

2004 ARRL January VHF Sweepstakes Results

For a change of pace...

Frozen bands and frozen rovers were the name of the game for the 2004 January VHF SS this year. Mother Nature often fools us in winter with some nice weather, leading us to believe that the January contest might be blessed with some reasonable conditions. Not this year! Wind, rain, ice and snow seemed to characterize this event for many operators across the country. Even the magic band (6 meters) was hard pressed to produce a few lazy strings of grid multipliers for many of the big stations.

Cold weather is known for its ability to squeeze any chance for extended propagation out of the troposphere. With layers of cold-dense air closer to the ground, there is much less refraction to bend our precious RF energy back toward the ground as it flies over the earth's curvature. This was painfully obvious to many of us this year. The microwave bands were greeted with many hopeful operators trying their luck, but many of the emitted signals just fell to the ground like a lead balloon.

At times it seemed that the equipment was broken, but then a few close-in stations would show up with weaker-than-normal signals to show that it was not the equipment that was to blame, but rather poor conditions. Nonetheless, the January VHF event is always a good time, as club competition and great activity levels always seem to come to the rescue to gener-

ate fun for these high-band enthusiasts.

Even 6 meters was hard-pressed to produce any fireworks for those seeking the elusive DX. With the sunspots on the decline, there was no F2 propagation expected, and the E_s propagation gods were apparently not particularly happy with us either. It was a change-of-pace kind of contest this year, where one could slug it out using operating skill and good equipment to seek the activity for which the January VHF SS is well known. When multipliers are in short supply, *WSJT* can be a welcome boost to your score.

2004 Overview

The number of logs submitted this year was 799, pretty much on par with the past couple of years. The January

VHF SS remains the best-attended VHF contest, judging by logs received. Perhaps the heated club competition, along with some fierce rover competition is the magic recipe for activity.

There were 468 SOLP entries, up about 10% from last year. The SOHP participants numbered 162 this time, down from 190 in 2003. Perhaps more stations want to compete in the low power category, and avoid the wrath of the big guns. The limited multioperator logs totaled 39 this year, up from 32 in 2003. There were 26 unlimited multioperator entries this time, along with some big scores from many of the 89 rover entries. The rover category is still growing, which is a testament to this exciting aspect of VHF contesting. How else could you get 89 lunatics to venture out

Top Ten

Single Operator Low Power	Limited Multioperator
K2DRH 162,321	W3SO 217,888
WA3GFZ 124,236	K8CC 113,328
W3KJ 113,390	N3JFM 88,981
KB8U 102,564	AA4ZZ 81,000
N1DPM 95,700	W1QK 75,764
W4SHG 60,495	N8ZM 53,568
N0KP 52,437	W2MMD 42,903
AF1T 49,630	K2AA 41,616
N9DG 47,190	W2EA 37,312
WB2SIH 45,522	KB1DFB 30,300

Single Operator High Power	Multioperator
K1TEO 454,176	K3EAR 944,064
AA2UK 436,104	N2PA 394,487
K1RZ 337,824	N3NGE 300,048
K2AXX 316,487	K1JT 254,408
WA3NUF 227,666	N2JMH 130,689
K2SMN 128,397	N2BJ 109,200
W3RJW 126,224	K3EOD 107,910
K1GX 120,420	N8KOL 90,170
AA3GN 114,982	W6TE 52,050
W0GHZ 106,785	WA3ZKR 32,370

Single Operator Portable	Rover
KF0Q 22,920	N6NB (+KG6TOA)
N8XA 4,066	1,097,280
W9GKA 3,978	N6MI 1,067,377
K0NR 2,478	N6MU 1,053,582
WD5AGO 2,378	K2TER (+KV2X)
KQ6EE 1,674	400,189
K9BIG 1,210	N2OPW 371,195
WB2AMU 960	N7WLO (+KL7BK)
N0JK 345	370,804
KT4GG 165	N6TEB (+KE6HPZ)
	269,598
	N6DN (+AD6HT)
	252,636
	W3IY (+ON4IY)
	171,570
	KU7M 164,488

