

# N.E.W.S. LETTER



The Publication of the North East Weak Signal Group

MAY 1996 VOLUME FOUR ISSUE FOUR

President: N2LIV Bruce Wood Vice President: WZ1V Ron Klimas

**CURRENT OFFICERS** 

Secretary: N1LZC Mark Casey Treasurer: NC1I Frank Potts

# **NEXT MEETING**

THE NEXT MEETING IS ON JULY 20TH, 1:00 PM AT THE QUALITY INN, VERNON, CT.
THIS MEETING WAS RESCHEDULED FOR THE CQWWVHF CONTEST ON THE 13TH
THE NEXT MEETING WILL FEATURE A 10GHZ SHOW AND TELL SWAP MEET
WITH N2LIV, AND N1BWT CONDUCTING 10GHZ SUN NOISE MEASUREMENTS
ALSO, DON'T FORGET, BRING YOUR PREAMPS, STAN, KA1ZE WILL HAVE HIS N.F. METER

# **FUTURE MEETINGS**

**AUG. 24,25 MEETING & CONFERENCE PLUS NOV. 9.** 

# **IN THIS ISSUE**

SECRETARY'S REPORT May 25, 1995 Lift Lopez for Mark Casey,	PAGE 2
PRESIDENTS REPORT, Bruce Wood, N2LIV	PAGE 2
SOME JUNE '96 ARRL VHF CONTEST RUMORED SCORES: by WZ1V	PAGE 3,4
GRID EXPEDITION TO FN16 de N2DKP	PAGE 4
ON THE BANDS: Ron Klimas, WZ1V, FN31mp	PAGE 5
E SKIP WITH WET NOODLES de KD1DU	PAGE 5
N1BWT 10GHz HOME PAGE	PAGE 6
PUBLICATIONS & PRODUCTS by Bruce Wood, N2LIV	PAGE 6
BEACONS DE NB2T	PAGE 6
TELETEC AMPLIFIERS, by: Fred Stefanik N1DPM	PAGE 7
22nd ANNUAL EASTERN VHF/UHF CONFERENCE	PAGE 8
FOR SALE OR SWAP	PAGE 9
LEO TREAT TO OUR 144 AND 420 BANDSRESPOND NOW!	PAGE 10

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

The N.E.W.S. LETTER is the publication of the North East Weak Signal Group. Articles may be reprinted with proper credit given to the author and the N.E.W.S. LETTER. Articles can be sent to KD1DU, Del Schier, 126 Old West Mountain Road, Ridgefield, CT 06877 either hard copy, IBM compatible disk, via e-mail at KD1DU@aol.com, or faxed to (203) 637-6773.

# **SECRETARY'S REPORT MAY 25, 1996 MEETING**

Though it was Memorial Day weekend, a turnout of 30+ members were present at the May N.E.W.S. meeting. Bruce, N2LIV, convened the meeting at 1:15 PM with a summary of agenda items including meeting themes, events and guest speakers.

Upcoming events and future meeting highlights were outlined: June 8,9 - VHF/UHF Contest W2SZ/Mt. Greylock and W1TKZ/ Mt. Equinox called for participants. Stan, KA1ZE, announced his plans to be a rover in FN 32, 36, 46 and possibly additional grids north of Montreal. Chip, W1AIM, and Emil, W3EP, planned to be in Prince Edward Island. July 20 - 10GHz. Show and Tell/Swapmeet To be held at the Quality Inn Parking Lot (rain or shine). Indoor meeting room to also be available. August 17, 18 - EME Conference and 10GHz. Contest Walt, WA2ALV, informed that this conference possibly conflicted with the first weekend of the 10GHz. Contest. Chip, W1AIM, plans to be in FN 54 for the 10GHz contest. August 23, 24, & 25 - 22nd Eastern VHF/UHF Conference Stan, KA1ZE, offered updates on the 22nd Eastern VHF/UHF Conference. Slots were still available to chair Band Sessions and articles could be contributed for the Annual Proceedings. November 9 - "Home Brew Day" Bring your "home brew" equipment and projects. Certificates to be awarded.

Emil, W3EP, was to be contacted as to the status of the Trans-Atlantic Beacon near Chatham on Cape Cod. The proposed sign-on date was June 1, 1996.

Jeff, WA2TEO, and Fred, N1DPM, followed with an "Introduction to VHF/UHF Weak Signal Operating". Though this talk is scheduled for the VHF/UHF Conference in August, it was given at this time to create member awareness. Volunteers, could in turn, present it at their local area radio meetings with the goal to educate on VHF/UHF weak signal. Topics covered were bands, grids, propagation modes, equipment, and operating practices/events. Fred could be contacted for electronic copies, since only one master copy of slides was available at this time.

