N.E.W.S. LETTER

The Publication of the North East Weak Signal Group

NOVEMBER 1996 VOLUME FOUR ISSUE FIVE

NEXT MEETING

THE NEXT MEETING IS ON NOVEMBER 9TH, 1:00 PM AT THE QUALITY INN, VERNON, CT.
SHOW AND TELL SESSION; BRING YOUR LATEST PROJECT
ALSO ELECTION OF OFFICERS

IN THIS ISSUE

MEMBERSHIP in the N.E.W.S. Group is $10 per year. Apply through Frank Potts, NC1I, at 65 Hastings Road, Southwick, MA. 01077 (413) 569-0314 You may download an application from our web page http://uhavax.hartford.edu/newsvhf

SECRETARY'S REPORT
JULY 24, 1996 MEETING

We had a near perfect, though windy day, for our third Annual Mid-Summer "parking lot" meeting. Activity, as in past years focused on 10GHz equipment. Paul, N1BWT and Bruce, N2LIV were the ringleaders of a sun noise measurement exorcise, during which about 10 members compared 10GHz dish performance.

Our turnout was 46 members and guests. Many came with some tailgate items as well as fully operational Microwave Stations. Activities started at noon and lasted until after 5:00 P.M.

Respectfully Submitted,
Marc Casey, N1LZC
Secretary

SECRETARY'S REPORT
AUGUST 24, 1996 MEETING

Our annual VHF Conference meeting was held on Saturday at 5:00 P.M. just after talks and bandsessions concluded fro the day.

Bruce, N2LIV brought the meeting to order and announced solicitation of nominations for two Board of Director positions. Ron, WZ1V, nominated K1WHS to continue on the board. Anyone who has an interest or prospective nominee should contact Bruce Wood, president of NEWS before our next meeting to be held November 9th.

Lewis Collins, W1GXT proposed a merger of the Northeast VHF Association with NEWS. Walt, WA2ALV seconded the motion. The Northeast VHF Association was unanimously accepted into NEWS and memberships will be prorated.

Mark, N1LZC suggested that our group should make our band space and plan be known to the various Northeastern U.S. frequency co-ordinators. The New England VHF Association has been the weak signal co-ordinator in the past, so it was suggested that NEWS should take interest in this area.

Bruce closed the abbreviated meeting at about 6:00 P.M. Approximately 30 members were in attendance.

Respectfully submitted,
Marc Casey, N1LZC
Secretary

PRESIDENT'S REPORT
CONTESTS, CONTESTS & MORE

If you are into VHF and above contests, the period from our last main meeting in July and this newsletter represents an intense period of activity. The August UHF contest, the first weekend of the 10 GHz contest, the September VHF contest and finally the second weekend of the 10 GHz contest. We all need a lot of caffeine just to keep up.

For the August UHF contest I had the privilege and excitement of joining the W2SZ/1 group on Mt. Greylock. Sure wish I owned that piece of real estate. The first weekend of the 10 GHz contest saw a lot of activity but flat band conditions. I operated from another rooftop location (LI mountain) and in eastern Long Island for the second weekend.

Many of our NEWS Group members and others throughout the northeast region spend considerable time and energy to operate at portable locations and to be competitive from home. This ranges from the large multi-op efforts to single ops packing their cars beyond capacity and comfort levels to activate sometimes rare grids. Many times not to find many of the local stations on. We in the luxury of our home, often due not have time available to operate a complete contest period. However, we should all make a concerted effort to devote some time to activate those bands available to us and work especially those portable and serious home stations. This is even more important on the higher microwave bands. Much of the fun derived from contesting is in working stations and we can all help keep these efforts alive.

The first weekend in October once again brings us Boxboro, Hosstraders and the Packrats conference and flea markets and Microwave Update in Phoenix. What a trip I had to attend both the Hosstraders and Packrats in one long weekend. Several of our members that I know of were speakers at several of these events, namely N1DPM, KD1DU and N1BWT.

Our November NEWS meeting will bring us our first annual (we hope) homebrew meeting. Please bring all of your recent homebrew projects for display to our club members. This includes kits and adaptations of equipment for our amateur use. As a club we do a lot of building and should be proud to show it off, no matter how complex or simple it may be. So please load up your car. In addition, November brings us our annual elections. Slots are open for:

- President - 1 year
- Vice President - 1 year
- Secretary - 1 year
- Treasurer - 1 year
- Board #1 - 2 years
- Board #2 - 2 years.

Two of our present board members N2MSS and K1LXD have 1 year to go.

See ya all in November.