Affiliated Club Competition

	Score	Entries
Unlimited Category		
Mt Airy VHF Radio Club	2,856,837	56
Medium Category		
Rochester VHF Group	1,811,680	25
North East Weak Signal Group	1,036,971	28
South Mountain Contest Club	957,064	4
Potomac Valley Radio Club	919,775	21
Northern Lights Radio Society	706,824	51
Society of Midwest Contesters	542,740	21
Pacific Northwest VHF Society	280,109	21
Western States Weak Signal	228,949	10
Badger Contesters	223,046	23
Yankee Clipper Contest Club	164,148	9
Florida Contest Group	155,539	4
Mad River Radio Club	136,194	5
Crawford County ARC	112,484	9
Contest Club Ontario	110,983	11
South Jersey DX Assn	84,504	6
Carolina DX Assn	81,253	3
Northern California Contest	71,855	8
Six Meter Club of Chicago	34,738	18
Bergen ARA	29,224	8
Tennessee Contest Group	16,170	6
Warminster ARC	4,704	3
Mobile Sixers Radio Club	1,443	5
Rochester (MN) ARC	619	3

	Score	Entries
Local Category		
Delaware Valley VHF Society	249,920	9
Eastern Panhandle ARC	136,280	10
North Texas Microwave Society	121,663	7
Rappahannock Valley Amateur	62,971	3
Roadrunners Microwave Group	55,926	3
Dauberville DX Assn	5,996	3
Medina 2 Meter Group	5,477	4
Meriden ARC	2,811	4

Expanded Reports Available

For expanded results, participant soapbox and the complete scores in a user-searchable database, 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.

N1RL



Jean, N1MJC, teamed with her OM Rick, N1RL, to learn some of the contesting ropes.

into the dead of winter and do battle with all that radio apparatus?

Propagation

If you recall the 2003 ARRL September VHF QSO party, there were not any particularly enhanced conditions. From the perspective of many, however, the warm weather conditions were far better than what was in store for the unseasonably cold weather of January 2004. Tropo was virtually nonexistent, although many stations were fooled into thinking there was tropo when the bands would occasionally go from wintertime-poor to almost normal. It was amazing how difficult it was for many to work the usually easy microwave paths in sub-freezing temperatures.

DX signals just weren't there on the bands above 903, in general, on any extended paths. As for 6 meters, there was possibly F2, but a small amount of E_s propagation, particularly in the South. It was enough to provide some excitement for the watchful operators, although many missed most of it. There seemed to be significant 6 meter propagation for the top DX station, VP9GE, operating in the SOLP category, using only 6 meters. Ed managed to rack up 78 grid multipliers extending from southern Alabama up into Canada, working much of the East Coast in-between. This is an amazing accomplishment, especially considering the 100 W and a single 5 element beam at 12 feet! Perhaps the Bermuda Triangle was unleashing some of its magic on the magic band in this region.

In the East, several big stations managed to add a dozen or so grids on some short-lived E_s propagation, which seemed to produce mainly north-south paths. Ivars, KC4PX, in EL99 shared that "The Janu-

KC8HZM



Marten, KC8HZM, and Jeff, KC8HZQ, freely admit they are starting at the bottom but are looking to climb the ladder of successful roving as far as they can.

ary VHF contest in Florida is usually slow with minimal 6 meter E_s. However this year, Florida was fortunate to have two significant E_s openings and a quick F2 into Mexico. Saturday afternoon at 2100 to 0000 was excellent into the Northeast VHF corridor from VE9 to W3/W4's but concentrating on New England VHFers. Then on Sunday from 2300 to 0300 a pipeline into Texas built up our grid square count (70 total on 6 meters). This, however, never came close to the June 2003 grid count of 266 on 6 meters." Nice work, Ivars!

The National Scene

How do you generate a big score when there's not much happening in the propagation department? The answer is to work everyone you hear, and find the rovers! Rovers made a huge difference to many stations in the top-10 this year. Living in a high-density heavily ham-populated region like the Northeast corridor helps, but you just can't work many available grids, unless some rovers decide to activate them.

Single Operator

Bob, K9DRH, is no stranger to winning the SOLP category and again he takes the number one spot in this hot operating category, with a score slightly higher than last year of 162k. Second place this year again goes to Paul, WA3GFZ, with a great showing of 124k from Packrats country near Philadelphia. The third place position goes to another Packrat, Joe, W3KJ, with 113k. Joe has done a great job adding bands, and making nice improvements to his station in FN20. Also topping 100k points in the SOLP category is Russ, KB8U, with an excellent performance totaling 102k.

