Results, ARRL UHF Contest

This was the best time I've had since Field Day!—KB6PUD

By Billy Lunt, KR1R Contest Manager and

Warren C. Stankiewicz, NF1J Assistant Contest Manager

hat a success! When the mail started to arrive and the logs started piling up, we knew the sweet taste of success. Entries soared from last year's record low to an all-time high! The final tally showed that the 223 entries received this year more than doubled last year's total.

The graph below shows what participation pins can do for a contest. The new program was definitely the leading factor in this year's success. This year's pin orders outnumbered last year's entries alone. Almost one out of every three participants completed 10 QSOs or less, arguably attracted to the contest solely for the opportunity to earn a pin.

With more people on the air to work during the contest than ever before, scores truly took a climb. The crew at KD5RO in Western New York set its sights high and took advantage of the increased activity. The goal was to topple the perennial multioperator winner, the Mount Greylock Expeditionary Force, W2SZ/1, in Western Massachusetts. The gang's efforts paid off, as W2SZ came in second for the first time in the history of the contest!

The increased participation spurred by the pin program helped drive scores higher than they've been for several years. Five new division records were set, as well as KD5RO's new all-time multioperator record. It's worth noting that the multioperator record had stood since 1988, when the "range" scoring method, where the distance between the grids counted as part of the score, was used. Although he didn't set a record, Dave, N3CX, topped Steve, N2CEI, with an outstanding 86,400-point

effort in the single-operator class.

If you didn't try this year's contest and you want to get in on the action, there are a few things you should know. You'll find that the strategies for operating have changed. The increase in participation has changed the nature of this contest dramatically. You can no longer rely on old habits if you want to win. You have to work the newcomers before they have a chance to get away. Look for them everywhere—on FM, CW and SSB. Don't overlook a band or mode. The newcomers are usually the timid ones. Don't just scan the bands for signals or rely on the old-timers for skeds. You need to call CQ for the masses to find you. There are a lot of newer hams who are interested in the contest who may only have FM equipmentmake sure you don't overlook this source of activity. The new contesters of today will be the big guns of tomorrow!

Activity also increased on the microwave bands. This year, 412 QSOs were made on the bands above 1296 MHz. Contrast this with the 28 made in 1978, the year of the first UHF Contest! It used to be that the world of microwaves was the province of the tech weenies and gnomes who were able to design, build and test the circuits—and get the hard-to-find parts. You could always spot these people at flea markets looking over strange hardware from

military surplus dealers and mumbling to themselves under their breath about waveguide filters and dish feeds. Back in those days, even if you got something to work, there was no guarantee that there would be anyone to work (unless you built two of them and gave one to a friend!).

Times have changed. There are a lot more people active on the bands than in the past. You'll find this contest to be a good chance to catch many of them on the air, operating portable from a rare (or semi-rare) location, or testing out a new piece of equipment.

If you haven't tried operating on a new band, or thought that gear for operating on the microwaves was beyond your reach, think again! There are plenty of designs (see the ARRL Microwave Experimenter's Guide, for example) to build from. Parts, kits, and assembled units are available for a fraction of what it used to cost back in the old days. With the current notune gear, you don't even need complicated test gear to make the stuff work. You can even buy good microwave equipment from advertisers in the pages of QST.

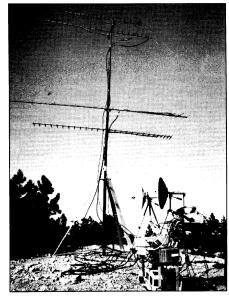
Where's the payoff in all this? Why, in your score, of course! The more bands you can activate in the contest, the more of those precious multipliers you can pick up for the asking. Why not look into adding a new band for next year?