SEPTEMBER VHF CONTEST RUMORED SCORES
BY STEVE K0OU/Q

Single Operator

CALL	WA8WZG	K9PW	K1RZ	KD1DU	WB2DNE	W3IP	K2UOP	VE3KDH	WB2VVV	N8UM	K5MA	WA0BWE	KA2RDO
GRID	EN81	EN52	FM19	FN31	FM19	FM19	FM09	FN03	FN21	EM85	FN41	EN34	FN12
50	138/41	134/43	127/33	91/18	92/27	63/22	56/21	85/25	56/17	81/30	113/22	37/12	38/15
144	178/48	282/50	279/49	318/39	189/38	171/33	130/37	155/37	185/24	144/40	166/28	82/24	113/35
222	95/34	78/32	75/31	74/21	57/22	54/21	40/15	38/20	54/17	27/19	60/20	28/15	32/17
432	132/38	131/39	121/36	90/22	90/29	62/22	62/25	64/23	55/15	48/25	85/20	56/17	47/19
903	58/21	33/18	33/17	26/13	21/12	23/11	6/ 3	7/ 5	15/10	5/4		14/19	10/7
1296	71/22	46/21	43/19	32/12	32/16	41/16	24/11	5/ 3	20/11	9/7		22/10	16/7
2304	41/13	10/ 8	8/ 6			7/ 4	3/ 2					2/1	
3456	23/ 9	8/ 6										6/5	
5760	23/ 9	10/ 6										1/1	
10G	15/ 8	6/ 4					1/ 1						2/2
24G		2/ 2											
LIGHT		1/ 1											
TOTAL	774/243	741/230	686/191	631/125	481/144	421/129	322/115	354/113	385/94	314/125	424/90	248/94	258/102
SCORE	380295	280370	202078	113875	105696	88494	57040	54127	53016	52125	51210	40514	40290
CALL	WA8WZG	K9PW	K1RZ	KD1DU	WB2DNE	W3IP	K2UOP	VE3KDH	WB2VVV	N8UM	K5MA	WA0BWE	KA2RDO

CALL	KD0DW	WQ0P	KH2CY	KD4UPF	N0LL	W4MYA	KB0PYO	N5HHS	K0GU	WA2HFI	KB8ZW	AA2GF	WB6FCS
GRID	DN70	EM19	FM19	FM08	EM09	FM07	EN24	EM10	DN70	EN34	EN91	FN02	DM14
50	47/18	14/8	63/17	50/18	38/26	96/28	26/11	84/34	52/27	30/16	42/17	28/13	25/16
144	96/35	113/38	159/28	93/30	87/30	121/29	92/37	102/25	62/27	63/25	76/25	101/31	86/29
222	21/13	22/20	16/ 6	39/19	20/14		16/10		10/ 8	18/11	18/12	17/ 8	15/12
432	61/26	54/28	63/18	56/22	30/20	42/17	40/18	29/12	39/18	29/12	25/13	26/12	26/17
903	4/ 3	3/ 3								4/ 2			
1296	13/ 7	8/ 8	10/ 4		7/ 7					9/ 3	5/ 3	4/ 3	
2304			2/ 1										
3456			6/ 5										
5760			1/ 1										
10G	3/ 2	4/ 1											
TOTAL	245/104	218/106	311/73	238/89	182/97	259/74	174/76	215/71	163/80	153/69	166/70	176/67	152/74
SCORE	38480	34768	29930	29637	23862	22274	17480	17324	16960	15594	15549	15209	14282
CALL	KD0DW	WQ0P	KH2CY	KD4UPF	N0LL	W4MYA	KB0PYO	N5HHS	K0GU	WA2HFI	KB8ZW	AA2GF	WB6FCS

CALL	WB9AJZ	WA5TKU	NB2T	KC2QF	WA2ZFH	KE8RO	WB4ZUG	K4CPK	VE7SKA	N6HKF	N7STU	KE6DPV	NN2T
GRID	CM87	EM13	FN30	FN31	FN30	EN81	EM75	EN82	CN88	DM24	DM07	CM98	FN21
50	59/16	27/10		34/11	10/ 4		37/15	40/16	52/12		32/13	26/ 6	
144	104/22	89/29	90/16	40/13	80/17	82/27	38/16	78/24	73/16	10/29	83/21	54/ 7	134/24
222			50/ 3	18/ 9	6/ 4		22/13			24/12	2/ 2	21/ 8	
432	78/13	26/15	120/ 9	27/11	45/11	25/14			7/ 4				
1296		7/ 5								4/2			
3456		1/ 1											
TOTAL	241/51	150/60	260/28	119/44	141/36	107/41	97/44	118/40	132/32	174/55	36/12	117/36	109/26
SCORE	12291	11580	7280	7216	6912	5412	5236	4720	4448	13310	4284	3796	3216
CALL	WB9AJZ	WA5TKU	NB2T	KC2QF	WA2ZFH	KE8RO	WB4ZUG	K4CPK	VE7SKA	N6HKF	N7STU	KE6DPV	NN2T