After a short break, the meeting reassembled with Hank, N2MSS, speaking on "How to Play with Gel Cell Batteries". Highlights of his talk included operating with them, how to buy/use/care for them, charging techniques, manufacturers and prices. He also managed to bring an assortment of his own collection of batteries to demonstrate their applications when going portable.

Noise figure measurements were conducted by Stan, KA1ZE, Ron, WZ1V, and Zack, KH6CP, following the conclusion of the meeting at 3:45 PM.

Many thanks to Hank, N2MSS, Jeff, WA2TEO, and Fred, N1DPM for contributing their time to speak during the holiday

weekend. The material they presented was very educational, informative, and valuable.

The next N.E.W.S. meeting, July 20th, will be the 10GHz. Show and Tell/Swapmeet. Bruce, N2LIV, and Paul, N1BWT, are to provide equipment to perform 10GHz. sun noise measurements. All are encouraged to bring their 10GHz. antennas and other items for show and swap.

Respectfully submitted, Lili Lopez, N2RDN, for Mark Casey, N1LZC, Secretary

# THERE'S LOT'S TO COME DE N2LIV

It has been quite some time since I have not been able to operate a contest, such was the case this June. Work, and a prolonged wisdom tooth extraction problem curtailed my operating time and quelled my ambition to operate. This along with some non operational equipment really took its toll. Tales of excellent six meter conditions are being told by K1WHS in Maine down to N5JHV in New Mexico. Also, increased tropo ranges have been noted after the contest from 2 meters and up. Time to start watching the bands again after the winter doldrums.

The upcoming, July, annual, outdoors show & tell-swap shop is coming and proves to be another major event. Two years of natural disaster, first we were flooded out, last year we were fried in 100 degree plus temperatures. But we survived, so what next? 10 GHz Sun noise measurements to help please the gods, by N1BWT and N2LIV. All you need to do is bring your 10 GHz antenna, no rig is required only a means to support your antenna pointing at the sun. Tweaking time will be available for those who desire. So load up your car and show us your newest creations and applications thereof, whether homebrew or factory manufactured. Leave some space though, to bring swap shop-flea market items and also room to take some new goodies home. And as always, bring plenty of money.

In less than two short months the annual Eastern VHF/UHF Conference will be held. Register at the July NEWS Group meeting with RAE BRISTOL, book a hotel room if required and contact STAN, KA1ZE to see if he needs any last minute help.

Special-Special low cost mountain trips. If you feel like an August trip to the mountains contact DICK WA2AAU of the W2SZ group about joining them for the UHF Contest. It's a great place to see microwave equipment in use from a premier operating location.

Our September meeting will bring us something new and exciting - Homebrew Day. The Pack-Rats have held this unique event for numerous years now. This event will help to praise our master builders and help along those attempting masterhood. So complete your project for this new and exciting time to be had by all.

See you all on July 20.