In the SOHP sector, Jeff, K1TEO, continues to dominate the national scene with an incredible 454k points. Being located

in a high-activity area doesn't hurt, but Jeff continues to show a keen sense of balancing operations on 10 bands, and making them all pay off! Posting a close second place effort was Bill, AA2UK. Bill continues to improve his station, and does a great job of inspiring a large number of Packrats within range of FM29. Bill's 436k represents a tightening of the race for SOHP honors in the East.

A very strong performance by third place finisher Dave, K1RZ, begins to show that FM19 is within striking distance of a SOHP contest win. Dave added a 1 W station on 3456 this year, and piled up a nice 15 QSOs on 7 grids on this growing microwave band. (The author even had a fun snow-scatter with Dave on 3.4 GHz as white-out conditions blanketed FM19 on the ride home.) Mark, K2AXX, finished in fourth place with an awesome score of 316k with solid totals on 10 bands.

Multioperator

The top unlimited multioperator position this year was taken by K3EAR, setting a new record of 944k from FM19hx. Despite the cold weather, this resourceful group succeeded in racking up points on bands through 76 GHz. N2PA was next in the ranks with a score of 394k operating from FN12, adding QSOs on bands through 24 GHz, and lasers.

Big efforts from the Packrats sector of the country propelled N3NGE and K1JT into third and fourth place respectively nationwide in the MU category. It's great to see experienced operators get together, and put forth such nice multioperator efforts during this cold time of the year. (We rovers really appreciate it!) Inviting lots of friends over for a multioperator weekend, using lots of rigs and amplifiers can help keep the house warm!

The limited multioperator section was



It seems the operators at the W3SO limited multi may have taken the challenge to “dig through the pileups” and “sweep the bands for QSOs” a bit too literally. From left to right: W3PAW, W3YOZ, K4VV, KD3SA, W3TEF, W3BTX and WR3Z.



Curt, K9AKS, operated the University of Southern California station W6YV with this spectacular view toward downtown LA and the mountains beyond. The Library Tower in the center is the tallest building between Chicago and Taiwan.

led by W3SO in FN00 with a score of 217k. This was a significant accomplishment, with temperatures down to -10° , and 24 inches of snow on the ground, by contest end. The best way to keep your antennas from freezing up is to use them continuously! Second place in LM was captured by the K8CC group, with a total of 113k points!

Rover

The rover category this year saw huge scores and a big well-planned effort from N6NB/R, N6MU/R, and N6MI/R. Pack-roving and grid-circling was exploited to their finest to produce the top 3 rover scores of over 1 million points each. The nationwide winner, Wayne, N6NB/R, put in a fantastic effort to build 3 10-band stations, and carefully planned this big assault on the rover-record. The winning score of 1.097M was dominating, but fell short of the all-time rover record (under the present rules) of 1.392M, set in 1999 by N3IQ/R (ND3F, and K8ISK operators). Other big scores in the rover category were set by K2TER/R, N2OPW/R, N7WLO/R, N6TEB/R and N6DN/R.

Pack-roving and grid-circling powered these rover stations to huge winning scores in their respective regions. Although controversial, these techniques catapult rover scores into the stratosphere, as the QSOs and grids come rolling in, working other rovers rapidly over short distances. The top rover worked only 2 other rover stations for 97% of his QSOs!

Regional Highlights

The regional scores always show interesting aspects of the January VHF SS. This year, with no big E_s openings, the population centers, and areas with good rover

activity did well. Detailed division scores can be found on the web report, as usual at www.arrl.org/contests/results.

Northeast

Even super-cold temperatures, high noise levels, and howling wind cannot stop the fun in this heavily populated area. In addition to the top scores already mentioned, Fred, N1DPM; Dale, AF1T, and Buff, WB2SIH put forth good efforts to claim the 3rd, 4th and 5th spots in the SOLP category from the Northeast. Veteran contesters Phil, WA3NUF; Roger, K2SMN, and Ron, W3RJW, worked their way into 5th, 6th and 7th place nationwide in SOHP from this division.

N3JFM, and W1QK slugged it out for second and third place in the LM section this year with scores of 89k and 76k. Jim, N2JMH (taking a break from roving), entered the MU category this year, and did well with 131k. Nice job, Jim! Rover extraordinaire Brian, ND3F/R (although not submitting a log), worked over 200k points in just one day of operating!

