

# Results, 1989 ARRL VHF Sweepstakes

"ARRL contests are very well-planned, including another well-placed aurora opening on Sunday. Just as things were beginning to get dull, then ZAP, ZWAM, ALAKAZAM, a great opening and ten new grids."—NM8X

By Billy Lunt, KR1R and Phil Rice, WB9JKI  
Contest Manager Assistant Contest Manager

**N**ever say never. In last year's VHF Sweepstakes contest report, we said that conditions in January are always a bummer. Not so this year, as contestants K3ZO and WB0WAO/8 ascribed clairvoyance to the ARRL schedulers: "It seems like the ARRL staff has a direct line to the creator of auroras. This is the second VHF contest in a row which featured aurora. The result was six new grids on 2 meters."—K3ZO. "Who scheduled the aurora? Whoever it was, thanks! How do you operate four bands with openings on all of them?"—WB0WAO/8.

More comments were received with this

year's 1989 VHF Sweepstakes logs held in January than any VHF contest in memory. Here is a scattered sampling of some comments regarding the outstanding aurora conditions. "WOW! The aurora made this contest fun! Best DX was FN48, proving that contests provide excellent opportunities to work DX grid squares."—WIQK. "The Sunday aurora was incredible; one of the hottest January contests in years."—WA2BPE. The auroral curtain dipped pretty far south, as represented by this four-land comment by KB4XK: "Thanks to the aurora for putting me over 100 grids on 2 meters for VUCC!" "Who says 220 MHz has little activity? The

signals were knee deep Sunday evening during the aurora. I tried eating my spaghetti dinner while running CW on 220 MHz during the aurora. It can't be done!"—KB8JI. "The Panadapter Scope looked like 20 meters during Sunday's aurora opening. Even SSB signals were 20 over S9."—WA8SAJ. "The aurora was like low-band DXing; it gave me a buzz!"—WB8TCZ. Coping with Au buzz for the first time can be an exciting experience as noted by NU9H: "First time that I ever heard an aurora. I was amazed at hearing stations all up and down the band as it got under way." Thus, it can be a tremendous learning experience: "The

## Affiliated Club Competition

Club	Score	Number of Entries	Single op Winner
<b>Unlimited Category</b>			
Mt Airy VHF Radio Club	2,181,861	54	WA3NUF
Hampden County Radio Assn	759,581	51	WA1VRH
<b>Medium Category</b>			
Rochester VHF Group (NY)	1,122,717	47	KD5RO
Delaware Valley VHF Society	651,481	16	K2SMN
Yankee Clipper Contest Club	250,892	4	K1DH
Four Landers VHF/UHF Group	87,114	6	WB4SLM
South Jersey Radio Assn	75,675	11	K2YY
Warrminster ARC	66,755	19	N3EXA
Granite ARA	61,733	7	NI1W
Six Meter Club of Chicago	50,018	19	K9MBX
Michigan City ARC	23,403	4	K9DZE
Catskill Mountain ARA	21,978	3	KB2DYB
Rochester ARA	11,481	11	KA2J
Genesee ARC	9,820	3	WB2JFL
Potomac Valley Radio Club	8,861	3	W3GN
Mobile Sixers RC	7,590	11	K3RTU
Rochester (MN) ARC	7,359	49	WB0B
Ventura County ARC	5,182	9	NS6X
Rochester DX Association	2,479	5	KB2WN
North Texas Contest Club	2,091	16	WB5VZL
Rochester Amateur Packet Society	1,316	3	KE2DI
Squaw Island ARC	854	5	K2TDZ
<b>Local Category</b>			
Murgas ARC	454,594	4	WA2FGK (K2LNS,op)
Crystal RC	127,007	4	N2BJ
Minnesota Wireless Assn	78,556	6	WB0UC/9
Overlook Mt ARC	10,634	7	W2XL
Anne Arundel RC	10,232	6	WB2TNL
Wheaton Community Radio Amateurs	9,246	5	N8HWK
Hubert Heights ARC	5,008	3	N8CCC
York Radio Club	2,558	9	KA9ZQW
Farout ARC	167	3	WB9XT

