacks. There will also be a test equipment table available that night compliments of Gary, WA2OMY and Michael, KB1JEY

The April meeting is ARRL night along with Awards Night.

The next major contest is the June Contest at Camelback. We have a full cadre of band

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

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N3RG FM29ki Ray

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	FREQUE	ICY	NET CONTROL						
7:00 PM	224.58R	MHz	WR3P FN20kb						
7:30 PM	50.145	MHz	N3RG FM29ki						
8:00 PM	144.150	MHz	K3GNC FN20j						
8:30 PM	222.125	MHz	KB1JEY FN20						
9:00 PM	432.110	MHz	WB2RVX FM2						
Microway	e Tuesdav								

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

captains but are still looking for two liaison packrats for communications between the two trailers. These two people will help pass contacts made on 6 and 2 to the trailer with the higher bands. They will also help us schedule and work the rovers who



can add considerably to our total score. If you can help by filling one of these positions please let me know. We have several experienced Packrats who can train you. Phil and the Technical team have been working on adding SSA's to the bottom 4 stations and integrating the stacked HO loop antennas. The guys on the micros have been hard at work too improving the 1296 antennas and other equipment. Plan now if you can to come to Camelback. Dates are June 7, 8, 9 and 10. Come for an hour or come for the entire weekend. The caliber of the equipment and the antennas make for a great contest station and you can operate it! We also need extra help to set up and take down on Friday afternoon and Monday morning.

Last but not least, don't forget those projects (we all have more then one going at the same time) on your work bench. So, have some fun, learn more, build something.

73, George KA3WXV

Editors Note

A quick (and public) note of thanks to Warren WB2ONA for coming over to my house (and more importantly to my roof) to change out two rotor loops just a week before the January contest. Its not a fun time of year to spend on someone's roof (if there ever is). My 222 and 432 antennas were both showing high SWR. The 222 rotor loop outer sheath was cut through and had water in it. The 432 loop was totally parted with a several inch gap.

Thanks for your help and willingness to come out in tough conditions. I was very happy to have all 7 bands on the air for the contest!! --W2BVH

Mt. Airy VHF Radio Club, Inc. `The Packrats` January 2019 VHF Sweepstakes Contest

Total Logs: 71

Club Claimed Score 1,138,372

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		24 GHz	47 GHz	Laser
1	K1RZ	467	130	124540	119 29	133 35	54 14	73 21	28 8	35 11	10 4	53	32	73			
2	W3SZ	394	92	79856	129 31	93 20	44 7	478	22 5	24 6	11 4	84	83	84			
3	N3RG	363	92	75440	108 31	88 18	39 9	55 13	12 3	25 6	13 3	83	83	73			
4	WA3DRC	337	74	57868	100 22	68 13	42 9	53 11	17 5	25 5	16 3	82	52	2 1			11
5	WA3NUF	387	66	49632	138 20	104 16	41 6	44 6	14 3	21 5	11 3	83	32	32			
6	WA3GFZ	221	47	23453	77 12	44 9	27 5	28 6	114	12 4	10 2	62	3 1	21			11
7	WB2RVX	228	41	21935	70 12	39 4	27 4	36 4	17 5	20 4	92		52	43			11
8	W2KV	318	55	21505	78 13	167 29		73 13									
9	W2SJ	226	41	21156	70 12	42 5	28 5	32 4	17 4	20 4	12 4	42					11
10	KA3FQS	279	32	17696	89 10	58 4	38 5	49 5	14 2	18 2	82	4 1					11
11	KC2TN	249	51	17289	124 23	69 15	22 5	23 3		83	21	11					
12	К2ТХВ	230	74	17020	82 23	148 51											
13	WA2OMY	250	32	16992	49 5	92 10	32 3	31 2	15 4	11 2	92	62	52				
14	K3GNC	179	39	14079	34 6	63 14	23 3	31 8		17 4	62	52					
15	WA3QPX	199	65	13650	143 34	49 26	21	32	11	11							
16	K1JT	242	54	13068	242 54												
17	N3FTI	174	58	10962	136 50	23 5	71	82									
18	W3ICC/R	227	30	10920	58 6	70 6	43 4	45 6		73	42						
19	W3GAD	204	27	10908	48 5	48 5	34 4	40 5	13 3	15 3	51						11
20	W2BVH	170	39	10647	58 11	53 7	16 6	23 6	93	10 5	11						
21	K3TUF	169	33	10461	69 9		29 6	47 10	11 4	13 4							
22	N8MP	196	39	10296	109 25	41 8	14 2	21 2		11 2							
23	AA2UK	174	55	9570	124 36	50 19											
24	N3BBI	191	45	9090	105 19	75 22		11 4									
25	W3KM	190	36	8388	68 10	79 17	21 5	22 4									
26	K3JJZ	204	24	7944	66 5	55 4	30 3	41 4	42	32	32	11					11
27	WS3O	172	36	7884	84 20	479	18 3	20 3		31							
28	K3SFX	177	32	7008	72 10	63 14		42 8									
29	WA3YUE	148	24	6960	42 5	32 3	21 4	27 4	10 3	12 3	42						
	K3MD	108	47	6204	50 16	38 18	64	12 8		21							
	KR1ST	155	35	5985	95 18	44 11		16 6									
		59	21	5565	62	72	72	52	41	72	72	62	32				72
	W1PV	174	28	5460	102 16			21 4									
	W9KXI	82	43	5418	13 7	31 13	16 11			32							
35	KB3MTW	201	16	5232	56 3	55 3	32 3	40 3	10 2	82							

Mt. Airy VHF Radio Club, Inc. `The Packrats`

January 2019 VHF Sweepstakes Contest (cont'd) gs: 71 Club Claimed Score 1,138,372

Total Logs: 71

Nr	Call	QSO's	Total- Grids	Score	6M	2M	222	432	902/3	1.3 GHz		3.4 GHz	5.7 GHz	10 GHz	24 GHz	47 GHz	Laser
36	KB1JEY	214	18	5112	979	47 3	27 3	43 3									
37	N2DEQ	158	22	4840	68 7	48 7	16 2	16 2	32	72							
38	N3ITT	136	26	4810	74 14	33 5	14 2	11 3		11	31						
39	KC3BVL	140	20	4600	40 5	34 3	22 3	32 6		12 3							
40	KA2LIM	95	39	4095	75 23	10 7	44	65									
41	WB3IGR	78	26	3432	279	25 7	93	93	53								31
42	W3HMS	81	28	3360	42 12	18 5	42	83	43	53							
43	KA3WXV	158	16	3344	69 6	38 4	24 3	27 3									
44	WA3SRU	151	14	2968	46 3	46 3	25 3	33 4	11								
45	KA2LIM/R	66	35	2730	38 14	18 11	22	75		1 1							
46	K3IUV	126	14	2394	34 3	47 4	16 2	29 5									
47	N1XKT	109	13	2106	32 3	24 2	26 4	27 4									
48	K2LNS	72	28	2016	72 28												
49	WA3RLT	107	15	1905	43 4	44 7		20 4									
50	AA3GN	70	11	1353		43 5	18 2	21	42		31						
51	ААЗЈН	69	13	1209	39 8	18 2		10 1									22
52	WA3JZN	79	15	1200	63 9	15 5		1 1									
53	K2WB	71	14	1190	34 8	23 4		14 2									
54	WA3U	63	15	1080	43 8	11 3	52	42									
55	WR3P	79	10	1070	28 2	25 3	14 2	11 2		11							
56	NE3I	73	8	768	33 3	19 2	10 1	10 1		11							
57	K3VEQ	79	8	632	29 3	50 5											
	K3BPP	35	15	600	13 6	17 6		53									
	WB2ONA	11	5	100	21	21	31	31	11								
	N2CG	16	6	96	16 6												
	K3BFS	25	2	70		15 1		10 1									
	K3EGE	4	4	52		1 1	1 1	1 1									11
	K3DMA	3	1	24													31
	KB3SIG	2	1	16													21
	KB2AYU	3	3	15		1 1	1 1	1 1									
		1	1	8													11
	NN3Q/R	-	-	-													
	WX3K	-	-	-													
69																	
70																	
71																	L