#### SOME JUNE '96 ARRL VHF CONTEST RUMORED SCORES: BY WZ1V **MULTIOPS CALL** W2SZ/1 N8FMD AA9D K3YTL W3ZZ W4IY W0UC/9 N0HJZ N2NCU K1TR WB2IEY KD5RO NC7K **GRID** FM08 EN52 FM08 EN44 DM18 FN32 FN11 EM98 EN34 FN12 FN44 FN2.1 FN12 **CLASS** M/U M/U M/U M/U M/U M/UM/UM/UM/U M/U M/U M/U M/U 815/178 598/192 667/236 654/167 670/219 627/200 795/239 721/234 350/126 406/116 ?/? 261/113 490/186 615/51 586/73 342/58 570/57 371/75 534/55 253/57 149/55 342/50 319/35 ?/? 182/40 126/55 2 222 198/33 118/43 74/41 116/33 92/45 87/35 46/29 48/25 77/33 77/23 ?/? 44/26 12/10 9/9 432 322/45 250/49 182/47 115/31 103/45 113/33 79/30 74/32 136/38 120/27 61/30 24/16 903 88/24 37/22 25/17 22/14 18/13 14/11 8/6 15/13 18/11 18/9 ?/? 29/19 1296 113/23 36/18 40/20 42/21 24/16 14/10 15/11 25/16 39/18 24/11 ?/? 34/20 3/3 5/4 2304 64/181/1 14/8 10/7 8/7 4/4 3/27/5 4/3 16/11 3456 50/14 12/6 6/5 1/1 6/5 3/3 7/5 5760 45/11 11/6 4/4 4/1 2/2 6/6 1/1 1/1 1/1 30/7 7/5 1/1 1/1 4/3 10G 24G 10/5 2/2 1/1 2/1 LAS 14/1 5/1 TOT 2350/409 1640/399 1380/447 1541/341 1286/420 1394/349 1201/377 1036/378 981/289 974/230 646/274 655/270 857,346 667,380 581.085 295,550 Scor 1.58 Mil 877,401 670,406 524,407 472,500 393,907 290,840 269,068 188,190 W0UC/9 N0HJZ WB2IEY KD5RO CALL W2SZ/1 N8FMD AA9D K3YTL W3ZZ W4IY N2NCU K1TR NC7K CALL W3IP KF7NP N0XX/7 N5UYI K3MQH W5KFT N2XTX W1TKZ N6OPR C6AFR VP5H N1GPY WB2ELB FM19 DM04 **GRID** DM35 CN83 DM06 FM19 EM00 FN02 FN33 FL06 FL31 FN43 FN03 **CLASS** M/U M/U M/U M/UM/LM/L M/LM/L M/LM/LM/LM/L M/L309/120 388/166 237/131 178/97 715/188 1160/267 ?/? 323/99 304/127 655/151 584/191 238/74 216/94 91/23 2 194/34 75/27 115/34 791/67 64/17 9/9 240/35 246/25 47/13 250/22 174/41 222 43/20 15/13 12/8 29/16 172/49 6/4 ?/? 81/26 52/12 68/16 432 45/17 40/19 28/15 49/17 302/53 16/6 ?/? 115/27 81/11 23/10 110/14 83/29 903 2/2 1296 22/12 7/5 11/7 11/6 2304 1/1 3456 1/1 5760 10G 1/1 2/215/2 24G LAS TOTAL 617/207 594/230 405/197 360/161 1980/357 1246/294 800/250 759/187 683/175 725/174 584/191 666/126 488/166 Score 160,000 136,620 93,969 75,026 876,078 372,792 200,000 178,585 142,800 130,152 111,544 106,344 102,256 W3IP KF7NP N0XX/7 N5UYI K3MQH W5KFT N2XTX W1TKZ N6OPR C6AFR VP5H N1GPY WB2ELB CALL CALL WB1FLD NW7O CO0FRC N0YKR KH6CP/1 WB2DNE W2XL NO0Y **GRID** FN42 DM27 EL83 EM08 FN33 FN00 FN22 EM18 CLAS M/L ORP/P ORP/P ORP/P M/L M/L ORP/P M/L 351/105 ?/? 177/72 6 185/73 339/137 ?/? 133/61 282/138 9/9 2/2 2 196/27 49/49 91/15 102/29 126/24 20/12 222 48/16 2/2 ?/? 47/22 35/19 432 71/19 7/6 ?/? ?/? 65/24 50/23 1/1 6/6 903 ?/? 20/14 16/12 1296 9/9 26/16 16/12 TOTAL 500/135 381/192 451/128 298/200 486/147 393/166 420/162 303/151 69,200 52,000 129,000 99.102 45.904 Score 83.565 57.728 92.178 WB1FLD NW7O CO0FRC N0YKR KH6CP/1 WB2DNE W2XL CALL NO0Y ROVERS REMARKS TOTALS GRIDS ROVERS SCORE BANDS ND3F/R 96,000 451/126 8 GRIDS ABCD9EF co/op=K6LEW/R WB9SNR/R 66,465 306/105 8 GRIDS ABCD9EFGHI AA7QZ/2/R 44,820 450/78 5 GRIDS ABCDE KC4ZRH/R 37,492 306/103 4 GRIDS ABCD KA1ZE/R 35,854 299/91 11 GRIDS ABCD 1100+ miles 34,671 WA3WJD/R 250/91 9 GRIDS ABCD9E 28,903 293/79 WB2JSJ+KA1NRR WB1GQR/R 5 GRIDS ABCD N3KKM/R 27,846 293/70 8 GRIDS ABCD 18,886 266/71 9 GRIDS ABCDE co/op=N7TIN KA7YOU/R N1QDQ/R 15,517 218/51 8 GRIDS ABCD co/op=N1QVE 11,285 185/55 KK5DK/R 6 GRIDS ABD9