## Top Ten

Single Operator	Single Operator—QRP Portable	Multioperator
Call	Score	Call
WA2TEO	172,095	K6LMN
K2SMN	147,659	NS6X (DM15)
WA2FGK	147,154	WB2ODH/6
(K2LNS,op)		WA3YYC
N2BJ	125,488	KB8MEG
WA3NUF	118,992	KE2DI (FN12)
KD5RO	110,856	KA2JKI
KB3QM	102,060	NJ2L
W1GCI	99,528	NS6X (DM05)
W3IP	93,726	NS6X (DM04)
N2CEI	89,680	WC2F

## Division Leaders

Single Operator	Multioperator	
Call	Score	
K2SMN	147,659	Atlantic
VE3ASO	76,563	Canada
WB0UC/9	60,214	Central
WA0BWE	12,566	Dakota
K5UR	55,350	Delta
KB8ZW	87,642	Great Lakes
N2BJ	125,488	Hudson
N0LL	36,356	Midwest
WA2TEO	172,095	New England
KE7CX	5,372	Northwestern
WA2YWP/6	3,726	Pacific
W2CRS	8,514	Rocky Mountain
K2UOP/4	61,560	Roanoke
WA4NPJ	36,630	Southeastern
W6CPL	19,776	Southwestern
K9MK/5	30,780	West Gulf



Peter, NN9K, looking for grids on 220 MHz.

aurora on Sunday evening was just incredible. Never imagined I would work 33 grid squares in one weekend with my station setup. I sure learned a lot also."—KA0ZSU.

More Qs in the logbook is the goal, as W5FYZ noted: "I've been working these VHF contests for 30 years. There was more participation by far in this one than in any prior January contest. All 35 grids worked were within a 500-mile circle, but I worked a lot of old friends and made a lot of new ones. I had a ball!" And K6HGX observed from the West Coast: "This is the most activity in many years."

Some stations worked some pretty good DX (as defined on HF): "It's not very easy to get EME stations to send grids. I Worked All Continents on 1296 during the contest!"—K2UYH. Congratulations, Allen. WD4AHZ and W4FF found working CO2KK on 2 meters the highlight of the contest, while K7ICW worked XE2GFH on 432 MHz, making his day. The QRP portable category was extended to this contest for the first time and drew some hardy entrants, mostly out West. KB6MEG simply exclaimed that "QRP portable is great." While N6TY detailed: "I operated

for about three hours at the 3500-foot elevation on Mt Hood just east of Portland. It snowed over six inches in that time period." WB9AJZ "operated portable and mobile on top of Elsinore Peak," noting that "it sure gets cold earlier in January," while WA3YYC "logged by the light of the campfire operating QRP on the side of North Mountain."

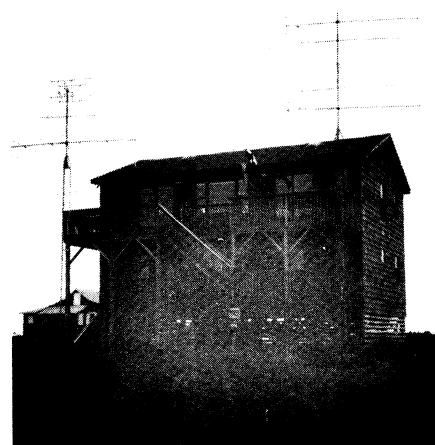
Looking at the scores, WA2TEO followed up on his September top-scoring single-op effort, outdistancing all comers with 172k points. K2SMN and K2LNS (at WA2FGK) made up the next tier in that order at 147k. The Top Ten was an all-East-Coast-Corridor affair, not unusual for this contest.

On the other hand, the top-ten QRP portable category was dominated by West Coast stations led by K6LMN at 4.8k. Kudos to those who braved the harsh elements in this rugged category.

The multi-ops were again led by the well-equipped WC2K station at 557k points. KA1ZE finished a strong second at 421k from his impressive arrays overlooking the Connecticut River valley.

The Mt Airy VHF Packrats made their usual top showing in the unlimited club competition with 2+ million points—no small feat! The Rochester (NY) VHF Group more than doubled their last year's efforts at 1.1 mil to capture first place in the medium-club category. Good going, Western New York. In the local club category, Murgas ARC just had more gas than all the rest—first at 454k points.