Top Five, Single Operator

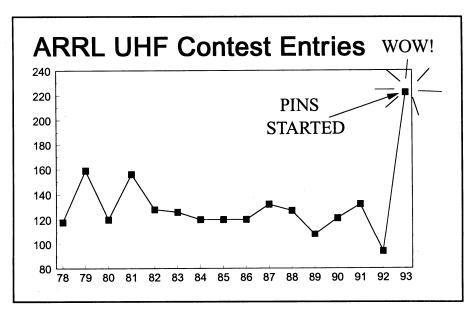
Call	Score
N3CX	86,400
N2CEI	77,982
WW8M	67,854
WA8WZG	38,430
WB2YEH	32,544

Top Five, Multioperator

Call	Score
KD5RO	445,752
W2SZ/1	355,842
W3ZZ	51,030
WB3ESS	29,388
W3KWH	15,933



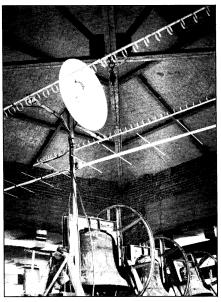
Pacific Division winner, Rich, KF6CU, operated portable on six bands from San Benito Mountain in CM96.



If you like operating portable, these new easy-to-operate, lightweight units are a snap to take out on an expedition to that rare grid square. August can be the perfect time (if it doesn't rain!) to find out what mountaintopping is all about. For one group's experience, see the sidebar, "We've Been to the Mountaintop—UHF Portable at Sierra Grande, New Mexico, DM86," by Doug Allen, W2CRS.

One thing is for sure-next year's UHF contest promises to be just as exciting as this year's. If you like to experiment, go hilltopping, or simply operate, make sure you don't let next year's UHF Contest pass you by.

Some people said the contest was dead, but from my location, things were popping (N3CX). This was a laid-back contest (W2PAU). 25 W and no preamp on 432 seemed to work as well as 120 W and a preamp on 222. I wasn't hearing much on either band (N3HBE). It was hard to find QSOs on FM simplex (KA3TCC). I was amazed that a TV UHF corner reflector sittingon a chair in the attic fed with RG-62 and an 8-inch piece of cable as a balun even worked (W3SSS). Where were all the ops on FM simplex? (N3KJO). I was disappointed at the lack of activity on FM (N3MJQ). Contacts were real hard to come by Saturday, but the conditions Sunday morning were greatly improved (WB9OJR). I was just barely QRV on 222 by the time of the contest, so everyone on this band was a new one. I'm looking forward to the participation pin, they are



Thomas, WB2IEY, set his antennas up in the 140-foot high bell tower at the Maryknoll Seminary in Maryknoll, New

very impressive (K9LCR). I had a great time! I can't believe I worked 3 grids using only 10 W and a vertical antenna! (N9LAG). Conditions were about average, but we still found a few new stations to work on 432 (WØUC). One-third of all my contacts were with rovers (KBØZQ). I really enjoyed working so many 2304 stations this year. The highlight was working WA8WZG with his 20 mW! (WW8M). I wish the contest was longer! (WA8WZG). Conditions were not too great. It is a lot of fun to see just how good the equipment is (AA8Q). Those of us who are regularly active on the VHF/UHF bands need to offer as much encouragement as possible to others to increase their activity on these bands (WA8MZQ). I like the pins (WA8GXM). It was a great contest to operate! I even worked stations on 222 on FM simplex! This is my favorite contest by far! (N8HNS). Hilltopping with QRP and big antennas is a blast (N2DSY). I still couldn't get my 2304 transverter working (WB2WHD). The 1296 gear died, and I never made it out on 2304, but the camaraderie and fun of it all made it well worthwhile! (WB2IEY). This would have to have been the first cool weekend of the summer (NB2V). I was interrupted by several thunderstorms (WØYPT). Conditions weren't very good, I had hoped to work enough new grids to complete my VUCC on 432, but was unable to (WBØCQO). All my QSOs were to the west of me (NØLL). My average distance per contact was 230 miles, and this on 70 cm! My thanks to the ops was 250 lilles, and this on 70 cm; My thanks to the ops in Colorado and Wyoming (KDØHE). Rain wasn't a real problem until 10 minutes after the contest on Mount Equinox (KH6CP). This was my first contest, and I had fun (WP4O). This was our first attempt at a contest—next time we'll do better. We weren't able to raise anyone on FM simplex (WA2TJR).

We've Been to the Mountaintop—UHF Portable at Sierra Grande, New Mexico, DM86

I looked at Ron and said nothing. Although it was only 10 PM, he had a tired look of both fear and resignation. Our small trailer rolled back and forth like a ship at sea. How much longer would it stay upright? Would our trailer be blown down the side of the mountain with us in it?

