

2009 ARRL November CW Sweepstakes – Official Results
By Kelly Taylor, VE4XT & Sean Kutzko, KX9X



January 22, 2010

When the smoke had cleared and the last SS transmission was sent into the ether at 0259z on Monday, November 9, 2009, the clock at ARRL HQ started ticking. CW Sweepstakes continues to be a strong draw for contesters, with 1,552 logs in the official results and more than 600,000 QSOs logged.

We promised that the results for SS would be published online in 60 days. We fell a little short on that request (74 days), but we can still publish the numbers much faster than usual.

The conversion of paper logs slowed the process down considerably. Many thanks to the data entry volunteers who keyed in over 9,800 CW QSOs from paper logs and converted them to Cabrillo. If you submitted a paper log this year, please consider switching to electronic logging; it cleans up your log, saves us time during data entry, and gives you instant satisfaction in knowing that your log was received at HQ on time.

In this PDF, you will find the Top Ten table by category; the Division Winners in each category; the Regional Leaders table; and the complete line scores for all entries received. More detailed information and analysis will be provided in QST and at arrl.org in the next few months, as has always been the case.

So, who were the winners? Congratulations to the following Amateurs for their great efforts:

CLASS	CALL	SCORE	QSOs	MULTS	SECTION
Single Operator High Power	N2IC	255,520	1,597	80	NM
Single Operator Low Power	N5AW	192,320	1,202	80	STX
Single Operator QRP	NØAT (NØKK, op)	137,760	861	80	MN
Single Operator Unlimited	K3MM	212,960	1,331	80	MDC
Multioperator	W6YI	246,880	1,543	80	SDG
School Club	KØHC (WØAH, op)	188,000	1,175	80	KS

Steve, N2IC, won high power for a third straight year, suggesting another dynasty is in the works. He beat Kevin, N5DX (at K5GO) and Mark, AG9A (at NØNI), who tied for second.

Marvin, N5AW, narrowly beat Tor, N4OGW, to take low power, while Ty, K3MM's Maryland station won Unlimited, in a photo finish with Dave, K6LL. The spread was a mere 160 points, or just one QSO!

In QRP, it was the battle of the Kirks, with Kirk, NØKK (at NØAT) edging out Kirk, K4RO.

W6YI and crew won Multioperator while Bob (WØBH), operating at Hesston College in Kansas at KØHC, again won the school club category.

A full story on SS CW will be in the May, 2010 QST with a searchable database on arrl.org about the same time.

2009 SSB Sweepstakes results, along with the Club Competition winners, should be published online within the next two weeks.

If you are still interested in ordering a Clean Sweep mug or Participation Pin, you have until January 31 to get your order in! Mugs are \$12 and pins are \$6, which includes shipping charges. Call me at 860-594-0232 to place your order.

Thanks for your participation in the 2009 ARRL CW Sweepstakes, the best domestic contest on the planet.

Sean Kutzko, KX9X
ARRL Contest Branch Manager

Kelly Taylor, VE4XT
SS CW Results Author

2009 ARRL November CW Sweepstakes - Top Ten by Category

CW

Single Operator, QRP

NØAT (NØKK, op)	137,760
K4RO	127,360
K8MM	121,836
KØAV	114,392
N7IR	104,122
NØUR	103,584
N7OU	101,760
W7IY	97,944
W19WI	97,032
W7YAQ	95,432

Single Operator, Unlimited

K3MM	212,960
K6LL	212,800
W6YX (N7MH, op)	210,400
K7RL	205,120
KB7Q	204,000
N6XI	202,240
K6XX	201,120
K6TA (N6BV, op)	198,080
N4BP	196,800
KH6LC (SMØDRD, op)	196,320

Single Operator, Low Power

N5AW	192,320
N4OGW	191,360
K7BG	188,800
KP3Z (NP4Z, op)	178,240
KØAD	176,000
W4OC	175,040
N7VM	172,062
AA5B	170,324
K8IA	165,440
KE7X	163,520

Multi-Operator

W6YI	246,880
NR5M	229,600
K4TD	225,120
KP2M	219,040
WY7SS	218,080
W2FU	214,880
W4RM	209,760
K5KA	205,440
K2NNY	198,720
NG7M	186,400

Single Operator, High Power

N2IC	255,520
K5GO (N5DX, op)	244,960
NØNI (AG9A, op)	244,960
WDØT	233,120
WXØB (K5GA, op)	230,560
W9RE	228,800
WØUA	228,160
K5ZD	224,160
WØSD (WØDB, op)	224,000
N2NT (N2NC, op)	223,570

School Club

KØHC (WØBH, op)	188,000
N9UC (WO9S, op)	106,334
N5XU (AA5BT, op)	23,556
W8SH	12,432
N9GTC	5,928
W4UVA (WF7I, op)	1,044
W9UIH (KB9E, op)	50
KØVVY (ACØLU, op)	18

2009 ARRL November CW Sweepstakes- Division Leaders by Category

CW

Single Operator High Power

Atlantic	AA3B	192,480	B	2009
Central	W9RE	228,800	B	2009
Dakota	WDØT	233,120	B	2009
Delta	K5GO (N5DX, op)	244,960	B	2009
Great Lakes	W5MX	187,520	B	2009
Hudson	N2NT (N2NC, op)	223,570	B	2009
Midwest	NØNI (AG9A, op)	244,960	B	2009
New England	K5ZD	224,160	B	2009
Northwestern	N9RV	200,800	B	2009
Pacific	W7RN (N6TV, op @ K5RC)	223,200	B	2009
Roanoke	N4AF	212,000	B	2009
Rocky Mountain	N2IC	255,520	B	2009
Southeastern	WP3R (LZ4AX, op)	191,840	B	2009
Southwestern	K6LA	219,040	B	2009
West Gulf	WXØB (K5GA, op)	230,560	B	2009
Canada	VE3EJ	200,186	B	2009

Single Operator Low Power

Atlantic	WY3A	149,916	A	2009
Central	N9CK	163,372	A	2009
Dakota	KØAD	176,000	A	2009
Delta	N4OGW	191,360	A	2009
Great Lakes	N8AA	163,372	A	2009
Hudson	W2LK	148,000	A	2009
Midwest	WØWA	93,024	A	2009
New England	K1BX	157,760	A	2009
Northwestern	K7BG	188,800	A	2009
Pacific	N6ZFO	144,096	A	2009
Roanoke	W4OC	175,040	A	2009
Rocky Mountain	N7VM	172,062	A	2009
Southeastern	KP3Z (NP4Z, op)	178,240	A	2009
Southwestern	K8IA	165,440	A	2009
West Gulf	N5AW	192,320	A	2009
Canada	VE5ZX	157,760	A	2009

2009 ARRL November CW Sweepstakes- Division Leaders by Category

Single Operator QRP

Atlantic	K2ZR	83,108	Q	2009
Central	WI9WI	97,032	Q	2009
Dakota	NØAT (NØKK, op)	137,760	Q	2009
Delta	K4RO	127,360	Q	2009
Great Lakes	K8MM	121,836	Q	2009
Hudson	KR2Q	38,760	Q	2009
Midwest	NØSS	60,236	Q	2009
New England	W1AW (KX9X, op)	81,054	Q	2009
Northwestern	N7OU	101,760	Q	2009
Pacific	W6JTI	91,572	Q	2009
Roanoke	W7IY	97,944	Q	2009
Rocky Mountain	KØAV	114,392	Q	2009
Southeastern	NØHT (W5JBV, op)	82,792	Q	2009
Southwestern	N7IR	104,122	Q	2009
West Gulf	N5WLA	82,836	Q	2009
Canada	VA3SB	71,610	Q	2009

Single Operator Unlimited

Atlantic	K3MM	212,960	U	2009
Central	NE9U	163,360	U	2009
Dakota	KTØR (KØOB, op)	182,880	U	2009
Delta	N4ZZ	188,800	U	2009
Great Lakes	W8MJ	183,360	U	2009
Hudson	N1EU	111,680	U	2009
Midwest	KØOU	168,800	U	2009
New England	W1SJ	157,920	U	2009
Northwestern	K7RL	205,120	U	2009
Pacific	W6YX (N7MH, op)	210,400	U	2009
Roanoke	W4MR (AA4NC, op)	189,280	U	2009
Rocky Mountain	WØZP	176,644	U	2009
Southeastern	N4BP	196,800	U	2009
Southwestern	K6LL	212,800	U	2009
West Gulf	N5JB	114,880	U	2009
Canada	VA2WDQ	163,040	U	2009

2009 ARRL November CW Sweepstakes- Division Leaders by Category

CW

Multioperator

Atlantic	W2FU	214,880	M	2009
Central	N9YN	640	M	2009
Dakota	KØHB	147,200	M	2009
Great Lakes	K8CC	180,000	M	2009
Hudson	K2LE	36,314	M	2009
Midwest	KØWA	185,600	M	2009
New England	W1MJ	62,832	M	2009
Northwestern	WX7P	117,120	M	2009
Pacific	AI6YL	141,920	M	2009
Roanoke	W4RM	209,760	M	2009
Rocky Mountain	WY7SS	218,080	M	2009
Southeastern	K4TD	225,120	M	2009
Southwestern	W6YI	246,880	M	2009
West Gulf	NR5M	229,600	M	2009
Canada	VE6EX	183,040	M	2009

