

By **Billy Lunt, KR1R**  
Contest Manager  
and  
**Al Gordienko, K1PI**  
Assistant Contest Manager

# The 1996 ARRL September VHF QSO Party Results

**W**hat happened to those fantastic band openings we had in June? What a difference a few months can make! You can bet that nobody was talking about the enhanced band conditions this time around. There definitely was more complaining than raving.

Actually band conditions were about average for the September contest. We just were spoiled because of the exceptional band conditions that we enjoyed in the June VHF QSO Party. During the September VHF QSO Party, there were a few pretty good openings on 6 and 2 meters.

Six meters probably had the best band opening. This comes as no surprise, as 6 meters is the band that "stretches out" if it opens. There were a few small openings reported from the Northeast to Texas and Oklahoma. From Colorado, you could work a few stations on the West Coast, in the Midwest and down to Texas. These long-range contacts were good for about 1000 to 1400 miles between stations, but most contacts were in the 600-mile range.

Two meters was about the next best—as one would expect. Nothing really unusual here either. Again, there were a few openings from the Northeast to the Midwest and to the South.

Despite mediocre propagation, there were *eight* new division scoring records set in the contest this year—two single operator,

## Top Ten

Single Operator	QRP Portable	Multioperator	Limited Multioperator	Rover
WA8WZG 375,192	KH6CP/1 77,274	W2SZ/1 653,116	K3MQH 442,750	ND3F 84,447
K9PW 280,370	W8HAX/3 29,946	K3YTL 360,985	N2XTX 136,644	WB9SNR 76,600
K1RZ 202,350	KK6KE 18,525	N8FMD 357,776	WB2ODH/6 119,990	WA8NJR 62,252
KE8FD 137,609	WN8ATM 7,546	W4IY 273,265	AA4ZZ 106,386	K9JK 58,800
N2CEI 126,861	N8KWX 7,470	N2ODK 228,818	KB2DMK 96,678	AA7QZ 54,510
N2BJ 116,870	N8AXA 3,744	WD3R/2 146,765	WB1GQR 89,349	WA3WJD 32,370
KD1DU 113,875	VE2PIJ 3,198	K1WHS 146,265	K2AA 69,184	WA2VOI 20,304
W8ULC 106,470	KC8BUN 2,100	KP4XS/W4 120,393	N9LAG 51,680	N1RMU 18,732
WB2DNE 105,696	KB7VML 1,515	W0UC/9 92,040	N1GPY 51,339	AB4CR 17,820
W3IP 88,494	KT4GG 770	KB0ZQ 90,896	NO2T 43,494	KC4ZRH 16,464



John, AD4DG's, antenna array for 50 through 1296 MHz and his operating position.

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)			Southeast Region (Delta, Roanoke and Southeastern Divisions)			Central Region (Central and Great Lakes Divisions; Ontario Section)			Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)			West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT/Yukon Sections)		
K1RZ	202,350	S	K2UOP/8	57,040	S	WA8WZG	375,192	S	WD5BKV	47,790	S	KE7SW	19,500	S
N2CEI	126,861	S	N4KWX	45,248	S	K9PW	280,370	S	WA0BWE	40,514	S	WB5OMF	18,502	S
KD1DU	113,875	S	K4QIF	38,352	S	KE8FD	137,609	S	K9MK/5	40,140	S	WB4AYE	16,638	S
WB2DNE	105,696	S	KC4QWZ	36,736	S	N2BJ	116,870	S	KD0DW	38,480	S	KJ6KO	16,536	S
W3IP	88,494	S	KD4UPF	29,637	S	W8ULC	106,470	S	WQ0P	34,768	S	WB6FCS	14,475	S
KH6CP/1	77,274	Q	KT4GG	770	Q	WN8ATM	7,546	Q	KB7VML	1,515	Q	KK6KE	18,525	Q
W8HAX/3	29,946	Q				N8KWX	7,470	Q				WA6FIT	748	Q
VE2PIJ	3,198	Q				N8AXA	3,744	Q				KE6JTH	550	Q
WB2AMU	570	Q				KC8BUN	2,100	Q				VE7PKE	518	Q
W8IJ	63	Q				K8NFT	276	Q				KC7MSB	432	Q
W2SZ/1	653,116	M	N8FMD	357,776	M				W0UC/9	92,040	M	N5UYI	27,531	M
K3YTL	360,985	M	W4IY	273,265	M				KB0ZQ	90,896	M	KE6QHR	25,260	M
N2ODK	228,818	M	KP4XS/W4	120,393	M				W2CRS	22,540	M	KC6TEU	21,518	M
WD3R/2	146,765	M	AE6E	11,524	M				W3XO/5	14,874	M	N6OBP	14,688	M
K1WHS	146,265	M	KD4TJN	3,159	M							KC6WLC	6,191	M
K3MQH	442,750	L	AA4ZZ	106,386	L	N9LAG	51,680	L	KK5IH	10,220	L	WB2ODH/6	119,990	L
N2XTX	136,644	L	W4CMA	18,815	L	KU8Y	43,340	L	KG0WA	4,788	L	KA3DSE/6	36,708	L
KB2DMK	96,678	L	KD4ZMR	15,392	L	AB4BC	38,796	L	W5EHM	1,460	L	WA6KLK	30,114	L
WB1GQR	89,349	L	W4PYM	10,285	L	N19E	20,907	L	W5TC	825	L	W6TOI	23,499	L
K2AA	69,184	L	KF4KVH	5,088	L	KB4EBP	17,220	L	KC5HNI	700	L	W6RDF	8,778	L
ND3F	84,447	R	WA8NJR	62,252	R	WB9SNR	76,600	R	WA2VOI	20,304	R	AA7VT	12,600	R
AA7QZ	54,510	R	WA3WJD	32,370	R	K9JK	58,800	R	AJ0E	8,586	R	KA7YOU	4,301	R
N1RMU	18,732	R	AB4CR	17,820	R	N9UTZ	9,682	R	KB0SME	5,830	R	K6LMN	2,610	R
N1ISB	14,313	R	KC4ZRH	16,464	R	WB9TIY	6,840	R	N0SWV	5,700	R	KE6HGV	2,214	R
N3LJK	13,380	R	KF9US	11,960	R	WA9LZM	1,323	R	KK5RH	5,005	R	K6SMH	1,744	R

## Billy Lunt, KR1R, Goes Roving

By Al Brogdon, K3KMO

Billy Lunt, Contest Branch Manager at ARRL HQ, is a contester of long standing. The 1996 ARRL National Convention, which he was to attend, was on the weekend of the ARRL September VHF QSO Party. Billy decided at the last minute that he just *had* to get in on the contest, even if only in a small way. Here is the true story of Billy's small way.