Southeast

The SOLP leader here was Steve, W4SHG. Making great progress improving the station, Steve keeps adding bands and doing a great job from his less-than-optimum QTH in FM18. K8GUN took second in SOLP, and is becoming a regular big signal in this region from FM09. Jeff, NJ2F; Richard, K4RTS, and Charles, K0VXM, added QSOs to many logs as well in this category. AA4ZZ led the LM efforts with a big 81k from NC. N4HB took the top MU spot, followed by AG4V.

Yours truly, W3IY/R, roved the Outer Banks of NC, VA and MD with copilot Christophe, ON4IY, and found 30 knot

winds and sub-freezing temperatures a bit obtuse (but much fun) in the rover category this year. It was amazing how many usual microwave QSOs were not possible with the cold weather this time. Matt, KC3WD/R, persevered against weather and vehicle problems, and turned in a strong rover effort from this region as well. Single operator portable entries included KT4GG and KQ6NO. Your efforts are appreciated by all of us.

Central

Duane, N9DG, from this region, followed by Justin, K9MU, and Bob, KB9PJL, generated a strong SOLP effort. The LM category saw K8CC winning first place with 113k. N8ZM took second place with 54k. N2BJ captured top honors in the MU category with a big 109k points. Not far behind was Keith, N8KOL, with 90k. Russ, VE3OIL/R, provided spirited rover activity in the Central region taking the top spot. The second and third place rover honors were won by Pat, K9ILT/R, and Tim, K0PG/R.

Midwest

Dave, N0KP, captured the winning position in SOLP with a 52k effort. Second place was won by John, W0JT, with 36k points. Multi-Unlimited was dominated by W0EAA with a 25k score. A nice single operator portable effort was made by Larry, KF0Q, winning with a 23k tally. LM was grabbed by W0JH. The biggest score in the region was generated by rover station W9FZ/R (Bruce) with just shy of 94k! Jonathan, W0AMT/R, took second place with John, KC0LBT, assisting. Mike, KM0T, took a break from his usual base station operations and decided to join the rover deep-freeze. It's nice to see how the

Regional Results

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

WA3GFZ	124,236	A
W3KJ	113,390	A
N1DPM	95,700	A
AF1T	49,630	A
WB2SIH	45,522	A
K1TEO	454,176	B
AA2UK	436,104	B
K1RZ	337,824	B
K2AXX	316,487	B
WA3NUF	227,666	B
WB2AMU	960	Q
N2IM	144	Q
K3MKZ/3	72	Q

Southeast Region (Delta, Roanoke and Southeastern Divisions)

W4SHG	60,495	A
K8GJUN	43,788	A
NJ2F	27,740	A
K4RTS	22,847	A
K0VXM	21,507	A
K4QI	87,300	B
NW5E	64,735	B
KC4PX	61,930	B
WA8TTM	56,700	B
W4ZRZ	44,642	B
KT4GG	165	Q
KQ6NO	60	Q
AA4ZZ	81,000	L
K4ATM	5,664	L
KU4JZ	1,110	L
WX4MC	90	L
N4HB	19,176	M
AG4V	11,316	M
K4NGA	3,360	M
N4JQQ	2,856	M
W3IY (+ON4IY)	171,570	R
KC3WD (+logger)	74,734	R
K1KC (+WA4UJY)	13,504	R
N4OFA (+N4FLM)	13,200	R
WD4MGB	6,954	R

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

K2DRH	162,321	A
KB8U	102,564	A
N9DG	47,190	A
K9MU	29,382	A
KB9PJL	25,920	A
WB9Z	91,307	B
W9GA	70,800	B
K8MD	62,920	B
WA8RJF	62,694	B
K8TQK	55,896	B
N8XA	4,066	Q
W9GKA	3,978	Q
K9BIG	1,210	Q
K8CC	113,328	L
N8ZM	53,568	L
KC9ETU	12,040	L
K8RO	6,342	L
N9FH	6,028	L
N2BJ	109,200	M
N8KOL	90,170	M
W9RVG	14,823	M
VE3OIL	50,320	R
K9ILT/R	33,865	R
K0PG/R	33,800	R
NE8I	18,306	R
K9JK/R	15,688	R

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

N0KP	52,437	A
W0JT	36,314	A
K0SHF	14,484	A
W6OAL	11,184	A
N0LL	10,804	A
W0GHZ	106,785	B
W0ZQ	85,734	B
KT8O	54,145	B
W5LUA	52,546	B
W2WR	50,285	B
KF0Q	22,920	Q
K0NR	2,478	Q
WD5AGO	2,378	Q
N0JK	345	Q
KA0JWC	6	Q
W0JH	2,838	L
N0KIS	1,820	L
KD5JGA	1,175	L
W0EEA	24,966	M
KA0MR	3,705	M
W5LCC	2,268	M
K7RJ	780	M
W9FZ	93,824	R
W0AMT(+KC0LBT)	31,430	R
KC0P	12,144	R
KM0T	6,929	R
KI0Sk (+N0BAF)	4,725	R