As we close the record books on one of the more successful VHF Sweepstakes, we see what participation can do for the fun factor for all. With the June VHF Contest at the doorstep (June 10-12), and expected wide-open conditions on 6 meters, don't miss any of the fun. Also check out the new plaques (see UpFront, this issue) now being offered in the June contest. So plan your calendar for a full season of VHF-UHF activity, starting in June, followed by the



A view of the antennas at multiop station W4IY.

UHF Contest in August and the September VHF Contest. With participation fueling the activity level, how about introducing a friend to the joys of VHF contesting this season? You'll do him (or her), as well as yourself and everyone else worked, a favor. Good luck!—W1XX

#### SOAPBOX

Sunday's aurora eased the pain of Saturday's blown GaAsFET (WA1VRH). Aurora on 50 through 432 MHz... What's a single op to do? (WA1YHO). Up until the aurora Sunday evening, this was one of the slowest Jan VHF SS contests (WA1HYN). This contest gave me my first experience with an aurora. It was lots of fun! (NQ1C). Order me some aurora for next year, with a side order of E-skip (N1DJB). As you can see by my score, my contesting had all the impact of a Water Pik on the Chicago Fire (WA2YEI). I continue to be surprised with my results using an indoor 5-element Yagi and 80 watts! (WA2E). I ruined 2 rotors in the contest, but had a lot of fun working the aurora. Lucky thing that the second rotor broke aimed north! (WB2JLR). Don't share a contest station with your son, KA2RDO (W2ONP). Being sick + 1st time out = Low Score. Watch out next year! (K2JD). Log submitted to show contest support; not a serious contest entry (WA3LKT). Will there be an aurora for the June Contest? (K3NXH). Overall this was the best January contest I've been in for several years

#### QSO Leaders By Band

##### Single Operator

50 MHz	144 MHz	220 MHz	432 MHz	902 MHz	1296 MHz	2304 MHz							
W9OEH	275	KA1KRJ	401	N2CEI	110	K1FO	216	K2SMN	29	WA3JUF	44	WB3DNI	19
VE3RM	250	W1QK	388	WB2YEH	99	K2TXB	150	WB3JYO	23	K2SMN	41	WB2YEH	18
N2CEI	243	WA3HMK	377	WA2TEO	94	K2UHY	128	WB2YEH	21	WA3NUF	41	WB3JYO	18
WA1TRE	238	WB2QOQ	372	N2BJ	91	N2BJ	117	N3CX	20	K2UYH	41	WA3NUF	16
WA1VRH	231	K3NXH	352	WA3NUF	88	K2OS	113	WA3NUF	20	WA4VHF	40	N3CX	16
W3EP/1	226	WA2TEO	348	WA3YUE	88	K2GAL	101	WA3JUF	20	WB3JYO	39	WA3YUE	13
N3BBI	223	KA2WKA	340	W3CL	87	WA2TEO	94	KD5RO	19	WB3DNI	37	WA3JUF	13
AC3T	219	WA2FGK	332	WA3JUF	79	K3IUV	91	WA3YUE	19	K2TXB	33	N3AOG	12
(KA3B,op)		(K2LNS,op)		W2EIF	76	K2SMN	91	W2EIF	19	W2EIF	32	W0RSJ	9
WA2TEO	215	WA2ODO	321	K2OWR	72	WB2YEH	90	N3BBI	18	WB2YEH	30	AK3O	9
VE3DDW	202	K2GAL	320	K3DMA	72	N3CX	87	K2TXB	16	WA2FGK	30	WB1FKF	7
WA2CWA	201	N3EAX	305	K3IUV	70	WA3NUF	86	W0RSJ	16	(K2LNS,op)		W2EIF	7
KB8ZW	182	WB1BXS	304	N3FUJ	68	W3IP	86	KB3IB	15	N3CX	28	K3BPP	6
WA2BPE	180	N2BJ	298	W3IIT	68	KD5RO	86	W3GXB	15	N2BJ	28	N1IW	5
K1RZ	172	N2CEI	297	WB3JYO	68	WB3ESS	83	WA2FGK	14	W3IP	28	KD5RO	5
W2HRW	166	K2SMN	296	K2SMN	66	W3HMU	81	(K2LNS,op)		K1FO	27	WA2FGK	5
W0UC/9	165	K3ZO	294	WA3AQ	65	KF6AJ	80	KA2WKA	14	KF6AJ	26	(K2LNS,op)	
WB8IGY	165	K2TXB	282	WA1HYN	64	WB3DNI	79	WB2JHG	14	WA2TEO	26	WA3ETD	4
K3ZO	164	WB2JLR	269	K3LOM	62	WA3YUE	76	KF6AJ	13	WA3YUE	25	W1GCI	4
NW5E/3	163	K3ONW	259			WA3JUF	76	K3GYS	13	KD5RO	24	W1RIL	4
WB2LRU	161	VE3ASO	254					WB2YZV	24	WB2YZV	24	N2GHR	24