Billy made his decision to, as he puts it so well, "join in the contest fun" at the last minute. He checked with several of his ham friends, and learned that John Hennessee, N1KB (KJ4KB until Gate 2 opened) would lend him an ICOM IC-502 and IC-202. These sister transceivers, for 6 meters and 2 meters, respectively, are neat little rigs that were made in the 1970s. They are a little smaller than a *Webster's New Collegiate Dictionary*, and have their own built-in whip antenna and batteries. Perfect for packing in a bag to fly to Peoria.

A quick check showed that the NiCd batteries in the rigs were dead, and neither Billy nor John had a quick-charger available. Billy went to a local discount store to buy alkaline C cells to use in place of the NiCd's. He needed 18 batteries (9 for each radio). The least expensive way to buy the C cells was in *eight*-packs. Naturally. (If anyone needs some cheap C cells, contact Billy.)

Billy packed the two rigs in his checked baggage, so as not to make the security guards at the airport nervous. He just hates it when guys with guns get nervous. The travel went well (at least on the outgoing trip), and Billy checked into his hotel in Peoria.

Billy hadn't taken any antennas other than the rig's built-in whips. After all, he was going to be in a *tall* hotel. Actually, he was on the sixth floor of a tall hotel. Oh, well.

Contest time rolled around. Billy's schedule on the convention program allowed him to leave the convention and go to his hotel room to check the bands. CQ. CQ CQ. CQCQCQcontest. Nothing heard. On either band. Back to the convention.

After the end of the convention's Saturday schedule, Billy went back to the hotel. More CQs. No reply. No one heard. On either band.

Then Billy found W1AW/9 on 6 meters. A block away—*great* signal. Didn't exchange signal reports, but Billy reports that, because of his low signal at W1AW/9, "It was not an easy contact." W1AW/9 was *not* on 2 meters. More CQs. Nothing heard. On either band.

Dinner. More CQs. Still nothing heard.

Sunday morning. More of the same. Off the air and pack the bag.

Billy then had a less-than-nominal flight home—a canceled flight, rebooking on standby status, a possible five-hour layover, checking to see if the bag would be diverted to the new flight, running through a terminal building to catch a plane, and the bag arriving okay. As the *last* bag on the conveyor belt.

When Billy got home, there were a only few hours left in the contest. Not being content with only one contact, he unpacked the 6-meter rig and went to the second floor of his house for maximum antenna elevation. CQ. CQCQCQCQ. The band sounded just like Peoria.

Wait a minute! There's powerhouse W2SZ/1 on Mt Greylock, pinning Billy's meter. Billy called. Called again. And again. Billy used all his contesting expertise and pileup trickery. The W2SZ/1 operator didn't get the call sign, but tentatively asked, "Is that you, Billy? KR1R?"

Roger, roger, roger. FN32. Foxtrot november thu-reeeee twooooo. After a few repeats, W2SZ/1 acknowledged the grid for a completed contest contact, then asked, "How come you're so weak, Billy?"

So Billy was a rover, operating from two grids. He made 2 contacts for 2 QSO points, worked 2 grids, and activated 2 grids as a rover. His score:  $2 \times (2+2) = 8$  points. But just ask him if he had fun!

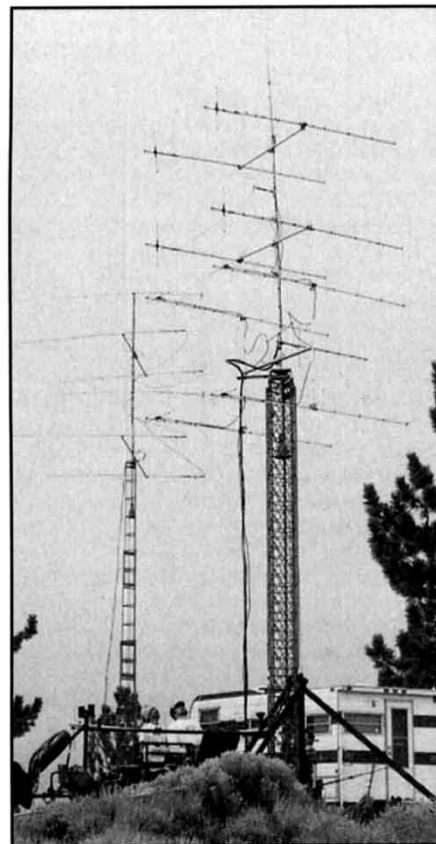
two QRP portable, one multioperator, and three rover. (*The ARRL Contest Yearbook* has the complete score records for ARRL contests.)

One sure way to increase your score is to add a band or two to your contest arsenal. Quite a few people have been taking advantage of this idea. In fact, there were more stations who reported that they were active on every single band this year compared to those reporting the same during the 1995 contest. Although the number of stations on each band increased, we didn't increase the number of bands used. Who's going to be the first to report contest QSOs on the five bands from 47 GHz through 241 GHz? We have a few stations trying 300+ GHz already—five

stations this year; four stations in 1995. There is a whole new frontier just waiting for you microwave enthusiasts and experimenters to test your skills and lead the way.

