

# Results, 1993 ARRL June VHF QSO Party

Too much of a good thing is wonderful!—*Mae West*

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Contest Manager Assistant Contest Manager

**We** got lucky again this year. The terrific conditions of the past several June VHF QSO Parties continued, once again helping make this contest the premier operating event in the VHF world. There were good 6-meter openings, and 2 meters provided a little E-skip as well. It's no wonder why so many people make a special effort to be on the air during the June contest.

A glance through the results will tell you how good things were. Ninety-eight stations worked more than 100 multipliers on 6 meters this year, and Larry Lambert, NØLL, worked a whopping 204 grids on that band alone! The band seemed to be open almost everywhere, and a number of people were able to work Hawaii from as far east as Oklahoma, a 3668-mile path! In fact, Shel, N16E/KH6, remarked, "It was great to make so many 2- and 3-hop QSOs, and I even heard, but was unable to make contact with, W4 and W8 over 4-hop paths."

E-skip made it up to 2 meters, as well. The band opened up to the 1500-mile range, with several people completing contacts between EM12 in Texas and FN23 in New York. The sporadic-E openings in other parts of the country were reported to be, well, sporadic, with Ron, WD4AHZ, in Sarasota, Florida, reporting one opening to Iowa and Missouri.

We received a number of comments this year from people who were *happy* that 6 meters wasn't as open as it was the last time around. The conditions were great, but not fantastic, and this made for more activity on the higher frequencies, allowing ops to rack up some pretty good scores. Included are new all-time records by Jeff, WA2TEO, in the single-operator category, and the K1TR/3 group in the limited multioperator class. The K1TR group's final score was nearly double that of its nearest competitor, and Jeff's score was more than 100k bigger than Steve, N2CEI's. It wasn't too long ago that 100k was considered a winning score!

Many folks used the superb conditions to their advantage, with 21 new Division records broken, nine in the rover category alone. In the multioperator class, the Mount Greylock Expeditionary Force, W2SZ/1, added to its collection of plaques with another million-point-plus score. Wayne, N2WK, and his ops made a respectable second-place showing with just over 1 million points.

If you've been trying to find those last few grids you need for VUCC, the June VHF QSO Party should be just the ticket. As Ron, WG2I, put it, "It seems like new grids keep popping up in this contest!" If you're not on, you're missing a great chance to pick up some of those grids that would be hard to catch on the air otherwise. Good conditions attract activity, and you never know what grid your next contact might be in.

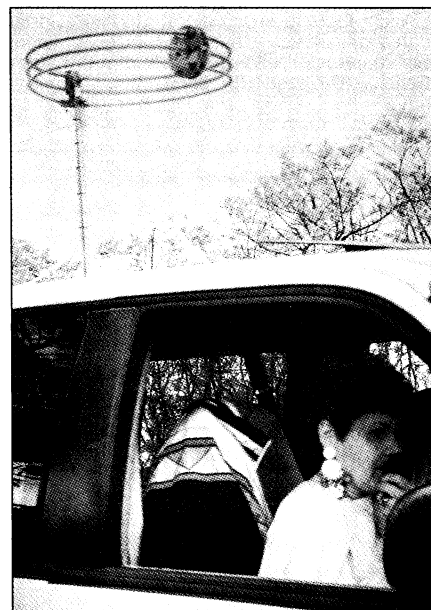


Ron, WA6FIT, activated six grids on five bands during the contest. Note the strategic location of the ice chest.

The Contest Branch received 818 logs this year, up 3.4% from last year, a sure sign of how good things were. Whether you're a newcomer to Amateur Radio who is interested in contesting, or a dyed-in-the-wool VHFer, next year's June VHF QSO Party should be another great time for one and all. Be there to catch the E-skip and the action!

## SOAPBOX

This contest was a lot of fun! (XE2/NH6ZF). Prior to Saturday, there were three consecutive days of no sporadic-E activity. Imagine my elation when I heard 6 meters open Saturday morning with a sporadic-E opening toward the southern states! Once the contest began, it was wall-to-wall activity (WB2AMU). The 2-meter band openings the first day of the contest were excellent! The highlight of the contest was working my first sporadic-E opening into Texas and Arkansas! I had a lot of fun and worked many new grids. I'm hooked on VHF contesting (WA2AEY). Activity was up. It was also nice to have a little sporadic-E on 2 meters; unfortunately, it only lasted three minutes (WD4AHZ). I had very good E skip for 30-40 minutes at this location, and worked seven new grids during the contest (NSFAC). I did twice as well as I expected to do, and working two Canadian stations on 2 meters was a real thrill. I'd also like to thank the rovers who made my score possible (N7YAG). I found 6 meters to be very hot with strong signals (WA2BPE). It was nice to hear so many rovers active during this contest (VE3BFM). I found 6-meter propagation to be outstanding, with coast-to-coast openings and some really remarkable signals from the Caribbean area. Unfortunately, prior commitments limited my operating time to just a few hours (W8UCI). The roving experience was very enjoyable, and I drew a crowd wherever I stopped (WYØC). My husband, WA2JHN, has been contesting for many years, and now I know what all the fuss is about! This was my first contest and I really enjoyed myself (N2RDX). This was the absolute best I have ever scored, using only 3 watts on each band. I only wish I could have had a shot at working Hawaii. There's always a next time! (WA5DJJ). I



Ltice, KB4CSE, works a 6-meter pileup while roving with her husband, Ted, WA4VCC. Not only did they win their division, but their 176k score was enough to put them in fourth place among rovers.

had to QRT several times due to the electrical storms and a bad rotator. I managed 10 new grids, so the contest was worth working (AAØDW). Because we were all new to VHF/UHF contesting, we did not know where to look for contacts, but you can be sure we will have a better plan for the next QSO Party (WA1EHK). I was on the air for a total of about six hours, either calling CQ on a variety of simplex frequencies, or just listening, and did not find much activity from this end of Maine (KA1EAP). With the exception of a tremendous storm with heavy rains, wind, hail and lightning, it was a great contest. Then again, there were the heat, bugs, blown-up 6-meter amp, and a bum rotator control! We won't give up though, and we're looking forward to September (K4AEK). At last, a 6-meter band opening here in remote Hawaii during a contest! (N16E/KH6). When 50 MHz is good, the other bands suffer, but I will take 6-meter openings any day (WA2FUZ). Where were the Tropo and E-skip? Boy, was it quiet! The 2-meter conditions were essentially flat for the entire contest (KB4FAI). I had a ball this year, this being the first time I had a 2-meter beam (AD4F). Six meters was good during this contest. Two-meter conditions were just average, with 300-mile contacts (KB9FZQ). A lack of a good band opening on 6 meters was disappointing, however, the spotty E, on 2 was fun (VE7FEI). On Sunday, while 6 meters was closed, we had fair tropo propagation well into Central Florida on 2 meters (COØFRC). I found band conditions to be exceptional while roving through southern California; it was very exciting (WA6FIT). I had a great time! It was my first VHF contest in 30 years (N1DGF). The weather was truly superb. It was

## Single Operator QSO Leaders by Band

50 MHz		432 MHz	
WD4MGB	526	WA2TEO	130
N0LL	496	K1RZ	96
AA6TT	460	WB9FWC	93
WD5K	455	WA8NJR	91
KA0JGH	440	WB5IGF	90
KI2G	425	K6KLY	89
WA2TEO	420	N3FUJ	86
N5HHS	419	N2CEI	81
K9ES	400	WB6WLR	81
WD5EWD	397	W2HRW	73

144 MHz		902 MHz	
K2GAL	394	WA2TEO	30
WA2TEO	378	N2CEI	26
WA3HMK	351	WB2YEH	24
VE3RKK	345	WA1MBA	23
WB2QOQ	340	K1RZ	20
N9MKC	330	WA2ONK	20
W9/G4FDX	306	K2UOP/8	16
K1RZ	279	K9OYD/4	15
N3FUJ	253	N1NQD	13
WA8NJR	248	WA8NJR	12
K3ZO	248	N2LIV	12

222 MHz		1296 MHz	
WA2TEO	79	WA4VHF	47
N2CEI	67	WA2TEO	41
WA8NJR	59	WA2LTM	41
K1RZ	49	N2CEI	37
K6IBY	47	K1RZ	37
W6GGV	46	WD5BKV	32
WB2YEH	43	WB2YEH	31
WA2BAH	43	WA1MBA	28
K9OYD/4	40	K6KLY	27
WB9FWC	39	WB9FWC	26

really nice sharing the mountain with KH6CP/1 and seeing all his homemade gear in operation. It was quite educational for our club members, and the contest was great (WO1G). Once again, it was very hard to get people to turn their antennas down south! (WB4GCS). I had fun operating from a rare grid, even though the band conditions were really poor (K15GO). Conditions were flat, with short periods of minor enhancement to the East and Northwest (W9/G4FDX). It was the best contest yet, with great band openings on 6 meters to the South and Midwest. Just about every contact I had on 6 meters was a new grid square! (N2QHS). It was quite frustrating to hear a number of Colorado stations but not be able to work them (K5RHR). It was an exciting contest, especially when I worked a new grid square in Hawaii! (AA6HA). I only was able to operate a few hours in this contest, but I really enjoyed the good propagation (KD0HE). Once again, we tried to put Maine on, and plans are already in the works for next year. Swing your beams toward Maine, because life does exist Down East on 2 meters and 440-MHz FM (KA1IOD). Six meters was wild when it opened up. I have never seen activity like



Steve, WA8QNR, and Bruce, N8NQG, used this setup at Caesar Creek State Park in Ohio as one of their rover stops.