N1ISB/R

6,509

234/19

4 GRIDS BCE

# **SOME JUNE '96 ARRL VHF CONTEST RUMOURED SCORES: BY WZ1V**

### **SINGLE OPERATOR**

CALL GRID CLASS 6 2 2222 432 903 1296 2304 3456 5760 10G LASER	WB5IGF EM45 SO 546/196 201/52 54/39 110/43 23/12 23/12 18/14 8/5 8/4 4/4	WA8WZC EN81 SO 346/130 158/46 70/27 110/34 36/18 62/27 18/8 12/9 12/8 7/6	FWA2TEO FN31 SO 410/140 378/50 87/32 108/31 31/19 39/17 8/5	N5HHS EM10 SO 1028/232 39/16 16/9	NOLL EM09 SO 686/208 67/35 15/13 25/17	N2WK FN03 SO 232/111 168/43 48/23 71/26 26/16 29/17 9/7 5/5 4/3 5/2 2/1	KE8FD EM89 SO 167/79 247/69 68/42 101/45 7/7 24/18	KD1DU FN31 SO 194/63 356/43 69/26 107/30 23/14 32/15	WD5K EM12 SO 847/231	AA4ZZ EM86 SO 523/209 67/30 20/15 35/22	K0GU DN70 SO 781/199 35/18	N5JHV DM62 SO 706/235 19/9 8/4 10/6	W2CRS DM78 SO 598/178 57/21 9/7 33/16
TOTAL Score	995/381 520,065	831/313 430,180	1062/294 417,774	1083/257 278,331	798/281 240,536	599/254 229,362	614/260 219,700	781/191 203,797	847/231 195,657	645/276 193,200	831/222 187,812	733/248 181,784	707/228 177,612
CALL		WA8WZ0			N0LL	N2WK	KE8FD	KD1DU	WD5K	AA4ZZ	K0GU	N5JHV	W2CRS
CALL GRID CLASS 6 2 2222 432 903 1296 2304 3456 5760	W1GCI FN42 SO 341/111 160/25 42/18 62/19 18/10 27/12	K5AM DM62 SO 659/218 16/7	FM29 SO 107/47 158/40 56/24 63/24 26/15 41/20 13/7 6/4 5/4	AA7A DM43 SO 503/190 68/30 17/12	N8UM EM85 SO 274/137 117/39 43/22 50/22 2/2 12/3	K6KLY CM87 SO 340/140 135/18 50/7 75/12 2/2 8/3	WB3ARZ FM19 SO 328/113 158/29 32/18 48/21	N1DPM FN32 SO 142/86 105/29 46/23 52/24 17/10 22/11 9/6 3/2	WA6YDI DM05 SO 195/71 185/27 70/19 73/19 35/14	WB2VVV FN21 SO 189/66 180/27 52/19 51/18 18/11 22/12	KU8U EN72 SO 174/99 156/44 40/29 56/30	KJ6FP DM24 SO 195/103 137/27 7 33/15 56/20	KB0PYO EN24 SO 212/102 9/31 28/18 43/23
TOTAL Score	650/195 164,580	675/225 151,875	475/185 148,000	588/232 140,360	498/225 139,425	610/182 133,000	566/181 116,926	396/191 116,128	558/150 115,650	512/153 106,335	426/204 105,444	421/165 84,150	362/174 75,342
CALL	W1GCI	K5AM		AA7A	N8UM	K6KLY	WB3ARZ			WB2VVV		KJ6FP	KB0PYO
CALL GRID CLASS 6 2 2222 432 903 1296 2304 3456 5760 10G	K5LLL EL29 SO 327/139 32/15 2/2 16/12 7/6 1/1	WQ0P EM19 SO 116/81 102/41 19/16 53/29 7/6	KJ6KO CM98 SO 194/90 136/26 15/4 64/16	WB2QLP EL96 SO 374/121 40/14 13/7 8/6	K9AKS DM04 SO 270/86 98/14 31/7 43/11	N7AVK CN84 SO 207/108 77/24 10/7 15/7	W1XR FN42 SO 212/90 131/26 33/10	VE9AA FN65 SO 311/117 26/15	WA2HFI EN34 SO 223/101 54/20 23/12 3/2	NB2T FN30 SO 125/19 25/4 51/11			
TOTAL Score CALL	385/175 73,325 K5LLL	301/174 69,426 WQ0P	409/136 66,368 KJ6KO	427/142 62,480 WB2QLP	442/118 60,888 K9AKS	317/152 54,416 N7AVK	376/126 51,534 W1XR	339/133 45,353 VE9AA	303/135 44,820 WA2HFI	201/34 9,418 NB2T			

# **GRID EXPEDITION TO FN16**

Ike (VA3IKE) and Al (K2SPO) will be operating from Grid Square FN16 during the weekend of July 20th. They will be active on 50,144,222,432. I'm going to see if I can find some 903 & 1296 equipment so they can bring those bands along too. I'll be updating my page as the July date gets closer.....

73's Tom

Thomas Meng N2DKP FN13bh 50 - 1296 E-Mail tmeng@eznet.net http://home.eznet.net/~tmeng/

# ON THE BANDS: BY RON KLIMAS, WZ1V, FN31MP

First African on six meters for me this season: 5/20/96 2200Z 50.125 EH8BPX IL18 55 SSB. Paul K1WVX FN31 also got in on the fun. No other stations heard.

The 6 meter gods were smiling on us this year for the ARRL June VHF QSO Party. E-skip for at least half of the contest produced record-breaking 6 meter scores and really pumped up those totals (see our score rumors elsewhere in this issue). For the first time in memory, a W5 has claimed the top Single-Op spot. Up at W1TKZ in Vermont we easily worked 99 grids on 6, with propagation anywhere from the Caribbean to the West Coast. It was just the break we needed to get us in the top-ten in spite of Murphy. I learned a lot from our mistakes this year, and had fun at the same time. My compliments to the Wellesley ARS for their hospitality and for keeping the effort at Mt. Equinox alive and well. I for one am psyched about doing a N.E.W.S. multiop effort next June.

