

2002 September VHF QSO Party Results

Of all the ARRL VHF contests, the September VHF QSO Party always holds the most surprises. In June the only real question is how much E skip we will get and which regions of the country will be smiled upon by the propagation gods and which will not. The January VHF SS is still the premier club competition event and produces the highest amount of activity but invariably yields the worst propagation conditions. The major question is how severely ice and snow will curtail rover activity and detune antennas. Conditions in the September contest can vary from great to terrible. All kinds of propagation are possible but not necessarily guaranteed by any means. The equinoxes are a prime time for aurora; the fall season is the best for tropospheric ducting of all kinds; and even E_s on 6 meters occurs every few years.

Let's see how this contest has fared in the past several years. Last year in 2001 the East Coast was blessed with a superb tropo opening extending from the Canadian Maritimes to the Carolinas and northern Georgia. Multiplier and QSO records were set in most classes and microwave contacts were made over distances hundreds of kilometers longer than normal. And the West Coast-Hawaii duct to KH6HME on Mauna Loa was open. While conditions were flat in the year 2000, in 1999 we had short selective tropo openings from Florida and in the Midwest. 1998 brought an excellent tropo opening in the Midwest extending into the Appalachians, which would have been truly

spectacular had the contest been two days earlier; 6 meter E_s in several areas of the country; good tropo conditions in the Pacific Northwest; and transequatorial propagation from the southern tier of states into South America on 6 meters. 10 band VUCCs were possible. 1997 featured strong north/south openings in the Midwest and 1996 had its share of 6 meter E_s from the southern states to both coasts.

So what about 2002? Was it a treat or a treatment?

2002 Summary

Given the interesting propagation at least somewhere during the past several years, perhaps we were due for a flat year. The propagation gods were looking the other way in 2002. Every single region reported absolutely unenhanced conditions. The only advantage to this is that the contest gives you the chance to see what you can do without any help from conditions. This kind of data is not easy to get and provides the contester with a baseline against which to judge all his

other efforts. Let's see what happened.

This year 534 logs were submitted compared to the 553 logs submitted last year. This continues the slow decline in September contest logs, which began in 1997 when a record 752 entries were made. Most notable is a reduction of 16 single operator low power entries and 9 Single Operator portables (19 vs 28 last year—32% of the total). On the other hand rover entries increased to 63 from 52 last year (+21%). The reasons for the overall drop in submitted logs are not clear but appear to have little to do with band conditions. Entries in 1998 and 2001, both years with excellent propagation, were fewer in number than the immediately previous years, which featured much inferior conditions.

The National Scene

One might have expected the top scores in the single and multioperator categories would be found along and within reach of the East Coast in a contest with no enhanced propagation, but that was not necessarily the case. After trying for 17 years, Dave, K1RZ, is the top single operator high power winner over perennial SOHP winner Jeff, K1TEO. Later in this article, look to see how Dave does it with equipment and antennas that are far from the superstation category. Central Region stalwart, Bob, K2DRH, takes the single operator low power category by 20 k points over *WSJT* author Joe, K1JT. No question that Bob's multiple stacked antennas do put him in the superstation category. Since the inception of the Single Operator Portable category last year, the winner has

Expanded Results, Line-Score Printout Available

For complete contest results on-line please visit www.arrl.org/contests/results.

ARRL members without Internet access may obtain a printout of the complete line scores by sending a self-addressed, stamped envelope to ARRL Contest Results, 225 Main St, Newington, CT 06111. Please be sure to include the contest name and year.

Top Ten

Single Operator, Low Power	Single Operator, High Power	Single Operator Portable	Limited Multioperator	Multioperator	Rover
K2DRH 145,924	K1RZ 303,226	K6MI 31,155	K3YTL 366,886	W2SZ 1,690,106	ND3F/R 260,820
K1JT 125,481	K1TEO 273,033	KA6AMD 12,737	NC1I 306,775	K8GP 1,415,598	W3IY/R 177,656
WB1GQR 79,764 (W1SJ, op)	K3DNE 205,920	KG4LEV 8,883	W4IY 286,000	N3EMF 884,070	N2JMH/R 109,250
AF1T 62,662	KM0T 183,222	N8XA 8,085	AA4ZZ 196,270	W2FU 702,402	AB5SS/R 96,472
K5MA 55,447	WB9Z 159,782	KD7TS 4,292	W3SO 176,176	K1WHS 589,656	KC3WD/R 94,200
K4TO 53,250	WN8ATM 4,040	WN8ATM 4,040	K2BAR 144,720	N2PA 333,830	N7CFO/R 88,200
W3KJ 51,183	W4RX 156,999	WB2AMU 2,604	N2NK 142,830	W9ICE 158,465	N0DQS/R 87,840
WB2SIH 45,733	K2SMN 141,197	W7ZOI 1,512	W4NH 121,935	W2EA 127,762	W7DHC/R 63,640
AJ3Z 44,160	K1GX 116,748	(KA7EXM, op)	K8CC 84,528	N8KOL 110,357	KD4DSX/R 51,005
KB8U 43,848	K8TQK 103,224	N7IR 1,420	N8ZM 76,692	W6TOI 81,536	N6DN/R 50,052
	WA2FGK 101,470	KT4GG 1,406			

Regional Results

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)

K1JT	125,481	A
WB1GQR	79,764	A
(W1SJ, op)		
AF1T	62,662	A
K1RZ	303,226	B
K1TEO	273,033	B
K3DNE	205,920	B
WB2AMU	2,604	Q
K3YTL	366,886	L
NC1I	306,775	L
W3SO	176,176	L
W2SZ	1,690,106	M
N3EMF	884,070	M
W2FU	702,402	M
K1WHS	589,656	M
ND3F	260,820	R
N2JMH	109,250	R
KD4DSX	51,005	R

Southeast Region (Delta, Roanoke and Southeastern Divisions)

K8WW	30,030	A
W4OZK	18,760	A
KU4R	18,750	A
W4RX	156,999	B
K4QI	81,312	B
K2UOP	52,658	B
KE8FD	46,529	B
KG4LEV	8,883	Q
W4IY	286,000	L
AA4ZZ	196,270	L
W4NH	121,935	L
K8GP	1,408,875	M
W3IY/R	177,656	R
KC3WD	94,200	R
KF4VZQ	24,225	R
N4OFA/R	23,580	R

Central Region (Central and Great Lakes Divisions; Ontario Section)

K2DRH	145,924	A
K4TO	53,250	A
KB8U	43,848	A
WB9Z	159,782	B
K8TQK	103,224	B
K8MD	81,840	B
K9EA	62,609	B
N8XA	8,085	Q
WN8ATM	4,040	Q
K8CC	84,528	L
N8ZM	76,692	L
W9ICE	158,465	M
N8KOL	110,357	M
K9RN	73,042	M
VE3OIL/R	43,616	R
K9ILT/R	35,816	R
K0PG/R	34,164	R
KB9TLV	32,504	R

Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)

VW2R	32,830	A
K0SHF	27,202	A
KA0PQW	20,828	A
W3XO	19,680	A
KM0T	183,222	B
N0URW	41,540	B
W0GHZ	30,072	B
N7QF	230	Q
KC0P	105	Q
N0RPM	5,070	L
KA0MR	7,021	M
W0KVA	3,380	M
AB5SS/R	96,472	R
N0DQS/R	87,840	R

West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT/Yukon Sections)

K7MI	26,424	A
KC6ZWT	23,826	A
W6OMF	15,004	A
K6TSK	32,452	B
W6KBX	23,324	B
KE7SW	21,516	B
K6MI	31,155	Q
KA6AMD	12,737	Q
KD7TS	4,292	Q
KF6KDA	19,769	L
K7UI	19,530	L
W6TOI	81,536	M
VA7ISL	45,522	M
AD6IJ	26,112	M
N7CFO	88,200	R
W7DHC/R	63,640	R
N6DN/R	50,052	R

been John, K6MI, operating this year from a new location in DM06 on the eastern slopes of the High Sierras. His 31 k point score not only wins the category over another West Coast station, Eric, KA6AMD, but is larger than any other Western Coast Region score except one, regardless of power, a stellar achievement. Also see the "How Do They Do It?" section to get a look at his station.

K3YTL, the Murgas ARC in the rare FN11 grid, takes the Limited Multioperator class again. In a close battle for second place, the crew at Frank's station, NC1I, edged out Woodbridge Wireless operating as W4IY from Flagpole Knob in VA. The MGEF (W2SZ) on Mt Greylock, MA wins the perennial Multioperator class battle again over the Grid Pirates (K8GP) on Spruce Knob, WV, this time by about 270 k points out of nearly 1.7 million. Both of these big stations were more than 1100 QSOs down in 2002; K8GP was 120 multipliers less and W2SZ 143 multipliers less. If you are interested in how these behemoths produce the scores they do, visit the Web report at www.arrl.org/members-only/contests/results/2002/Sept-VHF/.

The Rover class was a bright spot. Rover log submissions were up and rovers often provided a source of activity in many areas that kept the contest interesting. The battle for the top two spots continued between Brian, ND3F, and Bill, W3IY, with Brian again the winner. The next four places were closely bunched starting with N2JMH followed by AB5SS in Texas, East Coast newcomer KC3WD, and N7CFO in the Pacific Northwest. You can get a more detailed look at the AB5SS rover station later in this article.

Regional Highlights

Regional scores are summarized in the

Affiliated Club Competition

Medium Category

	Score	Entries
Potomac Valley Radio Club	2,983,936	28
North East Weak Signal Group	1,623,831	21
Rochester VHF Group	1,210,631	10
Society of Midwest Contesters	469,901	9
Northern Lights Radio Society	386,739	19
Mt Airy VHF Radio Club	263,474	10
South Jersey Radio Assn	253,607	3
Pacific Northwest VHF Society	232,894	14
Badger Contesters	188,675	13
Yankee Clipper Contest Club	124,399	9
Mad River Radio Club	116,282	3
Downey ARC	100,256	3
Western States Weak Signal	52,607	5
Lawton Fort Sill ARC	13,841	6
West Park Radiops	7,454	3
Frankford Radio Club	7,212	3

Local Category

Delaware Valley VHF Society	67,079	4
ARA of Southwest Florida	9,741	4

table above. A more complete version and a detailed breakdown by Divisions are available in the Web report.

Northeast. In addition to the scores already mentioned, several highly competitive scores emerged from the Northeast including SOHP K3DNE (FM19); LM W3SO (FN00); and KD4DSX/R. There were a number of several hundred thousand point multioperator scores as well: N3EMF (FM19) from the former K3MQH site; W2FU (FN13); and K1WHS (FN43).

Southeast. Top SOHP scorer in this region was W4RX (FM19) who finished #6 nationally. Other notable efforts included K4QI (FM06); K2UOP (FM09); and KE8FD (EM84), a recent transplant from central Ohio. In addition to W4IY, LMs AA4ZZ (EM96) and W4NH (EM85) turned in excellent scores from NC as did KC3WD/R in the greater Washington, DC/Baltimore area and west.

Central. In the SOHP class WB9Z (EN60) bested K8TQK (EM89), respec-

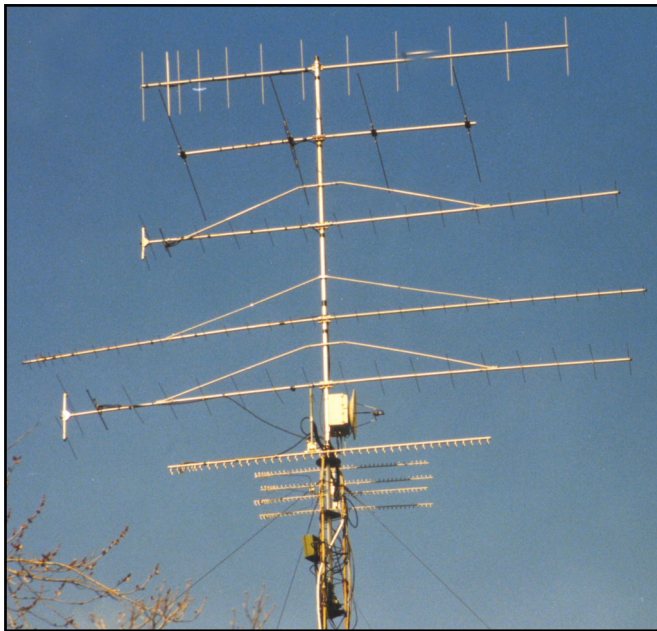
tively #5 and #9 nationally. K8CC (EN82) edged N8ZM (EM79) in the LM category and W9ICE (EN60) bested N8KOL (EN80) although both finished in the top 10 nationally. VE3OIL/R was the top dog over K9ILT/R, K0PG/R and KB8TLV/R in a close race.

Midwest. KM0T easily won the top SOHP spot with his #4 national showing, an outstanding performance from EN13. WW2R edged out K0SHF, KA0PQW and W3XO in a close SOLP race. Less than 10 k points separated the Texas team of AB5SS/R and N5DF and inveterate plains rover N0DQS/R.

West Coast. Close single operator contests in both power classes saw SOLP K7MI (CN83) edging KC6ZWT and W6OMF; and K6TSK (DM03) overcoming W6KBX and KE7SW. LM KF6KDA (DM06) squeaked past K7UI by only 239 points! Meanwhile W6TOI (DM04) took the multioperator category over VA7ISL and AD6IJ. Substantial rover scores were produced by N7CFO/R over W7DHC/R and N6DN/R.