Here, Tom, K0TLM, runs the pileup on 6 meters. He and Denise, AJ0E, finished with 470 QSOs and 190 grids on 6 meters alone.

this! (K1II). It was a great contest! I can hardly wait until August and September (WB2IEY). This contest, I snagged VE3RKK in EN93 (WG2I). Activity seemed pretty high this year although, from what I understand, most operators were concentrating on the excellent conditions on 6 meters, making 2 meters an afterthought! Nevertheless, despite flat

## Single Operator Multiplier Leaders by Band

50 MHz		432 MHz	
N0LL	204	WB5IGF	48
KA0JGH	178	WA8NJR	36
AA6TT	177	KA3FZF	36
KI2G	167	K1RZ	33
N5FA	166	NW3C	31
WB5IGF	165	WA2TEO	30
WD5K	164	KE8FD	30
NW3C	161	K2UOP/8	27
N4MM	152	W8AC	26
NN9K/0	151	N2CEI	25
N5HHS	151	KA2DRH	25

144 MHz		1296 MHz	
W9/G4FDX	67	WD5BKV	25
WB5IGF	62	WA4VHF	20
WA8MSF	58	WA2LTM	20
KE8FD	56	WA2TEO	19
N9MKC	56	N2CEI	18
KB8NNE	54	K1RZ	16
WA3HMK	54	W3KWH (WA3TTS,op)	15
WA8NJR	53	WA1MBA	13
KW0A	53		
K1RZ	52		
NW3C	52		

222 MHz	
WA2TEO	26
WB5IGF	24
K1RZ	23
N2CEI	22
WB9OJR	22
WA8NJR	21
KE8FD	21
KA3RWP	20
KB8NNE	20
K9OYD/4	19

conditions, things were never that slow. (KA2IVS). The conditions were great! I worked more grid squares this weekend than I've worked all year! (KD2I). This contest was quite exciting from the West Coast, with openings on 6 meters back into the Midwest. (WA7IQH). I started out trying to make a goal of 50 contacts and ended up with over 100 in strictly spare-time operating! Not bad for two-band FM using an omnidirectional antenna. Thanks for a fun time! (WA1JEX). This was my first contest. My newly licensed wife, N3ORF, was there to help, and she enjoyed it so much I think I've created a monster! (N3FJA). This year we used our secret weapon on 6 meters—we put my XYL, N7TXT, on during the good openings, and her voice was apparently worth 20 dB (WA7JTM). The weather was excellent for the entire weekend. Hilltopping is the only way to go in this contest! (N2WK). I wasn't planning on entering this contest, but as I sat down in the shack Saturday evening to work a few grids I still needed, I ended up participating and did not get up

## Division Leaders

### Single Operator

Division	Call	Score
Atlantic	K1RZ	286,960
Central	KI2G	70,975
Dakota	WA0NTT	78,030
Delta	WB5IGF	245,690
Great Lakes	WA8NJR	221,960
Hudson	*N2CEI	301,194
Midwest	N0LL	196,425
New England	*WA2TEO	412,002
Northwestern	KE7CX	19,462
Pacific	*N6NB	112,041
Roanoke	*K2UOP/8	157,520
Rocky Mountain	W2CRS	112,905
Southeastern	KA2DRH	117,780
Southwestern	WB6WLR	54,918
West Gulf	N5HHS	109,045
Canada	VE3FGU	62,805

### Multioperator

Division	Call	Score
Atlantic	*N2WK	1,081,404
Central	AA9D	717,379
Dakota	*KB0CV	289,212
Delta	KC4YO	279,460
Great Lakes	WW8M	259,296
Hudson	WB2IEY	226,314
New England	W2SZ/1	1,314,165
Northwestern	NU7Z	68,199
Pacific	WA6YDI	78,244
Rocky Mountain	N0KV	181,374
Roanoke	N8FMD	437,199
Southeastern	—	—
Southwestern	W6TRW	63,860
West Gulf	—	—

### Limited Multioperator

Division	Call	Score
Atlantic	*K1TR/3	802,944
Central	N9LAG	115,140
Dakota	K1LL/0	57,720
Delta	—	—
Great Lakes	N4EQT	225,691
Hudson	*N2DSY	224,070
Midwest	WB0DRL	357,894
New England	W1TKZ	173,484
Northwestern	KB7FUV	17,424
Pacific	*K16CG	94,828
Roanoke	W4IY	298,584
Rocky Mountain	W0KEA	107,400
Southeastern	WA4CQG	100,100
Southwestern	*K6MEP	336,528
West Gulf	KB5KYJ	39,412
Canada	*VE3ONT	439,920

\* denotes new Division record

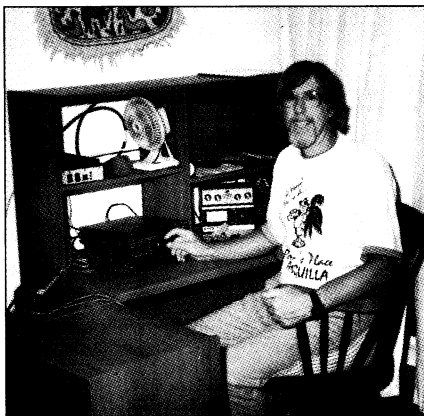
## Multioperator QSO Leaders by Band

50 MHz		432 MHz	
W2SZ/1	732	W2SZ/1	323
K1TR/3 -L	720	K1TR/3 -L	323
WB0DRL -L	635	W3CCX	241
W0UC/9	612	N2WK	197
K3UA -L	598	K3MQH -L	190
N2WK	577	AA9D	187
VE3ONT -L	565	N2DSY -L	162
AA9D	551	WD3R	152
W3CCX	538	N8FMD	141
KB0CV	512	K3YTL	137
		VE3ONT -L	137

144 MHz		902 MHz	
K1TR/3 -L	778	N2WK	87
W3CCX	633	W2SZ/1	53
W2SZ/1	601	W3CCX	34
WD3R	538	WD3R	24
K3MQH -L	526	K1WHS	21
N2DSY -L	510	AA9D	21
N8FMD	464	K3YTL	19
K3YTL	463	N8FMD	18
N2WK	450	K3LNZ/8	18
WB2IEY	438	WW8M	15

222 MHz		1296 MHz	
N2WK	203	N2WK	101
K6MEP -L	180	W2SZ/1	89
W2SZ/1	163	W3CCX	58
K1TR/3 -L	152	AA9D	45
W3CCX	141	WD3R	33
VE3ONT -L	130	N8FMD	32
WD3R	78	W6TRW	31
N2DSY -L	77	WW8M	29
K3MQH -L	76	W4IY -L	27
AA9D	73	W3IP	24
-L denotes Limited Multioperator		K3LNZ/8	24

out of the chair until Sunday (WB5KYK). My first 1296-MHz contacts were made during this contest, with our best being WA6YDI in CM96. That's just under 300 miles with only 12 watts! I owe a lot of thanks to Dave, NR6E, for driving all the way from the Bay area to operate (NC7K). I must be getting old, as I crashed an hour before the contest was over, and six was still open (WA7KYM). This contest was my introduction to 6-meter sideband. I ran 50 watts to a hastily rigged dipole and made 1404 points—now I know what an opening is! (KD1LH). Conditions were excellent on 6 meters. I was able to work three Hawaiian stations. The conditions on the higher bands were poor, especially on 432 and 1296



Terry, N6CW, made the journey to Anguilla, and gave out FK88 while operating VP2ECW.

## Top Rover Scores

K8MFO	223,094
KC6WLC	187,264
KB3PW	183,594
WA4VCC	176,064
WB9AJZ	125,580

(W5AL). It was great to have two openings to KH6 (WA8LLY). Lacking a 70-cm antenna and facing demands for QSOs, I took the 1/4-wave 2-meter mag mount antenna and stuck it to the side of the van and made several contacts. It is surprising what ingenuity can do! (N6CL). This contest gave my 6-meter rig and the home-brew amp a real workout! I will be buying a new rig just for contesting and looking forward to the next contest (KD4MZM). We really enjoyed the weekend—with no bears visiting the camp this year, and good weather for a change! (KC7MJ). Snow limited our access to most of the mountaintops in Idaho, and we had to settle for a lower site, but we had fun (K7TM). Activity was good here on the West Coast. I would like to thank all the rovers who filled in our very sparse grids here. I was also able to work two stations in Hawaii! (K6LMN). This was my first QSO Party and I really enjoyed making the contacts. I made more contacts in the past *two days* than I did in the past year on 6

## Multioperator Multiplier Leaders by Band

50 MHz		432 MHz	
W0UC/9	221	N8FMD	48
WB0DRL -L	214	WB0DRL -L	48
KB0CV	205	AA9D	47
AA9D	194	K3MQH -L	43
K1TR/3 -L	191	K1TR/3 -L	41
K0TLM -L	190	W2SZ/1	40
VE3ONT -L	175	W3CCX	38
K3UA -L	172	K3YTL	38
N2WK	170	KC4YO	38
KC4YO	168	N2WK	37

144 MHz		902 MHz	
N8FMD	70	W2SZ/1	23
AA9D	70	W3CCX	20
WB0DRL -L	68	N2WK	19
KC4YO	65	WD3R	17
KB4NT -L	64	N8FMD	13
K3YTL	60	AA9D	13
K1TR/3 -L	59	K1WHS	12
N4EQT -L	59	K3YTL	12
W3CCX	58	K3LNZ/8	11
VE3ONT -L	58	WW8M	9
		W3IP	9

222 MHz		1296 MHz	
VE3ONT -L	43	W3CCX	25
N2WK	39	W2SZ/1	24
N8FMD	38	N2WK	21
K1TR/3 -L	37	AA9D	19
AA9D	34	WD3R	16
W2SZ/1	31	N8FMD	16
K6MEP -L	29	KC4YO	16
W3CCX	28	W2IOG	15
W0UC/9	27	WW8M	14
-L denotes Limited Multioperator			

meters (N5TNM). I was up 8000 feet in the Colorado Rockies. The weather was beautiful and band conditions were great. The only visitors I encountered were a few mule deer wandering through the site! (K7VNU/0). I had to change the destinations for grid hopping due to inaccessibility—either too much lingering snow, or rain-soaked muddy roads. Both made my choices difficult (AA7NH). I find roving to be a lot of fun! (VE3NJK). I had a few good openings on 6 meters that helped me pull in the last grids I needed for VUCC (N1HO). I missed the last few VHF contests, and it was sure good to get back (WB2OEE). I found working Hawaii and the Great Lakes area on 6 meters to be a lot of fun (N2O0B/6).