Ron, KDØDW, and I had planned this trip for more than two months. On Friday, we packed our vehicles with equipment; a 4000-watt generator, tower sections, rotator, antennas, radio, power supplies, coax, and a zillion other things. We met that evening at the home of Bill, KCØHP, Ron's father, in Olney Springs, east of Pueblo, Colorado.

The excitement of our expedition and its early departure Saturday was not conducive to much sleep Friday night. Our destination, Sierra Grande, is an 8760-foot old volcano that reaches out of the 4000-foot prairie of northeastern New Mexico. I had described the mountain to others as the best VHF contest location in the Southwest. Would this be true, or would I have to eat my words?

We reached the base of the mountain. A private landowner had given me instructions on how to get through his 100,000-acre ranch to the summit road, but we immediately got lost. When we finally found the road, it was almost impassable. At the summit, the two technicians took a dubious view of our plans, and one even suggested that we use another mountain!

We got all the gear up by 4 PM, and began to set up, which took another three hours. It was sunny and mild, with no wind. Although we hadn't eaten since breakfast, the weather seemed a good omen. At 1832 local we made our first contact, with KGØGS in northern Wyoming, 540 miles north of us. This was on 222 barefoot with only 25 W. What a great location, I mused.

We ate for the first time in 10 hours, continued to set up the equipment, but also made quite a few contacts with stations along the Front Range of the Rocky Mountains (our home area) on 222, 432 and 1296 during the next hour. We then worked WØEKZ near Wichita, Kansas, and WB5LUA in Dallas on 432. We stayed on 432 and worked several other Dallas-area and Oklahoma stations.

Thunderheads had been building to the west, and it was becoming increasingly darker and windier. With lightning nearby, we disconnected everything and went into Ron's Explorer, hoping the lightning would miss us. It did, but as the hour-long storm abated, the wind continued to pick up, and we feared our tower guys might not hold. We operated

again from 9:00 until 11:30, working some new stations and many of the previous ones on new bands. We were thrilled to receive a 559 from WB5LUA on 1296 at 475 miles during what was now at least 45 mi/hr winds. With each additional contact, the wind seemed to increase. We checked the guy ropes (which were tied around some boulders) as best we could in the dark. The howling winds made it difficult to stand upright.

Our trailer was air conditioned by the many openings and holes, and it was getting cold. The transition from operating position to sleeping bags was a welcome change, but sleep seemed unlikely. Every few minutes a wind blast would send chills down our spines and images of disaster through our minds. We were both dead certain that we would, at the very least, lose our tower and antennas, and maybe the trailer itself. For seven hours we lay there waiting for the crash. Finally the sun came up, and the wind started to die down. We had survived; so had the tower and antennas

By 7 AM we were back on the air. Two hours later, we had guests, the local sheriff and his assistant, who had been notified by Ron's dad that we might be in trouble. They pointed out that we were camping on New Mexico state land without a permit, and were not amused that the "permission" I had received was not official permission. We talked for a while about the contest, the difficult trip up the mountain and our sleepless night, and I think they decided we were harmless and a bit crazy—and who could deny that? They even seemed to enjoy being part of our adventure and helped stage and photograph a mock arrest. After hearing that we

would be packing up at noon, they left us.

After several more contacts into the Dallas area on 1296 and a few more 222 and 432 QSOs, we worked KØRZ and KXØO on 902 with a 6-W transverter and a loop Yagi from inside the trailer! We were too rushed Saturday and too tired Sunday to get the antenna up on the tower. The 2304 and 3546 transverters didn't get much of a workout. There just wasn't enough time. Before we knew it, noon had arrived, the contest was over, and we struggled to pack up and leave. It took more than four hours to pack up and get both vehicles down the mountain. We both felt like we had run a 100-mile race, and would never do it again. Only after the hours of unpacking and a couple of good night's sleep could we appreciate our adventure. And a few days later, we started planning to go back again!—Doug Allen, W2CRS

Scores

Line scores indicate call sign, total score, QSOs, multipliers and bands operated (C = 222 MHz, D = 432 MHz, 9 = 902 MHz, E = 1296 MHz, F = 2.3 GHz, H = 5.7 GHz, I = 10 GHz, J = 24 GHz, K = 47 GHz, L = Light) and ARRL/RAC Section. Call signs of Division leaders and band indicators are printed in **boldface** type.