School Club

Central	N9UC (WO9S, op)	106,334	S	2009
Dakota	KØVVY (ACØLU, op)	18	S	2009
Great Lakes	W8SH	12,432	S	2009
Midwest	KØHC (WØBH, op)	188,000	S	2009
Roanoke	W4UVA (WF7I, op)	1,044	S	2009
West Gulf	N5XU (AA5BT, op)	23,556	S	2009

2009 ARRL November CW Sweepstakes

Regional Leaders by Category

Boxes list call sign, score and class (A = Single Op Low Power, B = Single Op High Power, Q= Single Op QRP, U= Single Op Unlimited, M = Multioperator, S = School Club)

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

K5ZD	224,160	B
N2NT (N2NC, op)	223,570	B
AA3B	192,480	B
KD4D	188,960	B
K8PO	188,652	B
K1BX	157,760	A
WY3A	149,916	A
W2LK	148,000	A
KM1X	138,250	A
W1AO	136,828	A
K2ZR	83,108	Q
K3TEJ	81,624	Q
W1AW (KX9X, op)	81,054	Q
WB2ABD	67,606	Q
AA1CA	63,232	Q
K3MM	212,960	U
N3KS	193,440	U
WX3B	184,160	U
N2MM	166,080	U
VA2WDQ	163,040	U
W2FU	214,880	M
K2NNY	198,720	M
W8FJ	74,100	M
WM3O	73,470	M
W1MJ	62,832	M

Southeast Region

(Delta, Roanoke and Southeastern Divisions)

K5GO (N5DX, op)	244,960	B
N4AF	212,000	B
WP3R (LZ4AX, op)	191,840	B
K4BAI	179,360	B
N4RR (WA2MBP, op)	177,760	B
N4OGW	191,360	A
KP3Z (NP4Z, op)	178,240	A
W4OC	175,040	A
NA4K	149,280	A
K4PJ (K4LTA, op)	133,760	A
K4RO	127,360	Q
W7IY	97,944	Q
NØHT (W5JBV, op)	82,792	Q
AA4XX	79,800	Q
W4QO	60,344	Q
N4BP	196,800	U
W4MR (AA4NC, op)	189,280	U
N4ZZ	188,800	U
N1LN	187,360	U
W4MYA	173,280	U
K4TD	225,120	M
KP2M	219,040	M
W4RM	209,760	M
KC4D	127,200	M
K4IX	82,524	M
W4UVA (WF7I, op)	1,044	S

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

W9RE	228,800	B
VE3EJ	200,186	B
K9CT	194,720	B
W5MX	187,520	B
NØIJ	183,840	B
N9CK	163,372	A
N8AA	163,372	A
N8SS	158,240	A
K8BL	156,578	A
K9ZO	149,760	A
K8MM	121,836	Q
WI9WI	97,032	Q
N9NE	93,912	Q
K8DD	92,746	Q
KT8K	89,782	Q
W8MJ	183,360	U
NE9U	163,360	U
K9NR	155,520	U
WE9V	142,240	U
ND9E	141,120	U
K8CC	180,000	M
W8EDU	163,200	M
W8ZHO	27,412	M
KF8UN	13,340	M
N8MR	12,996	M
N9UC (WØ9S, op)	106,334	S
W8SH	12,432	S
N9GTC	5,928	S
W9UIH (KB9E, op)	50	S

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

N2IC	255,520	B
NØNI (AG9A, op)	244,960	B
WDØT	233,120	B
WXØB (K5GA, op)	230,560	B
WØUA	228,160	B
N5AW	192,320	A
KØAD	176,000	A
N7VM	172,062	A
AA5B	170,324	A
VE5ZX	157,760	A
NØAT (NØKK, op)	137,760	Q
KØAV	114,392	Q
NØUR	103,584	Q
N5WLA	82,836	Q
NØKE	80,184	Q
KTØR (KØOB, op)	182,880	U
WØZP	176,644	U
KØOU	168,800	U
K1KD	167,164	U
WØZA	161,760	U
NR5M	229,600	M
WY7SS	218,080	M
K5KA	205,440	M
NG7M	186,400	M
KØWA	185,600	M
KØHC (WØBH, op)	188,000	S
N5XU (AA5BT, op)	23,556	S
KØVVY (ACØLU, op)	18	S

West Coast Region

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

W7RN (N6TV, op @ K5RC)	223,200	B
K6LA	219,040	B
K6NA	218,400	B
KO7AA	208,960	B
N9RV	200,800	B
K7BG	188,800	A
K8IA	165,440	A
KE7X	163,520	A
W7ZRC	159,840	A
N7CW	155,156	A
N7IR	104,122	Q
N7OU	101,760	Q
W7YAQ	95,432	Q
NN7SS (K6UFO, op)	94,800	Q
W6JTI	91,572	Q
K6LL	212,800	U
W6YX (N7MH, op)	210,400	U
K7RL	205,120	U
KB7Q	204,000	U
N6XI	202,240	U
W6YI	246,880	M
VE6EX	183,040	M
AI6YL	141,920	M
WX7P	117,120	M
WS7L	79,840	M

2009 ARRL November Sweepstakes (CW) Scores

Within each Section, scores are listed in descending order by entry category, with single ops followed by multioperator. Line scores list call sign, score QSOs, multipliers, hours, class (Q = QRP, A = Low Power, B = High Power, U - Single Unlimited, M = Multioperator, S = School Club).

United States

1

Connecticut

W1WEF	162,080	1,013	80	B
K1WB	115,024	728	79	B
K1ZZ	107,360	671	80	B
W1TR	103,740	665	78	B
K1BV	83,700	558	75	B
NN1N	69,008	454	76	B
K1RM	67,166	473	71	B
W3IZ	9,568	104	46	B
N4XR	5,546	59	47	B
W2JU	65,096	412	79	A
W1JQ	58,976	388	76	A
K1PU	37,536	276	68	A
K1DM	29,480	220	67	A
W2QQ	17,520	146	60	A
AA1JM	16,632	126	66	A
NX1Q	12,826	121	53	A
WR1B	11,856	114	52	A
K1DUQ	7,636	83	46	A
W1UK	3,552	48	37	A
K3EIN	616	22	14	A
W1AW (KX9X, op)	81,054	513	79	Q
W1QK	41,180	290	71	Q
W1IG	504	18	14	Q
KB1NRB	63,000	420	75	U
W1NG	49,440	309	80	U
W1AN	28,704	208	69	U
WS1F	13,764	93	74	U
WJ1B	8,460	94	45	U
WV1M	3,816	53	36	U

Eastern Massachusetts

KA1IOR	57,134	371	77	B
K1MC	46,200	308	75	B
W1KM	41,808	312	67	B
K1XM	129,280	808	80	A
K1EP	74,700	498	75	A
K1HT	67,392	432	78	A

WA1OLV	62,900	425	74	A
W1CCE	62,400	416	75	A
W1FA	33,592	247	68	A
K1NTR	28,928	226	64	A
WO1N	26,112	204	64	A
W1JCJ	21,960	183	60	A
WB1FJH	16,188	142	57	A
K1QW	3,180	53	30	A
N1NN	1,440	30	24	A
W1BJ	2	1	1	A
N1QV	54,908	371	74	Q
W1KQ	18,544	152	61	U
K1TH	11,128	107	52	U
W1MJ (+ K9HI)	62,832	408	77	M

Maine

K8PO	188,652	1,194	79	B
W1AO	136,828	866	79	A
KX1E	56,856	412	69	A
K1LOG	11,520	120	48	A
K1JB	79,680	498	80	U
K1ESE	29,920	187	80	U

New Hampshire

K1AR	93,440	584	80	B
K1DG	81,528	516	79	B
AE1T	56,696	373	76	B
K1RX	52,976	344	77	B
K1BX	157,760	986	80	A
KB1T	98,434	623	79	A
K1TR	87,704	577	76	A
K1HI	52,416	364	72	A
N1AA	43,194	313	69	A
K1HTN	25,668	186	69	A
NT1A	23,552	184	64	A
AE1P	21,460	185	58	A
KI1M	19,278	153	63	A
W1OHM	5,320	70	38	A
N1IMW	928	29	16	A
WS1V	308	14	11	A
AA1CA	63,232	416	76	Q
K8CN	43,680	312	70	Q
N1PT	10,800	108	50	Q
N9NC	143,840	899	80	U
WA1Z	26,880	210	64	U
WB1EDI	24,674	169	73	U

Rhode Island

W1XX	164,640	1,029	80	B
K3IU	102,804	660	78	B
KM1X	138,250	875	79	A
K1VSJ	58,216	383	76	A
W1WBB	55,500	375	74	A
K1NEF	21,824	176	62	A
KS1J	2,728	44	31	A
K1WEW (N8ZFH, op)	546	21	13	A
NB1U	42,770	329	65	U
NJ1Q	21,420	153	70	U

Vermont

W1VE	135,200	845	80	B
KB1ODO	12,546	123	51	B
W1ECH	102,560	641	80	A
W1FP	45,698	313	73	A
K2HVN	3,264	51	32	A
W1SJ	157,920	987	80	U
KE1FO	78,368	496	79	U

Western Massachusetts

K5ZD	224,160	1,401	80	B
W1UE	178,720	1,117	80	B
W1BYH	41,192	271	76	B
W1CSM	97,170	615	79	A
W1TO	76,630	485	79	A
AA1AR	9,384	92	51	A
AD1L	1,700	34	25	A
N1AW	3,300	50	33	Q
W1UJ	141,568	896	79	U
KB1W	105,300	675	78	U