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

W6YV(K9AKS, op)	23,994	A
KC6ZWT	21,448	A
W6AQ	19,266	A
KF6YYV	15,336	A
K7YO	11,685	A
N7EPD	48,184	B
W6KBX	24,640	B
N6KN	24,327	B
K6TSK	22,842	B
WA6KLLK	12,788	B
KQ6EE	1,674	Q
KG6HSQ	145	Q
VE7DXG	17,184	L
K6MJU	6,650	L
W6SN	3,872	L
KO6JF	3,380	L
W7DHC	2,470	L
W6TE	52,050	M
K7MDL	11,060	M
K6WLC	9,386	M
N6NB (+KG6TOA)		
	1,097,280	R
N6MI	1,067,377	R
N6MU	1,053,582	R
N7WLO (+KL7BK)		
	370,804	R
N6TEB (+KE6HPZ)		
	269,598	R

other half lives from time to time. Mike reports it was a great learning experience.

West Coast

West Coast contesters W6YV (Curtis, K9AKS op); Norman, KC6ZWT, and Dave, W6AQ, captured 1st, 2nd and 3rd place in the SOLP madness. VE7DXG won the LM category, while W6TE took the top MU spot here with 52k. The rover brigade saw big action from the top nationwide finishers previously mentioned. Roving in 6 land is a unique game, with lots of inaccessible mountain ranges blocking many of the suspected radio paths between population centers. It's great to see the big efforts from rovers in the West Coast region.

Affiliated Club Competition

The January VHF SS continues to be the big draw for club competition in the VHF world. The top club effort this year goes (yet, again) to the Mount Airy VHF Club with 56 entries, and a huge score exceeding 2.8M points! These guys have always made a big effort to encourage and help each other. This year the efforts paid big dividends. It's great to see such camaraderie and expertise in action. I can tell you that it's really fun to be within radio range of such an energetic group of

VHF nuts. This club was the only entrant in the unlimited category.

In the medium category, the Rochester VHF Group led the pack with about 1.8M points, and 25 entries. Lots of microwave QSOs and rovers seem to thrive up here, despite the even colder weather than most of us have to deal with. The Northeast Weak Signal Group took a strong second place finish with over 1 million points and 28 participants. Third place in the Medium category goes to the South Mountain Contest Club, led by the record-setting performance of K3EAR. It's hard to compete with a club hosting the top MU effort of any contest.

In the local club category, the Delaware Valley VHF Society captured first place with 250k and 9 participating stations. The Eastern Panhandle Amateur Radio Club took the next spot with 136k and 10 entries. The North Texas Microwave Society took third place in the local club competition with nearly 122k points and 7 entries.

It's nice to see these clubs and organizations working to get their members on the air, contributing to this great operating event. It's important, especially in the dead of winter, to keep our fellow VHF and above amateurs stimulated, and operating. Clubs are a great venue for

finding other interested VHFers to share ideas with, and find out what you may be missing on the bands.

The Allure of the January VHF Sweepstakes

We always enjoy seeing the bands come alive, especially when the propagation is less than normal. Working stations on VHF bands is always fun, but a contest in January is an especially welcome opportunity to see what your equipment can do. It's a unique challenge to work the usual DX stations that were so plentiful in warmer weather. Often, it just takes trying several times, as conditions are always changing.

Listen for the weak ones, and see what you can find. Working under adverse conditions make us all grow a little, and helps us to prepare for emergency communications, should the need arise in your area. Tune in next year, and join the excitement. Find out who has new equipment or better antennas, or maybe find a new rover in your area and show him what is possible on this exciting part of the Amateur Radio spectrum. Each QSO has a little more meaning in the January VHF Sweepstakes. Try it for yourself in 2005. Bet you will find a pace that suits you.



Scores

Each line score lists call sign, score, stations worked, multipliers, and band (A= 50 MHz, B = 144 MHz, C = 222 MHz, D = 432 MHz, 9 = 902 MHz, E = 1296 MHz, F = 2304 MHz, I = 10 GHz).