Atlantic	3112,1 - 10 0112,0 - 2-	NØBSH/9 (WØUC,op) (EN45)		Division leaders and band indicat	• •
N3CX	86,400 46 16 C EPA 72 24 D	72 1 1 C WI 1 1 D	N2DSY 16,182 71 15 C NNJ 103 16 D N2LIV 8,160 21 11 C NLI	K1DS (+K1PLX,N1BAQ) 2,565 17 7 C RI 16 7 D	Rocky Mountain KØRZ 11,985 15 12 C CO
	27 14 9 38 16 E	1 1 9 1 1 E	25 11 D 7 5 9	2 2 9 2 2 E	28 19 D 3 3 9 14 11 E
	10 3 G	WØUC (+NØBSH) 12,126 23 14 C WI	10 7 E WB2VVV 6,006 19 9 C NNJ	1 1 I N1HKO (+N1JKT,WB1BXB)	2 2 F WBØHZL 54 2 1 C CO
WB2YEH	3 1 H 32,544 28 11 C SNJ	35 18 D 5 4 9	34 8 D 5 5 9	378 8 3 C NH 10 4 D	N7MLD (DN41) 45 5 3 D UT
	50 16 D 20 8 9 24 9 E	13 7 E ` Dakota	WB2WHD 3,360 11 3 C ENY	N2RDN/1 (+N2MSS) 255 17 5 D ME	N7MLD (DN40) 27 3 3 D UT N7MLD (DN31) 24 4 2 D UT W2CRS/5 (+KDØDW)
	24 9 E 9 3 F 6 1 G	WAØBWE 17,442 28 9 C MN 43 14 D	33 12 D 6 5 E KT2B 3,300 6 5 C ENY	WA2TJR (+K1TMW) 210 10 7 C CT	5,481 13 8 C NM
VA4VHF	15,120 36 14 D MDC 32 15 E	8 4 9 19 6 E	KT2B 3,300 6 5 C ENY 12 6 D 5 4 9	Northwestern KE7CX 5,916 7 5 C OR	22 11 D 2 2 9
VB3FAA	10 7 F 13,332 26 13 C EPA	7 5 F WØKRX 8,466 17 9 C MN	5 4 E 3 3 F	23 13 D 11 7 E	8 6 E 1 1 F
	31 18 D 10 7 9	28 15 D 13 7 E	WB2WIH 1,887 17 8 C NNJ 20 9 D	2 2 F 2 2 G	1 1 I Southeastern
(2AN	12 6 E 13,284 15 7 C WNY	3 3 F KBØZQ 6,162 22 8 C MN 35 14 D	WB2IEY 1,860 19 14 C ENY 6 6 9	AA7QZ 1,575 6 4 C OR 13 7 D	WD4MBK 3,822 6 5 C GA 29 16 D
	45 19 D 7 5 9 17 10 E	11 4 E KØFQA 4,212 26 10 D MN	WB2CWA 1,296 12 8 C ENY 11 6 D	8 4 E W7YOZ 1,470 9 5 D WWA 5 5 E	WS4F 2,460 8 5 C GA
I3NGE	5,400 22 8 C EPA 23 11 D	14 4 E 6 4 F	2 2 E KC2QF 1,020 34 10 D ENY . KF2MR (FN32) 735 2 1 C ENY	2 2 F 2 2 G	17 11 D 2 1 E 1 1 F
VASYON	15 5 9 4,868 18 11 C EPA	WA2VOI (EN33) 3,300 11 7 C MN	5 3 D 2 1 F	KE7SW 570 6 3 C WWA 9 6 D	1 1 G
	18 11 D 5 5 9	19 11 D 6 3 E	2 1 G 3 1 I	2 1 E K7HSJ 459 2 2 C OR	KA2DRH 1,740 21 16 D AL 4 4 E
N2LBE	3,843 10 4 C WNY 13 5 D	2 1 F KCØP 1,260 6 4 C MN 10 6 D	NB2V 660 20 11 D NLI W2KHQ 264 11 8 D ENY	7 4 D 4 3 E WI7Z 162 9 6 D EWA	KD4ADC 189 9 7 D AL WA1GUD 96 8 4 D SFL