## Plaque Winners

### Single Operator

Position	Winner	Score	Donor
1st	WA2TEO	412,002	Mt Greylock Expeditionary Force, W2SZ/1
2nd	N2CEI	301,194	Bald Knob VHF Contest Group
3rd	K1RZ	286,960	Kenwood USA Corporation
4th	WB5IGF	245,690	Midwest VHF/UHF Society
5th	WA8NJR	221,960	Delaware Valley VHF Society
6th	N0LL	196,425	Ed Parsons, K1TR
7th	NW3C	161,040	Eastern VHF/UHF Society
8th	K2UOP/8	157,520	Wellesley ARS, Mt Equinox Contest Crew
9th	W3ZZ	133,369	Garnett Hill Gang, N2WK
10th	NN9K/0	125,856	WB0DRL, K0TLM, KA0KUY, N5UDJ, K5IS, WQ0P

### QRP Portable—Single Operator

1st	KH6CP/1	51,150	K2OVS, Jay & K2RIW, Dick
2nd	WR3I	39,788	Peter Putman, KT2B
3rd	WB2VVV	28,012	Long Island Mobile ARC
4th	KA1LMR	24,871	West Coast VHFer
5th	N4KWX	20,215	Patricia Janssen, N3JBS and Ric Janssen, K3QQ

### Rover

1st	K8MFO	223,094	W2SZ/1, In Memory of Dick Goodman, WB1HIH
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### Multioperator

1st	W2SZ/1	1,314,165	Randy Stegemeyer, W7HR
2nd	N2WK	1,081,404	N2LIV, N2GHR, N2BFJ Contest Team
3rd	W3CCX	779,790	Chip Angle, N6CA
4th	AA9D	717,379	Kenwood Employees Radio Club, WD6DJY
5th	WD3R	463,680	Mt Airy VHF Radio Club
6th	N8FMD	437,199	KB0HH, AJ0E, WA0TKJ, WA0WPJ, K0BJ, N0LL
7th	W0UC/9	432,783	Rochester VHF Group
8th	K1WHS	315,496	Northern Lights Radio Society, W0UC
9th	K3YTL	302,081	Flagpole Knob Contest Group, W4IY
10th	KB0CV	289,212	Schenectady ARA

### Limited Multioperator

1st	K1TR/3	802,944	W3EP/K9AKS/W9IP
2nd	VE3ONT	439,920	Kenwood USA Corporation
3rd	K3UA	360,678	Kenwood USA Corporation
4th	WB0DRL	357,894	WA2TEO, W2GKR, W2GKO, KA1FVG
5th	K6MEP	336,528	KA2AEV, KZ2S, KA3JNN, N4HY, NZ4K, WD8IXE

### Marine Mobile

1st	VE2NNX/MM	36	Wayne T Yoshida, KH6WZ
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### DX Single Operator

1st	VP2ECW	5,459	Bill Tynan, W3XO
	(N6CW,op)		

### DX Multioperator

1st	XE2/K9VV	86,018	Robert J Carpenter, W3OTC
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## My QRP-Portable Adventure

I almost didn't make it to the Summit of Equinox for the contest—the wiring on my Ford Escort shorted against the engine. Fortunately, it started and ran, so I drove it to the top after the smoke cleared!

Once there, it took only two hours to get the antennas up. One mast held a 7-element 2-meter FM Yagi and a 2-element 6-meter beam. Another held 2-meter and 222-MHz Yagis, and the microwave mast held a 10-element 432 Yagi, four loop Yagis and a pair of 2-foot dishes.

Thus, my QRP-portable station was up and running from 6 meters through 10 GHz before the contest began. I find that having little Yagis up in the air works a lot better than bigger antennas that refuse to stay up in high winds.

I chose to run two elements on 6 meters for a reason—they have great side nulls if fed properly, an important consideration with W1TKZ running 500 watts some 200 yards away! It worked great—with the beam pointed south the gang at W1TKZ was no stronger than loud E-skip stations. Scott, WO1G, was kind enough to invite me to share the mountain with them. I had a great location for microwave work, and they told people looking for FN33 on microwaves to "look for Zack." As my score indicates, the interference really wasn't too bad, although I missed FN20 on 222 MHz because the bigger FN20 stations never moved away from the calling frequency, where I had little chance of working anything but nearby stations.

The multipliers I picked up by working W1TKZ on all bands with the spare rigs I brought easily outweighed this small disadvantage. Apparently, the interference wasn't too

bad on their end either, as they invited me back for next year.

Not surprisingly, I worked 22 grids on 6-meter E-skip with 2 watts. But I managed to also work 15 local grids, showing off what a great location will do (3810 feet, the highest peak in southern Vermont). I did even better on 144, and 432, where I worked 17 grids without enhanced conditions. While June isn't noted for microwave activity, with everyone chasing E-skip, I markedly helped my score with 26 microwave grids. With the extra points for microwave contacts, 33 cm and down was just as important to my score as 6 meters.

Being close to a multiop station obviously changes my strategy. I usually look for stations on 2 and 6 meters, though I do find people on 432 and 1296 MHz as well. CQing actually works on 1296 if there is tropo enhancement. I then try to move people straight to 432 or 1296, where interference is much less than on VHF. Then, depending on the path, I'll try to run through 903, 2304, 3456, 5760 MHz, and 10 GHz, or the VHF bands if the path doesn't seem too good. For really tough paths, such as 220 miles on 5760, when the VHF bands are slow, I'll run one-minute sequences.

Sometimes, I have to go back to 2 meters or 432 to run the rest of the bands. For this strategy to work, it helps to be in a rare grid like FN33. Having all the bands is a real challenge in June—you want to get all the microwave grids without missing any E-skip openings.

After towing my car back to Newington, I spent about five hours replacing the wiring in the station wagon. It has since made three more trips up to the Summit of Equinox!—Zack Lau, KH6CP/1

## The Quest for 400,000 Points—WA2TEO

This year, we are profiling Jeff Klein, WA2TEO, the top finisher in the single-operator category in this year's QSO Party. Not only did Jeff break the New England Division record (set in 1986 by Clark, K1JX, at W1VD) and set a new all-time record, but he is the first single operator to ever finish with more than 400,000 points.

When we asked Jeff about the contest, the first thing he remarked about was the activity. "There was a lot of activity, and a lot of new Technicians on the air to work. This really made a big difference compared to last year.

"Conditions played a big part, as well. Six meters was not as good as last year, and that made for more activity on the bands above 50 MHz. Last year, 6 was so open, no one ventured to the higher bands—this year, the mix was just about right.

"What also made the difference this year is that everything worked for the entire contest. Equipment failures in January cost me the last seven hours of the contest—and that probably made the difference between winning and losing."

We found it interesting that Jeff didn't make any FM contacts. He replied, "I didn't make any, but that was because I never needed to." He admitted, however, that there will be a time when he will need to change his strategy. Even though there was some E-skip on 2 meters, it never made it far enough east for him to take advantage of it. To win without it, Jeff's strategy is to run exclusively, except during the activity hours on 222 and 432. He claims, "I never found search-and-pounce to be all

### WA2TEO

#### QSOs/Grids by UTC/Bands

UTC	50	144	222	432	902	1296	2304
18	88/42						
19	55/19						
20	72/29						
21	23/7	22/8		4/4	1/1	1/1	
22		58/12	1/1		1/1	1/1	
23	14/5	20/6	5/5	5/3	1/1		
00	3/0	1/0	30/8	2/1	1/1	3/2	
01			3/2	29/7	1/1	3/2	1/1
02	2/2	31/2	1/1	6/1	1/0	11/3	
03		27/0		6/2	2/2	1/0	1/1
04	16/3	10/1	5/0	4/0	2/2	1/1	
05	5/2	12/0	3/1	5/2	2/1	2/1	1/1
06	3/0	16/3	3/2	2/0	3/2	3/1	1/0
07							
08							
09		3/0			1/1		
10	7/3	7/1	4/2	7/3	3/2	2/2	
11	8/1	8/1	3/0	5/0	1/1	1/1	1/1
12	8/4		4/2	3/2	4/4	2/2	
13	7/0	3/1	2/1	7/0	1/1	1/1	
14	4/1	20/1		4/0	1/0	3/0	1/0
15	10/0	6/0	3/0	6/0	1/0	1/0	
16	14/1	1/0	2/0	2/0	1/0	1/1	
17	14/2	10/0	3/0	5/0	1/0	3/0	
18	24/7	1/1		1/1			
19	2/1	32/1	1/1	4/1			
20	4/1	8/2		3/0		1/0	
21	2/0	12/0	2/0	7/1			
22	2/1	10/1		2/1	1/0		1/0
23	19/6	6/1	1/0	1/0			1/1
00	8/1	4/0	3/0				
01	6/0	27/1		7/1			
02		23/0		3/0			

420/138 378/43 79/26 130/30 30/21 41/19 8/5

that productive on the other bands." He also tries to pass every one he knows from one band to another.

Jeff's station: On 6 meters, it's an IC-551 driving a 4CX250B to a 7-element beam at 45 feet; on 2 meters he uses an FT-736 with an 8877 amp to two 18-element beams at 45 feet; the 222-MHz station uses the FT-736 to a 4CX250B amplifier to a single 17-element beam; his 432 equipment consists of a Microwave Modules transverter and a 4X150 amp to two 30-element antennas at 45 feet; and on 902, 1296 and 2304, he uses SSB Electronic transverters to a 47-element array at 48 feet, a 4 × 45-element array at 50 feet, and 55 elements at 30 feet, respectively. He points out that although he lives on a decent hill (elevation 500 feet), all his antennas are below the tree line.

Jeff thought he was doing well, but without a computer he really had no idea how high his score was until after the contest was over. Nor did he know how he was doing compared to other stations. When asked, he replied, "I assumed I would do well, but I didn't know how open 6 meters was in other parts of the country. It turned out that the band was about as open there as it was here."

If you're wondering how he did on the various bands as a function of time (or how far behind you were at any given moment), check the table.

The bottom line: Jeff says, "I had a great time, which was the most important part of the contest as far as I was concerned."

We heartily agree! If you've ever wondered what it takes to make it to the top, now you know!

## Scores

Scores are listed by ARRL/RAC Sections and DXCC Countries. Within each Section, single-operator scores are listed first, followed by QRP-Portable, multiplier and limited-multiplier scores. Rover scores are listed by division. From left to right, each line lists: call sign, score, QSOs, multipliers, class (S = single operator, Q = QRP-portable, M = multiplier, L = limited multiplier, R = rover), number of grids activated (for rovers), and bands worked (A = 50 MHz, B = 144 MHz, C = 222 MHz, D = 432 MHz, E = 1296 MHz, F = 2304 MHz, G = 3.4 GHz, H = 5.7 GHz, I = 10 GHz, J = 24 GHz, K = 47 GHz, L = Light). Among single-operator stations, single-band winners are noted with band letter(s) in **boldface** print indicating the band won.