2

Eastern New York

WB2SIH	64,428	413	78	B
W2LK	148,000	925	80	A
W2EG	127,200	795	80	A
K2UF	105,228	666	79	A
K2YR	85,692	579	74	A
WA2JQK	12,932	106	61	A
K2XA	12,084	106	57	A
W2VS	10,302	101	51	A
W2XM	5,852	77	38	A
N2CG	5,244	69	38	A
W2NRD	3,116	41	38	A
K2WR/2	2,064	43	24	A

WA2MCR 1,782 33 27 A
 W3ABT (AE3A, op)
 264 12 11 Q
 N1EU 111,680 698 80 U
 K2ONP 67,500 450 75 U
 N2SQW 59,724 378 79 U
 N2ZX 58,080 363 80 U
 N2NI 39,900 266 75 U
 W2RZS (WB2NVR, op)
 5,412 66 41 U
 WT4Q 1,200 25 24 U

New York City-Long Island

KD2RD 176,328 1,116 79 B
 KD2HE 41,756 286 73 B
 N2GA 52,560 360 73 A
 K2IY 48,100 325 74 A
 KA2D 44,850 299 75 A
 NK1N 35,456 277 64 A
 WA2MAV 24,180 195 62 A
 N2YBB 8,964 83 54 A
 WA2ART 1,674 31 27 A
 KD2MU 3,672 51 36 Q
 K2QMF 82,634 523 79 U
 WO2N 18,172 118 77 U
 N2FF 16,348 134 61 U
 N2SO 12,650 115 55 U
 K2LE 36,314 271 67 M

Northern New Jersey

N2NT (N2NC, op)
 223,570 1,415 79 B
 W2RQ 155,472 984 79 B
 W2LE 73,628 466 79 B
 W2UDT 14,136 124 57 B
 W2ID 74,296 502 74 A
 K2DSL 46,512 306 76 A
 WA2LXE 39,480 282 70 A
 KD2MX 24,704 193 64 A
 KG2MV 14,336 128 56 A
 W2LRO 8,930 95 47 A
 WB2RIS 6,174 63 49 A
 KM2Y 5,994 81 37 A
 W2LHL 5,200 65 40 A
 KR2Q 38,760 285 68 Q
 W2JEK 8,772 102 43 Q
 W2DPT 1,672 38 22 Q

W2EF 532 19 14 Q
 W2VQ 97,486 617 79 U
 N2ED 62,850 419 75 U
 K2DFC 62,088 398 78 U
 W2YR 25,480 182 70 U
 AB2DE (+ packet)
 22,496 148 76 U

Northern New York

K1LEE 880 22 20 A
 K2XC 112 8 7 A
 K2NNY (K2DB, N2ZN, W2LB, K2CS, K2ZS, ops)
 198,720 1,242 80 M

Southern New Jersey

K1TN 75,660 485 78 A
 K2XE 45,140 305 74 A
 NN2Y 40 5 4 A
 KC4RN 32,256 224 72 Q
 N2MM 166,080 1,038 80 U
 W2YC 113,440 709 80 U
 K2MK 71,292 457 78 U
 K2SQS 21,024 144 73 U
 AI2I 20,440 146 70 U

Western New York

W2BC (+ W2RU)
 89,474 581 77 B
 W6XR 63,420 453 70 B
 N2MF 56,548 422 67 B
 K2NV 44,784 311 72 B
 WB2WPM 12,992 116 56 B
 AE2T 88,088 572 77 A
 N2CU 54,908 371 74 A
 AI2N 48,764 334 73 A
 W2RLK 4,756 58 41 A
 KA2FHN 4,218 57 37 A
 N2DM 2,352 42 28 A
 NV2G (N2ZN, op)
 1,302 31 21 A
 N2CK 792 22 18 A
 WB2KLA 336 14 12 A
 WD8CQB 200 10 10 A
 K2ZR 83,108 526 79 Q
 WB2ABD 67,606 439 77 Q
 K2QO 42,920 290 74 Q
 W2EB 15,930 135 59 Q

AI2T 13,970 127 55 Q
 K2FU 58,058 377 77 U
 NG2P 9,394 77 61 U
 W2UB 8,712 99 44 U
 W2FU (+ K2TJ & K0SM)
 214,880 1,344 80 M

3**Delaware**

N8NA 128,440 845 76 A
 WW3DE 98,118 621 79 A
 K1PAD 79,804 562 71 A
 WA2VQV 19,152 168 57 A
 NY3C 6,888 82 42 A
 AI3G 6,396 78 41 A
 KE3CR 2 1 1 A
 K3MQ 65,364 419 78 U
 N3ME 7,350 75 49 U

Eastern Pennsylvania

AA3B 192,480 1,203 80 B
 W3TDF 96,216 633 76 B
 WA3AAN 28,842 209 69 B
 W3EC 11,750 125 47 B
 WY3A 149,916 961 78 A
 KC3M 107,124 678 79 A
 K3ATO 89,832 591 76 A
 N3KR 42,624 288 74 A
 W3KM 33,264 231 72 A
 K3NK 30,056 221 68 A
 KN3A 30,000 200 75 A
 K3VA 29,304 222 66 A
 N2EY 26,650 205 65 A
 K3TX 25,870 199 65 A
 N3NZ 23,808 192 62 A
 WI2E 21,830 185 59 A
 K3QF 19,912 131 76 A
 WB3ESR 8,460 90 47 A
 W3SD 6,688 88 38 A
 WA3CEJ 5,096 52 49 A
 AG3G 736 23 16 A
 WA2EAJ 264 12 11 A
 W8IJ 40 5 4 A
 K3TEJ 81,624 537 76 Q
 W0BR 43,928 289 76 Q
 K3PH 31,088 232 67 Q
 WA2GBF 28,602 227 63 Q
 N3AD 157,052 994 79 U

K3WW	150,880	943	80	U	W3PO	25,544	206	62	Q	K3RWN	28,800	200	72	A
K3MD	106,492	674	79	U	KB3WK	12,810	105	61	Q	KA3BMU	12,320	110	56	A
W3KB	61,620	390	79	U	ND3D	11,600	116	50	Q	WB3AVD	8,448	96	44	A
N3ST	59,436	381	78	U	K3MM	212,960	1,331	80	U	WA3SES	8,096	92	44	A
K3SV	51,168	328	78	U	N3KS	193,440	1,209	80	U	K3JHT	2,784	48	29	A
W3FV	43,120	280	77	U	WX3B	184,160	1,151	80	U	K3UA	2,494	43	29	A
NE3H	33,672	244	69	U	K2PLF	159,264	1,008	79	U	KE3KD	126	9	7	A
K9RS	19,188	123	78	U	K3ZZ (@ WA3EKL)					N3SD	78,232	508	77	U
N3RM	14,896	98	76	U		145,080	930	78	U	WW3S	65,280	408	80	U
NY3DX (K3SV, op)					N1WR	133,440	834	80	U	W3WPA (W3WC, op)				
	5,032	74	34	U	N3AM	130,350	825	79	U		56,090	355	79	U
W8FJ	74,100	475	78	M	K3WI	121,920	762	80	U					

4**Maryland-DC**

KD4D	188,960	1,181	80	B
WR3Z	183,754	1,163	79	B
N3UM	124,820	790	79	B
K3TN	124,188	786	79	B
W3ZZ (WB4FDT, op)				
	123,398	781	79	B
K3TM	115,340	730	79	B
W3DF	76,320	530	72	B
N3RR	57,900	386	75	B
K9ZU	47,570	335	71	B
K1DQV	45,450	303	75	B
W3DAD	27,324	207	66	B
K3AU (K2YWE, op)				
	109,178	691	79	A
K3KU	99,864	657	76	A
W3CB	92,508	593	78	A
K3AJ	84,864	544	78	A
N3QE	66,220	430	77	A
W3EF	66,044	418	79	A
WA1LWS	64,740	415	78	A
WA1T	59,136	384	77	A
WA3EOQ	57,456	378	76	A
W3DQN	39,600	275	72	A
WB8YYY	31,944	242	66	A
K3YDX	25,326	189	67	A
K3CKT	25,116	182	69	A
W3SFG	19,032	156	61	A
W3XG	11,368	116	49	A
W3IUU	10,904	116	47	A
N3WD	9,200	92	50	A
NS3T	1,280	32	20	A
K3TW	47,450	325	73	Q

W2CDO	116,116	754	77	U
W3KL	105,702	669	79	U
N3CW	96,696	612	79	U
K3STX	79,560	512	78	U
N1SZ	62,986	409	77	U
K3PU	55,632	366	76	U
WN3R	54,510	345	79	U
NG3K	53,850	359	75	U
K3NCO	51,450	343	75	U
W3BW	50,856	326	78	U
K3PG	35,850	239	75	U
W2GPS	28,470	195	73	U
N3XL	27,690	213	65	U
W3LJ	7,332	78	47	U
W3IDT	6,808	74	46	U
K3DNE	3,024	54	28	U
AJ3M	60	6	5	U
WM3O	73,470	465	79	M

Western Pennsylvania

W3SO (W3YOZ, op)				
	106,860	685	78	B
W3BC	44,840	295	76	B
NO3M	129,876	822	79	A
WA3A	128,928	816	79	A
NA3F	69,916	454	77	A
K3VX	56,320	352	80	A
KB3LIX	53,850	359	75	A
N3ZN	52,800	352	75	A
W3WH	47,242	299	79	A
KB3LVH	32,128	251	64	A
AA2AD	32,116	217	74	A
ND3R	29,952	192	78	A