CALL	AB0CN	KF9YR	WB7TDI	WA9KNP	N3QWE	AA1AK	N7DB	WO1G	KC8CSD	KL7GLL	VE7KPB	NH6YK	KA3ESA
GRID	EN34	EN54	DM09	EM57	FN10	FN31	CN85	FN42	EN81	FM19	DN29	BL11	FM19
50	12/ 2	19/11	24/10			113/14	21/10	40/ 8	16/ 2	16/ 6		11/ 2	
144	42/14	55/22	42/13	60/31	54/22		28/11		45/20	26/ 9	19/13	15/ 3	47/ 6
432	18/ 6		10/ 4		6/ 4		1/ 1	22/ 8			2/ 2		
903							4/ 2				5/ 4	8/ 2	
1296													
TOTAL	82/24	74/33	76/27	60/31	60/26	113/14	54/24	62/16	61/22	42/15	26/19	34/ 7	47/ 6
SCORE	2880	2442	2322	1860	1716	1582	1416	1344	1342	630	627	294	282
CALL	AB0CN	KF9YR	WB7TDI	WA9KNP	N3QWE	AA1AK	N7DB	WO1G	KC8CSD	KL7GLL	VE7KPB	NH6YK	KA3ESA

SEPTEMBER VHF CONTEST RUMORED SCORES
STEVE K0OU/Q

Multi-Limited

CALL	*K3MQH	AA4ZZ	WB1GQR	K2AA	N1GPY	NO2T	WB1FLD	K1MUJ	N0EOQ	WB7DMC	**KO0U	W5EHM
GRID	FM19	EM96	FN33	FN21	FM09	FN30	FN42	FN41	EM24	CN97	FN42	EM10
50	409/61	158/44	190/23	150/33	95/28	146/16	109/17		31/24	47/ 9		17/ 5
144	647/64	244/45	367/29	312/33	182/41	304/26	200/26	109/21	38/20	66/12	48/13	52/14
222	167/52	56/27	92/17	70/17	37/19	31/10	46/15	32/12	2/ 2			
432	277/53	101/31	143/18	75/19	60/21	74/15	63/17	47/16	9/ 6	15/ 5	35/13	2/1
903	[64/ 4]											
1296	[16/ 6]							11/ 5				
TOTAL	1500/230	559/147	792/87	607/92	374/109	555/67	418/75	199/54	80/52	128/26	83/26	71/20
SCORE	447120	105252	89349	69184	51339	44220	39525	16200	4732	3718	3068	1460
CALL	K3MQH	AA4ZZ	WB1GQR	K2AA	N1GPY	NO2T	WB1FLD	K1MUJ	N0EOQ	WB7DMC	KO0U	W5EHM

NOTES:
* Scores in brackets will not be submitted for contest credit ** Single Op plus Net

Multi-Unlimited

CALL	W2SZ	K3YTL	W4IY	KP4XS	W0UC/9	KB0ZQ	N5UYI	W2CRS	W3X0	AE6E
GRID	FN32	FN11	FM08	EM84	EN44	EN34	DM06	DM78	EM00	EL79
50	406/59	245/42	225/46	160/55	93/37	77/30	56/14	61/29	30/16	38/20
144	515/45	539/59	425/60	203/57	186/47	169/51	130/19	72/34	89/28	63/26
222	146/32	118/32	81/37	40/25	42/24	38/21	35/12	9/ 5	12/ 6	9/ 6
432	166/29	151/38	118/36	70/39	64/26	67/26	67/13	41/20	26/12	16/10
903	57/21	38/13	28/17	8/ 7	8/ 6	15/10		1/ 1	7/ 4	7/ 5
1296	72/20	49/15	38/17	10/ 6	17/11	15/ 7	13/ 3	3/ 3	2/ 1	
2304	42/19	14/ 8	7/ 5		3/ 3	10/ 4				
3456	28/14	6/ 4			1/ 1	1/ 1				
5760	24/14	4/ 3				1/ 1				
10G	22/ 8	1/ 1			2/ 1	1/ 1	1/ 1			
24G	13/ 6									
LIGHT							1/ 1			
TOTAL	1491/267	1165/215	922/212	491/189	416/156	394/152	303/63	187/92	166/67	133/67
SCORE	653616	361845	277732	120393	92040	90896	27531	22908	15477	11524
CALL	W2SZ/1	K3YTL	W4IY	KP4XS	W0UC/9	KB0ZQ	N5UYI	W2CRS	W3XO	AE6E

QRP-Portable

CALL	KH6CP	N9TZL	No0Y
GRID	FN33	EN52	EM18
50	43/12		
144	138/20	38/22	16/ 9
222	69/16		
432	82/14		
903	18/11		
1296	28/14		
2304	12/ 9		
3456	5/ 3		
5760	5/ 3		
10G	4/ 3		
24G	1/ 1		
TOTAL	405/106	38/22	16/ 9
SCORE	77274	836	144
CALL	KH6CP	N9TZL	No0Y

Rovers

	QSOs	Grids W.	Grids A.	Score
ND3F	468	95	12	80036
WB9SNR	398	92	8	76600
K9JK	366	97	8	58800
AA7QZ	593	69	?	54510
WA3WJD	261	75	8	41417
WA2VOI	247	36	12	20736
N3LJK	158	56	3	16815
KC4ZRH	227	50	6	16464
N1ISB	230	35	4	14313
WR3Z	227	35	6	11685
N3KKM	190	40	7	11233
KF4AJO	137	50	5	11055
KA7YOU	187	15	8	4301
NL7CO	15	12	4	180