	759	6 5 E WA2VOI (EN43)1,044 8 4 C MN	N3BXH (FN32) 216 2 1 F ENY 2 1 G	WI7Z 162 9 6 D EWA W7FHI 144 8 6 D EWA N7AUV 126 7 6 D EWA	WD4AHZ 72 6 4 D SFL Southwestern
(U2A	12 7 E 3,654 12 9 C WNY 14 12 D	11 5 D 5 3 E	2 1 I W3HHN 216 4 3 C ENY 8 3 D	KB7PEH 3 1 1 C WWA NU7Z (+W6PKW,AA7HB,K7ND)	WA6RAY 5,859 18 5 C LAX 53 12 D
	2 2 9 6 6 E	NØBSH (WØUC,op) (EN35) 648 4 2 C MN	KA2MCU 156 1 1 C ENY 2 1 D	13,680 22 11 C WWA 34 13 D	11 4 E AJ6F 2,916 11 5 C LAX
VA2ONK	2,862 17 9 D SNJ 8 5 9	4 2 D 2 2 9	1 1 E 2 1 I	1 1 9 14 8 E	27 9 D 8 4 E
B3PD	10 4 E 2,070 46 15 D DE	0 3 E NØHJZ (EN24) 600 5 3 C MN 7 5 D	K2KGJ 105 7 5 D ENY KD2IX 96 8 4 D ENY	5 5 F 2 2 G	N6QOA 1,764 9 3 C SB 33 11 D
VA1EHL/2	1,539 8 8 C WNY 11 8 D 4 3 E	2 2 F NØHJZ (EN34) 594 4 3 C MN	KF2MR (FN22) 90 1 1 E ENY 1 1 F 1 1 I	KD7TS (CN76) (+WA7OEU) 1,938 8 4 C WWA 12 7 D	KB6MEG 1,134 13 3 C SDG 29 6 D W6DXJ 999 37 9 D SDG
W2PAU N3HBE	1,470 35 14 D SNJ 630 7 7 C WPA	10 4 D 2 2 F	N2QHS 84 7 4 D NLI WB2EAR 72 8 3 D ENY	7 5 E 1 1 F	KD6RMS 912 28 4 C SB 8 3 D
D3SW	459 17 9 D MDC	NØHJZ (EN35) 570 4 3 C MN 7 5 D 2 2 F	N3BXH/2 (FN22) 48	KD7TS (CN97) (+WA7OEU) 858 3 1 C WWA	N2OOB 324 18 6 D SB
V3HNL (A3TCC	273 13 7 D MDC 72 5 2 C MDC 3 1 D	NØBSH (WØUC,op) (EN34) 552 5 2 C MN	N3BXH/2 (FN23) 48 1 1 F ENY 1 1 I	13 7 D 3 2 E 1 1 F	NS8F 288 10 4 C LAX 2 1 D 2 1 E
V3SSS (E3IC	36 6 2 D EPA 30 10 1 D WPA	4 1 0	N2KJM 12 2 2 D NNJ WA2BAH (+N3BXH) 1,599 10 5 C ENY	KD7TS (CN77) (+WA7OEU)	2 1 E K6LMN 180 10 3 C LAX 2 2 D
ISKJO (B3ANH	30 5 2 D MDC 30 10 1 D WPA	5 3 E NØHJZ (EN25) 540 4 3 C MN	17 6 D 1 1 E	3 2 D 3 2 E	W6YAN 108 3 2 C SB 6 2 D
ISNCA ISMJQ	27 9 1 D WPA 27 9 1 D WPA	6 5 D 2 2 F NTØV 408 1 1 C ND	3 1 Ī Midwest	KD7TS (CN96) (+WA7OEU) 63 2 1 C WWA	KD6VWK 66 11 2 D ORG WB7OHF 60 1 1 C AZ
V3VFA (D5RO (+)	18 6 1 D WPA KA2RDO,KD2s KQ,YB, N2s FKW,ODK,ULL,VTB,	6 4 D 3 2 E	WØYPT 2,268 9 6 C IA 19 12 D	1 1 D 1 1 F KD7TS (CN87) 9 3 1 C WWA	4 3 D N6TCZ 36 6 2 C LAX W6NXB 30 5 2 C LAX