Alabama

W4HOD (K9MUG, op)				
	99,856	632	79	B
N7RVD	65,520	455	72	B
K4ZGB	54,040	386	70	B
K4HAL	38,920	278	70	B
AG4W	7,280	91	40	B
K4NO	96,000	600	80	A
KS4L	76,304	502	76	A
N4KH	51,600	344	75	A
KY5R	15,498	123	63	A
KD4N	8,480	80	53	A
WA1FCN	4,332	57	38	A
WA4WLI	680	20	17	A
KC4HW	99,520	622	80	U
KR4F	88,000	550	80	U
K4WI	48,960	306	80	U
N4KG	45,504	288	79	U
WX4TM	42,196	274	77	U
N4NM	39,960	270	74	U
K8KI	29,104	214	68	U
WX4MM	25,420	205	62	U
K4TD (+ KY4F & VE7ZO)				
	225,120	1,407	80	M

Georgia

K4BAI	179,360	1,121	80	B
N4RR (WA2MBP, op)				
	177,760	1,111	80	B
NA4BW	151,632	972	78	B
KU8E	85,952	544	79	B
W4BQF	66,384	461	72	B
W4XO	26,268	199	66	B
NM2L	126,080	788	80	A
N5VI	44,928	312	72	A

W4UCZ	41,292	279	74	A	N4GU	23,954	203	59	A	N4EEB	53,874	369	73	U
K4OD	24,310	187	65	A	WB4MSG	21,440	160	67	A	W3TMZ	18,864	131	72	U
K4LW	24,310	187	65	A	N4ZSA	5,360	67	40	A					
AE4O	19,220	155	62	A	W4TMO	4,200	50	42	A					
WA2ASQ/4	(WA2ASQ/4, op)				K4BSK	4,200	60	35	A	Puerto Rico				
	11,900	119	50	A	AA4XX	79,800	525	76	Q	WP3R	(LZ4AX, op)			
K8GA	5,698	77	37	A	WK4P	31,144	229	68	Q		191,840	1,199	80	B
W4QO	60,344	397	76	Q	W2VMX	180	10	9	Q	KP3Z	(NP4Z, op)			
K1ZZI	161,440	1,009	80	U	W4MR	(AA4NC, op)					178,240	1,114	80	A
N4PN	128,480	803	80	U		189,280	1,183	80	U	KP3AAA	(WP3R, op)			
AA4CF	90,012	577	78	U	N1LN	187,360	1,171	80	U		8,640	90	48	A
N4LR	77,616	504	77	U	AA4FU	158,948	1,006	79	U	NP3CW	240	12	10	A
AA4LR	13,328	119	56	U	K4QPL	150,890	955	79	U					
WB4MAK	5,494	67	41	U	K4XD	135,040	844	80	U	South Carolina				
W5JR	2,640	44	30	U	W0UCE	102,080	638	80	U	AF4OX	128,770	815	79	B
WW4LL	220	10	11	M	K9EZ	71,250	476	75	U	W4OC	175,040	1,094	80	A
					W4KAZ	68,256	474	72	U	K3AN	100,488	636	79	A
Kentucky					K3KO	62,410	395	79	U	W4IX	98,434	623	79	A
W5MX	187,520	1,172	80	B	NT4D	61,920	387	80	U	KN4QD	45,450	303	75	A
N4QS	121,344	768	79	A	K4CZ	46,200	300	77	U	K7UPJ	25,090	193	65	A
K4FXN	119,040	744	80	A	N4TL	43,928	289	76	U	WA8OJR	21,632	169	64	A
K4IE	100,620	645	78	A	KA1ARB	29,512	217	68	U	AA4SD	36,850	275	67	Q
KC4WQ	42,350	275	77	A	W2DZO	25,220	194	65	U	KB4GYT	20,732	142	73	Q
K9VIS	27,720	210	66	A	KJ4IC	23,552	184	64	U	K2SX	90,060	570	79	U
KJ4AOM	24,080	172	70	A	KZ2I	17,550	117	75	U	WS4C	27,020	193	70	M
K4SPO	9,310	95	49	A	KS4S	8,624	98	44	U					
N4XFF	9,310	95	49	A	W4ZYT	(+ W4SD, W4WV, W4TVG, W4PRO, W0CN, KU4EC, K4CQW, WS9B, WB4DNL, AG4JT, KD4OS)				Southern Florida				
KU4UV	1,950	39	25	A		61,754	401	77	M	W2TX	115,200	720	80	A
KA4TEU	1,500	30	25	A	W4NC	(KJ4IC & W2DZO, ops)				N4LF	54,244	382	71	A
KD9B	15,372	122	63	Q		416	16	13	M	K4MF	52,050	347	75	A
K4AVX	15,100	151	50	Q	W4WS	(W2DZO, KJ4DLS, WS4NC, W4RXG, KN4BA, ops)				WB7ECS	22,152	156	71	A
KO4OL	35,816	242	74	U		392	14	14	M	K4QD	12,168	117	52	A
										K8NZ	6,800	85	40	A
North Carolina					Northern Florida					N1ZX	1,750	35	25	A
N4AF	212,000	1,325	80	B	N4OX	159,580	1,010	79	B	N9RG	286	13	11	A
K2AV	161,792	1,024	79	B	K4PV	134,750	875	77	B	K4R XR	0	0	9	A
N4CW	153,760	961	80	B	N4UU	94,168	596	79	B	N4PSE	39,960	270	74	Q
K4FX	45,504	316	72	B	WA4IIF	23,616	164	72	B	W8HW	24,500	175	70	Q
N2RF	26,496	192	69	B	KN4Y	9,384	92	51	A	N4BP	196,800	1,230	80	U
K4SV	21,042	167	63	B	N4FY	9,180	85	54	A	W1MD	99,528	638	78	U
KY4P	18,900	135	70	B	W2EJG	8,480	80	53	A	N4KK	74,100	475	78	U
AE4EC	10,200	102	50	B	N0HT	(W5JBV, op)				AD4ES	(+ K9ES & KD2JA)			
N4YDU	124,978	791	79	A		82,792	524	79	Q		65,052	417	78	M
W4MY	104,720	680	77	A	AA4W	26,934	201	67	Q	Tennessee				
KA2OUO	47,002	331	71	A	AC2N	3,848	52	37	Q	WO4O	152,640	954	80	B
W4MPS	43,956	297	74	A	NF4A	81,528	516	79	U	W4NZ	145,120	907	80	B
W4UOR	29,388	237	62	A						K3CQ	111,074	703	79	B
										WF7T	87,626	569	77	B

N4IR	82,732	559	74	B	W4YE	97,344	624	78	A	W3YY	93,440	584	80	U
N4AAI	66,600	444	75	B	N4UA	90,060	570	79	A	K2WK	92,862	603	77	U
K0EJ	66,240	460	72	B	KG3V	67,598	463	73	A	N3UA	88,954	563	79	U
W9WI	58,672	386	76	B	K4DPF	55,024	362	76	A	N4FX	75,050	475	79	U
AB4GG	26,130	195	67	B	WK5X	50,784	368	69	A	W4PK	68,838	447	77	U
K4EDI	19,832	148	67	B	KK4R	40,296	276	73	A	K4GM	61,620	390	79	U
NA4K	149,280	933	80	A	N3TG	30,552	228	67	A	K4FPF	61,462	389	79	U
K4PJ (K4LTA, op)					N4KIT	30,514	209	73	A	N4VA	60,040	380	79	U
	133,760	836	80	A	K4FTO	30,056	221	68	A	N3BM	50,820	330	77	U
N4UW	86,110	545	79	A	K7SV	29,946	217	69	A	NI1N	50,688	352	72	U
K1GU	83,600	550	76	A	K4UK	27,156	186	73	A	NM4M	43,890	285	77	U
N2WN	80,964	519	78	A	K1RA	23,892	181	66	A	W3DQ (NN3W, op)				
W4SIG	60,298	413	73	A	N3MA	19,456	152	64	A		43,168	284	76	U
W4HZD	50,694	357	71	A	W4VG	18,396	146	63	A	K1KO	32,116	217	74	U
K4CX	37,630	265	71	A	K8LF	18,048	141	64	A	N4NW	11,310	87	65	U
N4ARO	36,036	234	77	A	KA4GFY	18,048	141	64	A	W0YR	4,968	69	36	U
NB4M	24,832	194	64	A	K4RT	15,892	137	58	A	N4DWK	4,960	62	40	U
W4BK	23,140	178	65	A	W0QQG	15,600	130	60	A	W2YE	3,712	58	32	U
KE4OAR	19,840	160	62	A	W2OR	15,288	147	52	A	W4RM (+ W4NF & K5VG)				
W4NI	16,240	140	58	A	N4ST	13,300	133	50	A		209,760	1,311	80	M
W4DAN	12,508	118	53	A	AA4KD	12,096	112	54	A	KC4D (+ K1SE, WA4ZPF, K4ORD)				
W6UB	10,736	122	44	A	K1KAV	11,800	100	59	A		127,200	795	80	M
WD8RYC	9,230	71	65	A	K4MX	11,232	104	54	A	K4IX (W8RJL, W4XQ, A14MI, WA4EUL, KF4NMK, W4VIC, K14VB, ops)				
KA4OTB	8,918	91	49	A	NR4C	10,712	103	52	A		82,524	529	78	M
KI4EZC	1,960	35	28	A	K4JK	10,620	118	45	A	NN3W (@ N4RV)				
K4RO	127,360	796	80	Q	AC6NN	10,290	105	49	A		69,454	451	77	M
KW4JS	8,428	98	43	Q	KI3O	10,260	135	38	A	KA4RRU	7,482	87	43	M
N4ZZ	188,800	1,180	80	U	K4AEN	10,146	89	57	A	W4UVA (WF7I, op)				
N4DW	136,960	856	80	U	W3KDR	9,568	92	52	A		1,044	29	18	S
AD4EB	103,520	647	80	U	WB4JJJ	8,544	89	48	A					
W4NX (W4BCG, op)					K4FJW	6,162	79	39	A					
	4,028	53	38	U	K4DND	1,932	42	23	A					
					K3MZ	308	14	11	A					
					NQ4K	144	8	9	A					
					AI4KT	2	1	1	A					
Virginia					W7IY	97,944	636	77	Q	US Virgin Islands				
K4ZW	174,560	1,091	80	B	K4WY	38,250	255	75	Q	KV4FZ	16,644	146	57	B
W4AU	109,356	701	78	B	K4ORD	34,500	250	69	Q	NP2L	48,138	339	71	A
K4EU	107,464	707	76	B	WR4I	19,584	153	64	Q	KP2M (N3XF, K1ZE, W1EQ, ops)				
N2YO	89,544	574	78	B	KI4FW	11,368	116	49	Q		219,040	1,369	80	M
K0DQ	85,162	539	79	B	K4OSO	9,408	96	49	Q	West Central Florida				
KT3Y	70,378	457	77	B	W4MYA	173,280	1,083	80	U	K5KG	164,480	1,028	80	B
N4PD	67,800	452	75	B	K4GMH	151,364	958	79	U	N4GI	56,628	363	78	B
N3BA	33,338	211	79	B	N3JT	148,678	941	79	U	N4TB	122,616	786	78	A
N4MM	31,512	202	78	B	W4PM	134,400	840	80	U	WD4AHZ	112,000	700	80	A
N3KN	17,980	155	58	B	KG4W	97,644	618	79	U	K1TO	66,816	464	72	A
KJ4IT	720	20	18	B						W4LT	58,500	390	75	A
K1HTV	133,352	844	79	A						K4GKD	36,208	248	73	A
										N4AO (WC4E, op)				
											15,544	134	58	A
										K5RQ	110,264	716	77	U