NB2T REPORT

Lou worked W4MYA FM07, N4KWX FM08, K4QIF, FM06, on 144 and KC4WFU FM18 on 144 and 432 (8/20/96). Heard KO0U/1 on cw on 432 very weak in FN42 (8/21/96) worked WA1HYN FN41 ON cw. Also worked WB3F FM19 on cw. Also worked on cw W1COT FN31, WA3GYU FM19 on cw. Lou has been hearing the W3VD/B again very well anso daily W3CCX/B on 432 MHz. On 9/1/96 Lou worked W4FSO FM14, N3JDR FM19, K4QIF FM06, W4MYA FM07, WD4WTC EM95, N3THJ FN10 on 144 also K4QIF and W4MYA on 432 for two new grids on 144 and 1 on 432. Lou also reports hearing W3CCX/B 28 days out of 31 during August and W3VD/B for 10 days.

UNUSUAL 2M ES SCATTER PROPAGATION!

I want to share the results so far, of an experiment I have been working on this Es season. These tests are ongoing and are to investigate the relationship between intense 6m Es openings and long haul openings on 2 meters. It is my opinion that during a very intense 6m opening that long haul contacts can ALWAYS be made on 2 meters if CERTAIN CONDITIONS exist.Some of you may already be aware of this.

I classify long haul contacts on 2 meters as contacts in the 1,000-1,600 mile range or greater.The conditions that have been common may be mere coincidence but they are worthy to note nonetheless.

Here are the conditions that have existed when successful long haul 2m contacts and "heard reports" were achieved:

1-Very intense 6m openings were in progress. Signals on 6m were extremely strong.(upwards of 20-30db over S9 on my Icom 740 and DEM 6m transverter) These intense openings are part of a general 6m opening but signals are at their maximum strength during this time of the opening.

2-All contacts and "I was Heard" reports were achieved between the hours of 1600-1900 Local (EDST) I have never been successful at other times. When the intensity of the 6m opening dropped markedly there have never been any successful 2m contacts and any "residual" scatter signals that were present have disappeared.

3-All paths were direct via the great circle bearings headings. During occasions when there was enough time to turn the beams to other directions while listening to the 2m signal the signal strength weakened or disappeared only to reappear when the yagi was reoriented straight at the target signal.

4-All contacts were with stations North East, South East, and North West. I have been unable to locate a station with good 2m capabilities to my South West to test with. I have had many "heard" reports from stations in the NW that weren't able to call me for various reasons. Any attempts at Due North, South, or West contacts have been unsuccessful up until this point. Not even a single Ping was ever heard with any stations in these directions.

5-No shortened 6m conditions were evident. I Have yet to hear 6m signals from distances less than 500 miles when a successful 2m contact or "heard" report was achieved.

6-The 6m opening has always been a longer term 6m opening. I have made numerous attempts during the occasional intense 5-15 minute opening on 6 without success. The longer the 6m opening is to a particular direction the greater the chances of a successful 2m contact(s). The recent 2m contacts between the East coast of the US and V47KV, the recent 2m contact between W3ZZ (FM19) and KP4A (FK68), and my (em84) recent contact with KP4EIT (FK68) have all been on days when the Caribbean was being heard throughout the day on 6 meters. The intensity of the opening on 6m peaked at various times around the hours of 5-630pm local time. A recent 2m contact with VE9PA (FN65) and myself occurred at 5:15 PM local time with a sustained 6m opening that was in progress for an hour and a half to the North East before the 2m contact was made. KP4EIT informed me that he was hearing W3ZZ during W3ZZ's 2m contact with KP4A. Jose (KP4EIT) was hearing Gene, W3ZZ, on and off for quite awhile while Gene was calling away at V47KV. Signal at KP4EIT was S1.7- The 6m opening to that particular direction usually dies with n 90 minutes of the 2m opening and closer to 1 hour after the 2m opening.

These are the characteristics of these signals as heard on 2 meters:
1-Usually very weak with signals S1 or less. There has been exceptions with one particular signal peaking at S7 at one time.

2-Often the signals are being heard on 2m for the duration of the intense 6m opening. They are extremely weak and unintelligible and pop out of the noise for brief periods of time ranging in duration from milliseconds to as long as 30-45 seconds but more often 2-5 seconds. This sounds identical to how 6m sounds in the early morning hours during random Meteor Scatter periods except that the signals are much weaker.