Table with columns for DX, state (Connecticut, Eastern Massachusetts, Maine, New Hampshire, Rhode Island, Vermont, Western Massachusetts, NYC-Long Island, Northern New Jersey, Southern New Jersey, Delaware, Eastern Pennsylvania, Western New York), call sign, score, stations worked, multipliers, and band. Includes sub-sections for 1, 2, and 3.

WMSR 1 1 1 Q B
West Texas
 AE5B 5,445 118 45 A **ABCD**
 W5LCC (KC5MVZ, KE5ABS, KB5KYJ, KC5MVV, ops) 2,268 54 27 M ABCDE

6
East Bay
 W6OMF 7,560 100 45 A **ABCDE**
 K6RE 384 21 12 A **ABCD9E**
 W6SN (+W6GNU, KG6MDW) 3,872 158 22 L ABD
 KO6JF (+ KL7IDY, W0EEC, KJ6AF, KF6YRG) 3,380 134 20 L ABD

Los Angeles
 N6KN 24,327 324 53 B **ABCDE**
 W6YV (K9AKS, op) 23,994 353 43 A **ABCDE**
 W6AQ 19,266 315 38 A **ABCDE**
 KF6YYV 15,336 296 36 A **ABCDE**
 KG6GIQ 11,572 182 44 A **ABCDE**
 K6HLH 4,768 76 32 A **ABDEFGI**
 KG6DHQ 2,047 70 23 A **ABD**
 W6QE 828 69 12 A **AB**
 W6RCL 424 39 8 A **ABD**
 WB2TVB 95 19 5 A **B**
 KQ6EE 1,674 63 18 Q **ABCDE**
 K6WLC (+WA6PZK, AB6CF, KG6TBR) 9,386 198 38 M **ABCDE**
 K6MJU (+WA6DWL) 6,650 164 25 L **ABCDE**

Orange
 K6TSK 22,842 267 54 B **ABCDE**
 KC6UIX 3,136 83 32 B **ABD**
 N6HC 744 62 12 A **AB**
 KF6XA 189 21 9 A **AB**

Santa Barbara
 KC6NBI 1,224 68 18 B **AB**
 W9EC 1,440 50 20 A **ABCDE**
 KE6RCI 1,001 74 11 A **BD**

Santa Clara Valley
 KG6TJX 1 1 1 B **A**
 K6KLY 7,412 174 34 A **ABD**
 KF6MXK 2,850 117 19 A **ABCD**
 N6JLJ 55 11 5 A **AB**
 W6ZZZ 1 1 1 A **B**

San Diego
 K6CYS 152 12 8 B **BCE**
 KF6NKC 432 28 12 A **BDE**
 KG6HSQ 145 29 5 Q **B**

San Francisco
 WA6KLK 12,788 202 46 B **ABCDE**
 KG6BEI 528 44 12 B **AB**
 W6XU 407 35 11 B **ABD**

San Joaquin Valley
 WJ6T 6,536 136 38 B **ABD**
 KF6CNV 9,555 199 35 A **ABCDE**
 KF6KDA 8,288 189 32 A **ABCD**
 W6TE (+K6MI, K6VLF, W6ALE) 52,050 283 75 M **ABCD9EFGIP**

Sacramento Valley
 W6KBX 24,640 228 70 B **ABCDE**
 KA6VQV 9,072 127 48 B **ABCD**
 KC6ZWT 21,448 262 56 A **ABCD**
 KC6SEH 3,390 79 30 A **ABCDE**
 NC6P 117 11 9 A **BD**

7
Arizona
 KE7NR 5,207 88 41 B **ABCDE**
 N7IR 52 13 4 A **A**

Eastern Washington
 N7AU 6,747 115 39 B **ABCDE**
 W7JGO 252 19 9 B **ABCD**
 K7AWB 1,054 50 17 A **ABCD**
 W6LLP 192 19 8 A **ABD**

Idaho
 W7USB 2,268 64 28 A **ABCD**

Montana
 NW7O (+WA7MT) 330 20 15 L **ABCD**

Oregon
 K7YO 11,685 208 41 A **ABCD**

N7DB 2,850 117 19 A **ABCD**
 WB7RSG 1,248 78 13 A **ABCD**
 WR7X 630 30 18 A **ABD**
 K7VIT 295 52 5 A **ABD**
 W7KKE 168 21 6 A **ABI**