W4ZW 18,900 189 50 U
K1KNQ 1,584 33 24 U

5**Arkansas**

K5GO (N5DX, op)
244,960 1,531 80 B
AE5PW 21,106 173 61 A
W0LK 15,576 132 59 A
KM5PS 12,208 109 56 A
KD5J 1,820 35 26 A
K5DOE (K0UU, op)
27,336 201 68 Q
W5KI 65,412 414 79 U

Louisiana

N8OO 171,040 1,069 80 B
W5WMU 153,280 958 80 B
N5VU 28,616 196 73 B
AF5P 10,176 96 53 B
K1DW 102,564 666 77 A
AA5AU 76,960 481 80 A
N5YE 48,160 344 70 A
N5II 46,096 344 67 A
W5AG 7,020 78 45 A
KC5R 40,032 278 72 Q
N5IB 7,564 61 62 Q

Mississippi

N4OGW 191,360 1,196 80 A
WQ5L 101,752 644 79 A
N5PU 13,668 134 51 A

New Mexico

N2IC 255,520 1,597 80 B
NN5K 90,896 598 76 B
KD5JAA 47,576 313 76 B
WA5ZUP 45,260 310 73 B
AA5B 170,324 1,106 77 A
K7IA 112,812 714 79 A
KK6MC 71,550 477 75 A
W5DET 44,700 298 75 A
W5YZ 34,500 230 75 A
K1GMD 13,348 94 71 A
W5IV 9,120 76 60 A
N5KEV 6,970 85 41 A
K8JLB 5,460 65 42 A
WD5CAW 4,488 66 34 A
N5UL 1,520 38 20 A

K5OI 21,708 162 67 Q

North Texas

WX0B (K5GA, op)
230,560 1,441 80 B
W5GN 158,000 1,000 79 B
K5RX 141,094 893 79 B
N5PO 123,082 779 79 B
WB0TEV 288 12 12 B
WD5K 141,568 896 79 A
W8FN 134,940 865 78 A
N1CC 95,160 610 78 A
W5RYA 86,100 574 75 A
K5FO 55,616 352 79 A
K5IID 55,594 361 77 A
WA8ZBT 35,560 254 70 A
W5CUB 11,342 107 53 A
NM5M 7,990 85 47 A
K5SS 5,112 71 36 A
KC5NT 3,456 48 36 A
N5WLA 82,836 531 78 Q
AA5TB 36,062 247 73 Q
WA5RML 15,680 140 56 Q
KB5RXL 8,556 93 46 Q
K5ND 306 17 9 Q
N5JB 114,880 718 80 U
W5OV 38,056 284 67 U
NM6E/W5 4,620 70 33 U
W0VX 28,000 200 70 M

Oklahoma

K5UV 95,520 597 80 B
N5DY 85,728 564 76 B
AB5I 61,758 423 73 B
K5YAA 14,148 131 54 B
W5TM 1,188 27 22 B
N5XE 60,356 382 79 A
AE5MM 28,288 208 68 A
NX5O 27,156 186 73 A
N5UWY 3,520 55 32 A
KD5RSS 160 10 8 Q
K5KA (+ K6AW)
205,440 1,284 80 M
WD0GTY (+ N5PJ)
27,208 179 76 M

South Texas

K5NA 219,360 1,371 80 B

K5TR (N5RZ, op)
216,000 1,350 80 B
K5WA 204,960 1,281 80 B
W5KFT (K5PI, op)
200,640 1,254 80 B

N5YA (N5UM, op)
178,540 1,130 79 B
W5ASP 122,928 788 78 B
W5XD 75,306 489 77 B
NK5Z 50,112 348 72 B
N5AW 192,320 1,202 80 A
AC5K 105,228 666 79 A
NO5W 98,560 640 77 A
K5XA 68,524 463 74 A
W5ZL 66,144 424 78 A
K5JX 65,360 430 76 A
K5MV 51,208 346 74 A
AJ4F 42,328 286 74 A
N5XJ 41,760 290 72 A
K0GEO 32,160 240 67 A
K5OT 16,284 138 59 A
W5QLF 13,566 119 57 A
N5KAE 11,136 87 64 A
K5NZ 8,536 97 44 A
NZ5G 8,428 98 43 A
K5STZ 3,774 51 37 A
W5ESE 24,644 202 61 Q
WD5IYT 6,724 82 41 Q
W5RQ 75,840 480 79 U
K5H DU 49,950 333 75 U
NR5M (+ K4ZA, KU5B, NX5M, W2GD)
229,600 1,435 80 M

KZ5P (+ KZ5J)
69,608 452 77 M
N5XU (AA5BT, op)
23,556 151 78 S

West Texas

N5DO 150,880 943 80 A
N5LUL 28,980 207 70 A
K5BZH 25,480 196 65 A
WA5VSK 16,616 124 67 A
N5SM 0 -1 0 A
N5NA 113,920 712 80 U
N5ZC 20,824 137 76 U

6**East Bay**

W4UAT	81,370	515	79	B
NO6X	79,192	521	76	B
KD6WKY	19,140	174	55	A
K6DF	15,456	138	56	A
AE6C	8,928	93	48	A
K2GMY	5,628	67	42	A
N6WG	29,964	227	66	Q
N6RO	194,720	1,217	80	U
K6WG	144,320	902	80	U
N6ML	137,920	864	80	U
WT6K	81,760	511	80	U
W6NV	79,948	506	79	U
W6RGG	75,504	484	78	U
K6AUC	35,052	254	69	U
W6ONV	27,876	202	69	U
K6JEB	26,600	190	70	U
KX7M	16,562	169	49	U
N6AJR	9,486	93	51	U
N6WM	3,182	43	37	U
K6LRG (N6WM & K4VU, ops)				
	70,072	461	76	M

Los Angeles

K6LA	219,040	1,369	80	B
N6AA	108,320	677	80	B
N5BF	63,536	418	76	B
WA6URY	35,420	253	70	B
W8DX	11,440	104	55	B
W4EF	7,440	93	40	B
N6AN	480	16	15	B
N6HE	44,162	311	71	A
W6JK	36,750	245	75	A
N6GL	16,472	142	58	A
W6EJJ	16,226	133	61	A
N7KFL	12,420	115	54	A
NK6A	7,980	95	42	A
NC6Q	286	11	13	A
N6TCZ	286	11	13	A
N6GA	3,248	58	28	Q
W6KC	77,760	486	80	U
N6QQ	43,836	281	78	U
WA6KYR (+ KN6Y, KD6PLU, W6OFV, KJ6ZI)				
	6,716	74	46	M

Orange

N6HC	171,040	1,069	80	B
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K6NR	124,644	799	78	B
WA6KHK	84,552	542	78	B
N6ER	42,746	319	67	B
KT7F	20	2	5	B
AA6PW	113,128	716	79	A
KQ6ES	60,214	391	77	A
N6MU	12,012	77	78	A
NT6X	8,820	98	45	A
WA6RUS	7,832	89	44	A
WA6NOL	2,378	41	29	A
N6CHU	2,352	42	28	A
KQ6Q	1,550	31	25	A
WA6GFR	0	-2	0	A
KF6I	73,600	460	80	U
K6GEP	23,798	163	73	U

