

Prez Sez

I am still depressed about the “ice night” during the contest. It’s the one time that most actually have their radios on, and are seated in front of them. I am hearing a lot of white noise lately on the calling frequencies, and find myself struggling to turn the equipment on and listen to it. Also, during the contest, everyone in the house knows that my time is allocated for the purpose! As we advance towards spring, which should be right around the corner, I look back and think that that Saturday night might have been the only night on which the weather de-tuned the aluminum the way it did. (At least around my QTH) I guess the preparations here will have to wait for another day to measure their potential.

The stories at the crying towel session were once again humorous. It is a good opportunity to test our comedic skills. Especially funny is the second place award of toilet paper (to attach to your shoe). I must admit that I like the award for success ceremony better, and strive to win a top three plaque someday. I think it will take some “rohn” at this location to break into the top. That is the next plan on the books.

I am personally excited about getting together for the June contest. I am not a big contester, but I like the outdoors and cabin fever is making the event look very enticing. It is also a great gathering of the active club members, with plenty of time to chew the rag with crew. Put the time aside now to have some fun with the gang on the mountain. AI, N3ITT will be leading the charge again, and I am sure he will appreciate any help you can offer.

Well, it is March and time for “homebrew night”. Here is where we should shine! I have seen you all scrounging for treasures at the hamfests. I bet some of this treasure winds up on the air. It doesn’t always look pretty, but the RF doesn’t care. Bring your creation to the next meeting. Maybe we will create a new category or two. I am better with wood than metal (at least I have better tools for wood). There are some out there like Lenny, N3NGE who cringe at the thought of dealing w/ wood. I say: “It all works”! Your creation may inspire others. Past projects have inspired me.

73, Ed WA3DRC

Pack Rat Website: <http://www.ij.net/packrats>

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

SUBSCRIPTION RATE: \$10.00 PER YEAR (USA)
\$12.00 PER YEAR (CANADA)
\$15.00 PER YEAR (ELSEWHERE)

We operate on an exchange basis with other non-commercial publications. Anything that is printed in CHEESE BITS may be reprinted in a not for profit publication, unless stated otherwise, provided proper credit is given.

DEADLINE FOR ARTICLES AND SWAP SHOP IS THE MONTHLY MEETING DATE. NON-COMMERCIAL SWAP SHOP ITEMS-FREE OF CHARGE.

Pack Rat Web Site: <http://www.ij.net/packrats>

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ
7258 Walnut Avenue
Pennsauken, NJ 08110
(609) 665-8488
bobw2sj@prodigy.net

EDITOR:

Rick Rosen, K1DS
206 Kimberton Drive
Blue Bell, PA 19422
(610)-270-8884
rick1ds@hotmail.com

CLUB TREASURER:

Dave Mascaro, W3KM
1603 Mink Road
Ottsville, PA 18492
(215)-795-2648
dmascaro@gi.com

AWARDS CHAIRMAN:

Bob Fox, W3GXB
W3GXB@juno.com
(346-8698610)

TRUSTEE OF CLUB CALL - W3CCX

Ron Whitsel, W3RJW
W3RJW@aol.com
(215) 355-5730

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA

OFFICERS: 1999-2000

PRESIDENT: WA3DRC Ed Finn, edfinn@voicenet.com
VICE PRES: WA3EHD Jim Antonacci,
Antonacci@worldnet.att.net
REC. SEC: WA3AQA Walt Zumbach,
zumbach@bellatlantic.com
TREASURER: W3KM Dave Mascaro, dmascaro@gi.com
COR. SECR: AA3GN Joe Landis, landisj@nad.com
DIRECTORS:
W3RJW (2 Yrs) Ron Whitsel, w3rjw@aol.com
N3ITT (2 Yrs) Al Sheppard, alitt@epix.com
N3PLM (1 Yr) Chris Getman, getmanc@nad.com
K1DS (2 Yr) Rick Rosen, rick1ds@hotmail.com

PACKRAT BEACONS - W3CCX/B

FM29jw Philadelphia, PA
50.080 144.284 222.065 432.298 903.071 1296.262 MHz
2304.034 3456.220 5763.190 10,368.170 MHz