Mt. Airy VHF Radio Club, Inc. `The Pack Rats` January 2019 VHF Sweepstakes Contest (cont'd)

Total Logs: 71

Club Claimed Score: 1,138,372

	Multi-OPS																
Nr	Call	QSO's	Total- Grids	Score	6M	2 M	222	432	902/3	1.3 GHz	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24G Hz	47 GHz	La- ser
1	N3NGE	752	176	220704	270 62	204 42	82 1	9 122	25 27 9	28 9	73		4 2	22	11	11	4 1
OPS	S N3NGE K3EGE KB2AYU K9PW NN3Q WA3WUL																
2	N2NT	701	138	118956	299 57	241 43	71 1	9 90 -	9								
OPS	S N2NT N2NC WW2Y																
3	WA3EHD	286	35	19635	93 10	70 7	34 3	3 41	4 17 3	17 3	10 3	1 1					3 1
OPS	WA3EHD K3DN	IA KB3	SIG														
4																	
5																	

Mt. Airy VHF Radio Club January VHF SS Previous Aggregate Claimed Scores							
Year	Logs Submitted	Score					
2019	71	1,138,372					
2018	60	1,911,495					
2017	65	1,998,637					
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					

Previous Aggregate Claimed Scores (Continued)

Year	Logs Submitted	Score
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

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

CALL	2019	2018	2017	2016	2015	2014	2013
K1RZ	124540	316470	201684				
W3SZ	79856	27048	52206	111213	45784	33480	185725
N3RG	75440	115062	90200	108676	108070	78800	91000
WA3DRC	57868	55407	58880	59160	59218	68839	94400
WA3NUF	49632	5712	90902	116730	123156	118085	132496
WA3GFZ	23453	50386	41608	72504	67375	75768	68526
WB2RVX	21935	49593		162064	230356	203592	199056
W2KV	21505	5848	28420				
W2SJ	21156	50556	14945	51179	27816	17520	15470
KA3FQS	17696	14630	19795	18648	21868	3859	5140
KC2TN	17289	33428	13962	30186	35904	37855	15720
K2TXB	17020			3496	3674	1106	
WA2OMY	16992		25929	19565	28620	44347	53392
K3GNC	14079	7380	47804	48977	38254	26826	34048
WA3QPX	13650		30415	31878	33128	54366	27840
K1JT	13068	4898	988	5612	13188	16714	25728
N3FTI	10962	22500	42316		40950	22971	1862
W3ICC/R	10920	20727	30549	28858	10428		
W3GAD	10908	10461	19424	52	12258	30576	26688
W2BVH	10647	23142	25592	10730	9792	18432	14288
K3TUF	10461	117762	157505	219675	132582	229330	272384
N8MP	10296						
AA2UK	9570	45900	16638	280			
N3BBI	9090	5100	9768				
W3KM	8388	15839	12012	20163	8613	11016	14523
K3JJZ	7944	8618	13299	14689	5112	11296	14245
WS3O	7884	2106	5148				
K3SFX	7008						
WA3YUE	6960	9144	14315	10444		16296	8046
K3MD	6204		26979	20160	21513	12744	15433
KR1ST	5985						
K0BAK/R	5565	33626	25921	30240	6480		
W1PV	5460						
W9KXI	5418						
KB3MTW	5232		6912	8000	6780	4466	1960

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

KB1JEY 512 N2DEQ 484 N3ITT 482 KC3BVL 460	40 4. 10	400 200	3584	7740			
N3ITT 48 ⁻¹ KC3BVL 460	10	200		7748	7300	6573	6279
KC3BVL 460			5050	3420	3080	3500	
						27200	26250
	00						
KA2LIM 409	95						
WB3IGR 343	32 4	958	5056	1449	14681	22168	28560
W3HMS 336	60 7.	2	7740	6112	4669	6464	6688
KA3WXV 334	44 5	300	6175	5208	5400	3043	3819
WA3SRU 296	68		11430	19844		18935	24435
KA2LIM/R 273	30						
K3IUV 239	94 1	778			744	3553	3553
N1XKT 210	06		2560	4182	2171		50
K2LNS 20 ²	16						
WA3RLT 190	05 4	725	4818	4968	3116	1110	8704
AA3GN 135	53		1078		6250		
AA3JH 120	09		8250	5103	4032	7020	4437
WA3JZN 120	00 2	772		1904			
K2WB 119	90 1·	498		2755	3220		
WA3U 108	80 1	634					
WR3P 107	70		810	1584			
NE3I 768	8 3	84	1188	490	2247	27	
K3VEQ 632	2 1	558	1710	2550	2227	3591	3630
K3BPP 600	0 1	056	1050	624	576	756	
WB2ONA 100	0			24	144		
N2CG 96							
K3BFS 70	1	40	78	228	448	222	140
K3EGE 52	1	60	730	36	784		328
K3DMA 24	7	70	1364	1430	1540		
KB3SIG 16							
KB2AYU 15	8	399	270		481	6804	90
WA3WUL 8	1	6		8	16	24	48
N3NGE 220	0704 4	90154	441350	496386	507726	541680	591832
N2NT 118	8956 1	42742					
WA3EHD 196	635 1	8848	41160	40866	41256	34680	45980

JANUARY PRE-CONTEST MEETING PICTURES



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<image/>	<section-header></section-header>



JANUARY CONTEST REPORTS

From Rick K1DS

I was hoping to set up portable here in EL96 (South Florida) at the Park Ridge golf course parking lot for which I had permission. It's the highest local spot but plans were changed as we had visitors who had to stay through the weekend because their flights home were cancelled by the winter storm up the coast. I managed to make a small setup in the back yard with a 6M omni using 40W. My building blocks signals to the north. I heard nothing on PH or CW, but saw several stations on FT8. Managed only 2 QSOs as I called others many times but apparently they did not copy me. I was happy that my harmonic Leon N1XKT was active on 4 bands from his QTH in Wyndmoor, PA. He even got my granddaughter Aleah to try a few CQs! Seeing the reports from the gang is encouraging. 73 to all!

From Michelle KB3MTW

I can now see how badly not utilizing FT-8 has hurt my score. It looks like I will have to bite the bullet and assimilate due to the low number of grids. So like the Borg have said "Resistance is futile". I am finding less people on the air it seems, and less grid squares, and smaller score. Raising the antenna poles on the deck in the middle of the night is probably my cheapest option to get more Q's in this antenna hostile condo.