Pacific

KH6MB	179,840	1,124	80	B
KH7Y	137,302	869	79	B
AH7ZA	101,868	653	78	A
K5IX/KH6 (K5IX/KH6, op)				
	1,596	38	21	A
KH6/W3GW	360	18	10	Q
KH6LC (SM0DRD, op)				
	196,320	1,227	80	U

Santa Barbara

WA6FGV	89,270	565	79	A
W6AYC	43,050	287	75	A
K7SDW	17,980	145	62	A
W6GL	8,640	90	48	Q
W6TK	103,200	645	80	U

Santa Clara Valley

N6PN (@ N6TV)				
	181,760	1,136	80	B
AE6Y	157,280	983	80	B
K6YT (W0YK, op)				
	152,320	952	80	B
W6NL	64,296	423	76	B
W6CT (@ K6TD)				
	55,772	382	73	B
K6XN	46,176	312	74	B
W6OPO	8,944	86	52	B
W6DR	18	3	3	B
N6NF	87,900	586	75	A
W6FB	53,960	355	76	A

K6KQV	32,016	232	69	A
K6JF	24,156	198	61	A
K2RD	23,046	167	69	A
N5KO	11,040	115	48	A
N6GK	2,880	48	30	A
N6KV	63,000	420	75	Q
K6XM	45,504	288	79	Q
AC6YY	27,206	223	61	Q
K6VVA	25,480	196	65	Q
N3WG	476	17	14	Q
W6YX (N7MH, op)				
	210,400	1,315	80	U
K6XX	201,120	1,257	80	U
W6OAT	183,040	1,144	80	U
W6XX	142,584	914	78	U
K6RB	134,240	839	80	U
K6MM	131,520	822	80	U
AD6E	128,800	805	80	U
K6ZM (WA6O, op @ K6TD)				
	127,040	794	80	U
N3ZZ	123,360	771	80	U
K6GT	116,604	738	79	U
K9YC	108,800	680	80	U
W6ISO (WX5S, op)				
	105,920	662	80	U
N6RC	102,560	641	80	U
NI6T	100,160	626	80	U
WA6O (@ N6XG)				
	100,014	633	79	U
W6LD	97,920	612	80	U
KM6I	96,480	603	80	U
N6TU	90,560	566	80	U
AD6Z (NI6T, op)				
	75,660	485	78	U
W6BX (K9YC, op)				
	74,550	497	75	U
W6SC	71,680	448	80	U
AE6RF	64,528	436	74	U
N6CK	62,884	398	79	U
K6RM	60,600	404	75	U
N6XG	57,876	371	78	U
NW6P	46,028	311	74	U
K6BJ (AE6RF, op)				
	31,878	231	69	U
W4NJK	24,552	198	62	U
K6EP	19,840	160	62	U

N6MW 12,800 80 80 U
 K6WV 7,476 89 42 U
 K6RFM 6,192 72 43 U
 N6MEF 972 27 18 U
 K6SU (KZ2V, op @ W6YX)
 58,500 390 75 M

San Diego

K6NA 218,400 1,365 80 B
 K6ZH 110,560 691 80 A
 WN6K 95,760 630 76 A
 K2RP 56,518 367 77 A
 W6KY 51,000 340 75 A
 K6DEX 30,736 226 68 A
 AA6EE 23,760 180 66 A
 K6VWL 14,478 127 57 A
 AD6ZJ 510 17 15 Q
 N6KI 53,436 366 73 U
 N6NC 53,130 345 77 U
 W6YI (+ N6MJ, N6RT, N6KI, K6AM)
 246,880 1,543 80 M

San Francisco

K6CTA 97,032 622 78 B
 N6ZFO 144,096 912 79 A
 AA6YX 81,920 512 80 A
 N6YEU 66,066 429 77 A
 W6IYS 34,602 219 79 A
 W6HF 20,424 148 69 A
 AA6DX 14,964 129 58 A
 WW6D 5,494 67 41 A
 W1EJ 2,728 44 31 A
 KD6YV 128 8 8 A
 KB6NN 0 0 1 A
 W6JTI 91,572 587 78 Q
 W6XU 176,800 1,105 80 U
 K6SRZ 172,640 1,079 80 U
 K6RIM 155,040 969 80 U
 N6AD 65,604 426 77 U
 K6JS 58,776 372 79 U

San Joaquin Valley

WC6H 183,280 1,160 79 B
 K6SV 142,720 892 80 B
 W6SX 139,988 886 79 B
 N6BU 53,428 361 74 B
 K6EEP 16,592 136 61 B

K2VCO 113,498 737 77 A
 N3RC 24,400 200 61 A
 K6CSL 23,688 188 63 A
 NF6P 20,916 166 63 A
 K6LE 8,160 80 51 A
 K6MI 108 9 6 Q
 N6EE 98,748 633 78 U
 N6NZ 93,600 600 78 U
 AF6EV 57,828 366 79 U
 W6XK 50,700 325 78 U
 KG6D 44,714 283 79 U
 N2NS 33,750 225 75 U
 WK6I 30,660 210 73 U
 NA6G 17,520 146 60 U
 KT6YL 16,184 119 68 U
 N6FD 4,408 58 38 M

Sacramento Valley

N6RK 171,360 1,071 80 B
 K9JM 120,160 751 80 B
 K6LRN 109,280 683 80 B
 W6XB 97,500 625 78 B
 K6XV 49,140 351 70 B
 W6RKC 41,400 300 69 B
 NI6P (NI7T, op)
 1,050 25 21 B
 WT6G 96,696 612 79 A
 K6KYJ 54,750 365 75 A
 KA6W 33,456 246 68 A
 W7XZ 32,060 229 70 A
 N6EF 28,368 197 72 A
 W6RFF 19,488 168 58 A
 KQ6X 15,808 152 52 A
 NC6PT 960 24 20 A
 W6EO 84 6 7 A
 NU6S 88,320 552 80 Q
 K6GPB 5,280 80 33 Q
 N6XI 202,240 1,280 79 U
 K6TA (N6BV, op)
 198,080 1,238 80 U
 W6RK 187,680 1,173 80 U
 N6DE (@ K6IDX)
 183,040 1,144 80 U
 W6EU 159,040 994 80 U
 KF6T 141,440 884 80 U
 W1RH 139,360 871 80 U

AI6V (KF6T, op)
 100,152 642 78 U
 WE6Z 88,954 563 79 U
 K6AO (WX6V, op)
 88,452 567 78 U
 WX6V 86,400 540 80 U
 W6IXP 66,008 446 74 U
 K6DGW 65,416 442 74 U
 WB6JJJ 58,080 363 80 U
 K6NV 53,960 382 71 U
 K6III 52,960 331 80 U
 NC6RJ 50,086 317 79 U
 K6SRA (K6DGW, op)
 38,624 272 71 U
 KJ6RA 32,956 214 77 U
 N6DW 19,404 147 66 U
 K6ST 12,768 112 57 U
 KI6T 7,296 76 48 U
 AI6YL (AI6V & K6RC, ops)
 141,920 887 80 M
 W6BO (+ N6BOB)
 18,864 131 72 M
 NU6T 6,708 78 43 M
 K7DX (NU6T, op)
 5,092 67 38 M

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Alaska

KL7WV 86,250 576 75 B
 AL1G 29,232 261 56 B
 KL7AF (KH6SH, op)
 148,994 943 79 U
 AL9A 18,904 139 68 U
 KL2R (N1TX & KL1JP, ops)
 41,480 340 61 M
 KL8DX 34,790 245 71 M

Arizona

KO7AA 208,960 1,306 80 B
 W7ON 24,640 176 70 B
 K8IA 165,440 1,034 80 A
 N7CW 155,156 982 79 A
 W7ZR 111,200 695 80 A
 K7HP 109,178 691 79 A
 W9CF 89,270 565 79 A
 K7WP 56,064 385 73 A
 W7GVE 55,024 362 76 A
 KC7V 50,700 338 75 A