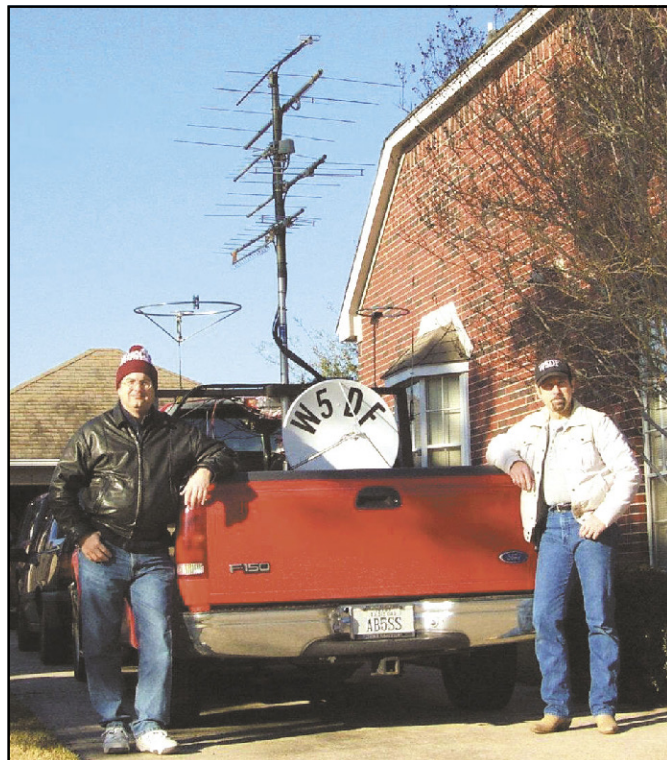
Affiliated Club Competition

The number of participating clubs increased from 13 in 2001 to 20 this September. The Potomac Valley Radio Club (almost 3 meg points), perhaps energized by the close race last year, extended its margin over the Northeast Weak Signal Group (1.6 meg) and the Rochester VHF Group (1.2 meg) in the race for the Medium Category gavel. The PVRC did it with big scores: 3 stations in the SOHP top 10, three of the top 10 rovers and two top 10 multiops. The Local Category gavel went to the Pacific Northwest VHF Society with 232 k points, posting an easy victory over the Delaware Valley VHF Society.



The antenna system of SOHP winner K1RZ is arrayed on a single 60 foot tower.

At right, AB5SS (left) and W5DF (right) in back of the AB5SS rover. Some of the extensive antenna system can be seen in the truck bed including multiple Yagis and the microwave dish.



How Do They Do It?

K1RZ. Dave is living proof that you can actually win the single op portion of the VHF contest with a station that the HF contesters would call a little pistol. Located at 740 feet elevation on a ridge just north of Damascus, MD in FM19jg, Dave has assembled a versatile and highly competitive high power VHF+ station without falling at all into the superstation category. Dave is equipped through 10 GHz except for 3.4 GHz with near legal limit power on the bottom 4 bands and anywhere from 200 mW to 250 W on the microwaves. Transceivers and IF strips include an FT920, FT726, FT736 and FT100D. The impressive thing is the modest antenna system: single modest linear or loop Yagis except for the 4 looper system on 2.3 GHz and a 2 foot dish on 5.7 and 10 GHz (see photo). Dave's success is no secret: his exceptional operating skill and a good location toward the high population centers to his northeast.

K6MI. Previously a member of various portable VHF multiops, John has recently taken to entering the Single Operator Portable category from a variety of locations in the Pacific Division. This September he was located at Bear Mountain, a 3000 foot peak 35 miles east of Fresno, CA in DM06ir. Operating from a van with batteries, solar panels and a small generator for power, John has



The K6MI Single Operator Portable station.

equipment and antennas for all bands through 10 GHz except for 5.7 GHz. Antennas are small beams mounted on an Armstrong rotated 20 foot push-up pole that fits through the roof of the van. John must be doing something right because he makes a score equal to or greater than anyone else on the West Coast, regardless of power.

AB5SS. The rover class has produced

substantial scores in almost every part of the country. With almost 100 k points, John, AB5SS, is the highest scoring non-East Coast rover this September. John and his second operator Dan, W5DF, covered 11 grids in Texas and Oklahoma from EM20 to EM04. Operating a route in the flatlands, John and Dan concentrated on tracking fixed stations like W5LUA, WW2R and W3XO in TX, OK and LA with multiband capabilities, especially on the microwaves. The emphasis is on reliability and rapid installation/removal. This rover is equipped to be operated both while stopped and in motion by using a combination of small linear and loop Yagis, a dish and a pair of KB6KQ loops. John comments that increased activity fostered by both the North Texas Microwave Society and the Roadrunners Microwave Group has really improved life for Texas-based rovers.

Next Year

The next September VHF contest will be held on September 13 and 14. What will happen? Tropo openings? Aurora? A little E skip? Who will win this time? Can K1RZ defend his SOHP title against K1TEO and what about WA8WZG? Will ND3F defend his rover title? Can K8GP dethrone W2SZ? Will K6MI capture another SO Portable title from still another grid square? Join in the fun and find out.

QST

Scores

Each line score lists call sign, score, stations worked, multipliers and bands (A= 50 MHz, B = 144 MHz, C = 222 MHz, D = 432 MHz, 9 = 902 MHz, E = 129 MHz, F = 2304 MHz, G = 3456 MHz, H = 5760 MHz, I = 10 GHz, J = 24 GHz). Call signs of band winners are listed in boldface type.

1

Connecticut

N1OFZ 2,250 69 30 A **ABD**
K1WVX 1,764 52 28 A **ABCDE**
KA1KOJ ,702 63 23 A **ABD**
KB1GHL 576 48 12 A B
WY1U 476 34 14 A AB
N1OPO 476 29 14 A ABCD
WA1GTP 364 21 14 A ABCD
W1DMM 84 14 6 A AB
N1MD 4 2 2 A AB
K1TEO 273,033 834 207 B **ABCD9EFGI**
K1GX 116,748 500 141 B **ABCD9EFGHI**
K7BV 12,960 324 40 B **A**
W1QJL 3,296 79 32 B ABCD
K1KI 1,898 71 26 B ABD
W1QK (+W1NG, N1ABY, KA1SYG, K1XS)
43,450 502 79 L ABCD
KB1DFB (+N1XS, N7PRD, KE1LI, KB1H)
41,250 456 75 L ABCD