202 Q's, 16 Grids, 5264 Pts

From Michael KB1JEY

This was a much better score than the previous two January VHF contests, especially considering the conditions. Besides many hours in the chair, I made good use of assistance through Slack chat. phone calls, and text messages depending upon the ham. If they were not logged into Slack, I went with the phone calls or text messages. Grid counts were down. With the lack of rovers passing by, no laser contacts were made. I made 147 Packrat QSOs with 48 Packrats. 14 of the QSOs on 6 meters were on FT8. I tried FT8 on Saturday and Sunday evenings when phone activity guieted down. I thought that I might garner more distant arids but that did not happen. I can use some FT8 coaching. One of my FT8 contacts was with Joe Taylor K1JT. Very cool ! On Saturday evening, I

noticed some of the folks on 6 meter FT8 were Packrats that I could QSO with easily on SSB. They received telephone calls. The shack was more comfortable this year. I connected the desktop rigs to the rack mounted power supply, which removed the power supply fan noise. I also installed my Hil Parametric Receive Audio System and used it with the ICOM IC-7100 on 2M. It worked pretty well but I have to work on integrating it better into my operating position for other bands. I really enjoy contesting with my Elecraft K3S. I use it on 6m and 222 MHz. Next project is to get the 2 meter and 432 transverters integrated with the K3S. Also, if I had a bit more time before the contest, I would have gotten my 903 and 1296 MHz transverters on the air, connected to the log periodic. Ah, another project for later in the year.

From Doc W3GAD

Thank you to the Packrats membership for being patient with me bumbling through the contest. Could not force 2.3 GHZ out of FN20 for even one distant QSO. Did have a bit of success with CW. WSJT did not like my sound card so I could not even get it to accept signals. OH well there is always June I suppose. Lost my modulation to the YEASU 857 so some of the 902 and up Q's were cross mode which is allowed on that radio. That worked pretty cool. I have not resolved my hearing issues where the noise scrambles what I hear and I can not decode. Guess I will have to get better at CW as I can handle that. As to FT8, sounds like it was guite productive for those who had it set up. I did note that there were Packrats I worked who obviously never registered on the Packrat database. It makes it a lot harder to keep track without all the tools. The chat room was productive and I see comments that the one on one link is best when running the bands. Hope to see many of you with your best success or excuse (either genuine or planned for entertainment) at the February Crying Towel meeting. Claimed score 10296.

From Russ K2TXB

Boy what a contest !! I had a lot of fun and did far better than ever from this QTH in FN20. 230 Q's, 74 Grids, 17020 Pts

...Comments cont'd

From Joe K1JT

I had a lot of fun, though my operating time was limited by several other weekend obligations. This is not recommended for everyone, but I used only one band (6 meters) and two modes (FT8 and MSK144). Best DX was XE2YWH in DL92. 242 Q's, 54 grids,, 13,068 Pts

From Alex KR1ST

I barely broke last year's score, which is a shame because back then I only had 6 and 2m with smaller omni directional antennas. This is mostly due to the fact that Sunday was a complete bust for me. I did fairly well on Saturday and it was nice that the first 70 QSO's or so were all on SSB before I moved to FT8. Then the snow and ice storm came. I woke up Sunday early to very high SWR on the 6 and 2m beams due to ice. I tamed that with a manual HF tuner on 6m, and a manual VHF tuner on 2m. The 432 beam showed good SWR, but the N1201SA analyzer told me that it had pretty much turned into a 388MHz antenna. I only made a handful of contacts on Sunday. Stations that I ordinarily can work quite easily were now often totally out of reach. I concluded that my antennas had turned into dummy loads. Later in the day the temperatures dropped very quickly and my rotor froze in the SE direction. Before the rotor froze it was interesting to observe that the 6m beam's pattern had changed drastically. It was mostly omnidirectional, favoring the rear of the antenna. I wondered if the feed line was doing the radiating. There were some nice enhancements on Sunday late afternoon and evening on 6m, but I could not take advantage of that. Very frustrating! On FT8 I could only work stations with signals >0dB. That VP9 and KP4 were able to hear me I ascribe to the magic of the 6m band. Even with these setbacks it was still a lot of fun! Many thanks to Phil, K3TUF for my first ever contest CW QSO.

From Bill K1DY

Hi all, I knew I wasn't going to be able to operate much. Gigs, weather, and the Patriots game Sunday night... Add onto that really poor conditions with lots of precip static most of the time I was on. About 3 hours total operating time. I find I really agree with WZ1V that FT-8 on 6M has hurt 222 and up for contesting. I found with bad tropo conditions I could still make some contacts on 6M FT-8 even when 6M wasn't really "open", so that is the "allure", and when it did open for Es I noticed a lot more activity there than on SSB and CW at the low end. So I was sort of forced to stay on FT-8. I ended up working local stations there too and, as did Ron, noticed stations on 6M FT-8 that had 222 and above capability. The thought of trying to get them to QSY to 2M SSB or worse yet 222 from 6M digital seemed pretty futile. Anyway, after the game, say about 10:30 local time, I got back on 2M and recognized AF1T, Dale, by his voice and we easily ran the lower 4 bands on SSB.. So you might say the contest ended feeling sort of "normal" to me.

From Drex W3ICC/R 227 Q's, 27+3 Grids, 10920 Pts



From Tom KA3FQS

This contest I did about average for my station. I had made some improvements and had hoped to do better but it was not to be. I have to thank W3SZ and W2SJ for their help especially on the upper bands and K0BAK for coming here and ...Comments cont'd

running all of the bands with me including the only LASER contact. It did not seem to me that there were any propagation enhancements other than perhaps to Bermuda and Puerto Rico on 6M FT8. There was also a high noise level on 6 and 2 at my QTH that should be investigated. I heard very few stations from New England and only worked K1TEO on a single band which is unusual. I had a few technical issues. For some reason the Packrat finder decided not to open on my computer. After the contest I deleted the files and reinstalled the program and now it appears to work fine. As I was shutting down Saturday night, Windows 10 decided it needed to update itself on the computer that runs my SDR. Sunday morning I found that CW Skimmer had stopped working on that computer. As before after the contest I found that somehow the soundcard driver had gotten messed up and now it works well. Ready for the next contest. Overall I enjoyed the contest and want to thank all of the 'Rats that helped me leading up to and during the contest.

279 Pts, 32 Grids, 17696 Pts

From Walt K3BPP

My first contest was about 1958, I was using a converted DX35 operating on 25 MHz I later found out. My only contact was W3KKN. I have operated many contests over the years (all for the Packrats) never a very high score. When fairly active #13 in the club a few times. This year was one of the better contests in that it was the first time I used Dave's "VHF Log" which eliminated a lot of the paper drudge. I was reluctant to use a computer next to a radio but tried anyway. The only bad aspect is 10 KC birdies on 50 MHz .Only running a barefoot FT857, it was hard to get much attention from the north. I am getting my old 4x250 amps out of storage and working on a one knob band switch. Too bad about all of the ice up north but I was able to work CT on 432 which felt good. As in every contest the head spins with improvements for next year.

From Joe KC2TN

I wound up having a better showing than I expected this contest! Things were really going south this year and I almost pulled up stakes. But given the work put in earlier in the year by replacing my microwave hardline (thanks to Warren - WB2ONA for the donation) and Ray's (N3RG) last minute help and insistence that I get on with whatever I had running, I managed a half decent score. Not my best, but than again, it seemed everyone was down. As they say, there's always next year! So I better get started NOW on that 36 point post-mortem I did after the contest. Here's a pic of my station moments before the contest. Still working on stuff! Sorry Bob, for breaking one of the rules!