### 1

#### Connecticut

W2TEO 412,002 1086 282 S **ABCD9EF**  
K1EM 94,050 549 150 S **ABCD**  
KD1DU 43,878 368 103 S **ABCD**  
W2V1 37,674 292 117 S **ABD9E**  
AA1AK 17,787 231 77 S **A**  
K1CPJ 8,619 129 51 S **ABCD**  
W1WHL 3,822 98 39 S **A**  
N1KLB 2,233 72 29 S **ABD**  
K1WVX 1,952 58 32 S **ABD**  
N1ABY 1,860 62 30 S **A**  
WA1GTP 1,581 46 31 S **ABC**  
K1OQG 1,360 85 16 S **B**  
N1NDD 1,274 65 14 S **B9**  
W1ORI 435 29 15 S **A**  
K1ZZ 161 22 7 **BC**  
NM1K 8,092 145 34 S **ABCD**  
W1QK (+K1SYG, K1X1U, N1NRP, N050)  
105,963 650 143 L **ABCD**  
K1MUJ (K1OQG, K1H1H, K1R1U,  
K21M, W1HYN, ops)  
60,687 464 99 L **ABCD**  
NE1A (+K1Y1F, N1Y1V)  
1,924 366 94 L **ABD**  
W1AW (K1N1C, N1M1K, ops)  
15,075 179 75 L **ABCD**  
W1ORS (K1s TEY, T1W, K1Z1L, N1s HAQ,  
PCK, W1A1s EHK, EHL, W1D1X, W1V1C,  
W1A2TJR, ops)  
9,430 181 46 L **ABCD**  
WB1U (+K1O1F, N1FZE)  
516 43 12 L **B**

#### Eastern Massachusetts

N1BWT 41,724 289 114 S **ABCD9E1**  
K1DAT 30,870 294 98 S **ABD**  
K1SRZ 22,339 207 89 S **ABCD**  
K1C1C 20,540 208 79 S **ABCD**  
WX1B 16,856 185 86 S **ABD**  
KB1KM 15,914 175 73 S **ABCD**  
K1A1FVG 14,688 185 72 S **ABD**  
AA1O 5,612 110 46 S **ABD**  
KV1J 3,705 95 39 S **A**  
NZ1D 3,280 80 41 S **A**  
KD1KJ 1,898 59 26 S **ABD**  
WA1MTI 1,716 51 26 S **ABD**  
K1A1YV 32 8 **B**  
K1A1CLV (+K1E1K, W1A1UDH)  
33,250 305 95 L **ABD**  
N1FDX (+N1FYZ)  
1,326 78 17 L **B**

#### Maine

NY1E 39,962 377 106 S **A**  
W1XX 32,107 284 97 S **ABD9**  
K1OYB 513 22 19 S **ABD**  
W9KDR/1 60 9 6 S **BD**  
K1A1EAP 4 2 2 S **B**  
N1DGF 1,449 69 21 Q **B**  
K1WHBS (AFIT, AY1S, K1M1S, K1A1U1, K1B1PL,  
K1Y1K, N1s HFE, LB1, N1K1, W1A1N1E, W3HOT,  
NA5E, ops)  
315,496 1074 226 M **ABCD9EFGIL**  
N1MSA (+K1A1OD)  
3,675 143 21 L **ABD**

#### New Hampshire

N1HO 43,641 323 117 S **ABD**  
W1EJ 19,035 213 81 S **ABC**  
W1W1Z 9,664 136 64 S **ABCD9E**  
AC1J 6,579 104 51 S **ABCD**  
K1ALMR 24,871 270 77 Q **ABCD**  
W1XN 150 15 10 Q **B**  
W1ATZY (+K1XR, K1A1Q1D, K1D1G, N1s BAC,  
K1W1F, N1C1O, PNY, N1X1G, W1A1N1P, WK1P)  
37,664 300 107 L **ABCD**

#### Rhode Island

KM1X 58,495 494 133 S **ABD**  
W1GYL 23,343 235 93 S **ABCD**  
A1K 4,440 134 30 S **BD**  
KD1NW 3,528 84 42 S **A**  
N1JXF 240 20 12 S **ABD**  
K1DS (+K1PLX, N1BAQ, N1S1K, W1s EYH, GS,  
IUP, W1A1UWJ)  
101,469 530 149 M **ABCD9E**

#### Vermont

K1LPS 21,436 195 92 S **ABCD9**  
WB1GQR (WB2JSJ, op)  
7,544 146 41 S **ABCD**  
N1GYP 3,780 84 45 S **AB**  
W1AIM (N1LX1, op)  
1,564 46 34 S **A**  
W1JEX 1,224 107 9 S **BD**  
KH6CP/1 51,150 302 110 Q **ABCD9EFGHIL**  
N1NPI 150 25 6 Q **B**  
W1TKZ (K1s PR, US, N1s FXG, HXO, IJC,  
NT1M, N1Y1J, W1N1I, W1O1G, W1A2TIF, ops)  
173,484 811 183 L **ABCD**  
WE1U (+N1CVA)  
15,914 177 73 L **ABCD**  
N1JQZ (+N1s JEZ, MJD)  
4,950 107 45 L **ABD**

#### Western Massachusetts

WA1MBA 53,820 380 90 S **BD9EFGIL**  
N1FUS 6,820 193 31 S **BCD**  
N1EUG 5,390 110 49 S **A**  
WA1UOL 5,060 92 55 S **AB**  
KD1LH 2,304 72 32 S **AB**  
N1LZC 1,188 53 22 S **ABC**  
K1C1OM 684 34 19 S **ABCD**  
K1JG 490 35 14 S **B**  
WB2BYW 10 2 2 S **BL**  
N3BXH/1 6 3 2 S **A**  
K1II 13,534 192 67 Q **ABCD**  
W2SZJ (K1D1H, K1A1PRT, K1C1Z, N1K1J, W1A1s  
UGE, ZMS, K2TR, K2B2MR, K2E2P, N2s BNY,  
GXH, HPA, JNT, W1A2s AAU, SCA, SPL,  
WB2KMY, W2S2B, N3BXH, AK4L, N4FD, W1A2S, ops)  
1,314,165 2110 395 M **ABCD9EFGHIL**

W1NY (AC1T, N1s DPM, KBY, MUW, NC1, ops)  
172,377 812 179 L **ABCD**  
KB1AKV (+K1G1S)  
155 27 5 L **BD**

### 2

#### Eastern New York

W2XL 61,155 390 135 S **ABCD**  
W2BAH 59,508 376 116 S **ABCD9EFGI**  
W2FUZ 47,125 307 125 S **ABCD9E**  
W2AKPD 19,272 231 73 S **ABCD**  
WB2WHD 19,227 275 51 S **ABCD**  
N2TMT 12,848 176 73 S **A**  
WB2VVQ 8,673 145 59 S **ABD**  
N2DLL 7,680 128 60 S **AB**  
K2BKTJ 6,696 162 31 S **ABCD**  
W2AMPJ 4,400 176 25 S **B**  
N2AP1 4,185 115 31 S **ABCD**  
K2CZF 3,775 115 25 S **BD**  
WB2BEJ 1,955 72 17 S **ABCD**  
W2A1WW 1,430 116 10 S **BD**  
WB2ECL 1,408 116 11 S **ABCI**  
WB2OEE 1,280 80 16 S **B**  
KB2HPX 846 64 9 S **BCD**  
W2YBM 828 79 9 S **BD**  
W1Y2H 816 47 16 S **BCD**  
W2ZHQ 6,675 43 15 S **BD**  
W2ASRP 648 54 12 S **AB**  
N2PEO 515 103 5 S **B**  
K2RI 462 45 7 S **BCD**  
WB2ECL 296 25 8 S **ABCEI**  
N2LEX 260 65 4 S **B**  
W2ZWS (W2XM, op)  
92 23 4 S **AB**

W2IEY (+K2AQZ, K2D1X, N2s DHH, DVO,  
FMC, GDY, GKM, HTT, NQX, W2A2s VQW, YTM,  
WB2s NHC, VVS)  
226,314 918 198 M **ABCD9EFHI**  
K2VJV (+A1J1, K2JSC, K2B2FDP, K2D2FA  
N2s KPM, LTK, OAH, OHH, PLO, QBB, CLB, QMT,  
QVW, SKH, STD, TFO, UWL, W2A2s AVG, JQK,  
UKP, WB2VBO)  
61,360 612 120 L **ABD**  
AB2I (+AB2J, K2DNR, K2CJS, W2A2ID,  
WB2DVV, WN2Y)  
68,198 506 122 L **ABDI**  
W2ZX (+K2BST, K2B2FTX, N2AQZ, W2ARQ,  
W2A1QC, W3HHN)  
60,112 368 108 L **ABCD**  
KG2H (+N2s PBC, TNE)  
15,147 187 81 L **AB**  
N2MSS (+N2RDN)  
12,737 228 47 L **ABCD**  
N2UAO (+N2s ROR, TZT)  
2,170 155 14 L **B**

#### NYC-Long Island

N2LIV 98,124 468 156 S **ABCD9E**  
N2BFJ 52,632 294 129 S **ABCD9E**  
W2A1S 7,849 167 47 S **AB**  
W2SELY 7,245 148 35 S **BDE**  
N2QHS 4,902 103 43 S **ABD**  
WB2AMU 3,958 73 46 S **B**  
N2NSY 2,310 105 22 S **B**  
N2BV 1,118 43 13 S **D**  
N2KFC 1,104 69 16 S **B**  
W2GI 3,048 127 24 S **ABD**  
K2OVS 1,900 50 38 Q **A**

#### Northern New Jersey

N2CEI 301,194 808 261 S  
**ABCD9EFGHJ**  
N2LTL 38,493 286 117 S **ABCD**  
N2CKH 35,148 296 101 S **ABCD**  
AK2P 19,113 232 69 S **ABD**  
K4BNC 17,992 154 104 S **BD**  
WB2QOQ 12,240 340 36 S **ABD**  
W2A1TM 7,308 61 36 S **EFB**  
WB2WIH 6,820 184 31 S **BC**  
AA2EM 5,928 228 26 S **B**  
K2A1VS 4,602 177 26 S **B**  
N2LMU 2,080 130 16 S **B**  
N2UJH 1,232 56 22 S **A**  
AA2U 680 30 16 S **BCD**  
N2OGU 880 51 16 S **BCD**  
N2KJM 96 16 6 S **B**  
WB2VVV 28,012 205 94 Q **ABCD9E**  
KT2B 3,990 85 38 Q **ABD**  
N2DSY (+N2s AYJ, FHC, NBX, NXI, PBY,  
PMD, PPR, PPS, RBJ, RFC, RJZ, RLJ, TDI,  
TDS, NO2T, W2BFW)  
224,070 1119 165 L **ABCD**  
N2RDX (+W2AJHN)  
1,065 71 15 L **B**