Utah
 N7MLD 385 19 11 B **ABCDI**
 NJ7A 1,512 45 21 A **ABCDE**
 N7DBW 1,026 37 18 A **ABCDE**
 KC7PVD 91 12 7 A **ABD**
 K7RJ (+ WJ7L, KD7LEA) 780 27 15 M **ABDEI**

Western Washington
 N7EPD 48,184 363 76 B **ABCD9EFG**
 WA7TZY 12,505 187 41 B **ABDE**
 K7ND 2,583 67 21 B **BCDFG**
 W7MGC 1,392 66 16 B **ABCD**
 WB7BST 756 27 7 B **E**
 WB7FJG 2,340 108 20 A **ABD**
 KG7P 1,904 93 17 A **ABCD**
 WA7MLD 960 68 12 A **ABCD**
 K7WA 792 58 12 A **ABD**
 KD7TJC 574 41 14 A **AB**
 N7AM 504 18 8 A **BE**
 KD7ALF 100 20 5 A **AB**
 N6KW 91 13 7 A **AB**
 N6MZ 30 10 3 A **A**
 K7MDL (+KD7OJP) 11,060 211 35 M **ABCDE**
 W7DHC (+KA7GKK) 2,470 104 19 L **ABCD**
 K17EL (+N7XKJ, KB7PSG) 1,652 101 14 L **ABCD**

8
Michigan
 K8MD 62,920 340 130 B **ABCD9EF**
 K2YAZ 26,362 172 98 B **ABCD9E**
 K8RS 14,544 133 72 B **ABCD9E**
 KB8U 102,564 364 154 A **ABCD9EFGI**
 KF8QL 10,065 109 61 A **ABCD9E**
 K8EB 7,920 101 48 A **ABCD9E**
 K8NWD 4,104 106 38 A **ABD**
 K8DOG 1,742 58 26 A **ABD**
 W8IDT 902 41 22 A **B**
 WB8DQT 817 43 19 A **B**
 WA8YLZ 224 26 8 A **ABD**
 K8SIA 200 22 8 A **ABD**
 NF8M 12 6 2 A **A**
 K8CC (+K9TM, WX3M) 113,328 612 144 L **ABCD**
 K8RO (+K8EO, N8PYN) 6,342 120 42 L **ABD**
 W8RU (+KC8VGG, KB8VWM) 972 43 18 L **ABCD**

Ohio
 WA8RJF 62,694 271 129 B **ABCD9EFG**
 K8TQK 55,896 307 136 B **ABCD9EFGHI**
 K8TVD 13,332 139 66 B **ABCD**
 WA8TJL 11,275 130 55 B **ABCD9EF**
 WA8RCN 2,675 107 25 B **AB**
 K8MR 21,684 217 78 A **ABCD**
 WB8AUK 11,256 149 56 A **ABCD**
 W8PAT 7,645 94 55 A **ABCD**
 K8WW 5,724 130 36 A **ABC**
 KK8O 4,896 106 36 A **ABD**
 KT8U 4,012 88 34 A **ABDE**
 KC8QAE 3,564 105 27 A **ABD**
 K8AB 1,696 85 16 A **ABD**
 KA8HQL 950 30 25 A **BD**
 W8DEL 690 37 15 A **ABD**
 KB8UUZ 510 34 15 A **A**
 W8KNO 468 36 13 A **AB**
 K8NVR 456 38 12 A **AB**
 W8IDM 429 29 13 A **ABD**
 K8FH 352 32 11 A **A**
 KC8UDV 231 20 11 A **ABD**
 N8QQA 210 27 6 A **ABD**
 K8USA 198 25 6 A **ABCD**
 N8QWJ 170 26 5 A **ABD**
 KB8YHF 70 10 7 A **AB**
 W8WTS 10 5 2 A **AB**
 N8CBW 4 2 2 A **AB**
 N8XA 4,066 66 38 Q **ABCD9EI**
 N8KOL (+K8ROX, WM8I) 90,170 465 142 M **ABCD9E**
 N8ZM (+KB8ZR, W8PLZ, N8IDS, KD8FO) 53,568 365 124 L **ABCD**
 W8DD (+KC8SHY) 1,105 55 17 L **ABD**

West Virginia
 N8RAT 44,388 413 81 B **ABCD**
 K8GUN 43,788 394 82 A **ABCD**
 W8CMK 6,180 153 30 A **ABCD**
 KB8UUE 2,464 71 22 A **ABDE**
 N8II 1,064 76 14 A **A**
 WV8E 175 25 7 A **AB**
 K8NBC 84 18 4 A **ABD**
 KC8KSK 30 5 5 A **AC**