From John K3MD

Well, I was not too psyched for the Jan., VHF this year. "Minor" surgery on Tues., but does require general anesthesia. Did put in new 2M LMR-600 and a 1/2" in hardline for 222. That is where the good news ends. The first hour was consumed by the 6 meter KW not keying correctly, finally solved by eliminating the HF/6M toggle switch and custom box and replacing the battery on the King Conversions SB-221. Did get FT8 to work on 6M, and this gave me at least 30 Q's. However, I would need a separate computer and interface box to get it on 2M. 2M was OK the first day, then FT8 took over, and it was almost completely dead. The ON4KST chat page was no where near as useful as previous years, with many requests for skeds going wholly unnoticed, probably by single ops having to divert their attention to too many things. The "regulars," however, did work me on all available bands. Things seemed to go from bad to worse, with QSO totals about 60% of last year's, and 50% of 2 years ago. Skip on 222 and 432 was just terrible for most of the day on Sunday, with the new Packrat super-load beacon on 144.300 notwithstanding (loud in central PA). I could barely

^{...} Comments cont'd

copy N3NGE on 222 and 432, and he could not hear me on 1296!!!! 50 miles line of sight at most. The FT8 decided to crash entirely around 5PM on Sunday (receive only), not fixed by reboots and software re-installation, and with that I just threw in the towel on the operation, and will hope for the best with the WPX RTTY and/or the CQWW 160 meter SSB, both of which I do for fun, noncompetitive. Overall around 12 hours of operation and 2 hours of fidgeting, despite many shakedowns in the months coming up to the QSO party.

From Dave K1RZ

I have been trying to remember the last time a Winter Storm coincided with the January Contest. And while I try to keep soap box comments from previous years, I see now that I have not been consistent in writing what WX conditions existed in the Mid-Atlantic over the different years. This storm was pretty challenging to us all. And of course especially the Rovers. Many Rovers had planned some pretty aggressive plans. K2EZ/R, W1RGA/R, NN3Q/R and others. And then with the strong threat of the snow, ice and rain across the north-east, these savvy operators wisely modified or cancelled their original plans. And whenever Rovers have to limit their operations it limits the activities and scores of the rest of us. In my case I had a rain event, from the start to sometime after midnight. Some of my close neighbors had ice, which is really a very limiting factor - both to load the transmitter into the antenna, and then to propagate across a very high path loss link. Talking with Jeff K1TEO on Friday before the contest we remembered an iced January contest many years ago. In my case I could only work 6 meters that year. In Jeff's case he took all the antennas off the tower, mechanically broke off the ice, and put them all back on the tower, completing this arduous task by about start time, and then became one of the only stations on in CT. Tough stuff. But after all it is the January Contest. And continuing on WX for a bit, many folks reported that at some times their UHF and microwave stations worked, and at other times they could barely hear the locals. And then only to have those conditions reverse in a few more hours. My close neighbor Mike W3IP reported that his 432 500W amp stopped putting out power, and later, after the contest he found an inductor in the output circuit had vaporized. Icy antennas are not good. Then Sunday afternoon-evening the very cold temperatures and the very high winds started. My WX station said 25 mph with higher gusts. And on the lower four bands I realized I could not copy locals on SSB as I had a S8 wind driven noise on those bands. Taken as a whole the propagation was far poorer than most recent January contests. Rovers who braved the difficult elements included Drex and Paul W3ICC/R six bands 2 grids for me, Andrea K2EZ/R six bands six grids, Jeff N2MKT/R 2 bands 2 grids for me (2 Q's on FT8), Buff WB2SIH/R 2 bands 4 grids (of his 16 grids ending in EL99), Jarred KF2MR/R 4 bands 1 grid for me, and Jack AB4CR/R 3 bands 1 grid. Thanks folks for braving the ice, wind, snow and rain. If interested, a more detailed write up of the K1RZ January op can be found on the 3830scores.com web site. 467 Q's, 130 Grids, 124540 Pts

From Lenny W2BVH

This was a more difficult contest than usual. resulting in a lower than expected score. The rain and wind were an important contributing factor. Through all of the contest, band noise on 6M - 222 MHz ranged from s5 to s9 (and most of that time it was s8-s9!). I spent a lot more time on 6 and 2 meter FT8, if for no other reason than to keep from going crazy listening to all that noise. FT8 really saved me this January. The new Packrat chat room helped quite a bit in setting up contacts but I will need to remember to go to each op's individual chat page next time. Sometimes its hard to catch their attention on the main page. There were much fewer microwave q's to be had this year. Microwave propagation was below average, fewer microwave ops seemed to be around and I was somewhat distracted by FT8 ops and by the new chat software. I'd very much liked to have set up q's with the Packrat Finder, but it seemed very lightly used this year. One additional observation on FT8: it's hard to move an op to other bands at the end of an FT8 QSO, so you have to go find them (or hope they find you) a second time, in order to do a full band run. Anyway, even with all this bellyaching, I still had a very good time (as I always do). Any contesting is much better than not contesting. As we fishermen say "That's why they call it fishing, not catching". 170 Q's, 39 Grids, 10647 Pts

From Ken KA2LIM

I was a 10 band rover (KA2LIM/R) and had a hard time working but 3 or 4 locals on the bottom 4 bands on Saturday. Woke up to 14" of snow on Sunday morning which changed my contesting plans. Operated from the home station as (KA2LIM) with the bottom 4 bands only.

Conditions were really bad and poor here and noticed from this location that there were so many stations on 6M running FT8, that stayed there and did not move to any other bands. Kind of hard to work 'em when they don't move or don't want to move to other bands". Mr. Weather Murphy", got his licks in this year.

Follow-up to "432 MHz Mystery Amplifier" article in January Cheese Bits

Hi gang, I got a smile out of the "Mystery Amp" article in the last Cheese Bits by Dave, W2KV. Here's a little bit of the "rest of the story". G.R. Stephen was a collaboration between Steve Powlishen, K1FO (maybe even WA1FFO back then), and Ron Allen, WA1NGR. Ron was in Connecticut then but soon moved to Delaware and eventually ended up as W3OR. I think he had a WA3 call for a while which I forget and am pretty sure he was a Packrat for a while. I think the name G.R. Stephen was made up from a combination of WA1NGR and Steve's name.. The amp that Steve designed was a single 8874 (3cX400A7) triode with a half wave stripline plate circuit (a la K2RIW). At the time he designed this amp a brand new 8874 was \$50. I know because I got one from Barry Electronics back in the mid-70's and designed my own amp around the tube. It did 500 watts then and probably still does, though I sold the amp a few years ago.. The 8874 was part of a series of tubes that Eimac was promoting to hams back then when Bill Orr was still at Eimac. 8873, 8874, 8875 (get it? 8873??) One was transverse air cooled, the other thru-anode air cooled like a 4CX250 (the 8874) and the other was conduction cooled. The 8874 eventually became the 3CX800A7 with more cathode emission with a 12 v. filament and larger anode cooling fins . Neat thing was all these tubes used a \$2 Compactron tube socket. ...continued p. 27

Some Observations on FT8 UHF+

by Dave K1RZ

Last few days been trying to encourage others to try to run FT8. I have WSJTX set up on 50 - 432, and working reliably on all four bands. The key on that mode is transmitter / receiver drift at both ends of the link. WSJTX FT8 will tolerate some drift, depending on speed of the drift. Last weekend Ray N3RG and I tried various modes on 10 GHz. We were able to complete on CW, JT4F and JT65C (both JT modes were slow / 60 sec sequences). But we could not work on FT8 (fast / 15 second sequences), even though quite strong, but the drift was about 500 Hz in 4 minutes – no decodes. So the conclusion is that some of the weak signal modes (JT4F, JT65C. others perhaps), tolerate a higher degree of drift, and FT8, being a faster sequence will not tolerate drift as much. What I am trying to confirm is what the W6 stations report: that they use FT8 up through 10 GHz. Minimal frequency drift is the key. When I first got on 222 and 432 FT8, I could decode others, but they could not decode me. With the help of Mike W3IP (we both have Elecraft xvtrs on those bands), it was found that the 222 xvtr had a 9 volt regulator in the l.o. crystal circuit that would not hold 9 volts during transmit*. I changed the factory regulator for a more heavy duty regulator and experienced success with FT8 on 222. The 432 xvtr exhibited the same type of drift and needed the addition of the Elecraft crystal oven option and then success for FT8 on 432. Having been on 432 for 30 years here at this location, I actually picked up a new grid chasing DX on FT8 (EN84).