(KK4NO). It was very slow going. No activity at all Sunday morning and afternoon (WD4AHZ). Thanks to WB5VZL and KB5CUS for activating so many grids! (N5WS). I'm going to a higher mountain next year! (WB2ODH/6). The 6-meter band was the worst we have ever seen. The aurora shut down most of the long-haul stuff all weekend

(NU7Z). Ice conditions hampered the contest here. The aurora Sunday night was a welcome addition (WA8R). The aurora sure makes a dull contest start to hop in a hurry! (WB9MSV). The first time I have ever heard aurora. I didn't know what was going on at first (N8HWK). I smoked my 1296-MHz transverter. No contacts on that band (K9VGE). The

first VHF contest for me. Everyone very friendly, but expected more activity (KØSRL). Where were all the openings? It was cold and lonely on that North Dakota hilltop (KA9IZP). Wow! The aurora on Sunday night was phenomenal (VE3VET). All QSOs, except for one, were made via aurora (VE5UE).

## **QSO Leaders By Band**

## **Multioperator**

## **Multiplier Leaders By Band**

## **Single Operator**

<b>50 MHz</b>	<b>144 MHz</b>	<b>220 MHz</b>	<b>432 MHz</b>	<b>902 MHz</b>	<b>1296 MHz</b>	<b>2304 MHz</b>							
W9OEH	96	N8DEJ	69	WA2TEO	35	K1FO	55	KD5RO	12	N0LL	16	KD5RO	5
W0UC/9	79	WA3HMK	66	NN9K	33	K2UYH	40	K2SMN	8	K2UYH	15	WB3DNI	3
WA1TRE	69	WB9MSV	62	WA2TMC	28	K5UR	33	WB2JLR	7	KD5RO	14	WA3NUF	3
VE3RM	64	K3ONW	62	K8DIO	26	K2OS	33	WA2FGK	6	WD5AGO	14	WA3JUF	3
WB8IGY	63	N3EAX	61	KD5RO	26	N5WS	30	(K2LNS,op)		WA4VHF	12	WB1FKF	3
KB8ZW	61	K9VGE	60	WA2TIF	26	WA2FGK	29	N3CX	6	W3IP	11	WA2FGK	3
WA2BPE	56	WA4VVW	60	W1GCI	25	(K2LNS,op)		KB8ZW	5	WA2TEO	11	(K2LNS,op)	
W3EP/1	55	WB8IGY	59	K2SMN	24	K2TXB	29	KB3QM	5	K2SMN	10	W1RIL	3
N2CEI	55	WA2FGK	59	N2CEI	24	K8DIO	28	WA3NUF	5	WA3NUF	10	WB2YEH	2
K1RZ	54	(K2LNS,op)		N2BJ	23	W9IP/2	28	W1GCI	5	K2GAL	10	WB3JYO	2
W9IP/2	54	K3NXH	59	KB8JI	23	KB8ZW	28	K2UOP/4	5	K1FO	10	N3CX	3
K3ZO	53	K2GAL	58	K1LPS	23	WB3ESS	27	KF6AJ	5	N2GHR	10	WA3YUE	2
VE3ASO	51	WA8TJL	57	K9VGE	22	K2GAL	27	W0RSJ	5	KB3QM	9	N3AOG	2
VE3DDW	50	WB0YWW	57	WB0WAO/8	22	WB9MSV	26	N3BBI	5	N2BJ	9	W0RSJ	2
WB2LRU	50	AA9D	57	WA3NUF	22	WB4SLM	26	WA1MBA	5	WA2FGK	8	AK3O	2
KC2GZ	48	K3ZO	56	VE3ASO	21	WB0YWW	26	WB1FKF	5	(K2LNS,op)		W2EIF	2
WA2TEO	47	VE3ASO	56	W0UC/9	21	K2SMN	25	N11W	5	WA3JUF	8	K3BPP	2
WA8HPY	47	KA2RDO	54	W3ZZ	21	N0LL	25	WB3JYO	5	K2TXB	8	NI1W	2
WA4NJP	46	WB2QOQ	54	WA1HYN	21	W3ZZ	24	W1RIL	5	W6CPL	8	WA3ETD	2
		VE3PCW	54			N3CX	24	VE3ASO	5	WB9MSV	8	W1JR	2
		WB0SWD	54			W3TMZ	24			K1RZ	8	WA1MBA	2
										WA7PXD		(DN30)	
										W3VIR		WA4GPM	