#### Southern New Jersey

WB2YEH 124,775 483 161 S **ABCD9EFG**  
W2HRW 73,788 459 132 S **ABCD**  
K2YY 54,730 359 130 S **ABCD**  
W2AONK 22,382 217 82 S **BD9E**  
W2PAU 21,242 205 66 S **ABD**  
K2GAL 19,700 394 50 S **A**  
KD2I 13,200 165 80 S **A**  
N2SCJ 10,992 156 58 S **ABD**  
3W2EF 3,996 69 36 S **ABCD9EF**  
N2GBY 2,805 85 33 S **AB**  
N2CZF 1,738 79 22 S **B**  
N2BYE 1,530 89 17 S **BC**  
N2JVQ 1,200 60 20 S **B**  
W2ZQ 784 56 14 S **B**

#### Western New York

K2AN 63,921 308 143 S **ABCD9E**  
WB2BPE 36,450 236 135 S **ABD**  
KB3WL 29,410 216 118 S **ABD**  
K2SPO 18,693 176 93 S **ABCD**  
KU2A 10,948 106 68 S **ABCD9E**  
W2WGL 2,970 73 33 S **BD**  
W2AEY 2,550 85 30 S **B**  
W2VZ 126 12 9 S **BE**  
W2ABN 100 10 5 S **D**

N2WK (+K1JUL, K2OS, KA2s HSK, RDO,  
KB2SE, KE2WK, N2s DKP, PNG,  
TIM, W2DYY, W2A1AQ, WB2QCC, K5MA, KD5RO,  
NS9E)  
1,081,404 1744 372 M **ABCD9EFGHIL**  
N2LXD (+AA2GV, KB2s MRZ, OAZ, KF2PD,  
N2LYZ, N3HPR)  
190,000 662 250 L **ABCD**

KE2PM (+AA2J, K2MPE, KB2s DQ, JAG, N2s  
MES, PBU, PBW, QYN, QYP, VBM)  
52,003 340 133 L **ABCD**  
KB2DMK (+N2HLT)  
42,036 319 124 L **ABCD**  
N2QFN (+AA2MZ, N2OMP, WK2V)  
30,294 298 81 L **ABCD**  
AA2CL (+KE2DN, WB2RKR)  
19,285 187 95 L **ABD**  
W2AAZ (KB2GZM, N2s CMA, OLD, PTP,  
QUU, W2A2SOK, ops)  
12,805 184 65 L **ABD**  
KB2HKI (+KA2MYD, KB2s CCL, LUV, NMJ, N2s  
MRE, OSB)  
6,795 126 45 L **ABCD**

### 3

#### Delaware

K3CNH 18,172 236 77 S **AB**  
KB3PD 11,076 151 52 S **BCD**  
WA3BZT 4,420 170 26 S **B**  
N3ELK 990 55 18 S **A**  
WB1J 30 6 5 Q **A**

#### Eastern Pennsylvania

N3FUJ 26,553 377 53 S **BCD**  
N3FTI 20,560 222 80 S **ABCD**  
WA3HMK 18,954 351 54 S **B**  
WB3LZN 9,860 144 58 S **ABCD**  
WA3CSP 8,784 122 72 S **A**  
K3KEL 4,816 112 43 S **AB**  
KW3F 2,709 129 21 S **B**  
K7YHA 1,575 48 25 S **BD**  
N3OGF 1,425 75 19 S **B**  
NK3O 1,352 52 26 S **AB**  
N3LKI 546 32 14 S **BD**  
WT3P 220 22 10 S **B**  
W3UQC 160 20 8 S **B**  
AA3CR 78 11 6 Q **BCD**  
W3CCX (W1A1YHO, K3ESJ, K3CHK, N3s  
AOG, BBI)  
EXA, GSA, ITT, W3GAD, W3A3s AXV, JUF, NUF,  
YUE, WB3s DNI, JYO, W3UC, ops)  
779,790 1683 330 M **ABCD9EFGHJ**  
W3R3 (+K2BJG, KB2LHH, KX2O, N2s AAZ, BIM,  
HMM, WM, W2A2s FCF, UPK, WB2UFF)  
463,680 1297 276 M **ABCD9EF**  
K3YTL (KA3s EED, ZHT, KB3QI, K3SY, N3LYX,  
W3DZH, W3A3YON, WB3s FAA, FKQ, FYT, ops)  
302,081 920 247 M **ABCD9EFG**  
W3AUGP (+K3YWY, N3LJK, WB3ESS)  
20,300 195 70 M **ABCD9EFGI**  
K1TR3 (+K1A1QD, N1AFQ, W1S1C, N2JL, K3II,  
KM3T, N3AOK, W3A3, K3SD)  
802,944 973 238 L **ABCD**  
K3MQH (+K3IXD, K3F3P, N3KTY, W3s EKT, LPL)  
261,088 1046 199 L **ABCD**  
K2AA3 (+N2FY, W2s EA, ORA, ops)  
62,625 444 125 L **ABCD**  
N3ADC (+K2ARRK, KA3XZA, N3s LKB, MQP,  
NFB, K0LSE)  
47,236 389 98 L **ABDE**

W3HZU (+ops)  
39,208 310 116 L **ABD**  
K3UZY (+K3SD, N3AHF)  
11,808 246 48 L **B**  
N3FJA (+N3ORF)  
1,422 78 18 L **BD**

#### Maryland-DC

K1RZ 286,960 796 272 S **ABCD9E**  
W3ZZ 133,369 525 197 S **ABCD9E**  
K3ZO 120,650 635 190 S **AB**  
K3MD 23,999 233 103 S **A**  
W4VHF 11,797 92 47 S **DEF**  
W3OTC 9,472 128 74 S **AB**  
W3PRB 8,330 119 49 S **ABCD**  
KD3SW 7,293 121 51 S **ABD**  
K3ANTX 5,550 115 37 S **BDE**  
WR3E 4,698 162 29 S **B**  
N3LDF 3,550 142 25 S **B**  
K3VOA (WESX, op)  
2,040 68 24 S **BD**  
WA3SEE 1,989 51 39 S **A**  
N3AM 1,780 89 20 S **B**  
W6AXX 1,501 79 19 S **B**  
W3AGYW 1,404 52 27 S **AB**  
N3BOW 752 47 16 S **B**  
W3IP (+K3YDX)  
KD3YU, N3s CBJ, OES, NN3O, WB6VGI)  
196,599 706 213 M **ABCD9EFGI**  
K3LYW (+W12T, WB3LJK)  
27,927 234 87 M **ABCD**  
WA3SFJ (W1LBV, KA3s  
WOD, WQ, YOM, KC3LE,  
KE3s FR, HM, N3s KNI, LTW, ops)  
3,036 138 22 L **B**  
WA3NAN (N3s YV, KTU, K3WU, LRX, ops)  
2,442 74 33 L **AB**

#### Western Pennsylvania

NW3C 161,040 597 244 S **ABD**  
KA3RWP 74,649 371 167 S **ABCD**  
N3FYD 57,855 327 145 S **ABCD**  
KA3FZF 21,660 213 76 S **BD**  
W3KWH (W3A3TTS, op)  
5,781 61 41 S **DEFG**  
KA3SDP 4,142 109 38 S **B**  
N1B3 3,552 111 32 S **B**  
KA3JWJ 2,958 87 34 S **B**  
W3KJM 900 36 25 S **A**  
WB0IWG 30 6 5 S **AB**  
W2IOG (+K2s LDU, OEQ)  
158,625 583 225 M **ABCD9E**

K3JUA (+KA2AEV, KR2J, K2ZS, N2NT, K3LR,  
KA3JNN, WR3G, WT3K, N24K, N6PHX, N1BL,  
WB8IXE)  
360,678 1135 282 L **ABCD**  
K3HKK (WB2LOU, K3LVO, KB3KJ, N3s BXM, DLL,  
HQD, LLQ, NCE, PII, NG3R, W3ZZO, WB3J, ops)  
15,399 162 87 L **ABD**

### 4

#### Alabama

KA2DRH 117,780 531 195 S **ABDE**  
NS4FD 20,865 176 107 S **ABCD**  
KA4HQ 12,367 149 83 S **A**  
N4UKF 4,264 82 52 S **AB**  
KB4FAI 2,790 90 31 S **B**  
WA4AHJ 1,887 51 37 S **A**  
W4NTI 1,435 41 35 S **A**  
KB4PBM 1,080 50 20 S **BD**  
KD4ADC 480 20 12 S **D**  
KB4FMN 477 40 9 S **BD**  
KD4OIG 300 25 12 S **B**  
KD4ZO 225 25 9 S **B**  
W4V4UG 210 21 10 S **B**  
KD4DK 55 9 5 S **BD**  
KD4JDY 18 6 3 S **B**  
WD4KWM 18 6 3 S **B**  
W4CQG (+K4MLK, W5BRDY)  
100,100 557 175 L **ABD**

#### Georgia

WD4AFY 45,264 296 138 S **ABDE**  
KD4NUE 44,226 359 117 S **ABCD**  
NA4I 12,654 166 74 S **ACD**  
KD4MNT 5,800 116 50 S **AB**  
KA4KF 5,100 100 51 S **ABD**  
WD4MBK 1,470 35 21 S **D**  
W4CMA (KA4EK, KC4ZUA, KD4s EYE, HLG,  
HME, W4NZJ, KA5WZY, ops)  
69,900 433 150 L **ABD**  
W4A1OB (+N4XND)  
16,340 175 86 L **ABCD**  
W4AQL (KD4UPW, W4D4WN, N7FYT, ops)  
2,015 55 31 S **ABDE**

#### Kentucky

KD4SZJ 8,733 123 71 S **AB**  
KM4TH 2,325 75 31 S **B**  
N4FFO 2,112 66 32 S **A**  
KD4ULE 560 23 20 S **BD**  
N4EQT (+KD4JSL, N4s OGW, TY, KA8YTT,  
W8ULC, WF8Z)  
225,691 738 269 L **ABCD**

#### North Carolina

NA4VV 93,781 462 191 S **ABCD**  
NA4YZJ 37,750 274 125 S **ABCD**  
K4AYMY 37,639 283 133 S **AB**  
W4FSO 26,620 181 121 S **ABCD**  
KS4S 25,200 280 90 S **A**  
KB4QF 19,776 206 96 S **A**  
KB4FRY 920 30 23 S **BDE**  
WR3I 39,780 301 98 Q **ABCD**  
W4DW (KA4FWC, K5Z2, KA3PSK, KA4S, N4s  
BFJ, OWA, N4TYO, W4D4BP, ops)  
41,856 329 109 M **ABCD**