Eastern Massachusetts

K5MA 55,447 456 89 A **ABCD**
W1PM 32,844 260 84 A **ABCD9E**
N1GJ 17,019 175 61 A **ABCD9EFG**
KV1J 7,980 144 42 A ABCDE
KA1EKR 6,952 103 44 A ABCDE
W1RS 3,200 83 32 A ABDE
K1UR 1,980 64 22 A ABCD
W1DYJ 1,617 77 21 A AB
K1VU 444 30 12 A ABD
K1YA 175 35 5 A AB
WB2PID 55 9 5 A ABCD
W1GHZ 35,668 306 74 B **ABCD9EI**
K1DAT 1,584 72 22 B **AB**
N1LDY (+KE1AK)
20,618 264 61 L ABDE
W1XM (KB1CGZ, KB1FCL, KA1ZUF, KF6YVR,
W5MIT, KB1GRS, KB1BG, KA2ZLZ, ops)
18,100 300 50 L ABCD
K1ALJ (+K1JE)
4,470 128 30 L ABD
N1MPT (+N1PRU)
525 35 15 L AB

Maine

W1BQ 23,560 271 62 A **ABCD9EF**
N4CW/1 319 29 11 A AB
K1WHS (+K1TOL, K1DY, W1MRQ, WA1T, W2PED,
N2CEI, N1LBI, K7XX, N1LBI)
589,656 1147 311 M **ABCD9EFGHIJ**

New Hampshire

AF1T 62,662 378 97 A **ABCD9EFGHIP**
K1TR 41,168 299 83 A **ABCD9EFGI**
AA1YN 14,410 173 55 A **ABCD9EI**
AC1J 13,630 212 47 A ABCDE
WA1Z 28 7 4 A A
W1ZC 17,450 249 50 B **BD**
KU2A 16,104 153 61 B **ABCD9EFG**
WW1Z 5,880 121 35 B **ABCD9**

Rhode Island

WB2VVV 2,378 56 29 A **ABCD9EF**
W1BAT 456 38 12 A **A**
W1XX 18,525 219 65 B **ABCD9E**
W1CPC 816 39 17 B ABCD
KB1HAR (+N1YKH)
546 42 13 L AB

Vermont

WB1GQR (W1SJ, op)
79,764 673 92 A **ABCD**
K1LPS 6,090 92 42 A **ABCD9E**
W1ECH 836 38 22 A AB
W1AIM 20,254 162 82 B **ABCD9EF**

Western Massachusetts

KA1MDA 3,390 110 30 A **ABD**
N1VOR 840 56 15 A **B**
WA1MBA 20,703 154 67 B **BD9EFGHI**
NC1I (+WZ1V, WA1LPJ, W1QA, N1MUW, N1HS,
N1DPM, KA1ZE, KA1QFE, K9PW)
306,775 1372 175 L ABCD
W2SZ (K1EP, K1PNQ, K2AD, K2TR, N1SV, N1SZ,
N2BNY, N2XRE, N2YCA, W1RZF, W1SZ, W1UW,
WA1ZMS, WA2AAU, WA2SPL, WA8USA, WS2B,
ops) 1,690,106 2363 374 M **ABCD9EFGHIJK**

2

Eastern New York

WB2SIH 45,733 362 83 A **ABCD9E**
W4GFIY/2 1,222 43 26 A ABD
WA2BAH 40 6 5 A AB9
W2FCA 33,614 239 98 B **ABCD9**
KA2MCU 40 8 4 Q AB9
W2XL (+WA2JQK)
12,190 187 53 L ABCD

NYC-Long Island

N2FKF 18,792 231 58 A **ABCD**
N2MCY 2,964 104 26 A ABD
KB2NOW 2,808 82 26 A ABCDE
KA2VZX 1,876 66 28 A ABC
AG2A 1,539 81 19 A B
KF2XF 756 54 14 A B
N2DY 23,312 265 62 B **ABCD**
WB2AMU 2,604 70 31 Q ABCD

Northern New Jersey

K2MLB 25,392 262 69 A **ABCD**
K2KIB 22,896 225 72 A **ABCD9E**
W2VTV 4,725 117 35 A ABD
W2YR 4,300 78 43 A ABCD
WB2CUT 3,102 141 22 A **B**
KC2GCA 1,525 53 25 A ABD
WA2NXK 1,350 49 25 A ABD
WB2IDV 390 39 10 A B
WA2BKN 231 21 11 A A
W2OO 4,560 94 40 B **ABD**
K2BAR (NA2AA, KC2FBK, NS2K, K2YLH,
N2GM, KO2OK, W2MSK, WK2M, KC2HL,
WA2LXE, K2UFM, ops)
144,720 911 134 L ABCD
N2NK (+N2WM, N2IEL, WD3R, WV2V,
WB2UFF, K2BM)
142,830 841 138 L ABCD
N2MO/MM (N2IHN, N2CKH, KA2MAL, N2FW,
ops) 23,580 348 60 L ABD

Northern New York

WB2KLD 2,108 53 34 A **ABD**
NG2C 1,380 53 23 A ABD
KC2GHT 156 13 12 A AB
N2YEV 5,125 104 41 B **ABD**

Southern New Jersey

K1JT 125,481 549 151 A **ABCD9E**
K2PS 2,266 103 22 A AB
N2MPU 615 41 15 A AB
W2MC 364 26 14 A AB
K2SMN 141,197 543 161 B **ABCD9EF**
KB2M 2,496 63 32 B ABCD
W2ZQ (KB2SYB, KC2CKI, KC2DLA, KC2ISZ,
K2DCD, K2QM, N2LPN, ops)
43,529 436 79 L ABCD
K3EOD (+WR3P, KC2HDR, W2SJ)
53,410 348 98 M **ABCD9EF**

Western New York

KV2X 5,670 92 45 A ABCD
W2WGL 5,452 94 47 A **ABD**
WB2WPM 3,403 69 41 A ABD
K2OS 920 40 23 A **AB**
K2OEQ 544 31 16 A ABD
KB2NFS 342 26 9 A ABCD
K2AN 19,520 154 80 B **ABCD9EFG**
KB3WL 14,592 133 76 B **ABCD**
KC2IDT 9,185 122 55 B ABCD
W2FU (+N2PP, K2AXX)
702,402 1198 334 M **ABCD9EFGHIJL**
W2PA (KB2DMK, N2VSZ, KC2JUH, N2JDQ,
W3OAB, N2JQR, N2KG, N2YB, ops)
333,830 803 251 M **ABCD9EFGHIJ**

3

Eastern Pennsylvania

W3KJ 51,183 303 99 A **ABCDEF**
N3FUJ 27,040 317 65 A **ABCD**
WA3GFZ 20,097 186 63 A **ABCDEF**
K3TUF 7,348 135 44 A ABDE
K3EGE 4,625 125 37 A AB
K3ZK 3,680 129 23 A ABCD
N3PLM 2,231 65 23 A **ABCD9EF**
WS3C 2,176 54 32 A ABD
KB3EXB 2,160 71 27 A ABCD