## **Multiplier Leaders By Band**

## **Multioperator**

## Scores

Each line score lists call, QSOs, multipliers, bands worked (A = 50 MHz; B = 144 MHz; C = 220 MHz; D = 432 MHz; 9 = 902 MHz; E = 1296 MHz; F = 2.3 GHz; G = 3.4 GHz; H = 5.7 GHz; I = 10 GHz; J = 24 GHz; K = 48 GHz; L = Light). An asterisk before the call sign indicates a QRP-portable station; an (N) after the call indicates a Novice. Band winners are printed in the bold type.



AF1T/3	144- 16- 9-AB	WB5ZL (EM12) 45- 7- 5-ABD	Idaho	KC7IJ	70- 10- 7-A	W9NHX	412- 103- 4-B	WØOHU	30- 15- 2-B
KA3TRP/N	60- 15- 2-C	Oklahoma	Nevada	N7DBD	1,760- 64- 22-ABD	WA9QYX	400- 50- 8-AB	WØMXW	30- 15- 2-B
KA3KSD (FN00)	9- 3- 3-B	WD5AGO 11,781- 107- 63-AB <b>D</b>	W7LOV	1,760- 55- 20-ABD	WB9MXX	360- 36- 10-AB	NØGHG	30- 6- 5-B	
WS3KWH (KA3KSD, N3EQP, W3SVJ, WA3s FYJ, TTS, WB3EML)	208,926- 676-219-ABCD9EFHI	K5SW 10,944- 122- 72-AB <b>C</b>	W7KYT	1,220- 342- 19- 9-D	K9ATGP	325- 56- 5-BC	WBØYEE	28- 14- 2-B	
4		WA5UGO 4,400- 88- 40-ABD	K7ICW	342- 19- 9-D	K9I0G	312- 52- 6-AB	NØHBK	28- 14- 2-B	
Alabama		AA5DS 1,769- 61- 29-B	WB5VZL (EM14)		W9ZZU	304- 76- 4-B	NØGUP	22- 11- 2-B	
WA4EWA	5,096- 88- 49-AB <b>D</b>	135- 12- 9-BD	Oregon	N61Y	395- 59- 5-AB	NJØC	22- 11- 2-B		
N5AYD	1,425- 46- 25-ABCD	WB5VZL (EM05) 30- 5- 5-BD	KE7CX	5,372- 127- 34-AB <b>CDE</b>	WC9D	280- 70- 4-B	DLSBAN/WØ	20- 10- 2-B	
NA4HJ	70- 14- 5-A	NSNDV (+ W5NZS) 3,854- 73- 41-ABCD	N7DBD	1,218- 54- 21-AB <b>C</b>	WA9MJJ	276- 38- 6-ABC	WØØM	16- 8- 2-B	
WA4VUG	30- 10- 3-B	NOØY (EM06) + KF0M)	W7UDM	308- 26- 11-ABCD	WA9OHU	256- 64- 4-B	NUØM	16- 8- 2-B	
Georgia		240- 11- 10-BDE	N61Y	190- 18- 10-ABD	WB9GKA	231- 18- 11-BD	KCØZ	14- 14- 1-B	
WA4NJP	36,630- 245-111-AB <b>CDE</b>	NOØY (EM16) + KF0M)	WB5VZL (EM01)	70- 7- 5-BDE	WA9GQK	138- 46- 3-B	WBØHEB	12- 5- 2-B	
WB4SLM	36,408- 230-111-AB <b>CDE</b>	135- 12- 9-BD	WB5VZL (EM01)		K9ENZ	136- 34- 4-AB	KEØUB (EN34)	12- 6- 2-B	
WS4F	19,440- 160- 80-ABCD <b>E</b>	WB5SOBS 14,640- 182- 61-AB <b>CDE</b>	WB7VLU (DN40)	15- 5- 3-AB	WB9TUF	103- 36- 3-B	NØEJP	11- 11- 1-B	
K4CKS	12,354- 145- 71-ABCD	W5OZI 1,376- 43- 32-AB	WB7VLU (DN40)	12- 4- 3-AB	N9DEX	62- 31- 2-B	NØJX (EN34)	10- 5- 2-B	
NA3AH1	2,590- 65- 37-AC	WB5VZL (EM01)	WB7VLU (DN40)	6- 3- 2-B	W9KBU	58- 29- 2-B	WEBØ	10- 10- 1-B	
WD4MBK	1,512- 42- 18-D	WB5VZL (EM00) 416- 21- 16-ABD	WB7VLU (DN40)	4- 1- 1-E	WB9GK	54- 18- 3-B	WBØRZI	8- 4- 2-B	
WB4NMA	1,071- 49- 21-AC	WB5VZL (EM00) 28- 6- 4-ABD	WB7VLU (DN39)		W9PMJ	51- 17- 3-B	KØTS (EN33)	6- 6- 1-B	
W1JJA	260- 26- 10-A	WB5VZL (EM00) 4- 2- 2-B	WB7VLU (DN39)		K9BAUM	40- 20- 2-B	KEØJB (EN33)	6- 6- 1-B	