I had barely unpacked on June 11 to catch the end of a 6m European opening with G0VHN and EH8BPX in 2215-2230Z, followed by DX to Mexico later with XE2AR DL98 and XE2KC5FMT EL03. Not to mention VY2/W1AIM FN96 (thanks to Chip and Emil) and MANY W6/W7's later on. Meanwhile W1TDS FN32 caught W4EWA EM63 on 2 meters Es. June 15 was my happy day after working C6AIE FL16 on 2 meters m/s for a new country!

Mark N1LZC FN32 and Al WA1T FN43 were among the fortunate to catch a nice 2 meter Es opening on June 18, 1345-1415Z. Some of the stations worked were KD4FQY EL96, K4DZP, KE4NJM/m, and W4EMB EL95!

A Killer of a 6 meter Es opening June 19: I got in around 2110Z to hear the V44K/B beacon in, and by 2330 the band was hopping to the West Coast. In the next 2 hours I worked over 3 dozen W6/W7's + XE1KK, some of which were running only 10 watts and were still 5/9! After 6 meters died, Del KD1DU and I had some fun working VA3IKE FN14, VE3ZXN FN03, and VE3CIQ FN15 on both 2 and 432.

More thrills on June 22 as WA2TEO, myself, and many others worked CY0AA FN93 Sable Island for a new country on 6 meters. I managed to grab him on 2 meters via m/s the same morning.

Just a tid-bit: I heard the first MFJ Explorer 6 meter rig in the area recently via N1SBA FN31. As I recall, this is one of those \$250 single-band 10W ssb rigs. It sounded good and Joe said the receiver was sensitive, although it could use a better noise blanker.

That's it for now, folks. See you at our July 20 meeting. Don't

forget to check out the Pack Rat's microwave bands activity night, meeting on 144.260 the 4th Thursday each month 8-10 PM. And Please Send 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 Ham/Engineering software or tech info? -try our landline BBS at 860-768-4758 (14400,8,N,1 weeknites/weekends).-or our new Internet Webpage at: http://uhavax.hartford.edu/~newsvhf

-73, Ron WZ1V, internet email: klimas@uhavax.hartford.edu

# E SKIP WITH WET NOODLES LAST MINUTE REPORT, DEL, KD1DU

I have to apologize but tonight's band opening made the newsletter a bit late. On July 1st, driving home, I talked to another 10 meter mobile in VA, very short hop. He said his son had just worked CY0AA on 6 meters. I ran in the house, barely said hello to the family, and warmed up the rigs. Six was wide open but I heard a pileup on 2 calling V47KV in St. Kitts. Of course my antennas were up in the direction of CY0AA and by the time I turned them around I didn't hear V47KV.

I got on 6 and worked Clint, N1KTM/MM in FM02 for a new grid, pretty short hop. I went back on 2 and heard "de V47???" but they got stepped on. A few minutes later I found them on 6 and worked them for a new one. They reported hearing NJ stations on 2 but they didn't say who. Bill, AA2UK said he heard them three times but thought it was on meteors at least twice.

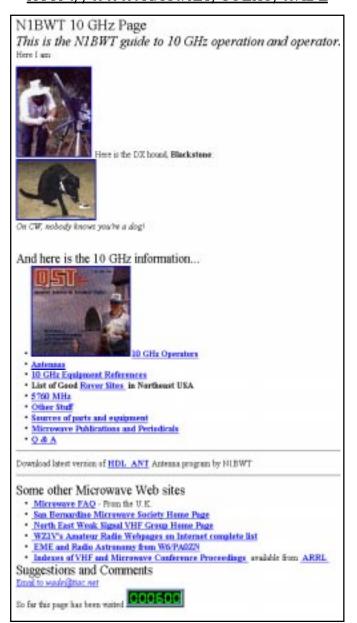
I turned on the TV in the shack and was surprised to find severe co-channel from 2 through 13, what was going on? Looked like it was going to be a fun night and I told my wife I would be playing radio for the duration. I proceeded to work W4FSO in FM14 on 6 for a new grid and again noticed short skip. I went back to 2 to look for E skip and heard someone say Echo Mike. Looking South I missed it and moved the array more West to work KT4LM in EM55, a new one, along with KC4QWZ, EM66 and N5FAC, EM35.

The TV stations were still going crazy and I gave 432 a try and worked WA4TNV, FM05 for another new one, got him to move up to 1296 where we were rag chewing on phone before going down to 222, two more new ones.