* From Mike W3IP. The Elecraft XV222 replacement regulator used is a 7809 9 volt regulator chip, in a TO220 package. It is manufactured by multiple companies, the part number may have a variety of prefixes associated with it. Almost all of the major distributors like Digikey and Mouser stock the part. Typical prices are \$0.50 each in quantity 1. The pinouts of the old part is not identical to the 7809, so you will need to identify the location of the input and output of the part and the circuit on the board.

KOBAK/R QRP half-rove

For the fourth and probably last time, I took the club's old 6-band microwave box and laser transceiver out to operate at Packrat driveways in the January contest. The rove plan was nearly identical to last year, emphasizing laser contacts to give multipliers to 'Rats. Unlike other years, I did not have a decent Limited Rover (4 low bands with medium power) as a foundation and therefore no chance to make any longish contacts. Used my IC-7100 as the 144 I.F. for microwaves, and its HF output for 6m into a 4' wire. The other 3 low bands were on an HT. I used my little Subaru WRX as the vehicle and used a 60Ah LiFePO4 battery to keep the hungry microwave box with its crystal heaters fed all day (love this battery, originally intended for medium power pedestrian portable NPOTA operations).

As everyone knows, the weather was a factor this year. On Saturday, I canceled the part of the rove to drive west to the Amish country superstations (N3NGE, K3TUF, W3SZ) to avoid driving into the approaching snow storm. WA2OMY provided FN20 and WA3GFZ gave me FM29, so no matter what happened Sunday I'd at least have a submittable rover log (must activate two grids).

Sunday morning, I checked my weather app for the areas I'd be driving. The prediction of a flash freeze event spooked me, where all wet surfaces would freeze from a very rapid drop in temperature. As in other years, Sunday morning was planned to be a rove north of Philly, and the afternoon I would visit South Jersey stations. Although the rapid temperature drop would happen late afternoon in SNJ, it would occur early to mid-afternoon at my own home. I sadly dropped the Jersey rove to make it home before my steep driveway froze. As it turned out, the sun and wind in the early afternoon dried out most paved surfaces; when I returned home only about half my driveway was wet but still had water flow from the swamp behind my house that used to be my backyard lawn.

The good news of the rove is that the remaining drive was problem free. Snow held off on Saturday till

after I got home, and Sunday I had some hydroplaning and quick puddle avoidance on back roads but no floods or detours. I contended with a cold rain at the first two Sunday stops, but the rest of day was mostly rainfree, RF-wise, 10G did not work at all, and a couple times I could hear on 903 but not transmit. With those exceptions, I believe I made all expected contacts with visited Rats. Thanks to everyone who participated. 59 Q's, 19+2 Grids, 5565 Pts



My 2019 VHF Contest Story

Bert, K3IUV

January 2019 represents the 59th contest that I have participated in since my first one in 1959. (I missed one by being out of the country on that weekend). I suffer from the HOA (Home Owner's Association) restrictions that many others share. In my case, absolutely no outdoor structures or antennas are permitted. Appeals to the association fell on deaf ears. In years past, I resorted to the subterfuge of erecting antennas on my deck the day before the contest, and removing them the day after. And for several years, operating as a Rover. Aging is making either of these two options untenable. So I planned my next participation differently.

A couple of years ago I operated with a set of antennas in the basement, attached to a mast mounted to a Rotor which in turn was fastened to the basement ceiling. The resultant reverse rotor indication made operation difficult, but I managed a fair number of contacts and grids. For this year, I planned to install a set of yagis in my attic. Finding a way to route coax from the basement shack to the attic led to about a 110' run for each cable (ugh – loss!) After running the cables to the floor of my Loft (same height as the attic floor), I realized that the sloped floor of the attic would limit the mast height and turning radius (Yagi length). In addition, working in the attic with the sloped floor would take its toll on my bone structure! The next best thing was to mount the antennas in the Loft area itself. I had just sufficient space to turn an 8' beam, with the ceiling height (and ceiling fan!) limiting mast height to 77". This of course led to very close spacing on the four-band array. In addition, pointing to the SE would have the yagis looking directly into a 5-drawer metal file cabinet! But to paraphrase, "Better less, than nothing."

For the support base, I used my home-made outdoor umbrella stand. Made from an old brake drum, filled with concrete and with a 2" pipe in the center, it provided the needed stability.

Photo 1 shows the yagi stack. Dimensions and separation were as follows: 6-meters, 75" above floor level, 2-meters, 70"; 220, 57"; and 432, 43" above the floor. Total stacking separation was 5". Antennas were: 6-m, 2-element yagi; 2-m, 7-elements, 220, 8-elements; and 432, 14-elements. The longest boom was 96".

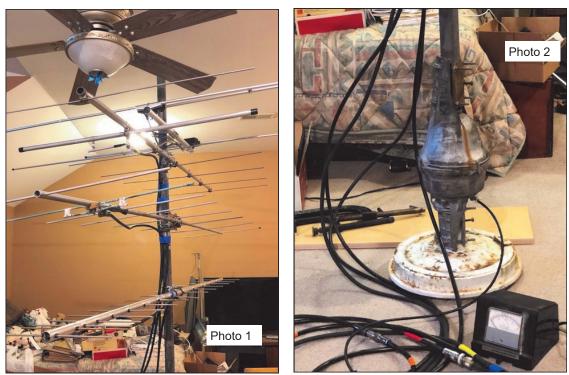
Photo 2 shows the rotor and support base.

How did it work, you say. Well I managed 127 contacts and 5 grids, on four bands (6, 2, 220 and 432. Of course, the totals would have been much higher had not so many of the other operators spent time on

"digital modes" and devoted some effort to SSB and CW operation (my sour grapes). Did I have "fun?" Yes, but not as much as in "the old days" when signals *filled the band* for at least 100kHz.

This article is not the place to dwell on the digital issue. I'd be glad to discuss my views on it elsewhere.

For next year (assuming I am still operating) I *might* try to get the antennas on separate short masts in the real attic.





by Jerome Byrd – K3GNC

Tropo Scatterings: "Say it ain't so.." Yes Virginia K3GNC turned in another mediocre January contest log."

Among the pantheon of contest gods, none were on my side. My plans to operate the whole contest on 7 bands from the remote location went down the drain due to weather and family illness. I managed four hours on Saturday and two hours on Sunday. Fortunately I was able to give a few Packrats contacts on 7 bands. At home I only had three bands 144, 432, 1296 in which I had rotor control and a HF wire for 6 meters. I would have plugged away with what I had except my wife was down with the flu (yep she had her shots) and needed peace and quiet which was impossible for me to give operating in our small apartment, so I didn't operate very much. There was little cw activity, and my hf wire on 6 meters made FT8 a local event and MSK144 not very productive. I didn't spend any time on 2 meter FT8, but should have since it would have made no noise with headsets on.

For those who haven't heard, Bill Smith, former Packrat president and major VHF/UHF contester is now K4WMS from FM17. Bill was also a big gun with the Frankford Radio Club. I copy Bill Q5 arm chair copy the few times I have been able to catch him on the air. I think he has checked into the 432 Packrat net and perhaps others.

Relatively new member Jim KC3BVL has really got the fever and is currently qrv on 5 bands with power on 6 and 2 meters. He is very active and has been helped by Bill AA2UK and especially by Vitalii KC3ACQ. Jim has helped me get on FT8 and MSK144.