Kentucky		WB5VZL (EM00) 7,567- 139- 47-ABD	WB7VLU (DN39)		WA9GQB	36- 18- 2-B	WBØRHV	5- 5- 1-B	
KK4BD	5,520- 120- 46-B	WB5VZL (EM00) 90- 13- 6-BD	WB7VLU (DN39)		KA9ZNL	20- 10- 2-B	WBØMN	5- 5- 1-B	
AA4FQ	5,162- 82- 58-AB <b>D</b>	WB5VZL (EM00) 9- 6- 4-ABD	WB7VLU (DN39)		K9ATTY	20- 10- 2-B	NØHXJ	5- 5- 1-B	
N4EQT (+ KA8SSB, W8UC, WF6Z)	60,150- 360-150-ABCD	WB5VZL (EM00) 70- 7- 5-BDE	KE5CO (+ WB5N)		W9YB (KA8s CCN, CCR, KCRG, R9N9R, N9NC, ops)	5,426- 108- 46-ABD	NØJX (EN33)	4- 4- 1-B	
North Carolina		WB5VZL (EM00) 288- 21- 12-ABD	Washington	WB7VLU (DN39)	5,260- 108- 46-ABD	WDØETA	4- 4- 1-B		
KB4KK	13,072- 141- 76-AB <b>C</b>	WB5VZL (EM02)	WB7VLU (DN39)		WB9OEH	26,400- 275- 96-A	WDØGNK	3- 3- 1-B	
N2CJ2	2,772- 73- 33-ABCD	WB5VZL (EM02) 260- 17- 13-ABD	WB7VLU (DN39)		K9DZE	19,205- 205- 85-ABD	NØK	2- 2- 1-B	
AA4JA	700- 35- 20-B	WB5VZL (EM04)	WB7VLU (DN39)		WB4WV	13,620- 227- 60-B	WBØVEB	2- 2- 1-B	
K4LVV (+ AA4As, SC.ZZ, K4M0G, KS4S, WA4s UNZ, VCC, WB4s PCS, TLX, WW4t)	52,756- 356-121-AB <b>CDE</b>	WB5VZL (EM04) 160- 13- 10-BD	WB7ATP	168- 24- 7-B	WB9PKL	2,546- 67- 38-A	KCØRV	1- 1- 1-B	
WB5VZL (EM04) 160- 13- 10-BD		WB5VZL (EM04) 126- 13- 9-ABD	WB7DZ	15- 5- 3-A	N9YB	2,010- 67- 30-B	NØDOS	1- 1- 1-B	
Northern Florida		WB5VZL (EM04) 90- 13- 6-BD	NU7Z (+ K7ND)		N9SN	1,728- 64- 27-B	NØDJB	1- 1- 1-B	
WA4JNE	912- 42- 19-AB <b>D</b>	WB5VZL (EM04) 6,384- 105- 48-ABD9	WB7VLU (DN39)		NUSH	370- 35- 10-BD	NØHZO (+ KØCP) 68- 17- 4-B		
WA4VNV	300- 25- 12-A	WB5VZL (EM04) 6,384- 105- 48-ABD9	N7COU (+ KA7CT, N3EG)	10,950- 239- 30-ABCD9EFIJ	KA9HPK/9	198- 11- 9-C	NØHBS (EN34) + KØEN	52- 26- 2-B	
WB5MAC/4	4- 2- 2-B	WB5VZL (EM04) 126- 13- 9-ABD	WB7VLU (DN39)	1,248- 62- 16-AB <b>CDE</b>	KA9ZFG	126- 12- 7-KD	KØEN (EN34) + NØHBS	50- 25- 2-B	
South Carolina		WB5VZL (EM04) 90- 13- 6-BD	WB5VZL (EM04)		W9YB (KA8s CCN, CCR, KCRG, R9N9R, N9NC, ops)	5,426- 108- 46-ABD	KØEN (EN33) + NØHBS	30- 15- 2-B	
WB4VQ	26,093- 182- 97-AB <b>CDE</b>	WB5VZL (EM04) 9- 6- 4-ABD	WB5VZL (EM04)		WB9OEH	26,400- 275- 96-A	NØHBS (EN33) + KØEN	28- 14- 2-B	
KK4KNO	13,530- 134- 66-AB <b>CDE</b>	WB5VZL (EM04) 6,384- 105- 48-ABD9	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	Missouri		
WA4LDU	3,552- 77- 37-ABCD	WB5VZL (EM04) 6,384- 105- 48-ABD9	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	NØFOW	1,613- 122- 79-AB <b>D</b>	
N4OBF	714- 34- 21-B	WB5VZL (EM04) 6,384- 105- 48-ABD9	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WBØRP	4,800- 84- 48-AB <b>CD</b>	