W7YS	43,320	285	76	A	N7LB	44,400	296	75	A	K7VIT	11,118	109	51	A
WD8KRV	25,704	204	63	A	K7ARJ	21,632	169	64	A	N7ICK	8,232	98	42	A
NQ7R	25,392	184	69	A	N7WH	15,840	110	72	A	K7GZP	1,950	39	25	A
KE2VB	13,160	140	47	A	K7JAN	3,264	48	34	A	W6RA	12	2	3	A
W8TK	9,016	98	46	A	KR7LD	9,048	78	58	U	N7OU	101,760	636	80	Q
K8LJK	8,930	95	47	A						W7YAQ	95,432	604	79	Q
W7QEK	7,728	86	46	A	Montana					NM7N	40,040	286	70	Q
K7TR	2,200	44	25	A	N9RV	200,800	1,255	80	B	W3CP	17,640	140	63	Q
K7GIM	2	1	1	A	K7BG	188,800	1,180	80	A	N7JI	7,760	97	40	Q
N7IR	104,122	659	79	Q	KE7X	163,520	1,022	80	A	W7WHY	14,336	128	56	U
N6MA	86,112	552	78	Q	KE1HA	40,736	304	67	A	WS7L (+ W8NF)				
AA1TR (OK1CZ, op)					KB7Q	204,000	1,275	80	U		79,840	499	80	M
	41,720	298	70	Q	K7ABV	49,640	340	73	U	Utah				
N6HI	27,430	211	65	Q	KS7T (+ AB5ZA/7)					NN7ZZ (N5LZ, op)				
N7MAL	9,800	98	50	Q		62,604	423	74	M		179,520	1,122	80	B
W0RSP	9,120	95	48	Q	Nevada					N7VM	172,062	1,089	79	A
K6LL	212,800	1,330	80	U	W7RN (N6TV, op @ K5RC)					WA7YAZ	35,550	237	75	A
KY7M	158,720	992	80	U		223,200	1,395	80	B	AC7JW	21,420	170	63	A
AB7E	102,880	643	80	U	K7XC	92,320	577	80	B	WA7BME	1,288	28	23	A
W7SW	82,080	513	80	U	N7TR	61,320	438	70	B	AD7KG	836	22	19	A
NI7R	68,952	442	78	U	N7ON	63,832	404	79	A	WF4U	30,016	224	67	Q
KS5A	61,138	397	77	U	KF2T	38,836	266	73	A	K7CA	12,640	80	79	Q
KE7YF	48,818	317	77	U	W7ZAC	10,920	105	52	A	WY7N	6,794	79	43	Q
W7WW	43,428	282	77	U	W6NF	5,628	67	42	A	K9JWV	6,552	78	42	Q
K7FA	42,328	286	74	U	WD7Y	6,816	71	48	Q	WA7LNW	77,672	511	76	U
K7RSM	14,606	109	67	U	K7NV	190,560	1,191	80	U	NG7M (+ W7CT)				
KR7RK	5,900	59	50	U	K7LV	84	6	7	U		186,400	1,165	80	M
K7RDG (KX6X, KE7TDL, AB4LE, ops)														
	2,772	42	33	M										
Eastern Washington					Oregon					Western Washington				
W7WMO	62,624	412	76	A	KI7Y	76,440	490	78	B	W7GKF	123,240	780	79	B
WA0WWW	34,980	265	66	A	N6TW	29,256	212	69	B	W7IJ	96,564	619	78	B
K7TJ (WS7I, op)					W7RM (N6TR, op)					K6KR	87,690	555	79	B
	15,180	110	69	A		21,240	180	59	B	W7VJ	87,300	582	75	B
AA6RR	10,980	122	45	A	N6PZ	15,336	142	54	B	N7NM	77,616	505	77	B
K7SMW	9,416	107	44	A	K2PO/7	104,280	660	79	A	W7LKG	73,632	472	78	B
K7EIQ	5,612	61	46	A	NE7D	58,344	374	78	A	NG7Z	53,392	376	71	B
WS7V	1,950	39	25	A	K7PJT	54,300	362	75	A	K7GLM	28,080	195	72	B
W7GB	39,312	273	72	Q	KD7MSC	39,566	271	73	A	N6KW	25,420	205	62	B
K7OX	155,156	982	79	U	KL7WP	33,552	233	72	A	K7RX	6,960	87	40	B
WX7P	117,120	732	80	M	N7VS	32,340	245	66	A	W7PU	750	15	25	B
Idaho					K7RF	30,284	226	67	A	KN7T	141,440	884	80	A
K0TO	128,454	813	79	B	AA7IH	24,948	198	63	A	N7WA	130,508	826	79	A
W7ZRC	159,840	999	80	A	K6UM	18,600	150	62	A	K0PJ	77,736	492	79	A
N7ZN	60,532	409	74	A	WA7UR	13,362	131	51	A	NU7J	72,364	458	79	A
					K6VRS	12,096	108	56	A	W7VXS	41,890	295	71	A
					KE7AUB	11,856	114	52	A	W7QN	39,168	288	68	A

KF8UN	13,340	115	58	M
West Virginia				
N8II	168,480	1,053	80	B
K8JQ	55,944	378	74	B
WA8KAN	23,760	180	66	B
K8OQL	13,224	116	57	B
W8IVF	99,066	627	79	A
W8ZA	28,944	216	67	A
N4ZR	166,690	1,055	79	U
W8OHT	49,558	349	71	U
W8AKS	18,560	160	58	U

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Illinois				
K9CT	194,720	1,217	80	B
K9BGL	174,240	1,089	80	B
W9YYG	112,640	704	80	B
K9MMS	103,964	658	79	B
K9UQN	69,300	450	77	B
W9SE	51,590	335	77	B
KG9N	40,392	306	66	B
W3HDH	38,346	249	77	B
W9ZV	27,216	189	72	B
K9ZO	149,760	936	80	A
N9TK	146,240	914	80	A
N9CO	142,358	901	79	A
K9KM	115,340	730	79	A
K9UIY	104,676	671	78	A
K9QVB	104,052	667	78	A
N9JF	95,748	606	79	A
K9WA	91,798	581	79	A
K9OM	77,920	487	80	A
K9XE	69,678	441	79	A
W9SZ	60,372	387	78	A
W9ILY	54,416	358	76	A
WD9CIR	53,290	365	73	A
N9LYE	47,334	343	69	A
WA9AQN	41,464	292	71	A
W9YS	38,532	247	78	A
WQ9T	37,728	262	72	A
K9JU	36,210	255	71	A
WB8RFB	32,060	229	70	A
WB9HFK	26,664	202	66	A
K9GY	22,568	182	62	A
AB9OS	22,428	178	63	A
KX9DX	21,452	173	62	A
K9IJ	20,976	138	76	A

W9WE	18,600	155	60	A
N9BT	17,442	153	57	A
AA9KH	17,024	133	64	A
AK9F	15,606	153	51	A
NV9X	13,992	132	53	A
K9CJ	11,880	110	54	A
K9AHH	10,710	105	51	A
WB9CHY	3,816	53	36	A
K9KMD	1,972	34	29	A
KB7ISP	1,216	38	16	A
WB9MII	1,092	26	21	A
KC9IL	714	21	17	A
AI9L	8	2	2	A
N9IH	0	0	1	A
K9SE	49,200	328	75	Q
K9JG	792	22	18	Q
K9NR	155,520	972	80	U
ND9E	141,120	882	80	U
KI9A	116,480	728	80	U
KS9W	108,960	681	80	U
K9CC	101,594	643	79	U
WX9U	89,440	559	80	U
KM9M	82,544	536	77	U
N2BJ	75,680	473	80	U
K9MOT (K9PW, op)				
	66,360	420	79	U
N9IO	63,680	398	80	U
K9CS	59,408	376	79	U
W9IL	49,280	308	80	U
N9BX	43,524	279	78	U
W9YK	40,584	267	76	U
N9MSG	37,696	248	76	U
W9FX	23,312	188	62	U
N9UM	17,082	117	73	U
WA9FBC	16,872	111	76	U
K9OZ	11,832	116	51	U
N9GH	864	24	18	U
N9LAH	50	5	5	U
N9YN (N9IH & N9UF, ops)				
	640	20	16	M
N9UC (W09S, op)				
	106,334	673	79	S
W9UIH (KB9E, op)				
	50	5	5	S
Indiana				
W9RE	228,800	1,430	80	B

KE9I	143,360	896	80	B
WT9U	142,080	888	80	B
K0TQ	70,668	453	78	B
K9OKK	12,826	121	53	B
W9SN	143,306	907	79	A
N9HZ	98,592	632	78	A
N4TZ	57,000	375	76	A
N9AX	26,144	172	76	A
WA9ZES	20,584	166	62	A
KB9BIT	13,440	84	80	A
W9TN	12,138	119	51	A
WB9MDS	10,904	116	47	A
WA0JTL	870	29	15	A
AJ9C	660	22	15	A
W9IP	28,006	209	67	Q
N9DD	27,872	208	67	Q
W9IU	136,480	853	80	U
K9NW	118,560	741	80	U
K9QCW	108,040	730	74	U
K9WX	106,392	682	78	U
KK9V	66,676	422	79	U
N9WKW	43,836	281	78	U
K9DUR	40,606	257	79	U
N9XO	21,024	144	73	U
N9LF	7,442	61	61	U

Wisconsin

N0IJ	183,840	1,149	80	B
W8LQ	101,712	652	78	B
N9CK	163,372	1,034	79	A
K0TG	148,044	952	78	A
KB9OWD	113,440	709	80	A
W9LO	103,334	671	77	A
K0CD	75,050	475	79	A
W9UX	45,288	306	74	A
K9KR	33,938	239	71	A
W9OA/9	30,366	241	63	A
W9XT	27,324	207	66	A
WA0ACF	25,308	171	74	A
W9KHH	21,190	163	65	A
N9TTX	16,200	135	60	A
WR9Y	4,420	65	34	A
WB9FIP	3,422	59	29	A
K9QH	576	18	16	A
W9HR	364	14	13	A
WI9WI	97,032	622	78	Q

N9NE	93,912	602	78	Q
K9AY	78,078	507	77	Q
K9WIS	31,820	215	74	Q
AF9J	16,986	149	57	Q
KC9ECI	10,260	114	45	Q
NE9U	163,360	1,021	80	U
WE9V	142,240	889	80	U
N9XX	120,960	756	80	U
NS9I	80,960	506	80	U
KB9S	60,684	389	78	U
WW9R	35,880	260	69	U
K9ZT	15,194	107	71	U
K9MU	7,296	76	48	U
KA9FOX	5,760	80	36	U
N9GTC	5,928	76	39	S