Finally, K1WW/4 in FM15 on 432 for six new grids in one evening. Things were quieting down around 11:30 and I figured I had better finish the N.E.W.S.letter before going to sleep. I spoke to Ron, WZ1V the day before and he said he would be away and the bands would probably be open the whole time;

Thanks Ron!

# N1BWT 10GHZ HOME PAGE: HTTP://WWW.TIAC.NET/USERS/WADE



#### **BEACONS DE NB2T**

WA2UMX/B FN23 HEARD 20 DAYS APRIL/MAY W3VD/B FM29 HEARD 24 DAYS APRIL/MAY

i have noticed the W3VD/B beacon has been off the air since about 6/20. How about some more beacon and band condition reports from some other club members, Ron does a great job but I would like to see some reports from the rest of the N.E.W.S. group.

Del, KD1DU

# PUBLICATIONS & PRODUCTS BY BRUCE, N2LIV

Several months ago we reviewed the DUBUS publication. Now, moving a bit closer to home we will look at the RSGB (Radio Society Great Britain) Microwave Newsletter. This monthly publication provides an excellent compendium of UHF and Microwave operations and records throughout Europe. In addition, major breakthroughs in European microwave technology and components are presented therein. I personally, at times would like to see more Technical Articles, however many new circuits and ideas are consistently presented. The title Microwave Newsletter describes this publication well.

As with DUBUS, many products and techniques available in Europe are brought to our shores through it. G3WDG runs the Microwave Committee which supplies PCB, parts and kits for many of the modular designs presented therein. He recently added many of the DB6NT products lines to his for distribution to the US and Australia.

The RSGB MICROWAVE NEWSLETTER can be ordered from:

Lambda House, Cranborne Road. Potters Bar, Hertfordshire, EN6 3JE.

They take Master Card which is great. The editors are G3PHO: Peter Day - G3PHO@aol.com and G8AGN: Barry Chambers - B.Chambers@sheffield.ac.uk. Information on the Microwave Committee is available from G3WDG directly.

Another publication which I received in the late 1960's and early 1970's and then lost track of is VHF Communications. Originating in Germany as UKW-BERICHTE the international edition is published quarterly in the United Kingdom. This magazine caters to VHF/UHF/SHF technology. Once again complete kits and PCB are available for the projects presented therein. I can still remember building a 40673 dual-gate 2 meter converter kit from them, boy was it hot 20 years ago. Back copy sets are also available at a reduced cost. A US distributor is available:

Wyman Research, Inc. RR #1, Box 95 Waldron, Indiana 48182 (317) 525-6452

For those surfing types, you can get the San Bernadino Microwave Society's reflector by e-mailing your name, callsign and e-mail address to sbms-request@ham-radio.com. Also a Web site is available at http://www.ham-radio.com/sbms/sbms.html.«

# PRODUCT REVIEW TELETEC SOLID STATE VHF & UHF AMPLIFIERS BY: FRED STEFANIK N1DPM

I was recently given the opportunity to try out and comment on a series of solid state amplifiers produced by a company called TELETEC. Steve Kostro at Down East Microwave Inc. asked me to look them over and dig into them as he was not concerned about voiding the warranty on these test units and he wanted some assurance that these were worth carrying to supplement his transverter products. So here we go...

First of all, all of these amplifiers are built in the same housing which is in fact a casting rather than the conventional extruded heatsink. This construction has allowed them to do a couple of very nice things such as allow for a tight fitting bottom cover for good RF shielding, and provide a "thicker" cross section of material directly under the RF power devices that will increase the thermal mass allowing for a more even temperature distribution.

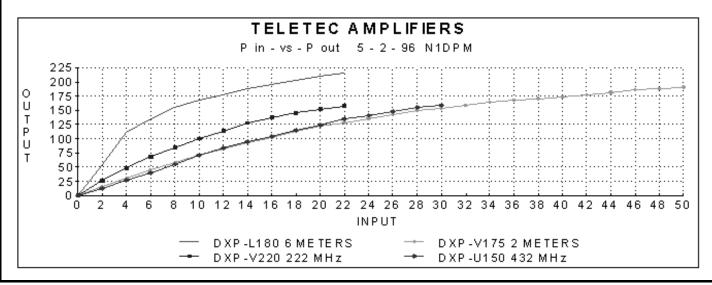
The printed circuit boards are very professional in appearance and at 432 MHz the went to the expense of using woven glass Teflon type of circuit board. The boards are evidence of a careful design and layout as there are no "hack and slash" marks or jumpers used and these were revision A boards.

The amplifiers all are based around a 2 transistors in parallel design. This is a good design practice as more stages would allow too much gain and cause the amplifiers to be overdriven easily. This would make for some more lousy signals on the bands. TELETEC deserves a great big "ATTABOY!!" as the ONLY solid state amplifier company to employ a low impedance active regulated bias circuit that can supply all of the necessary base current required by these modern high power bipolar RF devices without collapsing!!! This as you can see

from the chart of input power versus output power below, makes these amplifiers LINEAR. It's about time!! Also the DC and control connections were properly bypassed just before they exited the enclosure. The RF sensed keying works quite well and has adjustable delay for SSB operation.