Walter, AJ6T, reported making his most interesting QSO on 300+ GHz, with Jim, WB9AJZ, on the other end. They completed a 14-mile laser QSO across Silicon Valley using a 5-mW solid-state 670-nm pointer laser.

The Participation Pin Program continues to be very popular. All it takes to qualify for this shiny unique pin is to complete at least 25 QSOs during the contest period. These pins are becoming collector's items—showing up on hats, shirts and vests at club meetings, hamfests, and conventions. *Over half*



Michael, W6YLZ, and Jim, WB2ODH, check out their antenna farm for 144 and 432 MHz, just before they raise the towers to wait for the contest to start.

of the participants in this year's event (435 hams) wanted a pin for their collection. The Participation Pin Program is designed to draw newcomers into the contest, and it is doing just that. We received a number of first-time entries from newcomers to the September VHF QSO Party this year.

In the single operator category, Tom, WA8WZG, outdistanced all others for the win—with his 375,192 points setting a new overall score record for the contest. Tom, from his great station location looking across Lake Erie into the Rochester area, keeps cranking out win after win. Great going Tom! Peter, K9PW, operating from EN52, placed in second place with 280k points. Dave, K1RZ, finished third with 202k points.

ARRL Senior Lab Engineer Zack Lau, KH6CP/1 (now W1VT) blew away all other QRP Portables by a 47k margin. Zack set an all-time scoring record for QRP portable last year with his 101,140 points. He couldn't match his record this year, but not for lack of trying. Zack finished with 77k points. Burton, W8HAX/3, gave it his all from portable location in MDC, finishing in second place with 29k points. Bryan, KK6KE, finished third with 18k points.

Dick, WA2AAU, and his Mt Greylock W2SZ/1 crew took multioperator top honors again this year with 653k points. They are fortunate to have such a great crew and such



Paul, AA4ZZ (l), and Ted, WA4VCC (r) put some finishing touches on their 50 through 432-MHz antennas. They operated limited multioperator from EM96 in Western NC.

a fantastic station location. They must be the winningest multioperator group in the history of the contest. K3-Yellow-Traffic-Light managed a second place win with their 360k points. Third place goes to N8FMD and gang.

Dick's crew at K3MQH scored 442k points—only half the points they did in June—but it was plenty for their limited multioperator win. Great job! N2XTX finished in second place with 136k points, and WB2ODH/6 finished third with 119k.

The rover category was very competitive, with only a few thousand points separating the top finishers. Brian, ND3F, took top honors with 84k points. Jim, WB9SNR, finished in second place with 76k points, and Byron, WA8NJR, was third with 62k. Rovers provide us with those rare grid squares to work. The rules indicate that a rover must activate at least two grid squares, but some go the extra mile. Congratulations to Brian, ND3F, Byron, WA8NJR, and Donn, WA2VOI who activated 12 grids each.

Now that we have the September VHF QSO Party behind us, it's time to start planning for the January VHF Sweepstakes, scheduled for January 18-20, 1997. Don't miss this one—it's the only VHF contest with a club competition. See you then!

## SOAPBOX

There were truly terrible conditions. We traveled 600 miles one-way to activate Mt Davis, the highest point in Pennsylvania, for this contest. While we're happy with our grid total, QSOs were hard to

## QSO Leaders By Band

### Single Operator/QRP Portable

50 MHz	144 MHz	222 MHz	432 MHz	902 MHz	1296 MHz
N2CEI 228	KD1DU 318	WA8WZG 95	WA8WZG 132	WA8WZG 58	WA8WZG 71
N1MIA 169	K1RZ 282	N2CEI 85	K9PW 131	K9PW 33	WA4VHF 60
KC4UCE 156	K9PW 282	K9PW 78	K1FO 129	K1RZ 33	K9PW 46
WA8WZG 137	WB2QOQ 270	K1RZ 75	K1RZ 123	KD1DU 26	K1RZ 43
WA2WQZ 136	N2CEI 265	KD1DU 74	KE6GFF 98	W3IP 23	W3IP 41
K9PW 134	WA4GPM 254	KH6CP/1-Q 68	N2CEI 98	KE8FD 22	KD1DU 32
W1XX 129	NX2Q 233	KE8FD 61	N2BJ 97	WB2DNE 21	WB2DNE 32
K1RZ 127	N2BJ 226	N2BJ 60	WB2DNE 90	N3NGE 19	KE8FD 30
N2TMT 114	W8ULC 201	K5MA 60	KD1DU 90	WB2YEH 19	KH6CP/1-Q 29
K5MA 113	WB2CUT 201	W8ULC 58	K5MA 85	N2BJ 19	KB3PD 29
WB2DNE 92	KE8FD 190	WB2DNE 57	KE8FD 84	KH6CP/1-Q 18	WB2YEH 25
KD1DU 91	WB2DNE 189	W3IP 54	KH6CP/1-Q 82	WB3JO 18	N3NGE 25
K8MR 85	WB2VVV 185	WB2VVV 54	K4QIF 75	WA3JUF 17	N2BJ 25
KM1X 83	WA8WZG 174	N1FUS 47	N3OPM 73	WF9X 15	WA3JUF 25
W3EP 83	W3IP 171	K3GNC 46	W8ULC 70	WB2VVV 15	K2UOP/8 24
					WB3JO 24
					K4QIF 24
					N4KW 24