W3JS 1,224 66 18 A ABD
K3ISH 1,166 53 22 A A
KB3FCS 672 35 16 A ABD
WT3P 646 38 17 A AB
N3CB 512 30 16 A ABC
W3CJB 403 23 13 A ABCD
W8IJ 20 4 4 A ABD
WA2FGK 101,470 552 139 B **ABCD**
N3NGE 81,625 391 125 B **ABCD9EFGH**
N3EXA 44,198 320 82 B **ABCD9EF**
AA3GN 41,216 243 92 B **ABCD9EFGH**
KB3ZS 18,850 236 58 B ABCDE
N3ADC 17,829 181 63 B **ABCD9E**
WA3DRC 15,822 154 54 B **ABCD9EFG**
K3TV 11,932 314 38 B **B**
WA4GPM 9,453 100 69 B ABCDE
K3MD 6,076 92 49 B ABCDE
KF3DT 3,360 86 32 B ABDE
W3SZ 945 28 21 B BDEF
WA3CSP 720 40 18 B A
K3YTL (WA1HHN, K3BM, K3MKZ, KA3EEO,
KE3OA, N3FA, N3RN, N3TKK, N3PBH, N3WV,
N3FJA, W3DZH, WB3FKQ, ops)
366,886 1372 206 L ABCD
N3JFM (+N3JXB, W1LBY, W9QY, KB3FYE,
KB3GGT, WA3IEM)
60,237 503 97 L ABCD
N3EMF (+N2DHH, N2DVQ, N2GCZ, N2NWZ,
N2TJE, N2YHK, W2IX, W2XX, WB2NHC)
884,070 1657 342 M **ABCD9EFGHIP**
W2EA (K2WB, N2SCJ, N1RK, KV2M, KV2R,
N2XYZ, KF2YX, N2FY, W2RDS, ops)
127,762 771 127 M ABCDE

Maryland-DC

A13Z 44,160 326 96 A **ABCDE**
WA3EOQ 19,000 150 76 A **ABCDE**
N3UM 5,075 145 35 A AB
K3DSP 3,800 100 38 A AB
N3II 3,321 123 27 A **A**
W6AXX 3,248 112 29 A **B**
N3AM 2,565 86 27 A ABD
WN3C 2,523 76 29 A ABD
N3VOP 1,530 68 18 A ABCD
AD3F 525 35 15 A AB
W3KHZ 330 30 11 A AB
N3FNE 70 14 5 A A
K1RZ 303,226 707 242 B **ABCD9EFHI**
K3DNE 205,920 598 208 B **ABCD9EF**
AK3E 55,968 434 106 B ABD
K3HCE 25,102 236 77 B ABDE
W3EKT 12,137 180 53 B ABCDE
K3EO 448 32 14 A A
W3LRC (K3HDM, KA8YPY, W3YD, W13N, ops)
2,940 86 30 L ABCD
WA3ZKR (+KA3EJJ)
63,288 355 108 M **ABCD9EFGHI**

Western Pennsylvania

WB0IWG 12 4 3 Q AB
W3SO (N1WR, K2PLF, K3IXD, K3RUQ, KD3SA,
KD3SA, W3PAW, W3TEF, W3YOZ, K4VV, ops)
176,176 757 176 L ABCD
W3KWH (N3LL, W3LA, WA3TTS, W3IOH,
W3SVJ, WA3VXJ, KB3DPU, ops)
80,446 402 146 M ABCDE
KS1F (+K1ZE, N1DGF)
10,140 125 65 M ABCDE

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Alabama

W4OZK 18,760 207 70 A **ABCDE**
WB4HUX 18 4 3 A BD
KY5R (+N4YQ)
15,247 166 79 L ABD

Georgia

K4KAZ 2,408 59 28 A **ABCD**
WA4IOB 1,975 57 25 A ABCD
W4WA 1,728 72 24 A **A**
N4WD 200 20 10 A AB
KF4JVD 84 11 6 A BD
W4EUH 21,580 201 83 B **ABCD**
W4WDH 6,765 91 55 B ABCD
KD4K 435 21 15 B ABCD
KD4HLG (+KA5WZY, K4AEK)
26,945 254 85 L ABCD

K4NGA (WB4AEG,WA4LXU,ops)
2,376 78 27 L ABD
K4HUM (W4GCL, KG4CFP, KD4GT, KR4TG,
KE4TEG, KG4BWB, KF4VBR, KF4LEX, KS4JR,
KE4SLO, ops)
15,732 176 69 M ABCDE

Kentucky

K4TO 53,250 233 142 A **ABCD9EFG**
W4FVQ 10,787 107 67 A **ABCDE**
KD4EVB 2,144 56 32 A **ABD**

North Carolina

WB4TLX 2,560 63 32 A **ABD**
W4FAL 232 24 8 A **ABD**
K4NYS 150 13 10 A **ABD**
KV4CN 54 8 6 A **BD**
K4QI 1,312 372 154 B **ABCDE**
NG4C 23,901 189 93 B **ABCD9E**
W4DEX 18,954 146 78 B **ABCD9EFGHI**
AB4EN 2,380 61 34 B **ABD**
KG4LEV 8,883 156 47 Q **ABD**
AA4ZZ (+AA4S, K4DXA, KG4EGC, W4GRW,
W4MW, W4YN)
196,270 808 190 L **ABCD**
W4NH (K4AR, K4EA, K4RIG, K4SZ, K4TW,
K5AND, NX9O, W4KXY, W4RLW, ops)
121,935 606 165 L **ABCD**

Northern Florida

W3TMZ 2,028 57 26 A **ABDEF**
KE4YYD 810 45 18 A **B**
NW5E 13,986 168 63 B **ABCDE**
W2BZY 4,828 92 34 B **ABCD9EF**
N3AWS 30 6 5 Q **A**

South Carolina

KE8FD 46,529 267 119 B **ABCD9EF**

Southern Florida

K0VXM 6,755 120 35 A **ABCD9EFI**
KD4VRY 2,728 101 22 A **ABCD**
K4ADR 2,363 116 17 A **ABCD**
N4IS 1,975 64 25 A **ABD**
KB2SFA 558 48 9 A **ABCD**
KC4PX 8,619 134 51 B **ABCDDEF**
NJ2F 4,092 144 22 B **ABCD**

Tennessee

K8WW 30,030 215 105 A **ABCDE**
KU4R 18,750 172 75 A **ABCDE**
WD2E 3,700 88 37 A **ABD**
KK4CA 2,573 63 31 A **ABD**
KV4EB 2,356 62 38 A **AB**
AD4F 1,200 37 25 A **ABCD**
W6ARQ 336 21 14 A **ABD**
KG4OLG 102 17 6 A **AB**
AA4H 14,058 144 66 B **ABCD9E**
WU4W 207 23 9 B **AB**
AG4V (+packet)
11,023 102 73 M **ABCDE**
K4EJQ (+WB4WEN)
8,850 114 50 M **ABCD9EGHI**