The 4 amplifiers that were tested were the DXP-L180, 6 meters, DXP-V175, 2 meters, DXP-V220, 135cm, and the DXP-U150, 70cm. All of the amplifiers easily met and exceeded their output power specifications. The measurements I made were with a pair of BIRD 43 wattmeters, one on the input and the other directly on the output. With the good, comes the bad, and because this like any product will have some shortcomings here are the ones I found. The RF device part numbers were double obliterated. Isopropyl alcohol removed the top layer of black "paint" but below this was a tougher substance that did not allow the device number to be read. I am assuming these to be "proprietary" RF devices but there is no real way of knowing for sure and with a 18 month warranty, who really cares. The connections for hard keying and preamplifier disable, are miniature banana type jacks and the mating connectors are available for an extra \$5.00. These should have been included. Last but not least, the preamps. As I stated above they are always on, and bust be disables through the use of one of the rear panel jacks. This may not seem like too much of a problem, but these are JFET designs that are specked at 8 dB gain minimum and easily met as the 6 meter one was 15dB and the 70cm one was 10.5dB, with the others in between. The real key is that why use a JFET in 1996 when a good GaAs FET device costs less than \$5.00!! The noise figure that is not specked measured anywhere from 1.3 to 3 dB. A GaAs FET would come in at less than 1 dB typical. Oh well you can't have everything.

Overall these are quite nice solid state amplifiers and are certainly linear and well behaved. The workmanship is top notch and they're priced competitively. All on the air test reports were excellent and comments on how "clean" the signal sounded were unsolicited.



# 22ND EASTERN VHF/UHF CONFERENCE

### AUGUST 23, 24, & 25, 1996 QUALITY INN AND CONFERENCE CENTER 51 HARTFORD TURNPIKE (RT.83) VERNON, CT 06066

8/23/96 FRIDAY 1600 'til 8/24/96 SATURDAY 0800 0840 1200 - 1300 1300 1630 - 1830 1900 2030 2100 8/25/96 SUNDAY 0800	REGISTRATION BEGINS ADJ TALKS BEGIN LUNCH TALKS RESUME NOISE FIGURE MEASUREME BANQUET (7 PM - 8:30 PM) VHF - MICROWAVE TRIVIA O DOOR PRIZE DRAWINGS EX	
FROM BOSTON, I-84 V	I-84 E TO EXIT 63, LEFT OFF RAMP W TO EXIT 64, RIGHT ONTO RT. 83, ace if you plan to arrive via nearby Brad	
ALTERNATIVE DININ	IG IS AVAILABLE NEAR-BY.	EPROCEEDINGS AND IS ELIGIBLE FOR THE DRAWINGS. PIETY, CALL LORI TORIZER AT (800)-235-4667.
Please fill out & return w	vith payment	
Name & Call:		
Street:		
Town, State, Zip		
REGULAR MAIL REGISUNDAY ONLY REGISEXTRA PROCEEDINGS BANQUET TICKETS (EPRIME RIB	STRATIONS @ \$5 = S BOOKS @ \$12 = by mail only) @ \$23 =	_
STUFFED SHRIMP CHICKEN CAPON*		*(scrod, vegetable lasagna available as sub - ask server)
Make check or m.o. paya	able to Eastern VHF/UHF Society	
Mail to :RAE BRISTOL, 328 MARK DR COVENTRY, C 860-742-8650	IVE	SWAP n Sell INFO: MARK CASEY, N1LZC 303 MAIN ST. HAMPDEN, MA 01036 413-566-2445

# **FOR SALE OR SWAP**

SSB ELECTRONICS LT70S TRANSVERTER\$	<b>280</b>
28 MHz I.F. and 25 watts output. Looks and works fine.	
Frank Potts, NC11 Evenings 6:00 PM to 10:00 PM (413) 569-0314: Days 8:00 AM to 4:30 PM (413) 768-700	00
MICROWAVE MODULES MMT 220-28 220 MHZ TRANSVERTER\$	250
WANTED: HEWLETT PACKARD HP8660A FREQUENCY GENERATOR PLUG INS	
WANTED: PACIFIC MEASUREMENTS #1038-D10 NETWORK ANALYZER #13782 OR 18783 OR 18784 CABLE & DETECTOR HEADS	
WANTED: SYSTRON DONNER / KRUSE-STORK RF SWEEP PLUG IN MODULE FOR MODEL5000 (ANY BAND)	
Bruce Wood, N2LIV 3 Maple Glen Ln., Nesconset, N.Y. 11767 (516) 265 1015	
WANTED: ANDREW LDF6-50 TYPE N CONNECTORS, MALE (L46PW) OR FEMALE (L46PN)	
Del Schier, KD1DU Home: 7 PM to 10 PM (203) 431-4233: Work Mon-Thurs AND SAT 10-6 (203) 637-3621	
CUSTOM TUNED 902-903 MHZ 4 SECTION BANDPASS RX FILTERS	.\$15
These are miniature TOKO helical resonators (2x2 in cascade), intended for installation after your preamp.	
Specs: -5dB I.L. 902-910, -20 dB @ 890, -35 dB @ 880, -45 dB @ 870, etc. PPD with sweep and hookup data	t.
Ron Klimas WZ1V 458 Allentown Rd., Bristol CT 06010.	