9
Illinois
 WB9Z 91,307 493 131 B **ABCDE**
 W9XA 20,944 220 68 B **ABCDE**
 WB9SNR 14,352 165 52 B **ABCD9E**
 W9JGV 2,400 100 24 B **B**
 W9VA 1,332 67 18 B **ABCD**
 K9SM 336 16 14 B **ABCDE**
 W9SE 120 12 10 B **AB**
 A9L 56 7 7 B **ABD**
 K2DRH 162,321 549 183 A **ABCD9E**
 KG9IL 23,280 337 48 A **ABCDEG**
 WA9FIH 18,550 295 50 A **ABCD**
 KO2R 10,350 148 50 A **ABDE**
 N9GH 6,670 90 46 A **ABCDE**
 WA9CCQ 6,061 184 29 A **ABD**
 AA9MY 3,872 66 44 A **ABDE**
 W9LT 3,674 122 22 A **BD**
 K9IJ 2,725 69 25 A **ABCDE**
 N9KO 2,516 120 17 A **ABCD**
 N9OBB 2,336 63 32 A **ABD**
 WD9GJK 1,872 114 13 A **ABD**
 KB9II 1,869 77 21 A **ABC**
 WB9WOZ 1,717 86 17 A **ABD**
 WA9RIJ 1,638 101 13 A **ABD**
 KB9YSI 1,620 71 20 A **ABD**
 W9NHX 1,308 94 12 A **ABD**
 N9TUQ 1,248 81 13 A **ABD**
 N9OF 1,190 58 17 A **ABD**
 AK9Y 1,068 70 12 A **ABD**
 N9SDT 896 52 16 A **ABD**
 W9NSP 748 50 11 A **ABCD**
 W9AVB 680 55 10 A **ABD**
 WA9CJZ 616 64 8 A **BD**
 W9CEJ 272 34 8 A **AB**
 KB9WVQ 220 18 10 A **ABD**
 KA9BVQ 210 28 6 A **ABD**
 W9LYA 160 28 5 A **BD**
 K9LPL 156 39 4 A **B**
 W3HDH 130 13 10 A **A**
 N0ICV 126 17 7 A **ABD**
 W9AFR 102 12 6 A **BD**
 KB9KDC 84 21 4 A **AB**
 WN9GUC 81 16 3 A **BD**
 KC9AZJ 76 14 4 A **ABC**
 KA9UZH 36 18 2 A **B**
 K9DKI 34 17 2 A **B**
 W9GKA 3,978 92 34 Q **ABCD**
 K9BIG 1,210 45 22 Q **ABD**
 N2BJ (+K2PAC) 109,200 566 120 M **ABCD9EF**
 W9RVG (+WD9EXD, WD9EMF, WB9SKB) 14,823 151 81 M **ABCDE**
 KC9ETU (+N9TF) 12,040 258 35 L **ABCD**

Indiana
 N9QX 3,441 98 31 B **ABD**
 WD9DSN 330 24 11 B **ABD**
 WA1MKE 18,881 156 79 A **ABCD9E**
 N7NGO 2,624 70 32 A **ABD**
 WB9DRB 756 30 21 A **ABCD**
 W9ZB 748 40 17 A **ABD**
 NM9P 448 28 14 A **ABD**
 K9GPS 234 21 9 A **ABCD**
 KE4CYC 10 5 2 A **B**

Wisconsin
 W9GA 70,800 376 120 B **ABCD9E**
 N0AKC 8,474 126 38 B **ABCD9E**
 W9JN 2,070 51 30 B **ABD**
 N9XRO 735 42 15 B **ABC**
 N9DG 47,190 328 110 A **ABCD**
 K9MU 29,382 262 83 A **ABCD9E**
 KB9PJJ 25,920 246 64 A **ABCD9E**
 KC9BQA 20,740 245 68 A **ABD**
 N9JR 13,862 156 58 A **ABCDE**
 N9LLT 10,746 151 54 A **ABCD**
 K9DQ 10,534 179 46 A **ABCD**
 N9TTX 7,848 150 36 A **ABCDE**
 W9RAY 6,030 133 30 A **ABCDE**
 N9UDO 4,329 96 37 A **ABD**