MONDAY NIGHT NETS

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:30 PM	50.150 MHz	WA3EHD/K3EOD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ/N3EXA
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW
9:30 PM	1296.100 MHz	WA3NUF
10:00 PM	903.100 MHz	N3AOG
10:30 PM	2304.100 MHz	W3KJ

COMMITTEE CHAIRMEN

June Contest: N3ITT 610-547-5490
HAMARAMA: W3KJ 215-256-1464
VHF Conference: KB3XG 610-584-2489

Editor's Notes

There were as many stories at the wrap up as there were at the Annual Crying Towel post-VHF SS Contest meeting. The consensus was that despite trying real hard, the ice was a factor that was hard to beat, and grids and QSO rates were way down. We heard several de-icing stories, but thankfully no tower or antenna disasters as experienced in the past by our N.E.W.S. group friends, or the recent pictures we saw of WA8WZG's spaghetti twisted aluminum and steel wreckage. Despite the fact that roving was a daunting event with the weather problems, for the first time in many years, I came home Sunday night without aching arms, shoulders or back, due to the reasonably ergonomic set-up in the van, and the simple telescoping of the antenna mast when stopped to operate. I often consider it a minor miracle that my son Leon, N1XKT, and I don't trip over each other more and operate at cross-purposes, but we have learned to do the family rove with a sharing attitude and mutual expectations and negotiation. One thing I did think of, after the contest, is how many local FM QSOs we probably missed on 2 and 222 due to concentrating on working the microwave bands. My thoughts were assuaged though, as I saw WA3RLT's score analysis, and realizing that 50% of our scores were on the microwave bands. I must again publicly thank all the hams who have given me parts, advice, loans, help and donations over the years toward the rover effort. It is truly comforting to know that there is a great depth of knowledge and Packrat equipment stockpiles that can be accessed for the cause. Plans are now to add more power on 903, 1296, 3.4G, 5G and 10G, for greater rover flexibility, communications reliability and range. Look for more ideas soon for light communications too! 73, Rick, K1DS

Upcoming Events

- March 5, Monday, 7:30PM Start the week off with a check-in to the 50Mhz net at 7:30, then move up a band each 30 minutes to exchange information regarding the club and your activities. See the net schedule on page 2 for details and frequencies
- March 8, Thursday, 8PM: Board of Directors meeting at the QTH of N3ITT, Al Sheppard, 77 Foellner Lane, Ottsville, PA. Call or email Al at alitt@epix.net if you need specific directions
- March 12, Monday, 7:30PM Warm up your rigs to check into the nets. Details above. Don't forget the newest crowd on 2304.1 at 10:30 PM
- March 15, Thursday, 8PM** **Annual Homebrew Night Club Meeting. This is the chance to show off that latest construction project, or perhaps an item made of fine vintage parts from the past. Technical judging and story interpretation by our fine panel of judges will select the winners. And you don't have to show that it's working! Many categories, including Best Use of Mario Auction Materials. Awards will be given during ARRL night the following month. Remember to bring your homebrew item to share with the members, and continue to stimulate technical development. Guests are invited, so bring a buddy! Southampton Free Library, check front page for address**
- March 17, Saturday Cherryville Repeater Association Hamfest, Harmony Twp, NJ; North Hunterdon Regional HS, Rt 31 S, Clinton, NJ (1/2 mi S of I-78 on Rt 31 @ Regional Rd. Talk-in: 147.375+ or 146.730-
- March 19, Monday 7:30PM Remember to check-in on your favorite nets with your favorite net control stations. Tell them how much you appreciate their time and energy to run the nets and volunteer to run one in the future. See if you can win an award this year for most check-ins.
- March 26, Monday 7:30PM Last chance this month to check into the nets, and make sure the March winds didn't blow your antennas down!
- March 31, April 1, Sat & Sun Timonium-BARC Hamfest-Greater Baltimore Hamboree and Computer Fest; Maryland State Convention; Maryland State Fairgrounds, Timonium, MD, I-83 to Padonia Rd East. Talk-in: 146.76-, 224.24-, 444.625+ (pl 107.2)

Coming in April: Mark your calendar for ARRL and Awards night, Thursday, April 19th. Spring Sprints also start in April 9th, 17th and 25th respectively for 144, 222 and 432 MHz.