#### ULTIMATE TVI FILTERS FOR WEAK SIGNAL OPS AVAILABLE SOON.

Commercial CATV quality 750hm 6 pole traps for 50.125 and 144.200. These filters are weatherproof and temperature compensated with typical loss at the tuned freq. of >90 dB and loss acrosss the VHF/UHF TV channels of <.3 dB. The have a male F conn. on one end and female on the other and are 4" by .75" dia. I will have them available in Sept. for \$12.00 each plus \$3.00 shipping and handling per order. I will bring samples to the next meeting for you to see. I will be offering them to the N.E.W.S. group for a special one time price. Del Schier, KD1DU

#### **DOWN EAST MICROWAVE**

MANUFACTURERS AND DISTRIBUTORS OF VHF/UHF/SHF EQUIPMENT AND PARTS 50 TO 10,368 MHZ

- MICROWAVE LOOP YAGIS
- VHF/UHF YAGIS
- NO-TUNE LINEAR TRANSVERTERS
- LINEAR POWER AMPLIFIERS
- LOW NOISE PREAMPS
- COAX RELAYS, COAX CABLE, CONNECTORS
- CRYSTALS, CHIP COMPONENTS, MMIC'S, TRANSISTORS, RF MODULES

FOR ALL EQUIPMENT & ANTENNAS: STEVE KOSTRO, N2CEI, 954 RT. 519, FRENCHTOWN, NJ. 08825 PHONE: 908-996-3584

FAX: 908-996-3702

# **DIRECTIVE SYSTEMS**

ANTENNAS AND ACCESSORIES NOW FEATURING THE K1FO 17' BOOM YAGIS FOR 144, 222, & 432 MHz! DAVE OLEAN, K1WHS, RR1, BOX 282, LEBANON, ME. 04027, PHONE: 207-658-7758

# SHF MICROWAVE PARTS COMPANY

COMPLETE LINE OF 10GHz AND 24GHz GUNN SOURCES PLUS HORNS AND 12" DISHES ALAN, WA9GKA,7102 W. 500 S., LA PORTE, IN, 46350 EMAIL: prutz@shfmicro.com

#### LEO TREAT TO OUR 144 AND 420 BANDS......WE NEED TO RESPOND NOW!

An industry working group (known as IWG-2A) that is preparing draft US proposals for the 1997 World Radiocommunication Conference has before it a list of "candidate bands" for low-earth orbit mobile satellites ("little LEOs") that includes, among a number of others suggested for consideration, the 144 and 420 MHz bands. Little LEOs are intended mainly to offer commercial paging and other low-data-rate messaging services. The list of candidate bands was submitted by little LEO industry representatives at a meeting of IWG-2A on May 7. ARRL Technical Relations Manager Paul Rinaldo, W4RI, was present and objected strongly to the inclusion of these two bands. He was told that objections should be submitted in written comments, and the ARRL did so on May 15. At the same time the ARRL advised the industry participants in IWG-2A along with its chairman, Warren Richards of the Department of State, that if we did not receive assurance that the bands would be dropped from the list of candidate bands we would have no choice but to advise members in July QST that the bands were under threat. No such assurances were forthcoming. Instead, we were told that as long as little LEO allocations requirements remained unsatisfied, everything had to remain on the table.

#### Write Now!

Get out a pen and paper, or boot up your computer. There's work to be done! Your help is needed to defend two meters and 70 cm. Yes, that's right--the two most popular and most crowded amateur VHF/UHF bands! But don't panic, and don't "go ballistic."

The complete bulletin is on the N.E.W.S. home page and on the ARRL home page. ED.

### **NEXT N.E.W.S. MEETING**

THE NEXT MEETING IS ON JULY 20, 1:00 PM AT THE QUALITY INN, VERNON, CT. THE NEXT MEETING WILL FEATURE AT 10GHZ SHOW AND TELL SWAP MEET WITH N2LIV, AND N1BWT CONDUCTING 10GHZ SUN NOISE MEASUREMENTS

# North East Weak Signal Group

c/o KD1DU Del Schier 126 Old West Mountain Road Ridgefield, Connecticut 06877

FIRST CLASS MAIL