Virginia

KC4AUF 13,629 181 59 A **ABCD**
N4KFT 7,128 137 44 A **ABCD**
K4FTO 6,946 116 46 A **ABCD**
K4FJW 6,357 132 39 A **ABCD**
W4SHG 5,504 107 43 A **ABD**
N4DWK 3,185 91 35 A **AB**
AD4TJ 2,871 68 33 A **ABD**
W2YE 588 42 14 A **A**
N4MM 578 34 17 A **AB**
K4MTS 576 33 16 A **ABDE**
KG4QWC 416 27 13 A **ABD**
W4ZY 104 13 8 A **AB**
N4JED 9 3 3 A **B**
K1SO 1 1 1 A **B**
W4RX 156,999 493 177 B **ABCD9EFGHI**
KN4SM 23,408 213 88 B **ABD**
WF4R 9,536 117 64 B **ABD**
K4WYS 3,234 67 42 B **ABD**
K4ME 476 34 14 B **B**
KT4GG 1,406 61 19 Q **ABD**
W4IY (+W4NF, W4AD, W4RM, W4DC, WA0DYJ,
W4CE, W4DAV, WA4TK, KG4HTL)
286,000 1072 208 L **ABCD**
W8MOP(N8RIG, WW8D, K8WBS, N8GK, W4OF, ops)
1,848 69 24 L **ABD**
WS4W (+K4WWA)
10,850 135 62 M **ABCDE**

West Central Florida

K9HUY 850 50 17 A **AB**

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Arkansas

K0XXX 322 22 14 A **ABD**
W5MRB 2,765 59 35 B **ABD**
N5QYC (+N5MDO)
3,432 73 39 L **ABD**

Louisiana

N5JM 247 17 13 A **ABD**
WA5RT 1,708 51 28 B **ABD**
WA5KBH 4 2 2 B **A**

Mississippi

KJ5RC 378 21 18 A **AB**
W5RCI 3,348 67 36 B **ABCDE**

New Mexico

NK5W 1,794 65 23 A **ABD**
N5XZM 3,335 77 29 B **ABCD9E**
KB5XE 3,300 80 30 B **ABCDE**
K5AM 189 15 9 B **ABCD**

North Texas

WW2R 32,830 172 98 A **ABCD9EFGHIJ**
KM5OL 8,880 114 48 A **ABCD9EFG**
K5LOW 7,590 98 55 A **ABCDE**

Oklahoma

W07GI 5,764 92 44 A **ABCDE**
NE0P 4,248 88 36 A **ABCDE**
NL7CO 3,024 108 28 A **B**
K5YM 855 40 19 A **BD**
KM5NU 406 29 14 A **AB**
WH6LR 396 24 11 A **ABCDE**
KD5RQ 3 3 1 A **B**
N5V (KD5DLL, KB5HMZ, KD5JGA, N5PMP, ops)
920 34 23 L **ABCD**

South Texas

W3XO 19,680 162 82 A **ABCDEF**
NZ5A 40 10 4 A **B**
K5LLL 21,500 155 86 B **ABCD9EFG**
W5UWB 1,575 39 25 B **ABCDEF**
NN5DX 27 3 3 Q **D9F**

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East Bay

W6OMF 15,004 174 62 A **ABCDE**
KE6QR 780 48 15 A **ABD**
K6HEW 2,484 58 27 B **ABCDE**

Los Angeles

KF6YYV 10,496 242 32 A **ABCD**
AC6TA 4,862 154 26 A **ABD**
K0DI6 3,025 86 25 A **ABCD**
KG6GIQ 2,530 81 23 A **ABD**
K6HLH 1,870 54 22 B **BDFGI**
W6TOI (KE6HPZ, KB6WKT, N6TEB, KB6ATT,
K1SL, ops)
81,536 553 91 M **ABCD9EFGI**
AD6IJ (+KF6XA, AC6TK)
26,112 385 48 M **ABCDE**

Orange

N6CMF 1,458 66 18 A **ABD**
K6TSK 32,452 336 61 B **ABCDE**
AF6O 13,600 196 50 B **ABCDE**

Santa Barbara

KE6RCI 1,152 76 12 A **BD**
KC6NBI 697 41 17 B **A**
K6WLC (+K0BGL, KG6LYL)
6,300 114 36 M **ABCDE**

Santa Clara Valley

KF6MXK 675 42 15 A **ABCD**
KB7YEL (+KG6HII)
1,207 65 17 L **ABD**

San Joaquin Valley

N6MU 13,230 315 42 A **AB**
W6WYT 11,316 197 46 A **ABD**
K6JMH 1,817 65 23 A **ABD**
KF6CNV 1,032 71 12 A **BD**
WJ6T 8,694 166 42 B **ABD**
K6SSN 6,902 157 34 B **ABCD**
K6MI 31,155 287 67 Q **ABCD9EF**
KA6AMD 12,737 194 47 Q **ABCD9E**
KF6KDA (+KE6ZAK)
19,769 275 53 L **ABCD**

Sacramento Valley

KC6ZWT 23,826 254 66 A **ABCD**
W6QB 2,125 78 25 A **ABD**
W6GYD 952 50 14 A **ABCDE**

W6KBX 23,324 231 68 B **ABCDE**
W6YM 11,400 170 50 B **ABCDE**
K6AAA 54 9 6 Q **B**

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Arizona

WB6CGZ 16 4 4 A **AB**
KE7NR 2,349 53 29 B **ABCDE**
N7IR 1,420 51 20 Q **ABCDE**

Eastern Washington

K7AWB 152 31 4 A **ABD**
W6LLP 126 15 7 A **ABD**

Idaho

W7USB 1,562 55 22 A **ABDE**
W7MEM 2,522 72 26 B **ABDE**
K7JVO (WA6KLK, WB9NJS, ops)
1,225 42 25 L **ABD**

Montana

N7CZ 803 46 11 A **ABCDE**

Nevada

W7PW 378 21 14 A **ABD**
K7UI (+KB7UIF, N7LQ, K7FNC)
19,530 242 63 L **ABCD**

Oregon

K7MI 26,424 267 72 A **ABCDE**
W7QH 7,697 142 43 A **ABCD**
WB7RSG 3,108 92 28 A **ABCD**
N7DB 2,162 77 23 A **ABCD**
KA6T 1,890 70 21 A **ABCDE**
KA7SAG 1,782 72 22 A **ABD**
K7HSJ 1,633 49 23 A **ABCD9E**
W7DSA 1,474 54 22 B **ABCDE**
W7ZOI (KA7EXM, op)
1,512 62 21 Q **ABD**