2000 Spring Sprint Results are Listed at <http://www.etdxa.org/spring1.html>

The Crying Towel 2001

Everyone wants to tell a story, but no-one really wanted to win! This year old man winter created plenty of havoc to make for a lengthy but wholly enjoyable Crying Towel session. For those who didn't get to hear these first hand, here is the abridged edition:

Burt-K3IUUV: A complete show with props, including a totally rusted and 2-piece section of 30 yr old steel cable that prevented the tower from being elevated, and a pair of 5894's that had gone bad. When the rotor indicator died, he just timed the rotation from the south stop. Burt advises that you discard the spent tubes, rather than return them to the 'spare drawer' where you think you have insurance!

Al-N3ITT: I don't really have a lot to complain about... I had limited expectations. Got a new final for the Commander amp, DVK working, but RF getting into the rig on 432—could it possibly have been due to the dangling yagi from the 4-bay that is still pointing down into the shack? Missed 3 hours on Sunday clearing snow for the XYL to get her car in and out get to work.

Ernie-W3KKN: I thought I was really doing great, I worked everyone 2 or 3 times on every band! I'm just glad I'm here—last year I was flat on my back. Snowflakes were so thick, they couldn't fit through the loopers.

Ben-WA3RLT: {First Prize Winner of the Crying Towel} I have to share a little of my grief—self-inflicted. At the end of October I was completing a 10-yr project, finishing off a chimney. Carrying bricks and cement and hitting my head continuously on my 2m antenna, I rotated it...the last time it would turn. Unable to get to it until the weekend before the contest, I called a supply house for a replacement, but got the old line, "you didn't wait for the week before the contest to do it??" I did manage to find a unit available, but a bit short on cash, used the worn emergency check stored in my wallet. Delayed until the day before the contest with an emergency project at work, and daunted by the rain, managed to string a new 6 wire rotor control with individual strands, but they got hopelessly tangled, and some were of the same color. Finally working for the contest, but the QSO rate was down to 2/hr, and finally the contest rate flat-lined, with me still sitting in front of the rig. Sunday I found myself shoveling snow off the roof, only to find an icy substrate, and wound up using my daughter's hair-dryer strapped to a broomstick to de-ice the antenna.

Paul-W2PED & W2UR: I heard about these multi-op stations and everyone having the flu for the contest and sure enough, mid-week before the contest, started feeling ill, but bulked up on vitamins and managed to get through it, better rested than ever before.

Ed-WA3DRC: Not much to report except for a high SWR on 2304

Paul-WA3GFZ: Added several bands and everything worked great until the windstorms did a job on the antennas. Put 2 power supplies together to beef-up input, but fried one through the control circuit of the other. Steve (DEMI) went on vacation the week I needed him. Blew the front end of 903 rev when transmitted directly into it when tired. Also spent time de-icing antennas with a shrink-wrap gun tied to a 10' pole. Managed 4 QSOs on 3.4G with only 25mw.

Ron-W3RJW: The worst contest I can remember—nothing but ICE! It's the ice that kills you, not the snow. Thawed by 2PM Sunday, but by then everyone had given up.

Brian-N3EXA: I didn't have too much trouble, but the light in the rotator didn't work. It was tough staying in there with those low QSO rates.

Walt-WA3AQA: I took the rotator down and opened it up to find a split drive ring...complained about cheap hardware in an expensive rotor because when a screw stuck and tried to force it out but destroyed the thread and pulled out an insulator. Restored the repaired rotor to the tower but had a series of blown fuses, shortened cables and a stuck rotor, at least it was facing NE. After describing an impossibly complicated set of adapter plugs, he went back to the old standby rigs and managed to make his contacts on the high bands.