#### Northern Florida

N4TWY 56,826 443 123 S **ABD**  
NU4Y 30,210 318 95 S **A**  
KQ4PI 27,600 300 92 S **A**  
W5HUQ 22,050 226 90 S **ABD**  
KA5UWN 17,325 231 75 S **A**  
N4ATM 10,404 145 68 S **ABD**  
KD4HXT 5,432 97 56 S **AB**  
W4ZGS 3,542 77 46 S **AB**  
KB4VTR 3,256 88 37 S **B**  
WB4VFT 2,366 71 26 S **BD**  
KX5U 408 24 17 S **A**

#### South Carolina

KM4ID 65,685 399 151 S **ABD**  
K8MR/4 4,860 135 36 S **A**  
N1BOY 1,700 50 34 S **A**

#### Southern Florida

K9ES 73,114 498 139 S **ABD**  
WD4M



W4DR 41,674 311 134 S AB  
K9OYD/4 38,822 243 94 S BCD9E  
WB8WRY 30,394 293 91 S ABD  
WA4PGM 19,504 191 92 S ABD  
W4DO 19,068 165 84 S ABCDE  
WA4OVW 15,752 159 88 S ABD  
KE0YV/4 14,596 155 89 S ABD  
K4FTO 13,774 175 71 S ABD  
AB4SF 13,505 175 73 S ABD  
WB4GCS 7,852 120 52 S ABD  
K4B8 6,832 112 61 S A  
KH2F/4 5,040 140 35 S BD  
K04ER 4,524 156 29 S B  
W4LMJ 1,326 51 26 S A  
K04EAO 1,127 49 23 S B  
N4YKO 1,060 42 20 S ABCD  
K4ME 1,054 62 17 S B  
AC4WC 952 56 17 S B  
N4BG 688 43 16 S B  
NC4S 420 28 15 S A  
W3FTG 370 37 10 S B  
N4KWX 20,215 273 65 Q ABCD  
N4HB (+K4AS, LUR, LUS, OCA, UFP, Q4NURM)  
115,090 506 170 M ABCD9E  
W4IY (AC4XT, K4HWG, K4AS CKI, RRU,  
KE4DTH, K4JVT, K04FM, WB4S EII, NFS,  
RDV, RMJ, WD4KXB, WA0DYJ, ops)  
298,584 1003 261 L ABDE  
KB4NT (+K43VFT, AB4L, K44VHR,  
KB4TZS, K4AS KFT, UWT, WIC, WA4S IVF,  
LPR, WB4YJC, K4LTH, NL7HI)  
198,120 720 254 L ABCD  
N4YET (+K4BOLM, K4YAR, KD4S DAI, OXU,  
UPF, ZOQ, N4ZKH)  
64,350 410 143 L ABD  
K43YHI (+K43SWK, WA3ENK, A04BD, KC4S  
WQC, YMB, KD4S TTO, WMT)  
12,285 172 63 L ABD

## 5

### Arkansas

WB5IGF 245,690 645 311 S ABCDE  
N5TMN 4,312 77 56 S A  
N5FAC 2,196 61 36 S B  
KB5YUA 952 34 28 S A  
WM4Z 4,387 81 41 Q BD

### Louisiana

KF5IU 36,068 284 127 S AB  
N7JJS/5 31,892 268 119 S A  
W5FYZ 7,973 119 67 S AB  
N5KWB 4,018 73 41 S BD  
K5CZD 1,548 42 36 S ABD  
N5WKI 225 25 9 S B  
WB5VYE (+WA5ZKO)  
21,948 192 93 M ABCD9EF

### Mississippi

WB5KYK 39,432 305 124 S ABD  
KG5MZ 176 16 11 S B

### New Mexico

KN5S 42,840 315 136 S AB  
N5JHV 34,391 281 119 S ABC  
K5MAT 6,500 97 52 S ABCDE  
WB9CEP 3,440 80 43 S A  
AA5UR 1,938 53 34 S ABD  
K04JDT 1,518 45 33 S ABD  
K5HRH 2,251 21 7 S BCDE  
W6RQR 68 12 4 S BC  
W5GB (KA1MWD, AA5DF, N5UHB, WA5IND, ops)  
27,744 265 102 L ABD

### North Texas

W05EWD 102,488 523 184 S ABD  
AA5C 88,245 341 185 S ABCD9EFGHI  
W05K 74,620 455 164 S A  
KF4FL 72,048 422 158 S ABD  
N5QGH 40,005 260 127 S ABCD9EFGHI  
W0VX 11,766 137 74 S ABD  
N5UD 6,969 101 69 S A  
K4FSD 4,305 105 41 S ABD  
K9MK 3,828 116 33 S B

### Oklahoma

WB5YWI 65,016 354 172 S ABD  
N5RSR 48,720 300 145 S ABCDE  
KA5WRG 35,249 203 137 S ABD  
W5NZS 31,720 204 130 S ABCD  
W05BKV 2,400 32 25 S E

### South Texas

N5HHS 109,045 532 193 S ABD  
KB5LJA 83,520 403 185 S ABCDE  
W5SXD 12,580 147 85 S ABD  
KB5ZFO 9,729 141 69 S AB  
WFCB 9,152 127 52 S BCD  
KJ5CH 4,233 83 51 S ABD  
AJ4F 105 15 7 S B  
KC5FP (+KISGO)  
1,794 43 39 L ABD

### West Texas

N5FA 89,628 446 194 S ABD  
W5AL 60,480 325 168 S ABCDE  
N5RZ 56,151 367 153 S AB  
WA5QCP 5,432 97 56 S A  
KB5KYJ (+K5QV, KJ5IR, N5ZXE)  
39,412 329 116 L ABD

## 6

### East Bay

WA6LHD 2,624 82 32 S B

### Los Angeles

K9AKS/6 20,271 233 87 S AB  
W6RAY 16,800 173 70 S ABCDE  
W6GGV 16,524 221 51 S BCD  
K06FSM 7,452 129 46 S ABCD  
WA6BIL 7,296 152 48 S AB  
NJ6J 7,245 121 45 S ABCE  
W6SYA 5,775 103 33 S ABCDE  
W6IST 4,464 136 24 S BCD  
N6RVC 2,770 45 6 S B  
K06ARJ 120 15 8 S B  
WA5DJJ 14,672 236 56 Q ABD  
W6TRW (KD6S GKL, IGH, IGI, NAI, K6L6,  
KN6FL, N6ZAY, WA6MPF, ops)  
63,860 431 103 M ABCDE

### Orange

WB6WLR 54,918 333 113 S ABCDE  
WB6FCS 45,582 279 142 S ABCD

K6IBY 21,300 201 71 S ABCD  
N6DIN 14,124 184 66 S ABC  
K6IFF 7,622 179 37 S BD  
KB6UJN 1,445 85 17 S B  
K6UJX 1,216 64 19 S B  
K6HMS 462 42 11 S B  
K6DVWK 48 12 4 Q B  
WA6KZB 322 46 7 Q B

### Santa Barbara

WB6AAG 15,687 148 83 S ABCDE  
K6VMN 9,405 161 55 S ABC  
N200B/6 4,902 95 43 S ABD  
K6JBJ 252 18 14 S A  
K6RMS 2,538 65 27 Q ABCDE  
K6MEP (K2LCT, WB2ODM, KB6TJ)  
KC6TJV, KD6S UAZ, VET, N6S OQA, RMJ,  
NS6X, WA6S DJS, JOX, ops)  
336,528 1073 246 L ABCD  
K6HXW (+KB6HPE, KD6NRU)  
26,175 234 75 L BCDE

### Santa Clara Valley

K6KLY 66,990 420 105 S ABCD9E  
W6AMT 35,518 279 86 S ABCDE  
AJ6T 34,853 305 91 S ABCD  
W6RQX 33,528 277 88 S ABCDE  
K6FCU 30,432 217 96 S ABCD9E  
N6ZKV 8,901 122 61 S ABD  
N6L 4,745 115 31 S BD  
AA6HA 3,534 90 31 S ABD  
W6YLL 2,448 72 34 S A  
KA6ING 1,360 55 20 S ABD  
W6ISO 1,173 69 17 S B  
KG6AO 1,044 53 18 S ABCD  
K17N 640 49 10 Q BD  
K16CG (+NUG6)  
94,828 498 157 L ABCD  
K3QM (+KA3ETI)  
15,892 209 58 L ABCD

### San Diego

K1CT 17,875 244 55 S ABCDEI  
W6PFE 2,968 106 28 S ABD  
W6OYJ 2,496 76 28 S BDI  
WB6AXW (+K6OBS, KD6EFO, AA7GL)  
18,900 228 60 L ABCD  
WA6TBO (+N6XIV)  
14,280 234 56 L ABI

### San Francisco

WN6W 24,983 229 83 S ABCD  
W06HDY 1,470 49 30 S AB  
WA6LLY 1,431 51 27 S ABD  
WA6LKL 867 23 17 S DE  
AC0P 189 21 9 S B

### San Joaquin Valley

N6NB 112,041 520 177 S ABCD9E  
WB6YIY 10,126 166 61 S AB  
WB4AYE 8,041 124 43 S BCD  
K6YK 6,954 99 57 S ABCD  
KD6BE 216 36 6 S B  
WA6YDI (+AA6AH, K6OP, WB6TBM)  
78,244 441 124 M ABCDE  
N5UYI/6 (WB5TUF, KC6S CEX, UOQ, VPD, KD6S  
HMT, YAX, KK6LT, N6MTS, W6KOC, ops)  
42,240 282 110 M ABCDE  
N6VYT (+K6BLQV, KC6S DSE, ESL, UCN, N6S  
JXL, ZGY)  
22,774 272 59 M ABCDEL  
KB6IGC (+N6GZT)  
18,228 159 98 L ABCD

### Sacramento Valley

N6PYI 28,469 250 83 S ABCDE  
K6AAW 12,710 146 62 S BCDE  
N6KRX 9,362 151 62 S AB  
WA6OSX 2,170 62 35 S A  
WA5YWC 960 60 16 S B

## 7

### Arizona

KE7GH 6,136 103 52 S ABDE  
KF7JS 5,310 90 59 S AB  
WB7OH 4,929 87 53 S ABD  
N7BUP 4,897 83 59 S A  
WA6JZ/7  
W7GZ (+K6TJ)  
43,092 292 133 M ABCDEI  
WB7VVD (+WB5LCQ, KB7DXZ, N7VUB)  
7,590 98 69 M ABCDEL  
WA7JTM (+N7S AMA, TX7, WW7B)  
82,176 417 192 L ABD  
KC7MJ (+N64C, WE7J)  
12,956 157 82 L ABD