### Multioperator

50 MHz	144 MHz	222 MHz	432 MHz	902 MHz	1296 MHz
W2SZ/1 405	K3MQH -L 643	K3MQH -L 165	K3MQH -L 277	W2SZ/1 57	W2SZ/1 72
K3MQH -L 398	K3YTL 538	W2SZ/1 144	N8FMD 239	K3YTL 38	K3YTL 49
N2XTX -L 250	W2SZ/1 507	WB2ODH/6 -L 143	W2SZ/1 165	W4IY 28	W4IY 38
K3YTL 244	N8FMD 473	K3YTL 119	K3YTL 149	N2ODK 26	N2ODK 37
W4IY 224	W4IY 425	N8FMD 95	WB1GQR -L 143	WD3R/2 21	N8FMD 29
N8FMD 221	WD3R/2 372	WB1GQR -L 92	N2ODK 128	N8FMD 21	K1WHS 28
WB3R/2 215	WB1GQR -L 367	W4IY 80	WB2ODH/6 -L 128	KB0ZQ 15	KE6QHR 24
WB1GQR -L 190	N2ODK 344	N2ODK 71	W4IY 118	K1WHS 15	WD3R/2 23
N2ODK 183	K2AA -L 312	K2AA -L 70	N2VOT -L 113	W0UC/9 8	W0UC/9 17
KB2DMK -L 181	N2XTX -L 308	N2VOT -L 70	N9LAG -L 106	KP4XS/W4 8	KB0ZQ 15
W1QK -L 178	NO2T -L 304	KB2DMK -L 65	KB2DMK -L 103	W3XO/5 7	WA6KLK -L 14
KP4XS/W4 160	K1WHS 294	K1WHS 60	AA4ZZ -L 101	W2CRS 1	N5UYI 13
K1WHS 158	W1QK -L 291	AA4ZZ -L 56	K1WHS 93		N6OBP 12
AA4ZZ -L 156	AA4ZZ -L 244	N9LAG -L 55	WD3R/2 82		K1MUJ -L 11
K2AA -L 150	WB2ODH/6 -L 241	WD3R/2 51	WA6KLK -L 78		KP4XS/W4 10
					KC6TEU 10

Q denotes QRP Portable

L denotes Limited Multioperator

## Multiplier Leaders By Band

### Single Operator/QRP Portable

50 MHz	144 MHz	222 MHz	432 MHz	902 MHz	1296 MHz
KC4UCE 74	W8ULC 59	KE8FD 37	KE8FD 41	WA8WZG 21	WA8WZG 22
N2CEI 51	KE8FD 57	W8ULC 34	W8ULC 39	K9PW 18	K9PW 21
K9PW 43	K9PW 50	WA8WZG 34	K4QIF 39	K1RZ 17	K1RZ 19
WA8WZG 41	K4QIF 48	K9PW 32	K9PW 39	N2BJ 14	WA4VHF 19
W8ULC 37	K1RZ 48	K1RZ 31	WA8WZG 38	KE8FD 14	W3IP 16
K1RZ 33	WA8WZG 48	N2BJ 28	K1RZ 36	KD1DU 13	WB2DNE 16
K4TO 31	WA4GPM 46	N2CEI 26	N2BJ 32	WB2DNE 12	KE8FD 16
WD5BKV 29	K2YAZ 45	K2YAZ 25	WD5BKV 30	WF9X 11	N2BJ 15
KE8FD 28	N0QJ 44	WF9X 24	KC4QWZ 30	W3IP 11	N4KW 15
W3EP 27	WD5BKV 43	WB2DNE 22	K2YAZ 30	KH6CP/1-Q 11	K4QIF 15
K0GU 27	K4TO 43	K4TO 22	N2CEI 29	WB2VVV 9	KH6CP/1-Q 14
WB2DNE 27	WD9EXD 41	KD1DU 21	WB2DNE 29	WB2YEH 10	W8ULC 13
N2BJ 27	N2CEI 40	W3IP 21	WQ0P 28	WA0BWE 9	WD5BKV 13
N0LL 26	KD1DU 39	KC4QWZ 21	K4TO 27	WB3JO 8	KD1DU 12
K8MR 26	N2BJ 39	K3GNC 20	W4VHH 27	N3NGE 8	KB3PD 11
	WB9VIO 39	WQ0P 20	KA0RYT 27	WBHAX/3-Q 8	WB2VVV 11
	N0LIE 39	WD5BKV 20		KB3IB 8	W4VHH 11
	KB0IKP 39	K8MR 20		N4HB 8	K2UOP/8 11
		K5MA 20		WA3AXV 8	

### Multioperator

50 MHz	144 MHz	222 MHz	432 MHz	902 MHz	1296 MHz
N2XTX -L 66	N8FMD 66	K3MQH -L 52	K3MQH -L 53	W2SZ/1 21	W2SZ/1 20
K3MQH -L 61	K3MQH -L 64	N8FMD 44	N8FMD 43	W4IY 17	W4IY 17
W2SZ/1 59	N2XTX -L 60	W4IY 37	KP4XS/W4 39	N2ODK 17	N2ODK 16
KP4XS/W4 55	K3YTL 59	W2SZ/1 32	K3YTL 38	N8FMD 15	K3YTL 15
N8FMD 52	W4IY 58	K3YTL 32	W4IY 35	WD3R/2 14	N8FMD 15
W4IY 46	KP4XS/W4 57	KB2DMK -L 27	N2ODK 34	K3YTL 13	WD3R/2 12
AA4ZZ -L 44	KB0ZQ 51	AA4ZZ -L 27	AA4ZZ -L 33	K1WHS 11	K1WHS 12
K3YTL 42	AA8BC -L 51	N2ODK 26	N2XTX -L 29	KB0ZQ 10	W0UC/9 11
WB2ODH/6 -L 42	N2ODK 50	KP4XS/W4 25	W2SZ/1 29	KP4XS/W4 7	KB0ZQ 7
KB2DMK -L 39	W0UC/9 47	W0UC/9 24	WB2ODH/6 -L 28	W0UC/9 6	WA6KLK -L 7
N2ODK 38	W2SZ/1 45	WB2ODH/6 -L 22	KB2DMK -L 28	W3XO/5 4	KP4XS/W4 6
W0UC/9 37	WD3R/2 45	N2XTX -L 22	W0UC/9 26	W2CRS 1	AE6E 5
K1WHS 35	AA4ZZ -L 45	KU8Y -L 22	KB0ZQ 26		KC6TEU 5
WD3R/2 34	N1GPY -L 41	KB0ZQ 21	WD3R/2 24		N6OBP 5
KU8Y -L 32	N1GE -L 41	WD3R/2 20	K1WHS 24		K1MUJ -L 5
	KG9BV -L 41				KC6WLC 5