Russ K2TXB has a new W6QPL 144 MHz amp (1200w+) and is "killing it" on 144 EME, and is getting quite active tropo wise with the digital modes.

** Please edit your QRZ.COM page to at least list your station rundown (see AA2UK, K3TUF, WB2RVX, etc.)

Nets and Schedules: The following is a rundown of the nets and group meetings in the 'local area" (<= 250 miles, only nets that don't conflict with the Packrats nets are shown).

Mondays: 2130 local – 1296.110 (group schedule with WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC, W2BVH and others. All are welcomed.

Tuesdays: 2000 local – "Mud-Toads Net", KD8UD fm17uv net control. 144.175, all are welcomed. **Wednesdays**: 2030 local - 432,150 – group schedule, WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC and others. All are welcomed.

Thursdays: 2030 local - 144.250 – N.E.W.S club net, W1COT fn31st net control. All are welcomed.

Saturdays: 144.205 – 2130 local - Chesapeake Net, W3BFC net control. All are welcomed.

Sundays: 1030 local – 144.250, Sunday Morning Memorial Net, Bill AA2TT fn30br net control, all are welcomed, 2030 - - 432,150 – group schedule, WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC and others. All are welcomed.

The Lunatic Fringe: I have finally got WSJT-X working from my remote location to my apartment. I need now to re-wire my outdoor pointing camera and install an indoor camera to watch the outdoor camera display via skype. Depending on weather and opportunity, I hope to be back on the moon later this month or March at the latest. It remains to be seen whether all the additional noise from the internet and Skype will be a deal breaker. We shall see.

EME Tidbits – For the first 6 hours of a moon-pass Europeans stations are available. The next 3 hours are limited to NA and SA. The final 3 hours feature the Pacific islands, AU, ZL, Japan and the far east at the very tail end of moonset. Until next time please stay/get radioactive!

Antenna Work At Al, N3ITT's

Warren WB2ONA and I took a ride out to AI N3ITT's a few days before the January VHF Contest to help with AI's 6 Meter antenna and with the rotor on his "short" tower (the one with the 6 Meter antenna). I'm retired, and though I don't exactly wake up at the "crack of noon" I'm usually up around 10AM. So it was a little disorienting to wake up at 6 AM in preparation for Warren's arrival at my QTH at 7 for the ride out to AI's. As it turns out, starting out that early was a requirement not an option --- by time we were done that day, the sun was setting. Warren brought his "big" work truck, and we got there uneventfully, and relatively quickly (around a 1 3/4 hour ride).

There were 2 problems with the 6 Meter antenna: a) water in the rotor loop (9913) and b) the 6 Meter rig was plugged in to the 2 Meter antenna. Don't laugh, I think there are very few of us who haven't done a similar thing --- I know I've had 2 Meter Q's with no antenna connected). We used a Comet antenna analyzer (a gem of an instrument, if you've got the money) and a small hockey puck sized 50 ohm dummy load to do the diagnosing. Having one problem with two causes did take a bit of time to diagnose. Once the problem(s) with the 6 Meter antenna were determined, it was simply a matter of replacing the rotor loop and connecting the right coax to the 6 meter rig. Of course "simply" is easy to write, not easy to do. Warren, basically did all the work. Al and I were the guvs on the ground who did the "here hold this" kind of work. Also it was a day in the mid 20's with 10-15 MPH winds. Not ideal conditions to be up a tower. To replace the rotor loop the rotor had to first be removed and a comealong attached to the antenna pole to lower the 6 Meter antenna down to the top of the tower where it could be worked on. Two other antennas below the 6 Meter antenna had to first be loosened up so the antenna pole could drop down.



Al's second problem was that his rotor didn't turn. The rotor cable was quite deteriorated, with the outer covering rendered brittle by exposure to sunlight. Bending it immediately caused cracks and splits. In some places, it just crumbled. Based on the condition of the cable it didn't take long to come to the conclusion that new rotor cable should be run and connected, and then face any other causes of the rotor not turning. The cable was replaced and as it turns (pun intended) out that was the one and only cause of the rotor problem. To run the cable, we taped the new rotor cable to the old and then used it to pull the new wire through the exterior wall of the house, across the attic, down inside the shack wall to the controller. Al had to venture into the attic at one point to get the job done. This is a risky proposition: the attic has no floor but it does have bat insulation. One wrong move and your

...N3ITT

foot goes right through the ceiling below. But it all worked out fine (not without a lot anxiety while it was happening). We connected the controller end of the cable , soldered the new wire to the old Jones plug at the rotor end, cleaned up the Jones plug and socket, and the rotor problem was fixed!

Of course, all operations Warren did to fix the antenna and rotor had to be done in reverse order: tape the rotor loop, mount the rotor, secure and align the loose antennas, raise the antenna pole and bolt it to the rotor and finally, dress the new cables. Now you know why it ended up being a full day's work.

It was well worth the effort. Al was set for the January VHF contest and now should be in business with those antennas until (if?) his small tower is replaced by a second "big" tower.

--Lenny W2BVH





Kudos to Mike N2DEQ, Contest Chairman

I just got the numbers for the January Contest from Dave W3KM. **With 71 logs submitted, a claimed score of 1,138,372.** The results are a mixed bag. The good news is that we had more participants this year than in the last seventeen years, with the exception 0f 2012, when we had 77. For this, the Club and I thank you for getting on the air and hopefully having some fun. The bad news is the Claimed Score was 43% less than last year when 66 logs were submitted. This was the worst score in the last seventeen years (see table p. 5). There is no doubt that conditions during the contest were poor to say the least. Probably the poorest that I have seen in my twenty-seven years with the club. All the clubs competing in the contest had to deal with the same conditions, so I think it is fair to say, we should still do well with the official results from the league. Being that it was my first year as Contest Chairman, I tried to do some things different. Hopefully, the approach had little effect on the numbers and it just was conditions. Next year, if (I don't get canned) I'm still Chairman, I plan to try to set up educational sessions on our contest tools, so everybody fully understands them and will be able to use them to the best of their ability. Also, I will push to have our Contest prep meeting moved to November from January to allow our members to react to what is presented. Any criticisms or suggestions as to how I handled the preparation for the contest is encouraged. Again, I want to thank all the Club members who participated in the contest. It was a great turnout!

Well I am impressed at how this club rallies to the call for the January contest. I consider Mike's efforts commendable as he introduced an entirely new approach to the organization of the contest effort. I will "pencil in" Mike's suggestion to move the contest preparation program to November with some LET's GET IT DONE type sessions to introduce everyone to the K1RZ Data base and W3SZ 's PACKRAT FINDER tool. Whether you are using W3KM or N1MM logging programs new digital protocols work within the programs and Dave's data base files works across both programs too. Good job done by everyone. Polish up your best performance for the February Crying Towel and see if you can earn the "Coveted" prize. --Doc W3GAD

You did a GREAT job as Contest Chairman. Thank You!! As you know, not only was the contest impacted by poor band conditions, but by extremely poor weather. The weather had very severe impacts for the North-East and Mid-Atlantic. Many stations had to shut down due to icing or severe wind. K1TEO was mostly MIA after Saturday due to icing. Many rovers didn't go out at all, and those that did had their routes severely curtailed. Many of us had our hours of operation (and even more so, our hours of EFFECTIVE-operation) severely curtailed by the icy and windy conditions we experienced. Because we gain a large percentage of our points by working multiple Packrats on multiple bands, when a significant proportion of us are "down and out", the effect on the aggregate score is amplified because each contact not made affects QSO points and multipliers for two separate stations. Not having the Rovers out in full force was huge! Each 10-band rover generates at least 10-15K worth of points for each station with which it runs the bands. Multiply the number of Packrats fielding 10 bands by the number of rovers not going out in full-force and you can see the aggregate score plummeting.