Phil-WA3NUF: Did tower and rig work before the contest, and got off to a hot start, but by 5 PM had the pinging of the sleet and inserted 3db pads in the rigs to keep the amps from shutting down with high VSWR. Microwaves seemed OK despite 222 and 432 being quiet from the weather. By noon Sunday things were de-iced, but the rotor loop on 2m was problematic and a perfect ice-ball was found inside the connector. Once it was replaced, things improved, until 2304 & above went dead at the IF. Finished the contest by finding K4QI to run 6 thru 1296. He sprayed the 903 yagis with rubber coating to protect them from the weather. Said it was a great contest to stress your station.

John-KB3XG: I set up my stuff wearing my rain-suit on Friday. The tower motor wouldn't do much with one battery, so tried a few in series or parallel, but managed to only get the motor hot, and took three hours to get the tower erected with a hand-crank to assist. Set a new world's record for operating—Phil's log wouldn't accept my call, and Ron thought his radios were broken when he heard me on-the-air Saturday... didn't know what the 'rats are complaining about as I thought activity was way up! Even got an email from Ron, "That extra day really helps!" Worked NE on 10G on Sunday.

Crying Towel 2001, continued:

Rick-KIDS & N1XKT: Managed to get the rover all set and loaded and on the road by 11, but due to weather, got on the air 45" late in FM28, and heard few folks due to the rain and low elevation, next to a river in a state park. Within an hour the water level was less than a foot from the van and headed to FM18, where the contacts came a bit easier, and started to work a few on 903 and 1296, but 2304 rcv was quiet, as well as 432 ailing. After sunset a pick-up truck pulled up and the driver wanted to know, "What the hell we were doing??"...we left shortly after, in a hurry, but the rover seemed sluggish at 40MPH...and then the dreaded smell of something burning—we stopped, turned off the motor and disconnected all the electrical lines, only to remember in our haste I'd left the parking brake on, just having installed new rear brake pads. In FM19 we encountered a diesel truck loaded with salt and sand, a portent of things to come. After dinner we decided to drive back north to FM29, only to encounter the snow and ice that others were already battling. Made it home by 2AM, left the van in the driveway to find it covered in 6" of snow at 7 AM. Plugged in the battery charger and went back for a nap—woke up at 10 to find the charge rate was set for trickle only, causing the microwave IF rig to die mid-afternoon. Luckily had a spare battery to put into service, thanks to a loan from N3NGE. Spent the rest of the day in FN20, as the NJ Turnpike was limited to 35MPH. Found many ground-wire sins and corrected them, and the loose 2304 cable that enabled us to work a few there. Preparation (?) paid off with 11 working bands, but always could have done better.

Mt. Airy VHF Radio Club, Inc. 'The Pack Rats' January 2001 VHF Sweepstakes Contest