Remember that the times that these contacts have occurred have been between 4pm and 7pm. These are times when it is LEAST probable to complete random meteor contacts according to published Random Meteor Scatter theory. I was hearing Numerous LOUD pings from many stations during the timeframe I made my recent contact with VE9PA.I was also called numerous times by VE1RG but the rapid qsb kept me from getting his grid.His signal was heard, in and out, for at least 20 minutes. I was also informed by VA1AG in FN35 that I was being heard by him. All this happened while the 6m opening was at its intensity peak. During a recent conversation with Emil, W3EP, he mentioned that meteors often times appear to be enhanced by E-skip. Could we have this backwards? Could Es be enhanced by meteors?

3-Rapid QSB from copyable to noise level. This occurs throughout the intense 6m opening on 2 meters.

4-The openings on 2m always happen in the same direction as the openings on 6m. The possible distances to be worked are up to and including the extreme end of the single hop 6 meter circuit path.

Requirements for successful contacts:
1-As usual, the higher the power the better. I am running 1kw and 13/13 elements at 35 feet. Both ends need to have very quiet RF locations and a good Weak signal station.

2-Meteor scatter techniques will increase the chances of success. The signals rise and fall out of the noise quickly. Information exchange at a rapid rate is vital.

3-You must be persistent! When the aforementioned 6m conditions exist, pry yourself away from 6 meters and start calling on 144.200 in the same exact direction as the 6m opening. At some point during your calling (assuming that someone in that direction is listening in your direction) you will be heard or a contact will be made. A recent contact with VE9PA (FN65) was made after 15 Minutes of non-stop calling on 144.200.

It would really help to prove or discount this method of achieving long haul 2m contacts by trying 2 meters when the above conditions exist on 6 meters. Don't give up the ship too easily. Keep calling while the intensity on 6 meters is present. You can quit when 6 dies down as, so far, it has been fruitless here. Distances up to 1600 miles have been achieved! I need to locate a serious 2m operator in the Eastern half of the DN field or Northern Minnesota/Southern Manitoba areas. I would like to give you a phone call during the next 6m opening we have to the North West so we can try on 2 meters. The more of you that try to make contacts in this manner the better. Let's see how often this really happens.

This is not your normal 2m E-skip opening. These are rises in and out of the noise and do not stay around at s9 levels for long periods of time like a normal 2m E-skip opening. My best guess as to why this is happening is that the so-called sporadic E cloud is being whipped into a frenzy by extremely strong and sudden wind turbulence which increases the density of the cloud, allowing brief interludes with 144 Megahertz. If you are pointing the right way and listening at the right time you will catch one of the brief forays of E ionization into 2 meters! Let us know of attempts and successes!

73 Ken KP4XS/W4 EM84

TO ETCH OR NOT TO ETCH
BY BRUCE N2LIV

In 1992 Zack, KH6CP developed a 10 GHz preamp with a noise figure below 1dB. As time progressed, many of us had acquired HEMPT devices for this preamp as "door prizes" from local area conferences. This device was a great find for our "Junkboxes" but usually sat there lonely without a PC board to mate with. I too was in this predicament. But alas, why not simply etch a quantity of these boards for everyone to use. With the artwork available and the assistance of Steve Kostro of DEM, 100 or so of the boards were professionally prepared. I purchased a large quantity of the boards for distribution to members of the NEWS Group and other Northeast clubs. This worked well, allowing many of us to build 1 dB NF preamps.

A similar scenario is now developing in another area, the 903 MHz band. In 1995 at the Packrats conference and now in 1996 at the Eastern VHF/UHF Conference a large quantity of 100-150 watt solid state devices have been distributed as "door prizes" only to once again end up in junkboxes. If sufficient interest exists we will have the opportunity to develop and etch a run (100) boards to supply our needs. However, its not quite as easy as the 10 GHz preamp project.

A generic PC board design doesn't currently exist since we all have devices by different manufacturers with slightly different parameters. If a small group is willing to work on the development of a PC board layout based upon the manufacturers application notes, I have located an amateur who is willing to help consult on the layout and test several prototypes. Many of us
use these devices in work and have significant experience with them.

If a generic design is developed and the need exists, I will then have the boards etched and distribute them at cost to those interested. This seems like a good way to populate the band with high power.

If you are interested in helping with the design and/or would be interested in a PC board please contact me at (516) 265-1015 (h), 225-9400 (w) or at bwood@wnis.com to get things moving. If you must - Bruce Wood, 3 Maple Glen Lane, Nesconset, NY 11767.

GPS VERSUS CD ROM BY N2LIV

For the past year I have been using a 6 channel GPS unit with

hours with USGS topographic maps. Recently at a TEN-X (10 GHz-X Band) Friday night marathon session with Dick, K2RIW, Ron - N2NKJ demonstrated a mapping program entitled PRECISION MAPPING Ver. 2.0 by Just Softworks, Inc in Leamont, Ill. The program is contained on a CD ROM and provides street maps for the entire US. You can locate areas by Zip Code, Area Code, Street name, etc. The nicety, I found was that you can develop a map area on the screen, automatically add 500' grid lines, point and it gives you latitude and longitude. These values compared almost exactly (within 100') to my GPS readings (for whatever there worth).