N4NFR	252- 18- 14-B	WB5VZL (EM04) 11,873- 268- 31-ABCD	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WBØWPJ	2,030- 49- 29-AB <b>CD</b>	
Southern Florida		WB5VZL (EM04) 2,920- 69- 40-ABD	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9AV	720- 36- 20-B	
WB4JGC	18,675- 205- 83-AB <b>D</b>	WB5VZL (EM04) 465- 31- 15-B	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	NØXH	44- 8- 4-ABCD	
WB2GU	17,172- 146- 81-AB <b>CDE</b>	NM8X (+ AC8W, KABVDX, N8s COA, HTG, NR8s, NT8s, NT8V, WB8DT, VE3s CKU, DGR)	WB5VZL (EM04)	148,104- 582-198-ABCD9E	WB9OEW	19,205- 205- 85-ABD	North Dakota		
KC4YO	6,174- 126- 49-B	WB5VZL (EM04) 20- 4- 4-ABC	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	NTBV	100- 10- 10-A	
KF4FL	2,924- 70- 34-ABD	WB5VZL (EM04) 1,092- 66- 13-BD	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	KA9IZP	40- 10- 4-B	
N4VC (+ WB4KNF)	17,112- 150- 93-ABCD	WB5VZL (EM04) 8,070- 177- 53-BD	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	Nebraska		
Virginia		WB5VZL (EM04) 9,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	NØBTN	6,642- 92- 54-BC <b>D</b>	
K2UOP/4	61,560- 343-120-AB <b>CDE</b>	WB5VZL (EM04) 10,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WBØEMS	1,782- 47- 33-BD	
N4HB	13,600- 172- 68-ABCD	WB5VZL (EM04) 11,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	KDØHE	4,283- 23- 21-AB	
WD4OZ	12,540- 175- 57-ABCD	WB5VZL (EM04) 12,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	KØTLIM (EN10)	324- 15- 12-AB <b>CDE</b>	
K9OVD/4	8,694- 135- 54-BD	WB5VZL (EM04) 13,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	KØTLIM (EN10)	288- 13- 12-AB <b>CDE</b>	
K4FTD	6,670- 128- 46-ABD	WB5VZL (EM04) 14,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	KØTLIM (DN9)	231- 11- 11-ABCD	
WDØBYA/4	4,704- 147- 32-B	WB5VZL (EM04) 15,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	South Dakota		
KB4NFY	3,196- 94- 34-B	WB5VZL (EM04) 16,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	KØDD (+ NSØN)	17,557- 181- 97-AB	
N4MM	2,079- 64- 27-ABCD	WB5VZL (EM04) 17,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE		
ND1V	912- 48- 19-B	WB5VZL (EM04) 18,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	Maritime—NFLD		
NA4BG	903- 39- 21-B	WB5VZL (EM04) 19,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE1YX	3,762- 99- 38-A	
WA4SBC	630- 26- 18-ABCD	WB5VZL (EM04) 20,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE1APG	1,560- 60- 26-A	
WB4VIR	242- 22- 11-B	WB5VZL (EM04) 21,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	Quebec		
WA4MMP	9- 3- 3-B	WB5VZL (EM04) 22,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE2DUB	7,124- 105- 52-AB <b>CDE</b>	