Total Logs: 52										Total Club Score: 2,009,537			
Call	QSOs	Grids	Score	50 MHz	144 MHz	222 MHz	432 MHz	903	1296	2304	3456	5.7G+	
W3RJW	661	104	156,520	128 18	213 26	79 15	95 14	35 9	53 8	22 4	14 4	22 6	
WA3NUF	648	102	141,882	136 18	209 24	83 17	94 15	35 8	44 9	17 3	12 3	18 5	
N3EXA	637	92	109,020	143 19	214 20	88 18	92 15	35 7	48 10	17 3			
WA3DRC	484	75	82,800	87 11	151 24	59 7	78 14	29 5	41 5	17 3	14 4	8 2	
K3CX	537	80	82,080	119 18	169 18	81 16	82 13	29 5	40 7	17 3			
W3KM	391	69	53,475	50 9	145 20	69 13	61 11	21 5	31 7	12 3	2 1		
W2SJ	419	55	53,185	66 7	115 13	73 10	64 7	32 6	42 6	20 4	7 2		
K1JT	556	70	51,310	188 20	191 23	81 14	96 13						
AA3GN	428	50	47,200	76 8	138 14	64 7	63 7	26 5	29 3	18 3	11 2	3 1	
KB3XG	277	49	41,699	42 9	49 8	44 7	34 5	28 4	37 6	14 2	10 2	19 6	
N3NGE	333	52	40,300	53 9	92 10	49 7	56 9	25 5	36 6	16 3	1 1	5 2	
WA3GFZ	424	45	39,870	77 8	125 12	67 6	77 8	19 3	38 3	14 2	5 2	2 1	
K1DS/R	272	48	32,928	36 4	92 11	53 7	22 3	16 4	20 4	9 2	6 1	18 12	
K2TXB	292	59	31,919		157 27		92 18		36 11			7 3	
N1XKT/R	270	46	31,464	35 4	91 10	52 6	23 3	17 4	19 4	9 2	6 1	18 12	
N3ITT	364	48	30,528	45 8	151 16	50 7	66 10	21 3	31 4				
K3IPM	432	52	26,676	159 21	192 22	21 3	60 6						
AA2UK/R	189	52	26,156		57 11	29 8	44 10	19 7	24 8	10 3	4 1	2 4	
AA3RE	326	42	22,260	77 11	109 13	53 7	55 5	17 4	15 2				
W3KJ	236	30	17,580		74 9	48 6	58 7		37 4	19 4			
KU3A	268	45	17,325	62 11	111 15	39 8	45 9		11 2				
K3MFI	298	30	15,750	72 8	81 6	47 4	63 5	10 2	22 3	3 2			
WA3RLT	254	31	12,741	62 7	81 9	39 5	49 6		23 4				
WA3AQA	252	26	10,738	53 6	90 8	51 5	32 3	11 2	15 2				
K3DMA	268	25	10,450	68 9	88 6	51 5	42 3		19 2				
W3KKN	271	23	10,350	41 4	129 11	30 2	32 2	15 2	24 2				
W3GAD	231	32	10,080	62 8	85 13	30 2	54 9						
NE3I	207	27	9,126	39 6	73 9	37 4	40 6		18 2				
W3SZ	135	37	8,917		89 19	3 2	21 8		18 6	4 2			
W3DFM	175	32	8,032	49 9	68 9	33 8	18 4		6 1	1 1			
K3IUV	219	23	7,337	53 7	74 6	51 3	37 5		4 2				
N3PLM	164	23	6,946	46 8	44 6	21 2	27 3	10 1	13 2	3 1			
W3IIT	206	22	5,874	73 10	72 6	23 2	38 4						
W3GXB	142	24	5,616	26 4	62 11	14 2	21 3	9 2	10 2				
KB3IB	104	23	4,186	25 5	29 5	16 4	20 5	6 2	8 2				
WA3EHD	169	16	4,000	68 7	34 2	33 3	27 2		7 2				
K3IB	159	24	3,816		159 24								
W2SK	77	17	3,672	13 3	11 3	18 3	12 2	5 1	8 2	5 1	4 1	1 1	
K3JJZ	115	8	1,160		85 6	30 2							
N2DEQ	100	10	1,110		89 6	7 2	4 2						
N3EVV	50	9	1,071	8 2	15 2	20 2						7 3	
N3EMY	52	8	480	16 2	28 4	7 1	1 1						
WR3P	22	5	170		10 2	8 2	4 1						
K3BPP	15	8	120	15 8									
K3VEQ	49	2	98		49 2								
KA3MGB	15	4	60		15 4								
N3AOG	9	4	52	2 1	3 1	2 1	2 1						
W0RSJ	1132	178	323,070	314 37	429 48	128 31	166 30	30 10	39 12	13 4	11 4	2 2	
w/W3KJ, IIT, HMU N2CEI, EOC, IX WB2ONA NE3I													
W2UR	992	163	289,651	249 35	408 46	89 21	109 22	38 10	55 14	27 8	10 4	7	
w/W2PED													
WA2OMY	461	60	53,940	108 12	163 15	61 7	55 7	19 5	30 6	12 3	6 2	7 3	
w/WA3YUE													
K3EOD	416	61	35,563	164 19	125 17	48 10	59 10	5 2	15 3				
w/WR3P													
K3AX	292	64	29,184	76 14	90 21	45 9	62 15		19 5				
w/N3XJX & NET													

Rumored Jan. VHF SS 2001 Scores from N.E.W.S.