To summarize, the lower-than-usual Packrats score is nothing to be ashamed of. In contrast, it is AMAZING that we were able to score more than 1 million points given the adverse radio and weather conditions, and the fact that we did so is a testament to Packrat Spirit, Perseverance, and Cooperation. How do I feel about this contest overall? "Was mich nicht umbringt macht mich stärker." In other words, see you next time!! Thanks again for all that you do for us, Mike!! -- Roger W3SZ

I'm relatively new to VHF contesting and want to thank you for all you have done. Bringing together resources and sharing them is very time consuming. Because of you (and others as well) I was able to learn a lot about the new-to-me tools available, like the Packrat Finder, history files for the N1MM logger, and learn about contesting tips. The conditions and weather are out of our hands. I was pretty much out of the running all Sunday and made only a handful of contacts because my antennas were iced over. I didn't work many stations that I know I can work easily as I can hear them consistently on three bands every Monday and through casual operations outside of contesting. **--Alex KR1ST**

Great job Mike and as a result you had the log numbers to show for it. --Bill K3EGE

The College of New Jersey Hosts The 44th ANNUAL ORIGINAL PERSONAL COMPUTER FESTIVAL

Twitter: @TCFfestival

Saturday, March 23, 2019 at The College of New Jersey, Ewing NJ

Focus on Cyber Security



3:40pm Keynote Speaker: Tony Sager The Center for Internet Security, Presents his Vision for the Future of Cyber Security

Tony Sager is a Senior Vice President and Chief Evangelist for CIS (The Center for Internet Security). He leads the development of the CIS Controls, a worldwide consensus project to find and support technical best practices in cybersecurity. Tony also serves as the Director of the SANS Innovation Center, a subsidiary of The SANS Institute. Tony retired from the National Security Agency (NSA) after 34 years as an Information Assurance professional. He started his career in the Communications Security (COMSEC) Intern Program, and worked as a mathematical cryptographer and a software vulnerability analyst. In 2001, Tony led the release of NSA security guidance to the public. He also expanded the NSA's role in the development of open standards for security.

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

IEEE Integrated STEM Education Conference (ISEC)** Saturday, March 16, 2019 – 8:00am — 5:00pm at McDonnell Hall, Princeton University, NJ Theme: iSTEM: Lead, Engage, Succeed! Info: http://ewh.leee.org/conf/stem/

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

The 2019 TCF[™] is sponsored by The College of New Jersey, its School of Engineering and supported organizations.

Admission: \$14.00 (advance) \$20.00 at Door Free Parking / Wi-Fi www.tcf-nj.org

at The College of New Jersey, Ewing, NJ Saturday, March 23, 2019

9:00am - 5:00pm (vendors close at 3:30pm) Registration/Vendor Fair open at 9am, Talks start at 10:15am.







NJ Makers Day Partner

David Soll Han on Windows 10 Arduino Security Features for Be

Hands-on Aut Arduino Workshop App I for Beginners C

Author Barry Burd Speaks on App Dev. with Flutter; Quantum Computing ; Blockchain

on

Kip Rosser Plays and Speaks on Cybercrime and Theremin Zen

Play the Mystabar Adventure game on your laptop, tablet or smartphone.

Wordpress Bootcamp

Ham Cram Session & Exam: Get an Amateur Radio License in one day at TCF! Cram begins at 9am.

IEEE/ACM IT PROFESSIONAL CONFERENCE

Friday March 22, 2019, 8:30am — 5:00pm** and continues as part of TCF's Saturday Talks. For Conference Info and Fees see http://princetonacm.acm.org/tcfpro/

> For additional TCF'19 info, directions and advance tickets: **WWW.tcf-nj.org**

Register Now for the Second VHF / UHF Super-Conference

VHF Super Conference – April 25-28, 2019

Holiday Inn - Washington-Dulles Airport 45425 Holiday Drive Sterling, VA (same site as 2016)

REGISTRATION available NOW

https://vhfsuperconference.com

Registration: \$99 up to March 31.

includes Lunch + All Day Beverages on Fri & Sat, plus Hospitality Room on Thurs & Fri evenings. \$110 after March 31--if available

> **Banquet: \$43 up to March 31.** \$50 after March 31--if available

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vhfsuperconference.com for Hotel link, call in and ask for "VHF Super Conference 2019" special rate Hotel Reservations: 877-875-9823

We anticipate a sellout It's Going to be a SUPER Conference!

Sponsored by: Southeastern VHF Society (SVHFS), North East Weak Signal Group (NEWS), and Mt. Airy VHF Radio Club (Packrats)

Hosted By: Grid Pirates Contest Group Directive Systems and Engineering

Second VHF / UHF Super-Conference Call For Papers

YOU are needed to make this Conference a success. Please tell us about something you have done. If you are shy, write a paper for the Proceedings.

Second call for Papers and Presentations for the second Super VHF Conference, April 26-28, 2019, in Sterling, VA, near Washington, DC. Jointly sponsored by Packrats, NEWS Group, and SVHFS. Hosted by the Grid Pirates Contest Group and Directive Systems and Engineering

Details at http://vhfsuperconference.com/

Presentations or papers are welcome on VHF, UHF, microwaves, and higher. All aspects welcome: technical and non-technical - operating, contesting, homebrewing, roving, software, EME, surplus, antennas, test equipment, amplifiers, SDR, 47 GHz superregen, whatever. Your winter project might be a good candidate - take some pictures.

N2CEI and W1GHZ will be coordinating the Proceedings book and CD.

Submissions and questions to: conferencepapers@downeastmicrowave.com

73 Paul and Steve

January VHF Contest Wrap-Up

Additional info and comments by attendees of the wrap-up meeting can be found on the Packrat web site. A hyperlink is available in the "Latest Articles" left hand column of the web page *after you log in to the page.*

The Wayback Machine In CHEESE BITS, 50 Years Ago

Nibbles from February 1969. Vol. XII Nr. 2 de Bert, K3IUV (*author's comments in italics*)

"Our Prez Sez". The prez, Charlie, K3HSS noted that the January VHF Sweepstakes results are still being tallied (before computers!), but estimates suggest we will remain in the number one position. He thanked the committee and membership for their efforts. He appointed two committee chairmen. One to select the winner of the "Best Article in Cheese Bits" award (Lenny, time for this one again?), and one to select the "Packrat Man of the Year." He then encouraged members to "see what they can contribute, to keep the club strong and healthy." He gave several examples (still valid today).

ARRL Bulletin 201, 12/26/68. The next ARRL SET (Simulated Emergency Test) was scheduled for 1/25 and 26, 1969. Participation is encouraged, to include handling traffic for the Red Cross, ARRL, civil defense and other agencies. (In light of our current conditions with the entire world in strife or conflict, maybe this activity should again be emphasized?)

ARRL Bulletin 202, 1/2/66. New Interstate tariffs filed by the various telephone companies were approved by the FCC, and go into effect on 1/1/69. Phone patches will be permitted through an interface "leased" from the phone

company. Monthly rentals expected to be about 50-cents. (Some of you may not recall the time when attaching anything to the telephone line – including your own phone- was prohibited. Compare that to today's situation, where "almost anything" goes).

ARRL Bulletin 203 1/9/69. A strike by dockworkers along the Atlantic and Gulf Coast has caused suspension of all regular sea mail, including letters, QSL cards, packages and magazines to Europe, Africa, the near east and the Caribbean Islands. Mail to other areas continues to be handled through west coast ports. (Bad news for those waiting for QSL cards to confirm contacts or awards). (Can you picture the impact today?)