WK,NQ2	O,WA2s MOP,TMC) 445,752 108 37 C WNY	1 1 F WØAUS 378 2 1 C MN	4 3 E WBØCQO 546 14 13 D IA	Pacific	W6TRW (KC6TPN,KD6s IGI,WYQ, WA6MPF.ops)
	150 38 D 65 25 9	6 3 D 3 2 E	WDØBQM 147 7 7 D NE NØLL 144 4 3 C KS	KF6CU 4,320 5 4 C SCV 31 14 D 8 5 E	2,196 20 4 C LAX 21 5 D
	91 28 E 35 19 F 20 7 G	1 1 I Delta	4 3 D KDØHE 144 8 6 D NE KDØBT 18 3 2 D IA	8 5 E 2 1 I WA6YDI 1,350 22 12 D SJV	10 3 E West Gulf
	15 7 H 13 2 I	AA4H 756 5 5 C TN 13 9 D	New England	4 3 E NI6L 864 24 12 D SCV	WB5LUA 17,640 12 8 C NTX 31 15 D
V3ZZ (+W	D8ISK)	N4OYS 594 8 5 D TN 7 4 E NS4W (KC4BWG,WB4CTW,ops)	KH6CP/1 21,372 31 14 C VT 36 16 D 10 6 9	KD6PUD 576 32 6 D SCV WA6UAP 420 10 6 C SCV 4 4 D	6 4 9 16 9 E 4 1 F
	51,030 49 25 C MDC 83 33 D	9,072 28 15 C TN 56 21 D	15 11 E 3 3 F	K1CT 378 2 2 C PAC 19 4 D	4 1 G 4 1 H
	14 9 9 19 11 E 3 3 F	Great Lakes	1 1 G 1 1 H	N7STU 180 12 5 D SCV KD6PY 60 1 1 C SCV	AA5C 4,140 5 3 C NTX
WB3ESS (+K3YWY,N3s DAP,LJK,	WW8M 67,854 39 18 C MI 88 33 D 16 9 9	K1TR 18,432 36 18 C NH 56 19 D	KB6FYP 54 6 3 D SCV	14 9 D 3 1 9 4 3 E
	29,388 35 16 C EPA 71 27 D	34 17 E 8 8 F	7 5 9 7 4 E 2 2 F	KD6UY (+KD6WKV) 540 12 5 D SCV 4 4 E	4 3 E 2 1 F 2 1 G
Marmii (r	15 11 9 11 8 E N3BZN,WA3TTS,op)	1 1 G WA8WZG 38,430 23 16 C OH 66 27 D	K1FO 7.725 103 25 D CT	Roanoke	2 1 H 3 1 I
voletii (i	15,933 23 14 D WPA 11 11 9	66 27 D 17 11 9	NM1K 7,644 40 8 C CT 30 9 D 9 5 9	K2UOP 27,456 19 14 C WV 46 24 D	K5SW 1,944 8 7 C OK 14 9 D
	14 12 E 5 5 F	17 11 9 26 14 E 2 2 F K8MD 13,029 14 9 C MI	K1CPJ 2,106 9 4 C CT	15 10 9 20 14 E 2 2 F	W5NZS 1,479 11 8 C OK
	2 2 G 2 2 H	41 18 D	14 9 D 1 1 9 3 2 E	N4HB 10,200 15 11 C VA 40 16 D	18 9 D KB5IUA 1,260 4 4 C STX 14 7 D
C3EK (+	1 1 I (A3EJJ) 1,170 30 13 D MDC	15 10 E WA8TJL 10.824 11 9 C OH	1 1 F 1 1 G	6 6 9 9 7 E	5 4 9 K5LLL 1.014 12 7 D STX
Central		31 19 D 9 7 9 11 9 E	WA1OUB 378 9 7 E NH N1NOE (FN53) 252 1 1 C ME 1 1 D	K4QIF 9,396 57 25 D VA 15 11 E K9OYD/4 9,180 20 10 C VA	3 2 9 4 4 E
VB9OJR	16,686 18 14 C IL 29 20 D	AA8Q 4,704 56 28 D OH KU8U 3,816 53 24 D MI	1 1 D 1 1 9 1 1 E	28 12 D 9 6 9	KB5NFN 384 10 5 D STX 3 3 E N5BA (EM10) 72 2 2 C STX