### Eastern Washington

N7AUU 2,201 55 31 S ABD  
W7FHI 600 40 15 S B  
N7VMV (+K67N)  
6,240 104 52 L ABD

### Idaho

W7ID 3,002 53 38 S ABDE  
W09RCW/7 2,537 59 43 S A  
WA0DYU 1,748 46 38 S A  
KA7GUX 1,080 33 30 S ABD  
KB7FUV (+K6TJ)  
17,424 198 88 L AB  
K7TM (+K67S OXR, PBN)  
8,094 105 71 L ABD

### Montana

WA7PDC 1,496 43 34 S ABD  
AA7BG 1,147 37 31 S A  
WA7NWP 25 5 5 S A  
W7HAH (+WA7KHO)  
6,435 98 65 L ABD

### Nevada

W7TVF 4,176 68 58 S ABD  
N7WVZ 340 20 17 S A  
KB7GYS 252 28 9 S B  
NCTK (+N6RE)  
58,354 310 163 L ABDE  
NW7O (+N6OU)  
13,485 132 87 L ABD  
WA7PXD (+WA7PIB)  
10,080 116 70 L ABDE

### Oregon

KE7CX 19,462 197 74 S ABCD9E  
AA7OZ 9,744 125 56 S ABCDE  
KG7FV 4,896 109 36 S ABD  
N7YAG 2,250 78 25 S ABD

K7HSJ 2,160 57 30 S ABCDE  
W7ZR5 1,512 63 24 S AB  
WA7IQH 598 38 13 S ABDE  
KA7EXM 24 8 3 Q B  
WD4ECK (+W5HVK, WB6FCF, N7S VTM, XBJ)  
10,366 132 71 L ABDE  
N17T (+N7BZ)  
9,135 120 63 L ABDE

### Utah

K7ICW 9,546 129 74 S AB  
N7JA 7,686 106 63 S ABDE  
WB7QBC 6,148 106 58 S AB  
KB0ES 2,310 66 35 S AB  
N7VOW 510 28 15 S BD  
KB7EEG (+K6TUB, KE7S NS, W1N7S SFT, TDF)  
25,122 226 106 L ABCD  
WB7REL (+N7XUX)  
10,854 128 81 L ABD

### Western Washington

W7FI 11,857 167 71 S AB  
KE7SW 6,027 120 41 S ABCD  
N7MMV 2,850 74 25 S ABDE  
KA7MCX 2,059 71 29 S A  
W7AZU 819 43 13 S ABCDE  
W7HR 770 35 22 S A  
KX7L 370 34 10 S ABD  
AA7VT 168 24 7 S B  
NU7Z (+K7ND, KD7TS, KT7G)  
68,199 387 127 M ABCD9EFG  
KW7R (+N7FWS)  
3,630 102 30 L ABD

### Wyoming

WA7KYM 84,770 446 173 S ABCD  
N5EPA/7 45,765 339 135 S AB  
W0ET7/7 32,512 253 128 S ABD  
W7XF 4,272 89 48 S A  
N7RPC 10 4 2 Q BD

## 8

### Michigan

K8MD 76,140 348 180 S ABD9E  
KB8NE 70,528 400 152 S ABCD  
K8BP 68,510 370 155 S ABD  
K0BI 63,954 339 171 S ABC  
WB8TGY 53,067 284 147 S ABD9EF  
WZ8T 38,080 241 140 S ABD  
N8LMT 29,568 239 112 S ABCD  
N8JTB 27,956 212 116 S ABC  
KB8J 21,560 161 110 S ABCDE  
WB8UCI 15,390 154 90 S ABCD  
K8BO 9,541 203 47 S B  
WB8RUQ 7,811 107 73 S AB  
KB8EAP 4,560 97 38 S BD  
WB8WPI 3,744 72 52 S A  
N8NJE 1,410 47 30 S A  
WB8SFF 800 50 16 S B  
N8NVW 884 24 16 S B  
WB8WV (+K8VQ, K8Z, N8B)  
259,296 664 292 M ABCD9EF  
K8UY (+K8ATBW, K8ZB, N8QA)  
200,128 760 236 L ABCD  
N8HNS (+K8QL, N8S KMD, SFD, WKM,  
XHP, XMX)  
48,440 276 140 L ABCD  
K18J (+N8AS)  
2,378 70 29 L BD

### Ohio

WA8NJR 221,960 691 248 S ABCD9E  
KE8FD 121,992 445 221 S ABCDE  
W1AJR 215,148 185 119 S ABDE  
WA8RCN 24,360 232 105 S ABCD  
N8CC 20,634 171 114 S ABCD  
W8AC 10,140 107 60 S BD9  
N8LOT 9,796 124 79 S AB  
WA8MSF 9,338 161 58 S B  
N8LXS 7,956 117 68 S AB  
WB8OQ 5,586 147 38 S B  
W8OUD 5,200 106 40 S BD  
WB8HWF 3,337 71 47 S A  
N18T 2,079 77 27 S B  
WA4GPM 1,525 61 25 S B  
N8VEA 1,196 52 23 S AB  
N8OQZ 840 40 21 S B  
KB8NRC 522 28 18 S ABC  
WB8CKI 286 19 13 S B  
N8XM 175 24 7 S BCD  
N8GRW 154 14 11 S B  
N8VET 112 16 7 S B  
N8SSH 10 5 2 S B  
N8AXA 9,760 121 80 Q ABC  
K6FRW 348 12 4 Q B  
WB8I (KB4TLH, KD8OF, K6FBE, N8S IBW, OBB,  
PPZ, PTL, ZM, WA8SVV, ops)  
105,060 477 204 L ABCD  
KA8ZNY (+K8BLJ, N8BFC, WA8YVR, WU8A)  
30,016 246 112 L ABDE  
K8CQA (+N8PB)  
774 43 18 L B

### West Virginia

K2UOP/8 157,520 537 220 S ABCD9EF  
K8OOL 23,421 211 111 S A  
WA3HQK 4,200 105 40 S B  
WB8BL 2,052 54 38 S A  
KB4JCI 1,518 46 33 S A  
WN3C 495 33 15 S B  
N8FMD (+AA8LC, KB8EUB, KVB8, N8S KYV,  
KYW, OJK, USU, WD8MVA, WJ8G)  
437,199 1030 327 M ABCD9E  
K3LNZ/8 (K3DUA, WA3S EOQ, NZL, OYW,  
K04NX, W4S NVW, PSJ, ops)  
178,200 610 220 M ABCD9E  
N8FWL (+WF16, K8BOTX, KB8LO, K8C8OQ, N8S  
HTR, KEE, MRD, SWE, WMS, XFB, XFJ,  
XGK, XNI, WB8CNN)  
37,530 250 135 L ABCD

## 9

### Illinois

WB9PWC 46,060 306 94 S ABCDE  
WB9GKA 31,034 244 118 S ABCD  
WB9OJR 19,586 130 92 S ABCD9EFG  
WD9ENR 17,954 178 94 S ABCD  
N9NJY 15,399 175 87 S ABD  
W9JGV 9,434 164 53 S BD  
KABLDS 6,048 90 63 S ABD  
W9VA 4,940 95 52 S A  
N9AQ 4,277 77 47 S ABD  
WD9FBL 2,760 51 40 S ABCDE  
K9SM 2,030 48 35 S ABD

N9QZM 1,920 60 32 S B  
NE0P/9 1,824 42 38 S AB  
WD9EXD 1,666 49 34 S A  
WB9MXX 984 41 24 S AB  
KF9B 880 40 22 S B  
W9SZ 874 31 23 Q BD  
AA9D (+N2BJ, KA5WOT, N8KOK, K9PW,  
KA9JY, N9S KAU, KC, EXU, OGU,  
W9XA, WB9TIY)  
717,379 1334 397 M

N9LAG (+K89DZH, N9S BJG, KJE, QKZ,  
QXK, WA9KNP)  
115,140 508 202 L ABCD

### Indiana

K12G 70,975 425 167 S A  
WB8YFE 33,638 230 139 S ABD  
K9QCB 21,830 177 118 S ABCD  
W9/G4FDX 20,502 306 67 S B  
N9MKC 18,480 306 56 S B  
KB9FZQ 15,190 155 98 S AB  
WA8R 12,150 111 81 S ABCD9E  
N3AJK 8,448 182 34 S B  
KB9GLS 2,992 88 34 S A  
W9JVL 390 30 13 S B  
WB9CF (K9S DZE, ET, N9NTH, N9SB,  
WB9YHH, WD9S BDW, EIX, ops)  
57,440 313 160 L ABDE  
W9YB (KA9CCR, KC9RG, N9RVT, ops)  
22,145 206 103 L ABD  
N9OBT (+N9S KZJ, LFR, W9SU)  
20,240 184 110 L AB

### Wisconsin

WA8LZN 21,965 188 115 S ABD  
WA8KVS 19,030 173 110 S AB  
WA9HCZ 1,518 41 33 S ABD  
KD9PW 1,440 39 34 S ABCDE  
WD9IAB 273 21 13 S B  
W0UC/9 (+AA5UK, KA9FOX, KB9EQI,  
K0GJX, N0S AKC, AXL, BSH)  
432,783 1052 351 M ABCD9E  
N9ISN (+KA9YFF)  
4,500 106 36 L BCD  
AA9AO (+N09Z)  
2,600 56 40 L ABCD

## 0

### Colorado

W2CRS 112,905 513 193 S ABCD9EFI  
AA6TT 89,112 472 188 S ABE  
K7VNU/0 65,508 409 159 S ABCD  
K0DSU 13,035 165 79 S A  
W6OAL 8,775 135 65 S A  
KD0DW 4,920 126 30 S BD  
WB0HJL 1,575 45 35 S AB  
N0KV (+K0RI, KX0O, N0BZ)  
181,374 665 222 M ABCD9EFI  
W0KEA (+W1XE, N0S BRI, DVL, OFC)  
107,400 506 200 L ABCD

### Iowa

N9NK/0 125,856 499 228 S ABCD  
WB0CQO 46,576 274 164 S ABD  
N0NGZ 7,622 103 74 S A  
W0YPT 3,572 57 38 S BCDE  
KD0PY 3,230 85 38 S B  
WB0YFL 2,244 48 34 S BDE  
W0RAP 1,452 28 22 S DE  
WA0JYJ 480 30 16 S B  
KD0BT 363 24 11 S BD  
N0JQJ 374 22 17 Q A  
KA0ZOZ (+WD9BGA)  
17,712 105 62 L ABD