Humorous article of the month. In his inimitable style, El, K3JJZ, authored a full page article titled "Boy You Really Dumb Howard." Suffice it to say that the article reports the conversation of his son Glen with a neighbor's boy. The subject is an explanation of a day spent hunting a hidden transmitter. (*If* you've ever been on one (or even if you haven't) you're sure to get a few good chuckles while reading it). Interested? Go to W3CCX.com and read it in the copy I scanned, posted by the webmaster).

"From the Book Rack." Member Paul Behrman, K3WEU conducted a book review net. Books of technical interest were reviewed and discussed by the members. This month's book was

"Semiconductors, from A to Z" by Philip Dahlen. 272 pages, hard cover \$7.95, Paperback, \$4.95. George included a detailed analysis of the book's content and depth of coverage, to assist members in deciding whether or not to purchase a copy.

Membership. One member (W2AXU, Jack Power) resigned, and then withdrew his resignation. (*Must be a good story there.*)

Free Booklet. A free booklet is offered by the Champion Spark Plug Company. Titled "Giving Two-Way Mobile Radio its Voice," it contains a straightforward explanation of noise sources during mobile operation, and suggested remedies.

Contest Scores. A list of members achieving "over 10,000 points" was posted. The list included current members (*50 years later*) K3IPM, K3IUV, and K3JJZ.

Did You Know? A "newsy" column which contained brief items of interest from the members. Item: K3IUV, Bert, had 11 stations check in to the 432 net on 1/21/69.

Swap Shoppe. By W3ZRR. (Always

nostalgia.) For sale by Paul, K3WEU: an R-48 converted to 220, and a Xmtr. Firm price \$35. From WA3BIV, Carl Barrish, a 6-meter linear with power supply and Variac, 6-watts in for 1,500 watts out. \$300. Also, a Tapetone 417A 2-meter converter (*The 417A converter was the de rigueur gadget of the time*. *I still have mine in the basement*!). Price \$25.

Meeting Notices. Next general meeting topic will be Frequency Measuring." Members were invited to bring in gear for measurements.

Miscellany. Postage for this copy (It was from Ernie, W3KKN) was a single 6cent Roosevelt stamp because the paper was again light (only 3 double sided, 8-1/2 x 14" sheets). 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 our website (www.W3CCX.COM) and read the full issue scanned by K3IUV (me), and posted on the website, by W3SO, our webmaster. Remember, I have also posted the club Officers history, club Membership history, and Packrat Inventory (updated frequently) on the W3CCX website. These files are password protected, and only accessible to registered members. Have you registered? I hope you enjoyed reading these bits of nostalaia as much as I did in writing the article. If yes, you might let me know.

Thirty, de K3IUV



At the January Packrat general meeting, the first reading of the membership application from Andrea Slack K2EZ took place. A copy of her application along with sponsor statements from Rick K1DS and Dave K1RZ has been published to the Packrat web site. The Packrat BOD has yet to review her application but personally, I am confident that the BOD will also support Andrea's membership application. You may review the application for yourself on the Packrat web site (after you log in). The application can be found under the Minutes tab. 73, **Michael KB1JEY**

[See "K2EZ Membership Application" under "Latest Articles" on the main Packrat web page *after logging in to the page. --W2BVH*]

WSJT Cheap and Easy

Hello all, I just thought I would pass along to those who may not be aware that WSJT-X runs very well on the Raspberry PI. At the present time you can buy a basic PI for around \$38 from Amazon with a full package including a case, power supply and cpu heat sink for \$50. Of course you will still need a mouse, keyboard, monitor and digital interface or a rig with built in sound card. I have loaded version 2 of WSJT on my PI and it runs very well but I only use it occasionally. I have mine set up with a USB push button switch to switch quickly between it, my main PC and my rig as a backup in case the main PC crashes or I don't want the main PC running. Hope you had fun in the contest . 73

Mike N3BBI

ARRL CEO Howard WB2ITX Speech

The new CEO of the ARRL, Howard Michel / WB2ITX spoke at the Ham Radio University event on January 5, 2019. Check out the article by Bob K0NR and the video of the full speech and Q&A sesssion at:

https://www.amateurradio.com/arrl-ceo-howardwb2itx-speaks/

<u>Events</u>

For inclusion, please direct event notices to the editor.

Winter Hamfest - Hamfest - February 23, 2019. Big Flats NY. Sponsored by LIM Contest Group. See http://www.ka2lim.com/7.html for details.

Cherryville (NJ) Hamfest - Hamfest - March 9, 2018. Sponsored by Cherryville Repeater Assoc.II. See http://www.qsl.net/w2cra for details.

Trenton Computer Festival (TCF) - Conference -March 23, 2019. An all day computer and technology conference with numerous parallel presentations. The oldest computer fair in the world. See poster p. 22 and https://tcf-nj.org/ for details

2M Spring Sprint - Contest - April 8, 2019, 7:00-11:00 pm local. See https://sites.google.com/site/ springvhfupsprints/home/2019-information for details.

222 MHz Spring Sprint - Contest - April 16, 2019, 7:00-11:00 pm local. See https://sites.google.com/ site/springvhfupsprints/home/2019-information for details.

432 MHz Spring Sprint - Contest - April 24, 2019, 7:00-11:00 pm local. See https://sites.google.com/ site/springvhfupsprints/home/2019-information for details.

VHF Super Conference - **Conference** - April 26-28, 2019, in Sterling, VA, near Washington, DC. See <u>http://vhfsuperconference.com/</u> for details.

Microwave Sprint Sprint - Contest - May 4, 2019, 8AM - 2PM Local time. See https:// sites.google.com/site/springvhfupsprints/home/2019 -information for details.

Eastern PA Section Convention and Warminster ARC Hamfest - May 5, 2019. Bristol PA. See <u>http://www.k3dn.org/hamfest/</u> for details

6M Sprint Sprint - Contest - May 11-12, 2019, 2300Z - 0300Z. See https://sites.google.com/site/springvhfupsprints/home/2019-information for details.

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... Mystery Amp cont'd from p. 15

Make your own grid collet with finger stock, pressurize the plate compartment and use a chimney around the anode to the outside world. Made a really cheap assembly!! Not sure how many of these amps were built. They had a built in power supply with a Peter Dahl power transformer I believe.. What a nice rig..

There ya go.. Mystery solved (I think). I'm sure others can add to this story.

Bill, K1DY

Hello Microwavers.

I have begun integrating the new DB6NT 76 GHz transverter into my system. I wrote an article on its performance titled "76 GHz Transverter Upgrade Using the New DB6NT MKU 76 G2Transverter"

I also wrote an article titled "Motorizing WR-10 & WR-15 Waveguide Switches"

The articles are available on <u>www.ntms.org</u> On the left side of the screen, scroll down to "Knowledge Base" then look under "Tech Library" to find "Millimeter Wave"

73 Al Ward W5LUA

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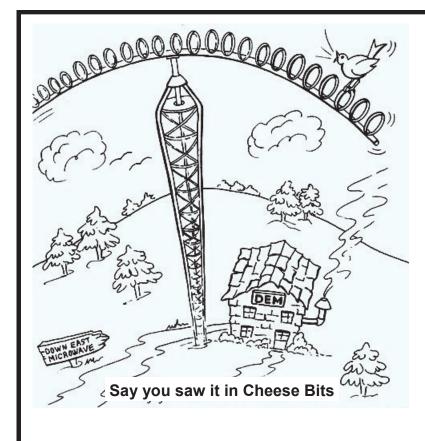
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