From the internet

Call	Grid	CI	Total Points	Band QSOs/ Grids											
				6m	2m	222	432	903	1.2G	2.3G	3.4G	5.7G	10G	24G	LAS
AF1T	FN43	S	91258	137/24	157/23	58/18	82/16	18/7	22/5	8/3	1/1	1/1	8/4	-	1/1
K1FO	FN31	H	94381	137/20	242/25	85/20	166/23	-	23/9	-	-	-	-	-	-
K1GX	FN31	H	97650	136/23	200/25	65/14	66/15	20/8	27/9	10/6	5/3	1/1	2/1	-	-
K1LPS	FN34	S	17095	53/18	66/19	29/12	35/12	1/1	3/3	-	-	-	-	-	-
K1TEO	FN31	H	377580	280/57	378/44	108/31	152/30	40/14	53/17	16/7	9/5	-	6/5	-	-
K1UHF	FN31	H	190869	175/28	358/40	87/24	95/24	32/12	34/11	8/5	-	-	7/5	-	-
K1WVX	FN31	S	4512	51/14	32/7	13/6	10/3	-	3/2	-	-	-	-	-	-
KA1EKR	FN42	S	3703	-	51/10	12/4	33/7	-	5/2	-	-	-	-	-	-
KB1VC	FN42	S	9240	102/19	59/12	-	35/9	-	-	-	-	-	-	-	-
N1DPM	FN32	S	106821	139/26	140/21	59/17	74/18	25/13	29/11	11/6	8/5	-	-	-	-
W1AIM	FN34	H	21534	68/19	71/24	28/13	36/13	1/1	5/4	-	-	-	-	-	-
W1GHZ	FN42	H	58968	123/22	155/23	46/13	78/13	13/5	21/5	-	-	-	5/3	-	-
W1MRQ	FN43	H	1530	21/4	64/14	-	-	-	-	-	-	-	-	-	-
W1PM	FN41	S	33361	107/21	82/17	36/11	56/13	9/5	12/6	-	-	-	-	-	-
WA1HOG	FN42	S	35242	103/20	123/20	23/4	63/12	10/4	22/7	-	-	-	-	-	-
WA2ZFH	FN30	S	8496	27/9	39/8	28/7	29/7	-	14/5	-	-	-	-	-	-
WZ1V	FN31	H	112112	162/23	145/26	79/19	90/18	21/7	36/10	10/6	6/3	-	-	-	-
Club Total	Score:		1264352												

Tid-Bits

All logs have been submitted to the ARRL. The numbers are: 2,009,541 points from 52 logs, so once again, we compete in the unlimited club category. Thanks to N3PLM and W3KM, and all who contributed by operating in spite of terrible conditions and adversity. Next year can only be an improvement! I'm already looking forward to it. Really. Operating awards for the 1st, 2nd, and 3rd place single and multi-op finishers within the club will be announced at ARRL nite. See you there! 73, **Joe - AA3GN**

The 2304.042 Mhz beacon was reinstalled today with new feedline. The power level out is still the same (1/2 watt), but a new 25' piece of LMR 400 was installed replacing the 5 year old "flexi" 9913 look alike stuff. Both Ron, RJW and myself have noticed an improvement at our QTH's. The beacon is up about 1 "S" unit here in the RF hole, and Ron says it's up several DB at his place also. So, hopefully you'll see just a little more signal from the 2304 beacon now. The 3,5, and 10 Ghz beacons are still on the bench to be installed shortly. **Jack K3CX**

Dear Pack Rats and other interested Microwaver's:

Back in Oct of 2000, there was talk of putting together a club project to build several copies of the 1296 PA that I presented at Microwave Update. I writing this email to see how much interest there might be. If it's only a few, we can handle things such as board fabrication here. If there is a lot of interest, we will have to go out for quotes for the larger quantity.