Utah

NJ7A 3,264 94 24 A **ABCDE**
N7DBW 1,936 82 16 A **ABCDE**
K7ELP 363 24 11 A **ABCD**
KC7PVD 198 17 9 A **ABD**
K7RJ 112 13 7 A **ABD**
N7MLD 1,472 65 16 B **ABCDE**
N7QF 230 23 10 Q **AB**

Western Washington

W7DG (KB7ADO, op)
10,736 187 44 A **ABCDE**
WA1IED 3,330 104 30 A **ABCD**
WB7FJG 1,056 58 16 A **ABC**
KG7P 705 38 15 A **ABCD**
W7DMN 656 38 16 A **ABD**
KD7RGN 588 41 12 A **ABD**
WA7MLD 252 21 12 A **AB**
NG7Z 217 31 7 A **AB**
KC7MFJ 24 6 4 A **AB**
KE7SW 21,516 196 66 B **ABCD9EFGH**
KD7TS 4,292 65 37 Q **ABCDEFGHIJ**
K17EL (+KB7PSG, N7XKJ)
2,838 107 22 L **ABCD**

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Michigan

KB8U 43,848 245 126 A **ABCD9EF**
K8RS 12,935 139 65 A **ABCDE**
N8AIA 5,400 94 45 A **ABC**
N8JFH 2,847 73 39 A **AB**
WB8TGY 1,820 53 26 A **ABCD9E**
K8VEB 1,330 53 19 A **ABCD**
W8RU 1,014 33 26 A **ABCD**
KC8CWO 768 44 16 A **ABD**
K8MD 81,840 356 155 B **ABCD9EF**
K8CC (+K9TM)
84,528 460 144 L **ABCD**
W8DF (W8WDX, AB8AI, N8THU, N8QC,
WA8MFL, N8UU, KC8PRL, KG8GZ, WB8WXS,
W8UVZ, WD8BZ, ops)
9,020 149 55 L **ABD**

Ohio

KC8CCD 31,694 172 106 A **ABCD9EFG**
K8MR 30,740 221 106 A **ABCD**
KE8RO 18,542 201 73 A **ABD**
K8AB 6,762 117 46 A **ABD**
KB8VAO 6,200 99 50 A **ABCDE**
W8DD 4,896 89 48 A **ABD**
KC8QAE 2,312 66 34 A **ABD**
W5UHQ 2,205 54 35 A **ABD9**
K8FH 874 46 19 A **A**

W8KNO	702	39	18	A	AB
W8IDM	656	34	16	A	ABD
KC8SHY	260	20	10	A	ABD
KB8UJZ	253	23	11	A	A
K8VUS	36	9	4	A	AB
K8TQK	103,224	302	187	B	ABCD9EFGHI
WA8RJF	46,998	226	126	B	ABCD9EFG
K8TVD	10,833	124	69	B	ABD
N8BJQ	4,900	100	49	B	AB
N8GLS	1,769	61	29	B	B
N8XA	8,085	93	55	Q	ABCD9EI
WN8ATM	4,040	81	40	Q	ABCD
N8ZM (+W8PLZ, KD8FO, KA8OQF, N8IDS)	76,692	405	154	L	ABCD
N8KOL (+K8ROX, WD5HIO)	110,357	509	169	M	ABCD9EF

West Virginia

WB8TFV	6,439	106	47	A	ABD
K3JT	2,030	70	29	A	A
W8ZA	1,225	41	25	A	ABD
KC8KSK	195	15	13	A	AB
K8JWJ	30	6	5	A	A
KC8KBY	25	5	5	A	B
K2UOP	52,658	263	113	B	ABCD9EFHI
WV8E (+W3STU, N3JDR, K8GUN, WV8ZLQ, N8RAT, KB8UJX, K2EKM, KW8I, KG8GK, N3LTO)	56,762	445	101	L	ABCD
K8GP (K1HTV, K1RA, KA1TB, K3MM, KM3T, N3AKO, W3ZZ, K6LEW, K8ISK, op)	1,415,598	1987	426	M	ABCD9EFGHIJKP

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Illinois

K2DRH	145,924	472	191	A	ABCD9E
K9YR	22,484	205	73	A	ABCD9E
NA9US	12,765	110	69	A	ABCDE
NV8V	5,776	129	38	A	ABD
W09LF	4,000	101	32	A	ABD
K9AKS	3,696	84	44	A	AB
KC9AMM	1,792	56	28	A	ABD
N9LCR	435	29	15	A	B
WB9Z	159,782	559	202	B	ABCDE
W09S	23,946	234	78	B	ABCDE
KA9UVY	20,889	152	99	B	ABCDE
WB9SNR	10,416	116	56	B	ABCD9E
W9JGV	2,464	88	28	B	B
N2BJ (+K2PAC)	18,760	185	70	L	ABCD9E
KG9IL (+KB9LNE)	760	107	35	L	ABCD
W9RVG (+W9FX, WD9EXD, WD9EMF)	25,956	197	103	M	ABCDE

Indiana

WA1MKE	25,146	179	99	A	ABCD9EIJ
WB9DRB	5,390	73	55	A	ABCDE
N9GQA	4,320	87	36	A	ABCDIJ
N7NGO	1,856	54	29	A	ABD
K9EA	62,609	345	137	B	ABCD
W9ICE (WB9YCZ, WB8ERB, N8NQG, N8JLZ, K9YDO, K9ZX, N9QQY, KA9BFM, KB9NWP, ops)	158,465	556	205	M	ABCD9E

Wisconsin

KB9PJL	38,480	257	104	A	ABCDE
N9DG	30,685	251	95	A	ABCD
K9VHF	19,110	179	78	A	ABCDE
KB9UJZ	5,130	111	45	A	ABD
WA1UJU	4,080	120	34	A	AB
N9UDX	2,880	78	30	A	ABD
K9VS	1,562	71	22	A	AB
N9NDP	867	48	17	A	ABC
WX9M	416	31	13	A	ABD
W9GA	45,656	284	104	B	ABCD9E
W9JN	17,596	158	83	B	ABCD
N0AKC	17,094	172	74	B	ABCD9E
N9UDO	7,488	131	48	B	ABD
W9HR	160	20	8	B	AB
N9JB	966	41	21	Q	ABD
K9RN (N9REP, K9TMS, KB9JZY, KF9US, KC9BTW, KC9AAX, KG9PF, N9TZL, AA9IL, K9IJ, ops)	73,042	443	118	M	ABCD9EFIP

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Colorado

N0POH	1,512	60	18	A	ABCD
KI0II	76	15	4	A	ABD

W0KVA (+N0WBW, W0KUJ)	3,380	82	26	M	ABCD9EFI
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Iowa