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Colorado

W0UA	228,160	1,426	80	B
WT9Q	162,740	1,030	79	B
K0XTR	15,276	134	57	B
K7TD	155,520	972	80	A
AC0DS	133,194	843	79	A
W0ETT	131,680	823	80	A
AD1C	108,862	689	79	A
K0UK	93,940	610	77	A
W0NTA	76,608	504	76	A
K8FC	68,096	448	76	A
K0ALT	56,092	379	74	A
N0TA	55,188	378	73	A
K0EU	45,828	342	67	A
K10J	37,522	257	73	A
WA7NPX	28,248	214	66	A
W0RAA	25,216	197	64	A
K0YQ	20,128	136	74	A
K0MIS	510	17	15	A
K0LMD	56	4	7	A
K0AV	114,392	724	79	Q
N0KE	80,184	514	78	Q
W0EPC	30,498	221	69	Q
NO2D	2,340	39	30	Q
K10II	4	1	2	Q
W0ZP	176,644	1,118	79	U
W0ZA	161,760	1,011	80	U
N0NR	173,120	1,082	80	M
W0DLE (+WB0GAZ)	154,208	976	79	M

Iowa

N0NI (AG9A, op)	244,960	1,531	80	B
KB0L	4,200	50	42	B
WI0WA	93,024	612	76	A
K0IO	69,750	465	75	A
N9HDE	56,980	385	74	A
KC0VKN	46,800	312	75	A
N0JL	28,928	226	64	A
K0KT	16,956	157	54	A
K0EWS	13,750	125	55	A
WBOB	7,752	76	51	A
AD0H	5,460	78	35	A
AK0M	27,832	196	71	Q
K9IUA	5,760	72	40	Q
N0XR	141,440	884	80	U
NU0Q	36,784	242	76	U
N0MA (W7II, op)	5,856	61	48	M

Kansas

KG0UA	38,544	264	73	B
K0FJ	7,380	90	41	B
K0HNC	30,080	235	64	A
AC0E	16,830	153	55	A
W0YRN	13,664	122	56	A
NB0Z	11,730	115	51	A
W0YJT	9,108	99	46	A
KA0BHO	6,300	75	42	A
W7JI	17,930	163	55	Q
N0NB	544	17	16	Q
K0WA	185,600	1,160	80	M
K0KU (K0VBU, K0VXU, KU0DM, K0RU, KU1CW, ops)	131,976	846	78	M
K0HC (W0BH, op)	188,000	1,175	80	S

Minnesota

NE0U	162,240	1,014	80	B
W0OR	159,200	995	80	B
K3WT	129,792	832	78	B
K9DU	93,240	630	74	B
W0ZQ	81,844	518	79	B
KM0O	66,722	457	73	B
K0JJR	40,280	265	76	B
KA0LL	25,326	189	67	B

W0DD	12,222	97	63	B
W0ELT	3,808	56	34	B
K0AD	176,000	1,100	80	A
NA0N	157,368	996	79	A
K0TI	146,080	916	80	A
K0PC	129,920	812	80	A
K0MPH	120,396	762	79	A
N0BUI	88,550	575	77	A
K0RC	80,184	514	78	A
K0PK	73,872	486	76	A
W0HW (N0TT, op)	70,744	478	74	A
K10F	67,860	435	78	A
K0RGR	62,550	417	75	A
N0IM	48,706	343	71	A
AA0AW	40,434	293	69	A
W0FL	40,432	266	76	A
K0KP	37,592	254	74	A
N0HJZ	37,180	286	65	A
W0RSB	32,558	223	73	A
N0UY	30,222	219	69	A
WA0W0V	17,040	142	60	A
N0BM	15,568	139	56	A
KS0T	15,264	144	53	A
N0UV	11,704	76	77	A
W9LHG	10,706	101	53	A
WA0RBW	5,320	70	38	A
WA0OTO	4,200	60	35	A
WB0KFM	3,332	49	34	A
N0AT (N0KK, op)	137,760	861	80	Q
N0UR	103,584	664	78	Q
KE0G	28,288	208	68	Q
W0IS	19,738	139	71	Q
N0OE	10	1	5	Q
KT0R (K0OB, op)	182,880	1,143	80	U
K1KD	167,164	1,058	79	U
W0PI	99,540	630	79	U
K0IR	98,592	624	79	U
WA0MHJ	96,960	606	80	U
WB0N	64,622	409	79	U
K0KX	63,840	399	80	U
N0BK	37,950	253	75	U
K4IU	37,296	252	74	U
W0BM	36,814	233	79	U

N0KBD	35,100	234	75	U
KE0L	32,604	209	78	U
K0QB	31,878	231	69	U
WG0M	30,338	197	77	U
NR0L	30,020	190	79	U
K0YR	24,120	180	67	U
AC0W	11,040	92	60	U
NR0T	7,740	86	45	U
KC0RET	1,392	29	24	U
NU0J	540	18	15	U
K0HB	147,200	920	80	M
K0JA (+ K0JE)				
	53,720	340	79	M

Missouri

NS0M	17,464	148	59	B
K0JPL	12,168	78	78	B
KC0M	49,202	337	73	A
K0DEQ	46,230	345	67	A
NI0R	26,368	206	64	A
W0HBH	23,874	173	69	A
W7KU	11,322	111	51	A
AA0CL	3,640	52	35	A
N0SO	1,664	32	26	A
WS0Z	924	22	21	A
KC0STQ	736	23	16	A
KA0P	416	16	13	A
N0SS	60,236	407	74	Q
KG0TW	380	10	19	Q
NV0U	112	8	7	Q
K0OU	168,800	1,055	80	U
W0TT	76,320	477	80	U
W4RK	15,618	137	57	U
K0FG	13,520	104	65	U

North Dakota

KE0A	86,394	561	77	B
N0UD (WB0OAJ, op)				
	29,820	210	71	A
N7IV (+ K9OR)				
	145,360	920	79	M

Nebraska

WW2Y	163,040	1,019	80	B
K0ITC	62,342	427	73	A
W0KT	50,954	349	73	A
WB0M	32	4	4	A

K0KRH	8	2	2	A
AA0W	1,334	29	23	Q
K0NE	61,776	396	78	U

South Dakota

WD0T	233,120	1,457	80	B
W0SD (W0DB, op)				
	224,000	1,400	80	B
N0SXX	127,032	804	79	U
K0VVY (AC0LU, op)				
	18	3	3	S

Canada**Alberta**

VE6TN	47,576	313	76	U
VE6EX	183,040	1,144	80	M
VE6AO (VE6KC & VE6AID, ops)				
	26,412	213	62	M

British Columbia

VE7CC	194,240	1,214	80	B
VA7ST	119,340	765	78	A
VE7YU	91,784	596	77	A
VA7MM	23,184	184	63	A
VE7AX	14,472	134	54	A
VE7IN	11,682	99	59	A
VA7CPC	10,170	113	45	A
VE7JKZ	5,852	77	38	A
VA7DZ	4,928	56	44	A
VE7BGP	2,592	48	27	A
VE7NGR	748	22	17	A
VA7DER (VE6BIR, op)				
	34,790	245	71	Q
VE7NI	9,894	97	51	Q
VE7XF	134,720	842	80	U
VA7RN	46,956	301	78	U

Maritime

VA1MM	77,600	485	80	B
VY2SS	114,080	713	80	A
VE1RGB	97,328	632	77	A
VE1AOE	30,464	273	56	A
VE1OP	124,640	779	80	U
VA1CHP	51,324	329	78	U
VE9HF	26,052	167	78	U

Manitoba

VE4EAR	46,136	292	79	B
KE0Z/VE4	104,208	668	78	A

VE4YU	41,100	274	75	A
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Newfoundland/Labrador

VO1HE	3,192	42	38	B
VO1BQ	1,716	33	26	A
VO1MP	64,320	402	80	U

Northern Territories

VY1EI	75,208	476	79	U
VE8EV (+ N6TR)				
	71,890	455	79	M

Ontario

VE3EJ	200,186	1,267	79	B
VE3KI (@ VE3FU)				
	136,828	866	79	B
VE3CX	29,256	212	69	B
VE3EY	137,760	861	80	A
VE3JM	70,560	490	72	A
VE3GFN	64,650	431	75	A
VA3HJ	52,592	346	76	A
VE3DZ	52,080	372	70	A
VE3RCN	51,528	339	76	A
VE3TW	44,092	302	73	A
VE2QV/3	36,720	270	68	A
VE3RER	27,520	215	64	A
VE3XAT	27,264	192	71	A
VE3XD	21,420	170	63	A
VE3OX	18,840	157	60	A
VE3MGY	16,588	143	58	A
VA3WR	9,500	95	50	A
VE3MM	7,030	95	37	A
VA3HUN	2,200	44	25	A
VA3SB	71,610	465	77	Q
VA3DF	70,532	458	77	Q
VA3NR	62,320	410	76	Q
VE3SMA	17,052	147	58	Q
VA3RKM	10,500	105	50	Q
VE3RZ	131,140	830	79	U
VE3TA	67,466	427	79	U
VA3DX	21,896	161	68	U
VE3HUR	8	2	2	M

Quebec

VE2AWR	86,268	553	78	A
VE2EZD	30,736	226	68	A
VE2FFE	30,290	233	65	A
VE2FK	29,748	222	67	A

VE2GHI	18,760	140	67	A
VE2AXO	16,536	159	52	A
VE2XAA	12,064	116	52	A
VA2SG	38,778	281	69	Q
VA2WDQ	163,040	1,019	80	U

Saskatchewan

VE5MX	95,040	594	80	B
VE5CPU	11,070	123	45	B
VE5ZX	157,760	986	80	A
VE5SF	111,840	699	80	A
VE5AAD	616	22	14	A
VE5DP	98	7	7	M