	4 4 9 10 9 E 3 3 F	WB8TGY 2,793 21 11 D MI 8 5 E	1 1 F 1 1 G	12 6 E WB31 6 240 48 18 D VA	4 2 D W8EP 24 4 2 D NTX
	2 2 G 2 2 H	2 2 F	KD1KJ 150 10 5 D EMA N1FUS 150 10 5 D WMA	16 8 E N4MM 1,989 39 17 D VA	N5BA (EM01) 3 1 1 D STX Canada
WA8R/9	26 14 D	N8AXA 1,008 7 5 C OH	1 1 9	K4JQU 1,404 26 18 D NC W4FSO 1,242 5 4 C NC 16 13 D	VE3DSQ 2,376 44 18 D ON VE3WCB 1,872 26 6 D ON
	8 7 9 7 7 E 3 3 F	KU8Y 1,008 5 4 C MI 13 7 D	1 1 F -1 1 G AA1O 105 7 5 D EMA	1 1 E NK4Q 1,152 24 16 D NC	7 4 E 3 2 F
WB9SNR	3,600 12 7 D IL	3 3 E NQ8A 396 5 4 C MI	N1FHR 84 5 2 C CT 2 2 D	WD4O 612 6 6 C VA 9 5 D	VE7XF 1,230 31 7 D BC 5 3 E
	4 4 F 3 3 G	7 7 D N8ZAT 360 4 4 C OH 11 4 D	NY1V 72 6 4 D CT WA1GTP 45 4 2 C CT	1 1 E K4YYL 561 11 8 D SC	VE3DSS 720 8 8 C ON 6 2 D 3 2 E
(9LCR	2 2 H	11 4 D WA8GXM 198 11 6 D OH KA8TBW 30 5 2 C MI	1 1 D WP4O 45 5 3 D EMA N1NOE (EN32) 36 3 2 C WMA	3 3 E KD4FRY 384 14 7 D SC 1 1 E	VE4KQ 288 1 1 C MB 5 4 D
N9K	2,139 8 8 C IL 23 15 D 1,863 9 8 C IL	NAHNS (+WASTON)	N1NOE (FN32) 36 3 2 C WMA 1 1 D N1NOE (FN32) 3 1 1 C ME	WN3C 315 15 7 D VA	3 3 E VE3ASO 189 3 3 C PQ
19AQ 19BJG	18 15 D 810 18 15 D IL 765 5 5 C IL	9,546 34 16 C MI 34 15 D 9 6 E	N1NOE (FN32) 3 1 1 C ME W2SZ/1 (KA1PRT, WA1ZMS, AA2AM, N2S BNY, GXH, HPA, KIZ, WA2AAU, WB2KMY, WS2B, WA8USA, Ops) 255 BA2 770 30 C WMAA	KD4SFF 210 14 5 D SC WA4OVW 75 5 5 D VA	6 4 D VE3SXE 180 10 6 D ON
(B9FZQ	12 10 D 495 15 11 D IN	Hudson	WB2KMY,WS2B,WA8USA,ops) 355,842 79 30 C WMA 157 37 D	K4JQY 42 7 2 D SC KD4DRA 15 5 1 D SC KD4KBO 15 5 1 D SC	VE3NJK 132 1 1 C ON 2 2 D 2 1 I
VA9HCZ (E9QT	480 16 10 D WI 462 14 11 D WI	N2CEI 77,982 60 20 C NNJ 73 20 D 25 16 9	157 37 D 44 20 9 47 19 E	AA4ZZ (+KA4YMY,KD4GCF,WB4WTC) 14.388 35 16 C NC	VE3URS 84 7 4 D ON VE2PIJ 18 6 1 D PQ
WB8YFE WD9BGA N9LMU	312 13 8 D IN 120 8 5 D WI 108 6 6 D WI	29 14 E 9 5 F	30 17 F 21 14 G	. 52 21 D 9 6 E	
N9LAG	99 11 3 D IL	5 3 G 3 2 H 1 1 L	15 10 H 11 7 I	1 1 1	QST-
104	ncr ·	i i j	. 5 5 J		