### Kansas

N0LL 196,425 616 291 S ABCDE  
N0IGZ 7,242 102 71 S AB  
WB0ISW 6,867 82 63 S ABCDE  
K0FRB 4,176 87 48 S B  
KA0EIC 1,628 44 37 S A  
W0RT 1,025 41 25 S B  
WB0DRL (+N0SGL, N0GY, WA0TKJ)  
357,894 908 354 L ABCD

### Minnesota

WA0NTT 78,030 387 170 S ABCDE  
K0PQA 44,118 236 113 S ABCDE  
KB0IKP 40,434 280 138 S ABD  
WA2HFH/0 21,216 191 104 S ABD  
W0KRX 16,133 144 73 S ABCDEF  
N9CIC 15,834 158 91 S ABD  
WA0BWE 14,740 149 67 S ABCD9EF  
KA0RYT 9,878 134 67 S AB  
W0AUS 7,632 111 53 S ABCDE  
K0CP 4,004 73 33 S ABCDE  
W0OHU 1,666 44 34 S ABD  
KF0GX 1,624 50 29 S ABC  
KB0CV (+WA2PHW, KB0ZQ, N0HJZ, WB0GGM)  
289,212 773 308 M ABCDEFI  
N0BEL (KA0YVB, N0S ODO, REN, GA4JEC, ops)  
13,884 145 78 M ABCDEIL  
N0TCN (+N0TCH)  
3,150 69 45 L ABD

### Missouri

WA0NT 38,726 289 134 S A  
K0SOF 37,859 289 131 S ABC  
N0JRN 35,216 230 112 S ABD  
W0JRP 29,999 213 131 S ABCD  
W3HHD/0 16,878 194 87 S A  
K0WA 6,413 121 53 S B  
K4VX 2,368 64 37 S A  
N0DDZ 1,740 58 30 S A  
N0KNI 416 26 16 S B  
K0TLM (+AJ0E)  
187,488 627 279 L ABCD  
WA0KBZ (+N0ZV)  
41,615 283 145 L ABD  
W0GR (+K0TLM)  
360 12 10 L 9E

### North Dakota

N0TV 30,208 208 118 S ABCDEF  
K0ALL (+K0NA, WA0ZOK)  
5,546 94 59 L A

### Nebraska

KD0HE 6,695 97 65 S ABD  
AA0DW 2,210 65 34 S B  
WD0BQM (DN82) 1,118 43 26 S A  
WA2JIM 72 9 8 S A  
AE0G (+N0UJU) 9,350 110 85 L AB

**South Dakota**  
WB0HHM 4,611 71 53 S ABCD  
N0JPE 1,104 48 23 S B  
WB0ULX 504 24 21 S A  
K1LL0 (+WB0OAJ, WD0EMY)  
57,720 369 156 L ABD  
K0VVY (WB7Q, KF0s AM, BI, W0PUF, ops)  
27,328 216 122 L ABD

## VE

### Maritime-Newfoundland

VE1SLM 7,320 117 60 S ABD  
VE1MQ 3,550 71 50 S AB  
VE1AKT 231 21 11 S B

### Quebec

VE2XX 19,580 178 89 S ABCD9  
VE2CUA (VE2HKI, op) 11,041 150 61 S ABCD  
VE2LC 2,511 67 31 S ABCD  
N1EKV/VE2 1,600 50 25 S ABD  
VE2VAT 320 20 16 S A  
VE2HAR 44 11 4 S B  
VB2PIJ (VE2PIJ, op) 780 61 10 Q BD  
VE2NCO 36 8 Q BD  
VE2UMS (VE2s CVS, HGG, MNT, PEO, ops)  
2,820 87 30 L ABCD

### Ontario

VE3FGU 62,805 349 159 S ABD  
VE3BCN 51,520 340 140 S ABDE  
VE3SMA 19,943 188 77 S BCDEGI  
VE3RKK 16,560 345 48 S B  
VE3DEW 12,714 138 78 S ABD  
VE3WCB 9,450 130 63 S ABE  
VE3SXE 8,178 128 58 S ABD  
VE3BFM 4,368 75 42 S ABCDE  
VE3URS 3,239 68 41 S ABCD  
VE3PWJ 1,449 52 23 S BD  
VE3LL 1,050 42 25 S B  
VE3FVW 504 24 21 S A  
VE3ONT (W1AIM, VE3s ASO, DSQ, FN, KDH, VD, W3EP, W9IP, ops)  
439,920 1143 312 L ABCD  
VE3SAU (VE3s FHU, IGM, OJN, XJX, ZYZ, ops)  
22,878 217 93 L ABCD  
VE3DJ (+VE3ER) 928 44 16 L BDE

## Manitoba

VE4VHF (VE4KQ, VE4ZK, ops) 3,984 76 48 L ABDE  
VE4GLS (+ops) 16 4 4 L B

## Alberta

VE6KT 1,632 48 34 S A  
VE6JW (K2JFV, WA2TMC, VE6s JY, LD, ops) 24,650 257 85 L ABD  
VE6HDO (+VE6MUF) 12 3 3 L BD

## British Columbia

VE7VHF (VE7FYC, op) 7,155 121 45 S ABCDE  
VE7XF 7,038 131 46 S ABD  
VE7XO 260 17 13 S ABD  
VE7RJ (+VE7BEE) 8,712 123 66 L ABDE  
VE7OHM (+ops) 4,028 99 38 L ABD  
VE7FEI (+VE7SKA) 3,627 93 39 L AB  
VE7KPB (+VE7s WLM, ZAC) 440 21 20 L ABD

## DX

### Bahamas

C6AFP (N4JQQ, op) 3,570 85 42 S A

### Cuba

CO0FRC (CM2PL, CO2s JA, KK, OJ, CM3CL, CO3JA, ops) 29,757 327 91 L AB

### Hawaii

N16E/KH6 2,552 88 29 S A  
KH6HME 1,743 72 21 S ABCD

### Anguilla

VP2ECW (N6CW, op) 5,459 103 53 S A

### Mexico

XE2HWB 9 3 3 S A  
XE2/NH6ZF 440 55 8 Q B  
XE2/K9VV (+WM2C, W9DHK) 86,010 546 122 M ABCDE

### Marine Mobile

VE2NNX 36 12 3 Q B

## Rovers

### Atlantic

KB3PW (+K2DB) 183,594 424 222 R 8 ABCD9EFGH  
KC3EK (+KA3EJJ) 22,000 213 80 R 3 BD  
N2PEB 20,516 140 92 R 6 ABCD9E  
WB3IOU 14,875 157 85 R 4 BD  
WB3KUM 4,944 103 48 R 3 AB  
AA2IZ 1,734 102 17 R 4 B  
N3KKM 1,392 58 24 R 4 B

### Central

K9JK 33,664 144 128 R 8 ABCD9EFH  
N9MZF 1,596 57 28 R 3 B

### Dakota

KE9QT 109,446 308 222R 11 ABCDEFI  
N0SUO 8,768 124 64 R 3 ABD  
N0UZA 3,486 67 42 R 5 ABCDE

### Delta

WZ8D 92,512 372 224 R 4 ABCD  
NK4Q 7,006 95 62 R 3 ABD

### Great Lakes

K8MFO (+WD8AUB) 223,094 601 337 R 4 ABD  
WA8QNR (+N8NQG) 84,600 398 188 R 2 ABCD  
KN4OL (+AC4VM) 12,604 137 92 R 4 AB  
K3IVO (WA3TID, WG3R, ops) 10,286 135 74 R 4 ABD  
AC4HG (+AC4HH) 7,656 86 66 R 4 ABD9E  
K1FJM 925 37 25 R 5 AB

### Hudson

N2SQO 18,550 228 53 R 4 BCDEIJ  
N2QFH 3,267 74 27 R 3 ABCD9EFGHJ  
KA2MCU 885 33 15 R 3 ABCD9EI  
NW2L 561 33 17 R 5 B  
N2UJZ 360 40 9 R 3 B  
WA2QIN 220 14 10 R 2 ABCDI  
AB2J 16 2 2 R 2 I

### Midwest

W0MXY 25,088 161 128 R 5 ABD  
WY0C 7,383 70 69R 12 BCD

### New England

N1ISS (+N2RKC) 12,272 151 52 R 4 BD9EFGHIJ  
N1NOE 3,268 48 38 R 8 BCD9EFGH  
WA2YVL (+WA1KAH) 451 20 11 R 1 BDE

N100Q 14 7 2 R 2 B

### Northwest

AA7NH 20,007 171 117 R 6 AB  
W7LHL 1,904 48 28 R 7 ABDE  
WJ6Q 364 26 14 R 6 B  
KB7PSH 39 13 3 R 2 B

### Pacific

WB9AJZ (+KD6OCS) 125,580 458 230 R 7 ABD  
AF6O (+N6MI) 62,212 364 151 R 3 ABCDE  
WB6LRV (+WB6PFJ) 33,681 233 103 R 4 ABCD  
N5XSA/6 10,395 130 63 R 3 ABD  
N7XCZ 48 12 4 R 2 B

### Roanoke

WA4VCC (+KB4CSE) 176,064 583 262 R 4 ABD  
KB3CU/4 2,214 54 41 R 2 A

### Rocky Mountain

KB0CY 44,919 251 161 R 4 ABCD  
KE5TJ (+WZ8Y) 21,168 214 98 R 5 ABD  
N0GII (+WA1JHK) 18,630 277 45R 11 ABCDE  
W0ETT/7 1,548 43 36 R 4 A

### Southeastern

K2OY (+N4VYZ) 3,298 92 34 R 4 BD  
KD4EDE 390 39 10R 10 B  
KD4IDG 70 12 5 R 3 BD

### Southwestern

KC6WLC (+N6RPM) 187,264 441 308R 10 ABCDE  
WA6FIT 62,560 298 160 R 6 ABCDE  
K6LMM 35,643 235 109 R 3 ABCDEL

### West Gulf

N6CL (+N2ZT) 90,000 390 225 R 5 ABD  
KA5BOU 6,063 100 43 R 3 ABDE  
N5BA 4,998 79 51 R 7 ABCD

### Canada

N2ULL/VE3 59,502 220 141 R 9 ABCD9EFH  
VE3NPB (+VE3OIL) 34,500 198 125 R 6 ABCD  
VE3PRF 9,196 90 76 R 8 ABCD  
VE3PYH 2,304 36 36 R 4 BDL  
VE1MQ 1,260 42 30 R 2 AB  
VE3NJK 1,092 29 26 R 6 ABCD

### Checklogs

KA2MCM, KE4ARK, N5SRC, VE4IN, W8ZSX.