I think the program is available for about $40.00 and I'm going to see about purchasing one. This sure could save a lot of driving to locations at the last minute. We have a program in work called Street Atlas USA Ver. 3.0 by Delorme it also displays latitude and longitude and is in the $50.00 range.

10 GHZ CUMULATIVE CONTEST SCORES TO DATE: DE N1BWT

CALL		Qso's	Calls	km	DX
KH6CP/1		99	27		
	16088	94		12388	313
	14450	91		11850	369
	14,199	80		10999	303
	14197	71		10897	501
	14054	73		11,954	420
	13147	54			420
N2LIV		56	30		
	11179	66		8479	298
	10020	43		8020	296
	8161	49			271
K1DS		44	25		
WB9SNR	5567		8	4767	
N1SAI	5050		16	3450	
W1JOT	2813		12	1613	
KB2YTW	2657		8	1857	
N1QVE	1195		5	695	
KD1DU	291		2	145	
		24 GHz -			
KB2YTW		5	3		

ARRL NEW ENGLAND DIRECTOR BALLOTS ARE DUE

Tom Frenaye, K1KI ask that I remind the N.E.W.S. group that ballots have been sent for us to vote on. We are an affiliated club and we should cast our indvidual votes in this election.

Tom also wanted to mention that he has a new web site: http://www.akorn.net/k1ki

JAN 96 VHF SS TOP TEN GO TO THE MOVIES

(The following is the lead-in to my August column in "CHEESEBITS" - the newsletter of the "Mt.AIRY V.H.F. RADIO CLUB", "PACK-RATS"

JANUARY 96 VHF SS TOP TEN GO TO THE MOVIES:

WA8WZG "UNTOUCHABLES"
I WANT WA2TEO DEAD, I WANT AA2UK DEAD, I WANT WA3AXV DEAD, I WANT WZ1V DEAD..'

WA2TEO "GODFATHER"
'BILL AND RON NEVER ASK ME ABOUT MY CONTEST BUSINESS. JUST ONE TIME, JUST ONE TIME I'M GOING TO LET YOU ASK'

AA2UK "TAXI DRIVER"
'YOU TALKING TO ME? YOU TAKING TO ME?' I DON'T SEE ANYONE ELSE AROUND MOVING AS FAST AS ME. YOU TALKING TO ME?

WA3AXV "BRAVEHEART"
'YOU MAY TAKE AWAY MY CONTEST DOMINANCE, BUT YOU WILL NEVER TAKE AWAY MY PREVIOUS AWARDS'

WZ1V "DILLINGER"
'PHIL, GARY, DEL, ED, PAUL, SOME OF THE MOST FEARED VHF+ CONTESTERS OF THEIR DAY; THEY SAID THEY WOULD NEVER BE TAKEN ALIVE, AND I DIDN'T TRY HARD EITHER'

WA3NUF "DIRTY HARRY"
'I KNOW WHAT YOU'RE THINKING; I WON'T BE ABLE TO HOLD THIS POSITION. I'M A MEMBER OF THE PACKRATS, THE MOST POWERFUL VHF+ CLUB IN THE COUNTRY; SO YOU HAVE TO ASK YOURSELF DO YOU FEEL LUCKY? WELL, DO YOU?'

KE8FD "RAGING BULL"

'WHAT DO I GOTTA DO TO WIN OHIO? MY GRIDS KNOCKED TOM DOWN. WHAT DO I GOTTA DO?'

KD1DU "THE HIGH AND THE MIGHTY"
'I AM NOW HIGH AND MIGHTY IN MY NEW QTH DA DA DA DA DA DA DA...'

WB2DNE "TALE OF TWO CITIES"
'IT IS A FAR FAR BETTER CONTESTING I DO THAN I HAVE EVER DONE BEFORE, IT IS A FAR FAR BETTER POSITION I AM GOING TO GET, THAN I HAVE EVER GOTTEN BEFORE'

WB3JYO "ROOTS" 'BEHOLD, THE ONLY NINE CON-TESTERS GREATER THAN THYSELF'

73,
Jerome - K3GNC FM29KX

GOODBYE BBS, HELLO NEW WEBSERVER BY RON KLIMAS WZ1V, FN31

September 13 marked the end of an era for me: Six wonderful years of employment with the University of Hartford. What a marvelous hideaway this was for me to play mad scientist, student, and yes, even get real work done. It was even the home of our Eastern VHF Conference back in 1992, thanks to the efforts of Tom Kirby W1EJ who was quite successful in convincing the Dean and myself to open our doors to the public that year. Painfully true, I'm afraid, that all good things must come to an end.

The bad news is that the WARD College BBS is SK forevermore. A victim of homelessness, since I could not find anyone else there to care for and nourish it as I had for the past four years. I did manage to take a full backup of it's entire contents. The good news is doubly good, however. My fear that we would lose our Webserver priveleges provoked me to sign up to a new internet provider and mirror our entire contents there. After all that effort, I find that we get to keep the uhavax site after all. Since I'm still a student at the University, I get to keep the accounts there! Now we've got two high speed servers for the club's internet webpages: http://uhavax.hartford.edu/~newsvhf AND the new mirror at http://www.connix.com/~wz1v/

And yes, as far as I can tell so far, my new job as a radio maintainer for Amtrak Corp. was a gamble worth taking! It's good to be back in the radio biz!