- 1) I'm sure I can work out a deal with STMicroelectronics to get the devices. It probably won't be for free but there might be a few cases of beer involved.
- 2) I thought to cut costs, and to make the project seem more like your own, we would ask you to BYOH (Bring Your Own Heatsink), scrap pieces of UT-141 semi-rigid, flange mount "N" connectors, scrap pieces of Teflon hook up wire, and the other necessary hardware to mount the amplifier to the heat sink. I will publish a list of bias and DC parts that can be purchased from DigiKey.
- 3) The issue of providing a heat spreader may also involve some money. Because the source of the FET is the flange of the device, it is important to have an excellent ground to bring the source to the circuit ground. Remember, the frequency and current is high and the impedance is very low. Having a good connection to the "N" connector flange to the heat spreader is also critical. These devices are unstable as it is. I can tell you from experience that you will wind up with a power oscillator if you have a flaky ground.
- 4) The amplifier I built for Update 2000 was fabricated on 0.031" Rogers 5500. Several tiny holes were drilled through the board and the holes were filled with copper rivets to connect the top side ground to the bottom surface. The board was then sweat soldered to a slab of copper. There is a single slot cut in the middle of the copper slab to position the devices so the leads are flush with the board surface. I'm not sure how much the copper slab will cost.
- 5) Having an effective ground is great for RF but a problem for most soldering irons. The copper slab will quickly suck the heat out of your iron before the solder has a chance to flow. You must have the proper thermal profiles to mount SMT parts with consistency. We may consider using our regular meeting time to stuff boards using a temperature controlled hot plate. I thought some of the guys might enjoy learning some SMT fabrication techniques. (I could get a hold of a couple of these hot plates for the

session.)

5) I thought it might also be fun to tune up our new amplifiers at another regular meeting. I can supply the equipment for one test set. Maybe someone else could bring enough stuff along for a 2nd test station? The test equipment is pretty basic:

- a) 1296 rig with at least 15 Watts out
1296 Amp Project, cont'd
- b) 3 power meters (HP 432 or equivalent)
- c) Directional coupler
- d) 30 dB 200 Watt attenuator
- e) 28V, 10A power supply
- f) Spectrum analyzer (Optional)

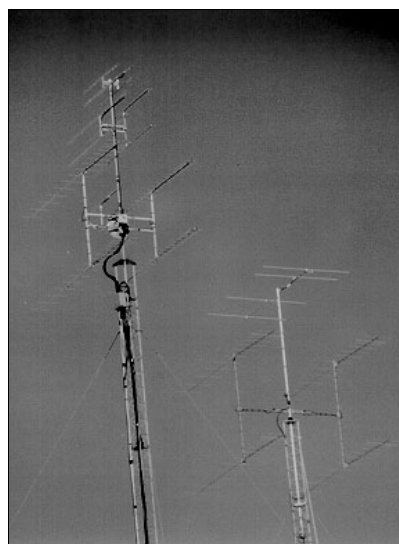
Please email me if you are interested in building one of these power amps. I'll post the results in a few weeks and we will take it from there. I'm planning on building a similar amp for 2.3 GHz in time for the Pack Rat conference in September. Maybe by this time next year we will be working on the next band? 73xg email John at: johnkb3xg@aol.com

The Southeastern VHF Society is pleased to invite you to the April 20-21, 2001 SVHFS Conference to be held in Nashville, TN at the Holiday Inn Select, Brentwood, Tennessee. See <http://www.svhfs.org> for further information and the 2001 SVHFS Conference registration form. The Conference agenda is finalized and includes the following papers and presentations:

- EME Basics, Bob McGraw, K4TAX
- Microwave Dish Construction, Tom Whitted, WA8WZG
- Log Periodic Design, Kent Britain, WA5VJB
- K8GP Contest Station, Owen Wormser, K6LEW
- 23CM EME, Bruce Clark, K0YW & Jay Liebmann, K5JL
- VHF Quad Antenna Design, L.B. Cebik, W4RNL
- 50 Mhz Elecraft K2 with Internal DEM
- VP2M Dxpedition, Dick Hanson, K5AND
- Preamp Design, Kent Britain, WA5VJB
- Simple 7/8" Hardline Splice, Ott Fiebel, W4WSR
- Down East Info, Steve Kostro, N2CEI
- To be announced, Joel Harrison, W5ZN
- Contesting at 2GHz and Above, Jack Nyiri, AB4CR
- 222 EME, Ray Rector, WA4NJP

In addition to the technical program, the following are offered:

- Antenna Gain and Pre-Amp Noise Figure testing
 - VUCC Card Checking
 - Vendor displays and VHF+ flea market
 - Annual SVHFS business meeting and SVHFS Auction
 - Saturday Night Banquet with Guest Speaker Emil Pocock W3EP, Including announcing the recipient of the K4UHF award and many door prizes. This year a "Tower Jack" donated by IDC Technologies will be given as a PRE-REGISTRATION DOOR PRIZE for those registering prior to March 23, 2001. The drawing will be held Friday afternoon at the SVHFS business meeting.
- Hope to see you there ! Bert Rollen K4AR Robin Midgett KB44IDC



Mystery Photo (perhaps to some)

Have you worked this station on the air? Still in FN20, boasting some of the highest seasonal winds and some of the longest hardline runs, this station is a regular in contests, and the op is an Elmer to many. Email your answer to the mystery station to the editor:

ricklds@hotmail.com

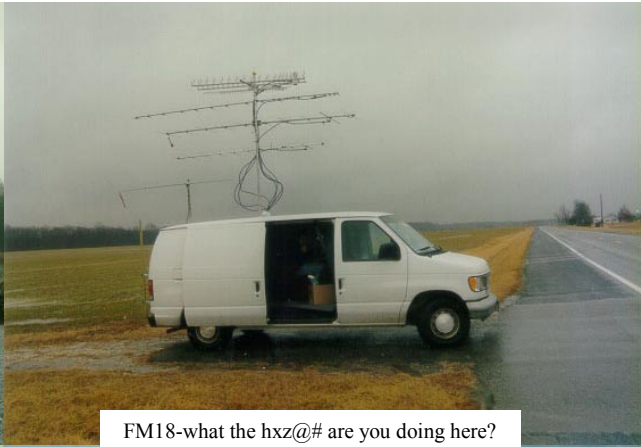
Rats & Friends, After several attempts, (some more successful than others!) and with lots of tech help from Ron RJW, I'm finally able to report that the 3.4, 5.7, & 10 Ghz beacons are all up and running again. (Phil, you should be able to here the 10 Ghz beacon now!) So, as of 2/28/01 0930 hrs all 10 beacons are up and running again. Let's hope they stay that way! Jack, K3CX

Tom WA8WZG, Tony WA8RJF, Herman N4CH and The VHF Weak Signal Group that meets Monday nights at 0200 UTC on 3.843 MHz, would like to invite everyone that is coming to the Dayton Hamvention to our annual Banquet. We have reserved a room that will seat 125 on Friday night May 18, 2001 from 6:30 PM until 11:00 PM at the Holiday Inn North, Waggoner Ford Rd. Dayton, OH. There will be a cash bar as well as plenty of seating to allow you to mix and mingle with other VHFers from all over the country and the world. There will be over 50 prizes with two grand prizes worth over \$300 each being drawn starting at 9:00 PM. Also, there will be a guest speaker who will figure-measuring table so bring your preamps to tweak. The cost of a ticket to attend this function which includes the 2-entrée-banquet dinner, is only \$35 per person, and they are limited to 125. You may order your tickets by sending \$35 plus a SASE to Tom Whitted, WA8WZG, 4641 Port Clinton East Rd., Port Clinton, OH 43452. WWW.WA8WZG.COM or email WA8WZG@WA8WZG.COM

Microwave Update 2001 will be held in Sunnyvale California, September 27 through September 30 (see <http://www.qsl.net/50up/uwave2001/> for more details). We invite all interested amateurs to submit a paper for inclusion in the proceedings whether attending the conference or not. Paper titles and/or abstracts should be received by May 15, 2001 by either: Rex Allers, KK6MK, rexa@dnai.com, (408) 377 6848 Gary Lauterbach, AD6FP, AD6FP@pacbell.net, (650) 336-1001 All papers need to be received by July 9, 2001 for inclusion in the proceedings.



FM28-watch the rain come down and the river rise



FM18-what the hxz@# are you doing here?



Waking up Sunday AM with 6 fresh inches of snow



FN20-found some sunshine in Montgomeryville

January Rover Picture Gallery K1DS/R and N1XKT/R