AB0HF	330	22	15	A	AB
KM0T	183,222	379	234	B	ABCD9EFGHI
N0URW	41,540	260	124	B	ABCD

Kansas

N0LL	12,480	105	80	A	ABCDE
W0RT	960	33	24	A	ABD
KA0MR (+KA0KCI)	7,021	89	59	M	ABCDE

Minnesota

K0SHF	27,202	254	67	A	ABCD9EFGI
KA0PQW	20,828	205	82	A	ABCD
KT8O	12,939	185	57	A	ABD
N0KP	8,686	154	43	A	ABCD
KB0LYL	2,795	215	13	A	B
WA2VOI	210	17	5	A	BDI
KB0QLI	80	20	4	A	B
W0GHZ	30,072	184	84	B	ABCD9EFGHI
K0CJ	18,368	197	64	B	ABDE
K0AWU	8,007	126	51	B	ABDE
W0ZQ	7,896	106	42	B	ABCD9EF
W0OHU	6,500	81	50	B	ABDE
W0AUS	6,475	106	37	B	ABCDEFGHI
W0VB	5,676	129	44	B	B
N0UK	1,260	45	21	B	ABCD9E
KC0P	105	13	7	Q	BC
N0RPM (+KC0IYT, KD5EMB)	5,070	132	30	L	ABCD

South Dakota

WB0HHM	8,784	102	61	A	ABCD
WB0ULX	3,555	54	45	A	ABCD
W0GC	198	16	11	A	BD

Quebec

VE2ZP	18,954	173	81	A	ABCDE
VA2TU	200	20	10	A	B

Ontario

VA3ST	38,340	254	108	A	ABCD
VA3KA	15,554	158	77	A	ABCD
VE3KZ	11,682	148	66	A	ABD
VE3SMA	9,971	104	59	A	ABCD9EF
VE3CVG	6,936	96	51	A	ABCDE
VE3VZ	5,720	102	44	A	ABCD
VE3XK	4,000	80	40	A	ABD
VE3SX	3,744	84	39	A	ABD
VA3NFA	1,026	48	19	A	ABD
VE3HHT	684	30	18	A	ABD
VE3WDW	273	18	13	A	BD
VA3OR	220	20	11	A	A
VA3TSG	210	35	6	A	AB
VE3TFU	47,916	249	121	B	ABCD9E
VE3CWJ	72	8	8	B	ABD
VE3CG	390	22	15	Q	BD
VA3FIN (+VE3SRE)	22,011	185	87	L	ABCD

British Columbia

VA7MM (VE7CMK, VE7CNF, ops)	3,752	101	28	L	ABDE
VA7ISL (+N7EPD, VA7DX, VE7DDK, VE7DXG)	45,522	398	81	M	ABCD9EFG

Rovers

Atlantic

ND3F	260,820	718	162	R	ABCD9EFGHIJ
N2JMH (+N2WVK)	109,250	510	115	R	ABCD9EFGHI
KD4DSX	51,005	247	101	R	ABCD9EFGHI
N1MU (+W2FE)	29,110	203	71	R	ABCD9EFGHI
K1DS	28,296	220	72	R	ABCD9EFGHIL
KE3HT	20,232	145	72	R	ABCD9EFGH
N2OPW (+NG2P)	14,268	132	41	R	ABCD9EFGHI
AA2YG	5,434	143	38	R	AB

Central

K9ILT	35,816	310	74	R	ABCD9E
K0PG	34,164	301	73	R	ABCD9E
KB9TLV	32,504	385	61	R	ABD
N9TTX	16,468	246	46	R	ABCD
N8KWX	5,705	97	35	R	ABCD9EP
WB8BZK	3,172	99	26	R	ABD

Dakota

W0AMT	13,728	190	48	R	ABCDE
WB0LJC	4,536	89	21	R	BD9EFGHI
KC0HEW	3,040	55	38	R	ABCDE
W0JT	1,633	49	23	R	ABCD9E

Delta

KF4VZQ	24,225	234	75	R	ABCD
N4OFA	23,580	251	60	R	ABCD9EFI
WA4JA	1,872	59	26	R	ABD

Great Lakes

KF8QL (+K8DOG)	15,311	174	61	R	ABCD9E
W8HTB	12,017	78	55	R	ABCDEFGHIIJK

Hudson

N2MH	45,766	340	98	R	ABCD
KC2HIZ	2,016	48	18	R	BC9EFG
WB2LLP	1,904	43	16	R	BCD9EFGHIJ

Midwest

N0DQS	87,840	492	90	R	ABCD9EFGHI
KC0LBT (+KC0ITQ)	6,700	117	50	R	ABCD
WB0QGH	924	26	21	R	ABCDE

New England

AL1VE	30,810	325	65	R	ABCD9
N1FGY (+K2LM)	24,522	217	61	R	ABCD9EFGH
KB1EAA (+KB1EUH)	18,144	237	63	R	ABCD
KJ1K	10,742	104	41	R	ABCD9EFGHI
K2LDT	1,936	45	16	R	ABCD9EFGHIJ
WA2IID	986	27	29	R	ABCD

Northwestern

N7CFO	88,200	496	98	R	ABCD9EFG
W7DHC (+logger)	63,640	494	86	R	ABCD9EFG
KK7GU	41,952	356	76	R	ABCDE
K7MDL	25,110	379	54	R	ABD
KA0TP (+W7STN)	8,018	175	38	R	ABCD
KF7CN	3,339	111	21	R	ABCD
WE7X	2,262	67	29	R	ABD

Pacific

KC6SEH	26,950	382	55	R	ABCD
KG6GMT	1,785	75	21	R	ABD

Roanoke

W3IY	177,656	837	106	R	ABCD9EFGHI
KC3WD (+KD3FG)	94,200	371	120	R	ABCD9EFGHI
N2GKM	4,104	91	24	R	ABCD9EFGI

Rocky Mountain

WB2FKO	792	44	18	R	AB
KU4WD	182	14	13	R	AB

Southeastern

KB2SFA	880	47	16	R	ABCD
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Southwestern

N6DN	50,052	355	86	R	ABCD9EF
WA6OEM	29,705	300	65	R	ABCDE
WB6JDH	14,544	267	36	R	ABCDE
KC6UIX	10,336	119	68	R	ABCD
AD6AF	4,176	110	24	R	ABCD
K6LMN	3,537	87	27	R	ABCDE
KQ6EE	3,016	81	26	R	ABCDE
N6ZE	2,790	75	30	R	ABD

West Gulf

AB5SS (+W5DF)	96,472	347	124	R	ABCD9EFGHIJP
KD5TPV	4,828	103	34	R	ABCDE

Canada

VE3OIL (+VE3NPB)	43,616	290	94	R	ABCD9EFG
VE7RCW	144	11	8	R	BDE

Checklogs: LW3DX, N6VI