Q denotes QRP Portable

L denotes Limited Multioperator

come by. At one point, we even offered a free box of Pop Tarts (Frosted Cherry) and a Trigon Reflector to anyone who would work us...there were no takers (N1GPY). Having to work, plus celebrating my parents' 50th wedding anniversary, sure cut my contest operating time (WB2KLD). This was our record contest. My son and I took our 2 meter H-Ts and a Yagi up to our local mountain. We didn't push ourselves at all—we just simply had a

great time together! And we qualified for pins, too (WA6JZQ). Conditions weren't real good for most of the contest. In many ways, with the way propagation was, it seemed like a longer version of the Sprints. K9JK/R and I were surprised to even work each other on 2 meters, and on 432, when he was in EN41. Just when conditions would seem to improve, they would get bad again. It was nice to notice that the number of stations with multiband





AA4H 9,424 105 62 S ABCD9E  
 KA4CHT 1,449 46 23 S ABDE  
 AD4F 646 29 19 S ABCD  
 KD4HIK 306 30 9 S ABD  
 KB4EOD 62 31 2 S B  
 W4TRC (+K0AVSN,KE4S,GMT,VFS,  
 N4S RNL,ROA)  
 1,458 81 18 L AB  
 W4UOT (KE4S TVU,UV,W4OWX,W41RU,  
 WB4NCW)  
 1,152 48 24 L AB

### Virginia

N4KWX 45,248 300,101 S ABCDE  
 KD4UPF 29,637 238 89 S ABCD  
 KC4UCE 20,416 218 88 S ABD  
 N4HB 19,180 160 70 S ABCD9E  
 AD4DG 15,488 167 64 S ABCD9E  
 K4FTO 11,016 165 51 S ABCD  
 KD4EAO 8,364 115 51 S ABCDE  
 WB4DBB 4,300 72 43 S ABCD9E  
 N4MWF 3,298 51 34 S ABCD9E  
 K4MSG 1,235 60 12 S AB  
 AD4TJ 1,062 59 18 S AB  
 W4LTU 418 38 11 S A  
 KF4LGU 135 45 3 S B  
 K4ME 27 9 3 S B

W4YI (K4HWG,WB4S FNS,RMJ,W4UKXB,  
 W4OYJ,KO4FM,N1TXI,KU3M,N4DXS,  
 AE4DG,K4ACKI,K4JVG,KT4SC,K8MLM)  
 273,265 920,215 M ABCD9E

### 5

### Arkansas

KB5WBH 350 25 14 S B  
 KD4TJN (+KD4s LTR,NOQ,WB4LHD,  
 N9GSA) 3,159 67 39 M ABCDE  
 N8EQQ (+K40NNO)  
 4,732 80 52 L ABCD

### Louisiana

N5MYH 4,141 84 41 S ABD  
 N5WKI 989 43 23 S AB

### Mississippi

N5YLS 1,482 48 26 S ABD

### New Mexico

K5RHR 3,276 66 36 S ABCD  
 W5WOX 924 36 22 S ABD  
 N5KLU 708 60 12 S ABD  
 KB5ZSK 528 31 12 S ABCD  
 W5FF 420 28 15 S A  
 K5AM 285 19 15 S AB

### North Texas

K9MKV 40,140 343 90 S ABCD9  
 W5STU 11,580 150 60 S ABDEG  
 W5VKS 5,984 162 32 S ABCD  
 KC5HTM 3,150 105 30 S AB  
 KC5LOW 2,781 103 27 S AB  
 KB6IT 2,328 97 24 S B  
 KC5CCT 936 52 18 S B  
 KC5MSN 817 43 19 S AB  
 N5NUV 592 37 16 S AB  
 AC5CT 110 22 5 S AB

### Oklahoma

W5BKV 47,790 254,135 S ABCDE  
 KC5DRI 476 53 7 S ABD  
 W5TC (AC5W,KB5SPS,KC5S PRQ,VEI,  
 N5s HZR,UWY,ops)  
 825 47 15 L ABD

### South Texas

N5WS 20,582 191 82 S ABCD9E  
 KC5FMT 9,275 140 53 S ABCD  
 KC5PUB 3,145 61 37 S ABCD9E  
 KC5CXU 2,684 122 22 S B  
 KC5DA 1,534 58 26 S AB  
 KC5VF 830 40 15 S BD  
 W3XQ5 (+K5K50,K5CLCK)  
 14,874 166 67 M ABCD9E  
 W5EHN (N1PVB,K5ASWS,ops)  
 1,460 71 20 L ABD

### West Texas

KK5IH (+K5SKK)  
 10,220 116 70 L ABCD  
 KC5HHI (+K5C5 OBX,QKV)  
 700 33 20 L ABD

### 6

### East Bay

W5SOMF 18,502 236 58 S ABCD  
 N6EIO 868 62 14 S B  
 W5UT 470 37 10 S BD  
 N6OIK 256 30 8 S BD  
 KO6DI 192 16 6 S C  
 N6OBP (+K6PLM,KE6S,EC,UW,  
 KA9MNZ,W6BGN,WG3R)  
 14,688 225 48 M ABCDE