73, Ron WZ1V, internet email: wz1v@connix.com

VHF TIP FROM THE "REFLECTOR"

I've been using Scotch #23 Splicing Tape for my antenna cable connections for many years. I first learned of it 30 years ago while in the Navy. I had to waterproof RF Cables in the periscope towers in the submarines. That area is in saltwater, and under pressure!

This Splicing tape comes in 3/4 inch wide rolls that are 30 feet long. Other widths are available also, so I'm told. It is a self-fusing (vulcanizing) insulating tape that is stretched before application until it is about 2/3 of it's original width. It is also rated to 130 deg Centigrade. The connector is wrapped with a 1/2 wrap overlap, and the tape bonds (fuses) to itself. It is about the consistency of a gummy rubber band when applied, but sticks and seals VERY well. Extra weather protection can be provided with an overwrap of regular vinyl electrical tape if needed. The manufacturer recommends Scotch #33+, or #88 or #22 of course!

It is available at most major industrial electrical supply houses for $7 to $9 per roll

It is so much easier to use than Coax Seal and you don't have to scrape it off your fingers! Another place where is is easier to use, It doesn't bond to itself on contact. It takes a little time and the action of the stretching to vulcanize to itself; but then it is Waterproof!

Try it, I'm sure you'll like it.

Rod Johnson KA7YOU NWQRP#120

ON THE BANDS
BY RON KLIMAS WZ1V, FN31

A six meter opening to Europe in mid-August? August 13 provided an opening to CT3FT IM13, EH8BPX IL18, and GW4VEQ IO73 from about 2100 to 2230Z. Meanwhile the hurricane season blew in some tropo openings on the higher bands. August 31 through September 2 were pretty good, I logged W4FSO FM14 on both 2 and 432, also AD4DG FM16,
KE8FD EM89, W4VHH EM95, WB4WTC EM95, N4BG EM97, and KP4XS EM84.

I missed the September contest due to new work commitments, but look elsewhere in this issue for score rumours from KO0U/1.

October started off with some pretty good tropo on the 2nd with N4KWX FM08, and K4QIF FM06 59+ on 432, while Dan N3OPM FM19 pinned my S meter on 2 meters (I had the pleasure of meeting Dan just a few days later at the Pack Rats VHF Conference near Philadelphia). This tropo stayed with us through Oct. 7. NB2T FN30 reported working WB4WTC EM95 on 2 and W4MYA FM07 on 432 for new grids. W1TDS FN32 reported working several North and South Carolina and Georgia stations on the same opening. I managed to snag W4VHH EM95 on 432, and I understand KD1DU FN31 worked KP4XS EM84 on 432.

Well, that's all I have to report this time. Most of my antennas have been grounded the past few months, and I still haven't found the time to do any tower work. It sure is hard to stay active without antennas! I hope to get everything back up and running on 50 - 2304 with new antennas and feedline soon.

See you at our November meeting, and Please Send your reports of DX or Expeditions to me, Ron Klimas, 458 Allentown Rd., Bristol, CT 06010 or call 860-589-0528 if you have something you'd like to share about an unusual contact, etc. Looking for VHF software or tech info?-Try our Internet Webpage at http://uhavax.hartford.edu/~newsvhf

73, Ron WZ1V, Internet email: wz1v@connix.com

THE CARE AND FEEDING OF THE JEFF KRUTH TWT FOR 10GHZ:

Operating voltage: You **must** provide 28 volts, or close to it. 24 volts won't hack it. Jeff tells me that the internal supply module dies at 26.5 volts. Not only that, but the voltage may **never** be permitted to drop, even for a few milliseconds or less, or the tube will drop out and you will have to wait until it recycles. (About 5 minutes!) Therefor, a good size capacitor across the 28 volt line is practically essential. Before I put in the capacitor I only got the tube to operate once out of many tries. I'm using 3300uF at 35 volts aluminum electrolytic.

Power supply, general: The essential information is above. What I am using is two dc/dc converters. One puts out 24 vdc, the other puts out 5 vdc. I put the outputs in series. The 5vdc unit also puts out + and -12 volts, so I put that unit at the ground end of the series string. I use the -12 volts to pulse the control lines, which I do using momentary slide switches. The whole string obviously adds up to 29 volts, but that's OK. The +12 I don't use for anything. It's only a comparatively low current rating anyway. I have the unregulated +12 off the automobile supply for my antenna relays.

Control: The contol lines are as follows: (13,14) filament on; (15,16) everything off; (17,18) filament boost on; (19,20) HV on. Pins (11,12) are **not** control lines! Do not try to switch anything with them. They are some kind of monitor output points. I haven't looked to see what they put out, or when.