W4Y1V (K4HWG, KA4CK1, KØRI, ops)	27,141- 244- 83-ABCD	WB5VZL (EM04) 23,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE2FUT	1,950- 78- 25-B	
NS3T (+ WB2KGQ)	135- 27- 5-AB	WB5VZL (EM04) 24,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE2BKL	522- 29- 18-AB	
5		WB5VZL (EM04) 25,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	Ontario		
Arkansas		WB5VZL (EM04) 26,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE3ASO	7,563- 457-141-AB <b>CDE</b>	
KSUR	55,350- 277-150-AB <b>CDE</b>	WB5VZL (EM04) 27,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE3DWW	39,091- 403- 97-AB	
WB5IGF	2,590- 52- 35-ABDE	WB5VZL (EM04) 28,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE3RM	18,907- 259- 73-AB	
Louisiana		WB5VZL (EM04) 29,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	15,549- 196- 73-ABD	
WB5NAA	11,814- 150- 66-AB <b>D</b>	WB5VZL (EM04) 30,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	11,718- 217- 54-B	
WB5FVY	3,955- 113- 35-B	WB5VZL (EM04) 31,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	7,903- 128- 51-AB <b>CDE</b>	
N5KWB	1,950- 61- 30-BC	WB5VZL (EM04) 32,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	5,461- 111- 43-AB	
N5NHz	1,482- 57- 26-B	WB5VZL (EM04) 33,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	5,332- 124- 43-B	
WD5EJU	1,210- 55- 22-B	WB5VZL (EM04) 34,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	2,496- 66- 32-BD	
WB5UFH	192- 16- 12-A	WB5VZL (EM04) 35,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	1,656- 72- 23-B	
Mississippi		WB5VZL (EM04) 36,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	1,080- 36- 15-D	
WB5RCI	12,719- 106- 79-AB <b>CDEF</b>	WB5VZL (EM04) 37,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	816,055- 687-199-ABCD9EF	
N5JYX	7,808- 96- 64-ABCD	WB5VZL (EM04) 38,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	16,576- 224- 74-AB	
New Mexico		WB5VZL (EM04) 39,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	WB9OEW	16,340- 264- 68- 33-ABD	
N5JHV	2,436- 58- 42-AB	WB5VZL (EM04) 40,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	Saskatchewan		
WB5FF	2,220- 60- 37-AB	WB5VZL (EM04) 41,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE5UF	437- 23- 19-A	
KA5EBL	1,250- 41- 25-AB <b>D</b>	WB5VZL (EM04) 42,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	VE5LY	195- 15- 13-AB	
WB5IXR	260- 22- 10-AB	WB5VZL (EM04) 43,936- 131- 69-ABDE	WB5VZL (EM04)		WB9OEW	19,205- 205- 85-ABD	Alberta		
KN5NS	110- 11- 10-AB	WB5VZL (EM							