### Los Angeles

W6AQ 10,176 227 32 S ABCDE  
 AC6TA 7,712 205 32 S ABD  
 KE6AXJ 3,570 162 15 S BCD  
 W6IST 2,541 86 21 S ABCD  
 KE6FCT 2,106 108 18 S ABD  
 KE6MAK 1,950 109 15 S ABD  
 W6RAY 1,854 70 18 S ABCDE  
 KD6RMS 1,710 53 15 S ABCDE  
 N5ZBN 986 49 17 S ABCD  
 KD6KHJ 456 57 8 S B  
 KO6QU 432 49 8 S BD  
 KE6IVL 292 37 6 S B  
 WK6L 245 30 7 Q BD  
 W6ZODH (+K6KWQ,N6s RMT,ZE,  
 W6YLZ,W65J5)  
 119,990 652,130 L ABCD  
 KA3DSE (+K06BS,N6OPR)  
 36,708 413 69 L ABCD  
 W6TOI (K6BWK,T,K6GHP,Z,ops)  
 23,499 290 63 L ABCD  
 W6TRW (+K6WYQ,KE6MU,KF6EXC,  
 KO6CG,W6AMP)  
 3,872 126 22 L ABCD

### Orange

W6FCS 14,475 152 75 S ABCD  
 N6HKF 13,310 174 55 S BCDE

KE6VAW 12,051 213 39 S ABCDE  
 KE6GFF 2,744 98 14 S D  
 K6IBY 2,592 65 27 S ABCD  
 AC6TK 2,415 127 15 S ABC  
 KC6UHX 2,146 74 29 S AB  
 K6GEG 1,590 53 15 S D  
 KD6UIH 1,587 44 23 S ABCD  
 K6TSK 574 26 14 S BD  
 KE6QCB 399 50 7 S BD  
 KE6RUT 328 31 8 S BD  
 W6TVK 297 32 9 S ABD  
 KN6WL 256 28 8 S BD  
 N6FJX 186 28 6 S BD  
 KE6WHJ 130 26 5 S B  
 W6BRT 746 64 11 Q ABE  
 KE6WGX 176 44 4 Q B  
 KO6FV 174 29 6 Q B  
 W6JZQ (+K6FENB)  
 357 51 7 L B

### Santa Barbara

KD6TBE 1,056 51 16 S ABCDE  
 KE6FK 658 35 14 S ABCDE  
 KO6AZ 396 27 11 S ABD  
 KC6WLC (+KE6KO,KD6UUN,K6BGL)  
 6,191 120 41 M ABCDE

### Santa Clara Valley

AJ6T 9,284 143 44 S ABCDEP  
 WB6LRV 1,080 97 9 S BD  
 W6ISO 845 65 13 S B  
 W6AUP 682 31 11 S D  
 KF6BKK 216 27 6 S BD  
 KE6CCJ 180 25 5 S AB  
 W6XEIRGL 45 9 5 S AB  
 KE6QHR  
 (+K04ZJH,K6UCUN,KD6HMN,KE6YDG)  
 25,260 293 60 M ABCDE

### San Diego

KE6SOG 473 43 11 S AB  
 KE6YKS 360 29 10 S BD  
 K6IAH 126 20 6 S ABD  
 W6RDF (KD6EFQ,KO6ET,ops)  
 8,778 173 38 L ABCD

### San Francisco

WN6W 459 34 9 S ABCDE  
 K6PZB 261 28 9 S ABD  
 W6BKL (+K6BFO,KD6LTB,KE6HML,  
 W6OEM,W6DHY,W6BNJS)  
 30,114 372 63 L ABDE

### San Joaquin Valley

WB4AYE 16,638 196 59 S ABCD9E  
 WJ6T 6,027 108 41 S ABDE  
 K6ALE 5,487 136 31 S ABCD  
 N6AJ 4,514 97 37 S ABDE  
 N7STU 2,284 117 36 ABD  
 KD6WVL 2,268 84 27 S AB  
 N6IFW 2,121 101 21 S AB  
 KG6VI 972 50 18 S BD  
 KD6IVL 264 33 8 S B  
 KK6KE 18,525 225 57 Q ABCDE  
 KE6JTH 550 48 10 Q BD  
 WB6YDO 264 31 6 Q BD  
 N5UJ (+K6SOG,K6F6FV,N6NTS,  
 W6BITM,AA6AH,KU6A,SEIPA)  
 27,531 303 63 M ABCDEP  
 WB6FSE (+WB6GPD)  
 341 25 11 L ABD

### Sacramento Valley

KJ6KO 16,536 232 53 S ABCD  
 N6KXB 12,826 199 53 S ABD  
 KC6ZVT 9,792 199 34 S BCD  
 KA6VOV 6,031 121 37 S ABCD  
 KE6DPV 3,796 109 26 S ABDE  
 W6RCW 2,025 67 25 S ABD  
 KD6VNO 1,575 66 21 S ABC  
 W6JEX 1,386 58 22 S ABCD  
 KG6FO 1,110 67 15 S ABD  
 KO6EHA 816 65 12 S ABD  
 KO6YD 333 33 9 Q BD  
 KC6TEU (+W6SYWC)  
 21,518 279 58 M ABCDE  
 KF6ABN (+K6DLLE)  
 3,267 109 27 L ABD  
 KE6YJH (+K6C8HY,KD6S PCE,TVY,  
 KE6ZMT,W7KEH)  
 390 27 13 L BD

### 7

### Arizona

KE7FC 1,491 71 21 S B  
 N7GJO 910 52 14 S ABC  
 WB7OHF 492 37 12 S ABD  
 KE7GH 480 30 12 S ABCD  
 W6A9H 1 1 1 S A  
 KT7LNZ (+AA2EL,KB5PCN,KC5DWB,  
 KC7s CAL,NCB,KG7XC,KI7Q)  
 5,130 154 27 L ABDE

### Eastern Washington

W7FHI 3,096 74 36 S ABD9  
 K6TUWC 3,096 73 33 S ABCD9E  
 N6ZEV 2,160 57 30 S ABD  
 AB7IZ 1,350 46 25 S ABD  
 K7JRN (+W7YEM,W57I)  
 2,025 63 27 L ABD