Jeff says that his scheme for switching the tube will work with 330uF capacitors. Since I have a source of -12, I am using it, as I mention above. Jeff says **do not** leave the negative control voltage on continuously, he says it has destroyed at least one tube!

After you light the filament (13,14) and the boost, if you like, you must wait about 5 minutes before you can get the high voltage to turn on.

You cannot turn the high voltage on and off with the PTT. Once you turn off the tube (15,16) you will have to turn on the filament again and wait approximately 5 minutes before you can get the high voltage to turn on again.

Antenna relays: Yep, two of 'em. Since I can't turn off the high voltage between transmissions, I terminate the tube output in a 50 ohm load when I'm not transmitting. There is a relay which switches the TWAT between the load (rx) and the other port (tx). The tx port goes to the main t/r relay. I have the relays, as well as the receive preamp sequenced, using a Down East sequencing board, such that 1. The PTT switch is pressed, 2: The rx preamp is powered off, 3. The the t/r relay switches, 4. The TWAT switches from the load to the t/r relay transmit port On unkeying the if transceiver, the process reverses.

I measured the amplifier on the bench, using a waveguide isolator and a waveguide variable attenuator into a Pacific Measuremnts peak power meter. I don't know the proper correction factor for the power meter at 10 GHz, but I measured about +37.5 dBm. that includes the loss of the isolator. (I probably didn't need the isolator, but it seemed like a good idea at the time, since I had it.) The drive level was about -17dBm.

When I fed the TWAT thru my relays into the antenna feed system thru a (nominally 34dB) directional coupler, I seemed to get about 1.5dB less out, but I haven't really calibrated that setup carefully.

Monitoring: I suggest putting an ammeter in the +28 volt line. The tube only draws a few milliamps from the 28 volt supply for its filament, but it draws around a half amp with the high voltage fired up. I don't (yet) know of another way of being sure you really have the tube in operation. Maybe some of the other lines on the connector will produce useful output. I think, for instance, that (7,8) --labelled VA-- is Anode Voltage telemetry, but what form it takes I don't know at this point. IW (9,10) is probably some current, altho I don't know what current.

Heat: The tube housing gets quite hot. I have no information on heat sinking, and it _is_ a _tube_, after all, but on the other hand, the base is carefully machined flat, and that smacks of heatsink connection to me. So I mounted a 3" long piece of heat-sink extrusion with approximately 1" high fins spaced about 0.1" on the base plate near the output end of the tube. It certainly can't hurt! If I were going to run this thing as a beacon, I'd put a fan on those fins even. I don't think that's necessary in SSB or ICW service, where you spend a lot of time listening. Anyhow, use your best judgement. If the whole setup is tightly packaged when you get done, you might want to monitor the heatsink temperature.

I think that's about all I can contribute at this point. Good luck, from

Doug, WA2SAY

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1. JPS NIR-10 DSP. Good condition with manual and box. $125
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5. Drake station, R4C, T4XC, AC4, MS4. Late serial numbers, R4C has all XTAL filters, noise blanker, all accessory xtals, ps mods, product det mods, audio amp mods. T4XC has DX Engineering speech processor. Also have TC-6, TC-2, CC1, SC6, SC2, GaAs FET preamp for 2 meters. 6 meter rx conv has GaAs FET front end and HL DBM. 100+ Watts on 6, 80 watts on 2. D104 Microphone is included. All equipment is in good condition both physically and working. Everything for 160 through 2 meters!! $700 takes it all.

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WIDENING THE SIX METER DX WINDOW IS UP FOR DISCUSSION

At the Central States VHF Society Conference there was a meeting under the auspices of SMIRK to discuss a wider DX window for six meters. Emil, W3EP was present at that meeting and brought this to my attention and the NEWS Group. Emil sent a copy of a letter that is being circulated to active six meter operators and clubs which outlined the proposal.

Six meters and especially the DX window can become very crowed during good conditions and will only be getting more so with new rigs available (IC706's) and the Sunspot cycle peaking again. The letter essentially suggests that the DX window be 50.100 to 50.200. The DX calling frequency may stay at 50.110 or move to 50.125. The rest of the stateside and local activity should move up the band with a new domestic calling frequency of 50.200.

It sounds like a good idea to me and I think that our club's stand should be known with this and any band planning that effects VHF and above operation weak signal operation. At future meetings we should put this out for discussion and publicly let our group's opinion be known. If we are not influential with issues like this our area of the hobby may become less enjoyable or nonexistent, it can only be to our benefit to take an active role in planning operation not only six meters but perhaps two meters as well.

See you at the next meeting.
Del, KD1DU

NEXT N.E.W.S. MEETING

THE NEXT MEETING IS ON NOVEMBER 9, 1:00 PM AT THE QUALITY INN, VERNON, CT.
SHOW AND TELL SESSION; BRING YOUR LATEST PROJECT
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North East Weak Signal Group

c/o KD1DU
Del Schier
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