### Idaho

KATGUX 1,890 60 27 S ABD  
 KJ7TH 638 44 11 S ABD  
 KC7SBI 148 27 4 S BD  
 KC7SBJ 148 26 4 S BD  
 KC7MSB 432 38 8 Q BD  
 K7TAT 424 38 8 Q BD  
 AA7DG (+K7HCR)  
 490 28 14 L ABD

### Nevada

K7ICW 9,927 118 59 S ABCD  
 KB6CO7 3,057 85 33 S ABCDE  
 KF7UV 2,910 72 30 S ABCD  
 WB7TDI 2,322 76 27 S ABD

### Oregon

KE7CX 9,212 139 47 S ABCD9E  
 N7YAG 3,774 86 34 S ABCD9E  
 K7HSJ 1,748 59 23 S ABCDE  
 N7DB 1,416 54 24 S ABCD

KI7WB 697 41 17 S B  
 WA7IQH (+KE7IK)  
 1,365 58 21 L ABCD  
 WD7LT (KC7s ADE,AOI,BRJ,MM,PD,  
 SOG,KJ7AY,WB7QX,ops)  
 342 50 6 L BCD

### Utah

NJ7A 1,650 56 22 S ABDE  
 KB7VML 1,515 81 15 Q BD

### Western Washington

KE7SW 19,500 226 60 S ABCD9E  
 WA7UQV 10,922 202 43 S ABCDE  
 K7ND 4,224 89 32 S BCD9E  
 KW7R 1,691 66 19 S ABDE  
 KD7TS 605 50 11 S BC  
 K7VNC 546 37 13 S ABD  
 N7VGO 495 42 11 S ABD  
 KJ7OZ 368 46 8 S AB  
 WA7OEU 225 25 9 S B  
 W7LRD 162 27 6 S B  
 WB7DHC (+K7K7K)  
 3,861 128 27 L ABD

### 8

### Michigan

K2YAZ 43,218 235,126 S ABCD9E  
 K8MD 37,664 244,107 S ABCD9E  
 WZ8T 14,773 139 79 S ABCDE  
 KG8XM 8,736 157 48 S ABDE  
 KB8JI 5,123 80 47 S ABCD  
 WV1R 5,120 109 40 S ABD  
 K4CPK 4,720 118 40 S AB  
 KG8TR 4,620 140 33 S B  
 KB8PNS 1,596 57 28 S AB  
 N8CQY 1,560 60 26 S AB  
 WB8WNX 476 34 14 S A  
 KB8MBC 442 26 17 S A  
 N8ZVB 384 32 12 S B  
 NE8I 374 27 11 S ABCD  
 N8KWJ 338 26 13 S AB  
 KB8FT 276 17 12 Q ABCD  
 KU8Y (+K8BETW)  
 4,340 312,110 L ABCD  
 WA8RLI (+K8BHUH,KB8S DSG,ZAU,N8OE)  
 740 65 10 L ABCD

### Ohio

WB8WZG 375,192 785,243 S ABCD9EFGH  
 KE8FD 137,609 464,193 S ABCD9E  
 WB8ULC 106,470 421,182 S ABCDE  
 KB8MR 33,600 272 96 S ABCD  
 KB8ZV 15,549 166 71 S ABCDE  
 K3DMG 14,976 155 72 S ABDE  
 N8ZJN 11,895 154 65 S ABD  
 WA8RIF 8,151 136 57 S ABD9  
 N8IAO 7,152 138 48 S ABD  
 KB8RO 5,412 107 41 S BD  
 K8BRP 4,992 116 39 S ABD  
 W8MTM 4,485 105 39 S BD  
 KB8UJZ 1,971 73 27 S AB  
 KC8SD 1,342 61 22 S AB  
 N8LGP 1,224 51 24 S B  
 N8VKE 1,150 45 23 S ABD  
 KB8YKR 1,144 44 26 S AB  
 N8BWW 1,134 52 21 S ABD  
 N8VFS 1,026 52 19 S ABD  
 N8VLU 1,012 44 22 S ABD  
 KB8UHY 862 47 18 S BD  
 WA3HQL 693 33 21 S B  
 N8PTL 663 38 17 S ABD  
 N8VEA 462 31 14 S BD  
 N8WHO 350 25 14 S A  
 N8QXC 341 27 11 S ABCD  
 N8TED 288 29 8 S BD  
 N8SPW 260 26 10 S B  
 W8BATH 7,546 113 49 Q ABCD  
 N8AXA 3,744 87 36 Q ABCDE  
 KB8BUN 2,100 59 30 Q ABCD  
 AA8BC (+KB8S GUW,WFN,N8NAK)  
 38,796 318,106 L ABDE

### West Virginia

K2UOPB 57,040 322,115 S ABCD9E  
 N8XUR 18,785 212 65 S ABCDE  
 KB8MBH 252 18 14 S B  
 N8FMD (+AA8LC,KC8AJH,KF8UM,  
 KV8S,N8s OJK,UBH,VCF,ZD,  
 WB8MZI,WJ8G)  
 357,776 107,926 M ABCD9E  
 K8UC (+N8YYS,N8UXD)  
 3,489 76 40 L ABCD  
 W8SP (KB8OHV,N8TD,WG8T,ops)  
 3,036 75 33 L ABD

### 9

### Illinois

K9PW 280,370 741,230 S ABCD9EFGHJP  
 N2BJ 116,870 509,155 S ABCD9E  
 WD9EXD 21,620 189 94 S ABCD  
 KF9B 10,971 129 69 S ABD  
 N9WRW 7,138 110 43 S ABD9E  
 WD9ISG 4,480 112 35 S BD  
 WD9IIX 3,774 96 34 S ABD  
 WX3N9 3,344 76 44 S AB  
 N9WJL 2,328 77 24 S ABCD  
 N9TOK 2,140 90 20 S ABD  
 KB9II 1,060 45 20 S BD  
 N9VZX 423 38 9 S BD  
 WB9MXX 352 32 11 S AB  
 WD9FEN 140 35 4 S B  
 N9DJ 140 28 5 S B  
 KB9BNN 81 26 3 S ABD  
 W9VA 72 12 6 S A  
 N8KWX 7,470 128 45 Q ABCD  
 N9LAW (+N9s KJE,QKZ)  
 51,680 383 95 L ABCD

### Indiana

WB9VIO 30,200 247,100 S ABCD  
 KB9FZO 18,170 175 79 S ABD  
 AA9LT 9,100 117 65 S ABCD  
 WB9YFE 7,168 107 56 S ABCD  
 W9ESU 1,820 51 28 S BD  
 N9RZY 1,450 50 29 S AB  
 K9DZE 1,242 40 27 S ABD  
 N9TMN 1,104 40 23 S BD  
 WB9DRB 897 29 23 S ABCD

KB9MWA 672 39 16 S ABD  
 KG9BV (KA9CQC,N9VQW,ops)  
 12,025 155 65 L ABCD  
 N9KJZ (+N9LFR)  
 2,607 60 33 L ABCD

### Wisconsin

WF9X 40,068 257,108 S ABCD9  
 AA9AO 12,352 144 64 S ABCD  
 N9NYE 10,309 125 61 S ABCDE  
 WA9LW 7,866 100 57 S ABCD  
 WA9HCZ 4,902 93 43 S ABD  
 W9VCV 3,840 79 40 S ABD  
 WA1UJ/UJ 3,131 101 31 S B  
 N9LLT 3,102 85 33 S ABCD  
 N9ISN 2,520 68 36 S ABCD  
 KF9YR 2,442 74 33 S AB  
 WD9IAB 2,272 48 32 S ABDE  
 ND9Z 2,240 52 35 S ABD  
 KA9JCP 1,809 63 27 S ABD  
 N9PBA 1,769 61 29 S AB  
 N9UBS 1,738 79 22 S AB  
 K9OSH 324 27 12 S AB  
 W9RZW 275 25 11 S B  
 N9NDP 189 21 9 S B  
 N9E (+WB9UAI)  
 20,907 274 69 L ABD  
 N9WBR (+N9WVJ)  
 560 28 20 L AB

### 0

### Colorado

KD0DW 38,480 245,104 S ABCD9E  
 K0GU 16,960 163 80 S ABCD  
 W0KEA 4,223 78 41 S ABCD  
 WB0MGS 2,448 53 34 S ABCD  
 K0VNU 1,728 48 32 S ABD  
 WZCRS (+N2PC,W0H0,W0B0AGZ)  
 22,540 187 92 M ABCD9E

### Iowa

KD0SV 3,382 76 38 S ABD  
 KF0UJ 2,010 67 30 S B  
 KD0BT 405 21 5 S ABD  
 N0SPP 351 27 13 S AB

### Kansas

W0QP 34,768 218,106 S ABCD9E  
 N0LL 23,862 182 97 S ABCDE  
 N0LIE 4,056 104 39 S B  
 KB0TJ 1,608 55 24 S ABD  
 KB0OEY 496 30 16 S BD  
 N0SMR 420 27 15 S BD  
 N0OY 144 16 9 S B  
 K0GWA (+N3UYZ,N5CLU,KB0s YHU,YHT)  
 4,788 104 38 L ABD

### Minnesota

W0BWE 40,514 246 94 S ABCD9EFGH  
 KB0KP 30,500 224,100 S ABCDE  
 KB0PYO 17,480 174 76 S ABCD  
 WA2HFH/O 15,594 153 69 S ABCD9E  
 KA0RYT 13,511 146 59 S BDE  
 W0OHW 9,790 131 55 S BD  
 WA0UJ 7,014 115 42 S ABD  
 N80NES 5,920 135 32 S ABCD  
 KJ0J 4,983 99 33 S ABCD9E  
 KB0VUC 4,968 131 36 S ABD  
 WB0LJC 4,158 102 27 S ABCD9EFGH  
 KG0BG 3,480 87 30 S BD  
 AB0CN 2,880 82 24 S ABDE  
 W0PHD 2,294 50 31 S ABDE  
 KB0XC 2,125 83 25 S BD  
 N0YXO 1,738 71 22 S ABD  
 W0LCP 1,541 56 23 S ABD  
 KA0NAN 1,512 72 18 S ABCD  
 KB0LYL 791 113 7 S B  
 KB0ZTA 650 49 10 S ABD  
 KA0PQW 504 26 14 S ABCD  
 KB0WUK 320 39 8 S BD  
 WB0C9 (+K0GJX,N0s AKC,BSH)  
 92,040 416,156 M ABCD9EFGH  
 KB0ZQ (+KE0OT,KA0s JWC,UZG,N0HJZ,  
 WB0GM,W2APHW)  
 90,896 394,152 M ABCD9EFGH

### Missouri

K0FF 4,680 70 52 S ABCD  
 N0MMU 3,726 69 46 S ABD  
 W0JRP 2,015 58 31 S ABCD  
 K0J 546 31 14 S BD  
 KB0PRZ 220 22 10 S B

### North Dakota

NT0V 3,237 53 39 S ABCD9EFG  
 WB0OAJ 72 9 8 S AB

### Nebraska

WD0BOM 3,478 62 37 S ABCDE  
 N0YNP 1,736 42 28 S ABCDE  
 N0WJY 940 47 20 S B

### South Dakota

N0QJM 17,480 149 92 S ABCDE  
 WB0HHM 2,560 57 32 S ABCD

### Quebec

VE2HKs 220 55 4 S AB  
 VE2HLW 204 31 6 S ABD  
 VE2SHV 33 33 1 S B  
 VE2PJ 3,198 103 26 Q ABD  
 VE2CUA (VE2s DUB,HFX,HKI,LVT,ops)  
 5,920 124 37 M ABCDE  
 VE2JWH (+VE2s